

【Translation】

TWSE: 2448

EPISTAR

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# Epistar Corporation

## 2019 Annual Report

Taiwan Stock Exchange Market Observation Post System: [http:// mops.twse.com.tw](http://mops.twse.com.tw)

Epistar Annual Report is available at: <http://www.epistar.com>

Printed on February 29, 2020

**Notice to readers**

*This English-version annual report is a summary translation of the Chinese version and is not an official document of the shareholders' meeting. If there is any discrepancy between the English and Chinese versions, the Chinese version shall prevail.*

## 1. Spokesperson & Deputy Spokesperson

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## 3. Common Share Transfer Agent and Registrar

Company: The Transfer Agency Department of  
Horizon Securities Co., Ltd.  
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Taipei City 110, Taiwan, R.O.C.  
Website: <http://srd.honsec.com.tw>  
TEL: +886-2-2326-8818

## 4. Auditors

Auditors: Cheng Ya-Huei, Chin-Cheng Hsieh  
Company: Pricewaterhouse Coopers, Taiwan  
ADD: 27F., No.333, Sec. 1, Keelung Rd., Songshan  
Dist., Taipei City 105, Taiwan, R.O.C.  
Website: <http://www.pwc.com.tw>  
TEL: +886-2-2729-6666

## 5. Overseas Securities Exchange

Bourse de Luxembourg Stock Exchange  
Website: <http://www.bourse.lu>

## 6. Corporate Website

Website: <http://www.epistar.com>

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# 1. Letter to Shareholders

Dear Shareholders,

## I. Introduction

The past year was the rockiest year in two decades for the LED upstream industry. Epistar's 2019 consolidated revenues declined by 27% compared to 2018 resulting in a net loss after taxes of approximately NT\$3.94 billion. Everyone at Epistar refused to give in nevertheless and worked together to manage our cash flow. As a result, cash inflow from operating activities in 2019 reached NT\$2.51 billion.

## II. 2019 Business Report

### A. Implementation results of the Group's consolidated business plan

#### 1. Net operating revenue

The net operating revenue was NT\$15,959,831 thousand in 2019, and the operating revenue was NT\$20,306,412 thousand in 2018.

#### 2. Net operating profit and loss

The net operating loss in 2019 was NT\$3,691,553 thousand. The net loss in 2018 was NT\$678,843 thousand.

#### 3. Loss-current period

Global LED supply and demand was unbalanced once more in 2019 due to a massive increase in production capacity by other LED companies. The situation was compounded by the US-China trade conflict as well as weaker-than-expected overall market demand, so market prices plummeted due to intense competition. New business units such as Mini LED and III-V semiconductor contract manufacturing were still in the promotion phase as well so losses were amplified by their relatively low utilization rate. To continue refining our R&D capability, accelerate innovation, as well as develop products and services that best meet the needs of the market, NT\$2 billion was invested in R&D in 2019. The disposal of idle equipment in 2019 and an increase in impairment of assets compared to 2018 resulted in a net loss of NT\$3,937,520 thousand after taxes.

B. Capital Structure Analysis & Profitability Analysis

Item (Consolidated Entities)		2019	2018
Capital Structure Analysis	Debts Ratio (%)	19.64	18.86
	Long-term Fund to Property, Plant, and Equipment (%)	251.42	239.01
Profitability Analysis	Return on Total Assets (%)	(6.23)	(0.49)
	Return on Equity (%)	(8.03)	(0.97)
	Net Margin (%)	(24.67)	(2.49)
	Basic Earnings Per Share (NT\$)	(3.48)	(0.42)

Our company's finances remain sound despite making a loss during 2019 as cash inflow from operating activities still reached NT\$2.51 billion.

C. Research and Development

Epistar is continuing to invest in research and development due to the introduction of new products, upgrading of product specifications, R&D and business development for III-V semiconductor contract manufacturing, and the need for improved competitiveness. Other developments included the purchase of advanced production equipment, clean rooms, R&D equipment, and machine upgrades. Consolidated R&D expenses for 2019 approximated NT\$2 billion most of which were directed towards the development of new products and improving product cost-effectiveness. In addition to using super-fine pitch displays and special effects to demonstrate the outstanding performance of Mini LED technology and products, we also sought to overcome size constraints by attempting to build even larger super-fine pitch displays. Improvements in product yield and mass production quality were also pursued to deliver high uniformity and high contrast for customers using large-sized displays. Customer requirements for even larger displays can also be met.

No effort is spared by Epistar when it comes to securing patents. In addition to being presented with the 2019 Gao Gong Golden Globe Award, the Group also obtained 232 more patents, raising our total patent count to 4,281. Epistar has been recognized for our efforts in CSR fulfilment as well. We were not only presented with a CSR verification statement by British Standards Institution (BSI) but also received a gold award in category 1 of the 2019 TCSA Corporate Sustainability Report Awards.

III. The Company's future development strategy, effect of external competition, legal environment, overall business environment, and a summary of the 2020 business plan

For 2020, though there is still a glut of production capacity and intense competition in the LED industry, with importance in energy-efficiency and environmental protection issues along with successes in miniaturization of high-luminous efficacy LED technology have led to an increasing number of new applications. There are still potential growth opportunities in the LED market. For example, demand is increasing from the application of Mini LED to super-fine pitch high-end displays and monitors. LED's penetration rate in automotive and other applications have continued to increase, and there is increased interest in LED plant lighting, as well as the use of infra-red (IR) LED in security surveillance and smart phone sensing, etc. Epistar's die shipments expect to top 689,238 million units in 2020. Due to the trend towards smart technology and high cost vs. performance ratios, continued investment in R&D to refine technologies and reduce costs will be needed in the future. Epistar will continue to release new products to improve our resource utilization, enhance the added value of our products and optimize our product combinations in a bid to secure more high-quality orders. It is hoped that the company will be back in the black again this year.

In addition to focusing on the development of product & technology and maximization of shareholders' interest, the Company also fulfills its corporate social responsibility actively, uses its best efforts to well found the corporate governance, and work with the upstream and downstream dealers in the supply chain closely to jointly upgrade the industry's social responsibility.

I wish everyone good health and prosperity.

Chairman Biing-Jye Lee

## 2. An Introduction to EPISTAR

2.1 Date of Incorporation: September 19, 1996.

### 2.2 Company History

August 1996	Admitted to the Park by the Science Park Steering Commission of the National Science Council.
September 1996	Incorporated the Company and acquired the company license, with registered capital of NT\$320 million and paid-in capital of NT\$220 million.
March 1997	Rented the standard factory premises and stationed in the Park.
June 1997	Completed renovation of the factory premises and installation of new equipment and commissioning of the existing systems.
July 1997	Passed the pre-operational check and began pilot production & trial marketing.
October 1997	Increased capital by NT\$100 million to achieve the paid-in capital amounting to NT\$320 million.
November 1997	Launched product and officially began mass production.
March 1998	Added two units of standard factory premises.
September 1998	Increased capital by NT\$100 million to achieve the registered capital of NT\$520 million, and paid-in capital of NT\$420 million.
December 1998	Increased capital by NT\$80 million to achieve the paid-in capital amounting to NT\$500 million.
February 1999	Passed UL ISO 9002 certification.
May 1999	Awarded the accreditation certificate by the Chinese Taipei Electronic Components Certification Board and identified as one of IEQC qualified plants.
July 1999	Acquired the land of Hsinchu Science Park Phase-3 Development Project. Recapitalized earnings and capital surplus to achieve paid-in capital of NT\$615 million.
March 2000	Groundbreaking ceremony of the Phase-3 Development Project.
March 2000	Passed UL ISO 9001 certification.
June 2000	Increased capital by NT\$150 million to achieve the registered capital of NT\$1.2 billion, and paid-in capital of NT\$765 million.
March 2001	Acquired an occupation permit for the new factory built under Phase-3 Development Project.
May 2001	Officially traded stock on TWSE.
October 2001	Awarded the Distinction Award in Technology Development of 9 <sup>th</sup> term.
October 2002	Increased capital in cash by NT\$115 million to achieve the registered capital of NT\$1.7 billion, and paid-in capital of NT\$998.575 million.
December 2002	Awarded the Innovative Product Award: High Intensity InGaN LED by Hsinchu Science Park Bureau.
July 2003	Recapitalized earnings, NT\$195.318 million Paid-in capital amounting to NT\$1.193893 billion.
October 2003	Merged Inforcomm Semiconductor Corporation Paid-in capital amounting to NT\$1.251366260 billion.



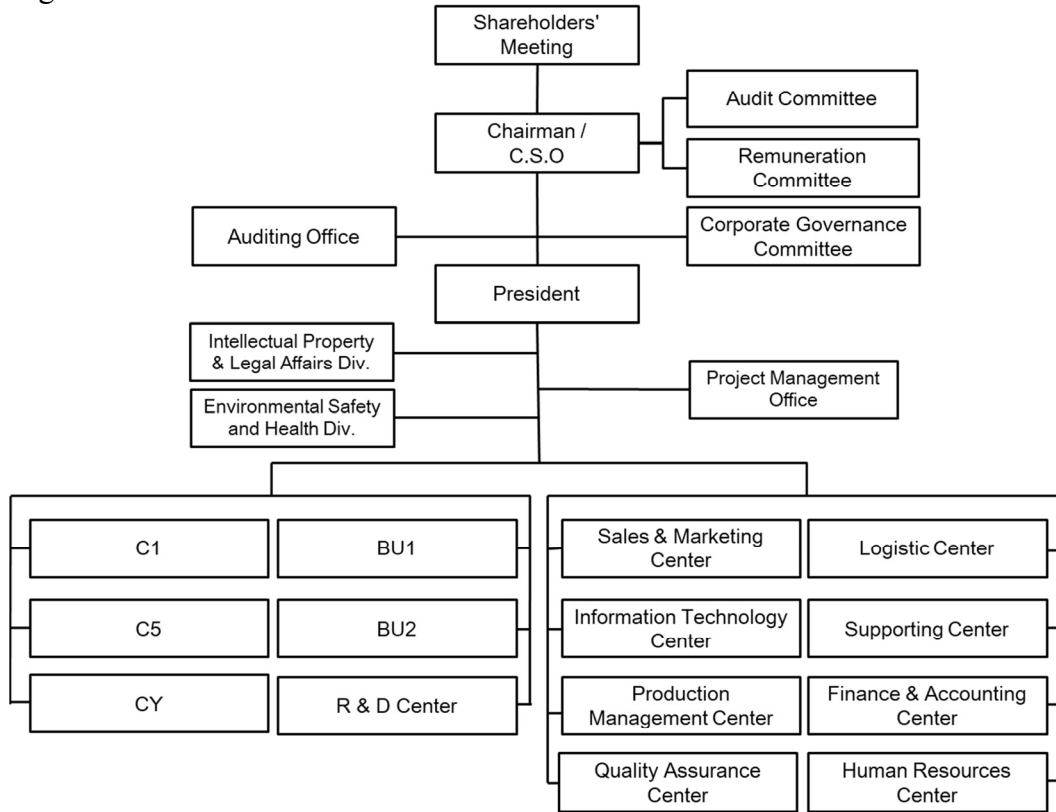
December 2003	Offered 1st overseas convertible corporate bonds amounting to US\$300 million.
April 2004	Acquired the new Lixing 1st Rd. factory built under the Phase-3 Development Project.
July 2004	Succeed to shares of Itcompound Semiconductor Corporation by offering new shares Paid-in capital amounting to NT\$1.284962650 billion.
September 2004	Recapitalized earnings amounting to NT\$152.115920 million Paid-in capital amounting to NT\$1.437078570 billion.
August 2005	Recapitalized earnings amounting to NT\$255.561780 million Paid-in capital amounting to NT\$1.69264350 billion.
October 2005	Passed the motion for merger of the Company with United Epitaxy Company, Ltd. at the special shareholders' meeting.
December 2005	Merged United Epitaxy Company, Ltd. and set December 30, 2005 as the record date for merger.
January 2006	Increased capital upon the merger & conversion of overseas convertible bonds into common stock in Q4 of 2005, totaling NT\$1.609167270 billion to achieve the paid-in capital amounting to NT\$3.301807620 billion upon the capital increase.
July 2006	Conversion of overseas corporate bonds into common stock, conversion of employee stock warrants, and recapitalization of earnings Paid-in capital amounting to NT\$3.607220630 billion.
October 2006	Offered 1st domestic unsecured convertible corporate bonds in the amount of NT\$2 billion.
November 2006	Passed the motion for merger of the Company with Epitech Technology Corporation and Highlink Technology Corporation at the special shareholders' meeting.
March 2007	Merged Epitech Technology Corporation and Highlink Technology Corporation, and set March 1, 2007 as the record date for merger.
March 2007	Increased capital upon the merger by issuing new shares in the amount of NT\$1.479727911 billion Increase capital to achieve the paid-in capital in the amount of NT\$5.099411390 billion.
October 2007	Offered 3rd domestic unsecured convertible corporate bonds in the amount of NT\$1.96560 billion.
November 2007	Increased capital by NT\$600 million to achieve the paid-in capital in the amount of NT\$6.139286320 billion.
September 2008	Recapitalized the earnings in the amount of NT\$124.048780 million Paid-in capital amounting to NT\$6.330614550 billion.
September 2009	Increased capital in cash by issuing the common stock totaling 135 million shares to participate in the offering of overseas depository receipt, and to achieve the paid-in capital in the amount of NT\$7.681183150 billion.
November 2009	Awarded the Industrial Excellence Award 2009 by the Industrial Development Bureau.
July 2010	Succeeded shares of HUGA Optotech Inc. by offering new shares Paid-in capital amounting to NT\$8.474636260 billion.
January 2011	Offered 3rd overseas unsecured convertible corporate bonds amounting to US\$280 million.
December 2012	Swap shares by issuing new shares to acquire 100% of shares of HUGA Optotech Inc. Paid-in capital amounting to NT\$9.176495760 billion.

August 2013	Offer 4 <sup>th</sup> overseas convertible corporate bonds amounting to US\$250 million.
December 2014	Swapped shares by issuing new shares to acquire 100% of shares of Formosa Epitaxy Incorporation Paid-in capital amounting to NT\$11.31787340 billion
February 2015	Purchased 97.29% of shares of TSMC Solid State Lighting Ltd. in cash to acquire the factory premises, facilities and production lines which meet LED production requirements, and introduce diversified human resource and information management system
June 2015	Merged CHIP STAR Ltd. (formerly known as TSMC Solid State Lighting Ltd.), and set June 29, 2015 as the record date for merger.
May 2016	Signed the syndicated loan agreement effective for three years for NT\$4 billion and US\$20 million with 7 financial organizations including Land Bank of Taiwan.
September 2016	Merged HUGA Optotech Inc. and Formosa Epitaxy Incorporation, and set September 29, 2016 as the record date for merger.
May 2018	Ranked in the top 5% companies of the 4 <sup>th</sup> term "Corporate Governance Evaluation" of TWSE.
October 2018	Established Unikorn Semiconductor Corporation, wholly owned by the Company after the division on October 1, 2018, to launch into the semiconductor foundry market and provide integrated foundry services.
June 2019	Upgraded the profundity of the Company's corporate governance, the Board of Directors of 10 <sup>th</sup> term increased the number of independent directors as 5 independent directors, a majority of the whole director.

### 3. Corporate Governance Report

#### 3.1 Organization

##### 3.1.1 Organization Chart



##### 3.1.2 Major Corporate Functions

Department	Functions
Chairman’s Office	In supervision of various business targets, development roadmap, and the relevant matters of holding directors’ meetings.
President’s Office	Responsible for setting up company business strategies to achieve the annual business goals expected by the Board of Directors.
Corporate Governance Committee	To promote corporate governance and to effectively unleash the function of directors, to deepen the culture of corporate governance and corporate social responsibility, enhance the quality of information disclosure and strengthen compliance with relevant laws and regulations.
Audit Office	Responsible for the inspection of and response to the deficiencies in the internal control system, and provide suggestions for corrections and produce follow-up reports on a regular basis.
Project Management Office	Planning and execution of key projects, resources coordination, progress tracking, cost control, risk assessment, and customer management.

Department	Functions
Intellectual Property & Legal Affairs Div.	Responsible for the application for and maintenance of patents and intellectual property rights internally and the planning and implementation of relevant management system; carry out drafting, review of all contracts internally and externally, handle lawsuits, and provide legal consultation to all staff of the Company.
Sales & Marketing Center	Responsible for product sale and customer service, and preparation and documentation of specifications and product catalogue available to the public, documentation of information about new products for customers and peer companies, collection and analysis of market and application information, and assess the possibility of development.
Finance & Accounting Center	Responsible for accounting, taxation, fund procurement, credit control, budget control, preparation of financial statements, and management of fixed assets and shareholders' service.
Information Technology Center	Responsible for systemization of various operational processes, information security (IT) design and control, establishment of network communication system, computer hardware management, and maintenance.
Human Resources Center	Plan and execute suggestions and various functions about HR strategies, organizational development and care for employees, and responsible for enactment of ethical management policy and prevention programs, supervise execution, help the operations of Worker Welfare Commission, and act as the unit dedicated to boosting corporate social responsibility.
Production Management Center	Responsible for the production planning, scheduling and tracing, formulation and tracing of various production indicators, assessment and analysis of upgrading production and operational efficiency.
Quality Assurance Center	Setting up quality goals in accordance with the Company's quality policy to promote various quality system operations.
Supporting Center	Responsible for maintenance and management of the routine operation for rsvh factory's FAB service system; carry out the project plan for improvement and expansion of the plant for each factory's FAB service matters; plan and provide the promotion and management of each factory's administrative affairs.
Research & Development Center	Research new products and technologies, and the execution of new products and technology plans.
Logistics Center	Responsible for procurement of raw materials, spare parts, machinery and equipment, and factory engineering; contract awarding and invoicing, and procurement strategy planning, and management of purchase requisitions and warehousing; planning and implementation of imported/exported equipment, raw materials, spare parts, finished goods, and semi-finished goods; bonded business control.

Department	Functions
Environmental Safety and Health Div.	Responsible for the operation and maintenance of environmental protection (ISO 14001), safety, and health system (OHSAS 18001) to enhance the performance of environmental safety and health of all employees.
BU1	Responsible for establishment of the standard operating procedures for development and improvement, production and mass production of epitaxy wafer structure of various nitride products, upgrading of the output rate thereof, and upgrading of production, engineering and process technology of nitride chips, and quality control.
BU2	Responsible for establishment of the standard operating procedures for development and improvement, production and mass production of quaternary chips, upgrading of the output rate thereof, and upgrading of production, engineering and process technology of quaternary chips, and quality control.
C1	Responsible for planning and implementation of chips mass production.
C5	Responsible for planning and implementation of epitaxy wafer and chips mass production.
CY	Responsible for planning and implementation of epitaxy wafer and chips mass production.

3.2 Information about Directors, supervisors, president, vice presidents, assistant vice presidents, and department and branch managers  
3.2.1 Information about directors and supervisors

February 29, 2020

Title	Nationality or Place of Registration	Name	Gender	Date Elected	Term (Year)	Date First Elected	Shareholding When Elected		Current Shareholding		Spouse & Minor Shareholding		Experience & Education	Current Positions at EPiSTAR and Other Companies	Managers, directors or supervisors who are spouses or relatives within the second degree of kinship		
							Shares	%	Shares	%	Shares	%			Title	Name	Relationship
Chairman	R.O.C.	Bing-Jye Lee	Male	2019.06.20	3	1996.09.09	1,464,495	0.13%	1,464,495	0.13%	1,582,596	0.15%	Research fellow/supervisor, Institute of Photonics Technologies in Industrial Technology Research Institute (ITRI) Ph. D., Institute of Chemical Engineering, National Tsing Hua University	Note 1	None	None	None
Director	R.O.C.	Chih-Yuan Chen	Male	2019.06.20	3	2006.03.02	0	0.00%	0	0.00%	0	0.00%	The chairman of Yi-Far holding system MBA from New York University	Note 2	None	None	None
Director	R.O.C.	Nan Yang Wu	Male	2019.06.20	3	2006.03.02	0	0.00%	0	0.00%	0	0.00%	The Senior Vice President of Yi-Far holding system The Master of Engineering Stanford University	Note 3	None	None	None
Director	R.O.C.	Chin-Yung Fan	Male	2019.06.20	3	2019.06.20	267,012	0.02%	267,012	0.02%	124,337	0.01%	President of Epistar Corporation M.A., Institute of Physics, National Central University	Note 4	None	None	None
Independent Director	R.O.C.	Wei-Min Sheng	Male	2019.06.20	3	2013.06.14	0	0.00%	0	0.00%	0	0.00%	Professor of Department of Public Finance in National Taichung University of Science and Technology. PhD (Purdue U.), Accounting Purdue University	Note 5	None	None	None
Independent Director	R.O.C.	Feng-Shang Wu	Male	2019.06.20	3	2013.06.14	0	0.00%	0	0.00%	0	0.00%	Professor of Graduate Institute of Technology, Innovation and Intellectual Property Management, NCCU. Dr. Business US Rensselaer Polytechnic University (RPI)	None	None	None	None
Independent Director	R.O.C.	Chi-Yen Liang	Male	2019.06.20	3	2014.06.19	0	0.00%	0	0.00%	0	0.00%	Executive vice president of China Development Venture Hewlett-Packard (HP) Business Marketing Manager Soochow University Department of Business Administration lecturer Master of Chengchi University Institute of Business Administration Bachelor of Chemical Engineering Department of Tsinghua University	Note 6	None	None	None
Independent Director	R.O.C.	Yu-Te Houng	Male	2019.06.20	3	2019.06.20	0	0.00%	0	0.00%	0	0.00%	Bachelor of Accounting, Soochow University	None	None	None	None
Independent Director	R.O.C.	Wei-Kuo Chen	Male	2019.06.20	3	2019.06.20	0	0.00%	0	0.00%	0	0.00%	The Professor and Chairman of NCTU Electrophysics Ph.D. in Electrical Engineering, State University of New York, USA Master of Electrical Engineering, State University of New York, USA Bachelor of Electronic Physics, NCTU	Note 7	None	None	None

Remark 1: The current shareholding refers to the actual shareholding available on February 29, 2020.

Remark 2: Any relevant information where the chairperson of the board of directors and the general manager or person of an equivalent post (the highest level manager) of a company are the same person, spouses, or relatives within the first degree of kinship, an explanation shall be given of the reason for, reasonableness, necessity thereof, and the measures adopted in response thereto (such as increasing the number of independent director, with a majority of directors who do not serve concurrently as an employee or officer): Not applicable.

Note:

1. Bing-Jye Lee:

The Chairman of Epistar JV Holding (BVI) Co., Ltd., the Chairman of Yenrich Technology Corporation, the Chairman of Unikorn Semiconductor Corporation, the Director of LiteStar JV Holding (BVI) Co., Ltd., the Director of Epicrystal (Hong Kong) Co., Ltd., the Chairman of Country Lighting (BVI) Co., Ltd., the Director of Epicrystal Corporation (ChangZhou) Ltd., the Director of Kaistar Lighting (Xiamen) Co., Ltd., and the Director of FormoLight Technologies, Inc. Said companies are directly or indirectly invested in by Epistar.

2. Chih-Yuan Chen:

The Chairman of Yeong Yi Asia Corp., the Chairman of Yi-Yuan Enterprise Co., Ltd., the Chairman of Yi Te Optoelectronics Co., Ltd., the Chairman of Yi-Yang Technology Co., Ltd., the Chairman of Sun Shilin Development Co., Ltd., the Vice Chairman of Taiwan Insurance Co., Ltd. (Public offering: 2863), the Vice Chairman of Taiwan Air Cargo Terminal Limited, the Director of China Airlines Ltd. (TWSE: 2610), the Director of Shihlin Paper Corporation (TWSE: 1903), the Director of Nan Ya Photonics Inc., the Director of Yi-Chao Enterprise Co., Ltd., the Director of Yi-Xiang Enterprise Co., Ltd., the Director of Ravenel Ltd., the Director of Hanlin Incubation Co., Ltd., the Director of Ruihua Art Co., Ltd., the Director of Xin Su Transportation Warehousing Co., Ltd., the Director of Shin Shi transportation co., Ltd., and the Supervisor of Taiquan Investment Co., Ltd..

3. Nan Yang Wu:

The Director of Edison Opto Corporation (TWSE: 3591), the Director of ProLight Opto Technology Corporation (Emerging stock: 5277), the Director of **Wafer works** Corporation (TPEX: 6182), the Chairman of Fon Tain Belon Co., Ltd., the Chairman of Tai E Trading Co., Ltd., the Director of Yeong Yi Asia Corp., the Director of Yi-Yang Technology Co., Ltd. and the Director of Yi-Xiang Enterprise Co., Ltd., the Director of Xinan Transportation Co., Ltd., the Director of Gangdu Industrial Co., Ltd., the Director of Gan Force Corporation, the Director of GaN Ventures Co., Limited, the Director of GV Semiconductor Inc., the Director of APT Electronics Co Ltd., and the Director of Advanced Photoelectronic Technology Limited.

4. Chin-Yung Fan:

The Chairman of Lighting Investment Corp., The Director of Luxlite (Shenzhen) Corporation Limited, the Chairman of Lighting Investment Ltd., the Chairman of Luxlite (HK) Corporation Limited, the Director of HUGA Holding (Samoa) Limited, the Director of Crystaluxx S.A.R.L., the Director of LEDOLUX Sp. O., the Director of Jiangsu Canyang Optoelectronics Ltd., the Chairman of EPIRICH (Guangzhou) Co.Ltd., the Director of TE OPTO Corporation, the Director of Evertop (Fujian) optoelectronics Co., Ltd, the Director of Episky (Hong Kong) Ltd., the Director of Luxlite (HK) Corporation Limited, the Director of allureLux Corporation, the Director of Epistar (Hong Kong) Limited and the Director of Can Yang Investments Limited. Said companies are directly or indirectly invested in by Epistar.

5. Wei-Min Sheng:

The Independent Director of Episil-Precision Inc. (TWSE: 3016), The Independent Director and member of Remuneration Committee of Advanced Lithium Electrochemistry (KY) Co., Ltd. (Emerging stock: 5227), and the independent director of uPI Semiconductor Corp (publicly owned 6719).

6. Chi-Yen Liang:

The Director of Tainet Communication System Corp. (TPEX: 4905), the Director of Flexium Interconnect Inc. (TWSE: 6269), the Independent Director & the member of Remuneration Committee of Excellence MOS Corp. (Emerging stock: 5299), the member of Remuneration Committee of Sesoda Corporation (TWSE: 1708), the member of Remuneration Committee of Shinkong Textile Co., Ltd (TWSE: 1419), the Director of Taiwan Branch Star Venture Capital Co., Ltd., the Director of Guide Star Venture Capital Co., Ltd., the Director of Yuwei Asset Management Co., Ltd., and the Supervisor of Bei Ke Zhi Xing Venture Capital Co., Ltd..

7. Wei-Kuo Chen:

The Director of Princeton Technology Corporation (TPEX: 6129).

**Major Shareholder of the institutional shareholder: None.**

**Major shareholders of the major shareholders that are juridical persons: None.**

### Directors' Professional Qualifications and Independence Analysis:

Criteria/Name	Meet the Following Professional Qualification Requirements, Together with at Least Five Years Work Experience		Criteria (Note 1)										Number of Other Taiwanese Public Companies Concurrently Serving as an Independent Director				
	An Instructor or Higher Position in a Department of Commerce, Law, Finance, Accounting, or Other Academic Department Related to the Business Needs of the Company in a Public or Private Junior College, College or University	A Judge, Public Prosecutor, Attorney, Certified Public Accountant, or Other Professional or Technical Specialists Who Has Passed a National Examination and Been Awarded a Certificate in a Profession Necessary for the Business of the Company	Have Work Experience in the Area of Commerce, Law, Finance, or Accounting, or Otherwise Necessary for the Business of the Company	1	2	3	4	5	6	7	8	9		10	11	12	
Biing-Jye Lee		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
Chih-Yuan Chen		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
Nan Yang Wu		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
Chin-Yung Fan		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
Wei-Min Sheng	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	3
Feng-Shang Wu	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
Chi-Yen Liang			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1
Yu-Te Houng			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
Wei-Kuo Chen	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-

Note: Directors, during the two years before being elected and during the term of office, meet any of the following situations, please tick the appropriate corresponding boxes:

1. Not an employee of the company or any of its affiliates;
2. Not a director or supervisor of the company or any of its affiliates (excluding independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, a public company and its parent or subsidiary or a subsidiary of the same parent).
3. Not a natural-person shareholder who holds shares, together with those held by the person's spouse, minor children, or held by the person under others' names, in an aggregate amount of one percent or more of the total number of issued shares of the company or ranks as one of its top ten shareholders;
4. Not a spouse, relative within the second degree of kinship, or lineal relative within the third degree of kinship, of a managerial officer under (1) or any of the persons listed in (2) and (3).



5. Not a director, supervisor, or employee of a corporate shareholder that directly holds five percent or more of the total number of issued shares of the company, or that ranks among the top five in shareholdings, or that designates its representative to serve as a director or supervisor of the company under Article 27, paragraph 1 or 2 of the Company Act (excluding independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, a public company and its parent or subsidiary or a subsidiary of the same parent).
6. Not a director, supervisor, or employee of another company or institution if a majority of the company's director seats or voting shares and those of any other company are controlled by the same person (excluding independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, a public company and its parent or subsidiary or a subsidiary of the same parent).
7. Not a director, supervisor, or employee of another company or institution where the chairperson, general manager, or person holding an equivalent position of the company and a person in any of those positions at the other company or institution are the same person or are spouses (excluding independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, a public company and its parent or subsidiary or a subsidiary of the same parent).
8. Not a director, supervisor, officer, or shareholder holding five percent or more of the shares, of a specified company or institution that has a financial or business relationship with the company. (excluding independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, a public company and its parent or subsidiary or a subsidiary of the same parent, where the specified company or institution holds 20 percent or more and no more than 50 percent of the total number of issued shares of the public company).
9. Not a professional individual who, or an owner, partner, director, supervisor, or officer of a sole proprietorship, partnership, company, or institution that, provides auditing services to the company or any affiliate of the company, or that provides commercial, legal, financial, accounting or related services to the company or any affiliate of the company for which the provider in the past 2 years has received cumulative compensation exceeding NT\$500,000, or a spouse thereof; this restriction does not apply to a member of the remuneration committee, public tender offer review committee, or special committee for merger/consolidation and acquisition, who exercises powers pursuant to the Securities and Exchange Act or to the Business Mergers and Acquisitions Act or related laws or regulations.
10. Not having a marital relationship, or a relative within the second degree of kinship to any other director of the company;
11. Not been a person of any conditions defined in Article 30 of the Company Act;
12. Not a governmental, juridical person or its representative as defined in Article 27 of the Company Act.

## Board diversity policy (directive) and status of implementation thereof

The Company's Board of Directors of 10<sup>th</sup> term consists of 9 directors, including 5 independent directors. There are no directors who are spouses or relatives within the second degree of kinship with each other.

1. The board members are all nationals of the R.O.C.
2. The directors who are also employees of the Company account for 22%, independent directors 56%, and female directors 0%.
3. The continuous term for the five independent directors is no more than 3 terms.
4. Three directors are 51~60 years old, five directors are 61~70 years old, and one director is 71~80 years old.
5. Mr. Biing-Jye Lee and Mr. Chin-Yung Fan serve as the CSO and President of the Company. Notwithstanding, none of the other directors hold any position in the Company concurrently. Therefore, the requirement those directors who hold the position as manager of the Company shall be no more than one-third of the whole directors are satisfied.
6. The Company adheres to the relevant laws and regulations in determining and assessing the independence of independent directors. The 10th Board of Directors increased the number of independent directors to 5 giving independent directors a majority on the Board. The newly added independent director Yu-Te Houng has more than 29 years of experience in accounting and finance at accounting firms and transnational enterprises, with extensive experience in transnational mergers and acquisitions; independent director Wei-Kuo Chen is currently a professor of physics at National Chiao Tung University whose research specialties include semiconductor physics and optoelectronic science.
7. It is in the company's interests to have directors that serve for longer terms as they develop the ability to provide more in-depth insights of their own on the company's operations and finances. Continuing education for the directors is also organized by the Company every year. The contribution of individual directors are also assessed on an ongoing basis to ensure that the Board of Directors can maintain a fresh perspective.
  - (1) Chairman Biing-Jye Lee has a background in chemical engineering and optoelectronics with the Industrial Technology Research Institute (ITRI). He founded Epistar with investments from the ITRI and the industry to focus on epitaxy research, development and mass production (e.g. laser diodes), as well as the commercialization of patented technologies. He served as the company president when Epistar was founded and has been the company chairman since June 20, 2007, with the Board's support. Lee is currently the 2nd Chair of Taiwan Optoelectronic Semiconductor Industry Association (TOSIA) and satisfies the criteria set out in Article 20 of Epistar's Corporate Governance Best Practice Principles as listed in the table below.

- (2) Director Chih-Yuan Chen is the chairman of Yi-Far Holding System, whose main business is risk management and venture capital investment in the high-tech sector. His experience includes the packaging, semiconductor, and LED industries. He was the chairman of UTAC Holdings Ltd. (Singapore) in 2000 and oversaw the company's public listing in Singapore in 2004. His acquisition of UTAC-Taiwan in 2005, was the first time that a Taiwanese invested in a public company in Singapore before turning around acquiring a Taiwanese company. He also oversaw the merger of Epistar and United Epitaxy Company in the same year. In addition to his role with the Wan Hai Group, he is also a director of China Airlines, the vice chairman of Taian Insurance, the vice chairman of Taiwan Air Cargo Terminal Ltd., and CEO of Chen-Yung Foundation.
- (3) Director Nan Yang Wu studied engineering at Stanford University and has sat on the Epistar board since 2005. Previous positions included director of Wafer Works Corp. (TPEX: 6129) and independent director of Nan Liu Enterprise Co., Ltd. His industry experience covers production and contract manufacturing of LED, semiconductors and melt-blown non-woven fabric. He is currently the senior vice president of Yi-Far Holding System (TWSE: 6504) and his professional skills include commerce, finance, investment and risk management.
- (4) Independent Director Wei-Min Sheng holds a Ph.D. in Accounting from Purdue University and is currently a professor with the Department of Public Finance & Taxation at the National Taichung University of Science and Technology. His industry experience includes the semiconductor, electronic component and electronics industries. Previous positions included independent director and remuneration committee member at Siliconware Precision Industries Co., Ltd. (SPIL), and was involved with that company's share-swap with Advanced Semiconductor Engineering, Inc.
- (5) Independent Director Feng-Shang Wu holds a Ph.D. in Business from Rensselaer Polytechnic University (RPI), USA. He is currently a professor at the Graduate Institute of Technology, Innovation and Intellectual Property Management, National Chengchi University. Previous positions include independent director and remuneration committee member of ProLight Opto Technology Corporation (Emerging stock: 5227). His professional expertise includes experience with the packaging & testing industry, risk management, information technology, and intellectual property.
- (6) Independent Director Chi-Yen Liang comes from a business administration and engineering background. He was previously the Chairman of Tainet communication System Corp (TPEX: 4905). and has experience in the network communications, electronic components and semiconductor industries. He was also a university lecturer.

8. All of the Board members possess the knowledge, skills, industry experience, and abundant experience and expertise in finance, commerce and management required to perform their jobs, please refer to Page 10~13 herein. All of the independent directors may exercise their powers objectively and satisfy the conditions about independence and qualifications required by law:

Title	condition		1	2	3	4	5	6	7	8
	Name	male/female								
Chairman	Biing-Jye Lee	male	✓	✓	✓	✓	✓	✓	✓	✓
Director	Chih-Yuan Chen	male	✓	✓	✓	✓	✓	✓	✓	✓
Director	Nan Yang Wu	male	✓	✓			✓	✓		
Director	Chin-Yung Fan	male	✓	✓	✓	✓	✓	✓	✓	✓
Independent Director	Wei-Min Sheng	male	✓	✓	✓	✓	✓		✓	
Independent Director	Feng-Shang Wu	male	✓		✓		✓	✓		✓
Independent Director	Chi-Yen Liang	male	✓	✓	✓	✓	✓	✓	✓	✓
Independent Director	Yu-Te Houng	male	✓	✓	✓	✓	✓	✓	✓	✓
Independent Director	Wei-Kuo Chen	male	✓		✓	✓	✓	✓	✓	✓

Note: If meeting any of the following situations, please tick the appropriate corresponding boxes:

1. Ability to make operational judgments.
2. Ability to perform accounting and financial analysis.
3. Ability to conduct management administration.
4. Ability to conduct crisis management.
5. Knowledge of the industry.
6. An international market perspective.
7. Ability to lead.
8. Ability to make policy decisions.

### Successor cultivation planning for key management

In the company's successor cultivation plan, in addition to the successor having to possess effective communication skills, abundant knowledge, industry technology, excellent job performance, and personal development potential, the work values of the successor should be the same as the company.

The company conducts paradigm shift evaluations for a supervisor whose position is above the center level of the company and to develop the company's elites and succession echelons with reference to the evaluation results. In addition to exerting their personal expertise during their work as well as rotating among different tasks, the company's succession echelons also participate in various business decision-making meetings to cultivate the ability of strategies formulation.

The training model for successors of high-level management is divided into management ability training, professional ability test, personal development plan, and job rotation, etc., and its contents include the area of Production Management, Marketing Management, Human Resource Management, Research & Development Management, and Financial Management. The Chairman and the CEO of the company coach successors from the high-level manager based on the results of the annual leadership and development assessment, at the same time, training classes from professional organizations and strategic planning seminars from the industry are leveraged to enable the succession echelons integrating their knowledge to cultivate decision-making capabilities. In addition, the succession team is appointed as the general manager and director of a subsidiary of the company to cultivate a comprehensive and cross-industry strategic view through the management experience from the subsidiary.

The president of Epistar is Mr. Chin-Yung Fan as of July 16, 2018. Mr. Chin-Yung Fan acted as the vice president of Operation and Marketing Center of Epistar, who has worked in Epistar for more than 2 decades and held the positions as supervisor of the Company's AlGaInP and Nitride business units, quality control and marketing business and, therefore, has held very abundant and complete work experience. He is one of the senior management trained by the Company permanently. On his managing the Company and leading the development of LED and long-wavelength laser epi and chip business, Mr. Chin-Yung Fan was appointed to Epistar's 10th Board of Directors with the support of shareholders when full board elections were carried out in 2019.

### 3.2.2 Information Regarding Management Team

Title	Nationality	Name	Gender	Date Effective	Shareholding		Spouse & Minor Shareholding		EPISTAR Shareholding by Nominee Arrangement		Experience & Education	Other Position	Managers who are Spouses or Within Two Degrees of Kinship		
					Shares	%	Shares	%	Shares	%			Title	Name	Relationship
Chief Strategy officer	R.O.C.	Biing-Jye Lee	Male	2009.01.01	1,464,495	0.13%	1,582,596	0.15%	0	0.00%	Research fellow/supervisor, Institute of Photonics Technologies in Industrial Technology Research Institute (ITRI) Ph. D., Institute of Chemical Engineering, National Tsing Hua University	Note 1	None	None	None
President	R.O.C.	Chin-Yung Fan	Male	2018.07.16	267,012	0.02%	124,337	0.01%	0	0.00%	Special assistant, Vice President, Epistar Corporation M.A., Institute of Physics, National Central University	Note 2	None	None	None
Vice President	R.O.C.	Jen-Chau Wu	Male	2005.12.30	237,155	0.02%	0	0.00%	0	0.00%	Vice President, United Epitaxy Company, Ltd. M.A., Institute of Electrical Engineering, National Tsing Hua University	Note 3	None	None	None
Vice President	R.O.C.	Rong-Yih Hwang	Male	2007.03.01	130,000	0.01%	0	0.00%	0	0.00%	Associate Vice President, United Epitaxy Company, Ltd. M.A., Institute of Photonics Technologies, National Chiao Tung University	Note 4	None	None	None
Vice President	R.O.C.	Min-Hsun Hsieh	Male	2007.03.01	18,674	0.00%	0	0.00%	0	0.00%	Supervisor, Highlight Optoelectronics Inc. Ph. D., Institute of Power Mechanical Engineering, National Tsing Hua University	Note 5	None	None	None
Vice President	R.O.C.	Shih-Shien Chang	Male	2007.03.01	802,265	0.07%	0	0.00%	0	0.00%	Manager, Finance Department, Wei Chuan Foods Corporation B.A., Department of Business Administration, National Cheng Kung University	Note 6	None	None	None
Vice President	R.O.C.	Chen Ou	Male	2014.09.01	3,084	0.02%	98	0.00%	0	0.00%	Director, Epistar Corporation Ph. D., National Chiao Tung University	Note 7	None	None	None
Vice President	R.O.C.	Ming-Da Jin	Male	2014.09.01	200,000	0.02%	0	0.00%	0	0.00%	Director, Epistar Corporation M.A., Institute of Electrophysics, National Chiao Tung University	Note 8	None	None	None
Vice President	R.O.C.	Lin-Tien Yang	Male	2014.09.01	20,797	0.00%	0	0.00%	0	0.00%	Associate Vice President, Epitech Technology Corporation M.A., Institute of Management, National Chiao Tung University	Note 9	None	None	None
Vice President	R.O.C.	Wei-Shih	Male	2018.07.16	150,701	0.01%	0	0.00%	0	0.00%	Director, Information Technology Center, Epistar Corporation M.A., Institute of Electrical Engineering, University of Southern California (USC), USA	Note 10	None	None	None
Senior Director	R.O.C.	Li-Cheng Hung	Female	2012.01.01	0	0.00%	0	0.00%	0	0.00%	Director, Production Management Center, Epistar Corporation B.A., Department of Electrical and Electronics Engineering, Kun Shan College	Note 11	None	None	None

Title	Nationality	Name	Gender	Date Effective	Shareholding		Spouse & Minor Shareholding		EPISTAR Shareholding by Nominee Arrangement		Experience & Education	Other Position	Managers who are Spouses or Within Two Degrees of Kinship		
					Shares	%	Shares	%	Shares	%			Title	Name	Relationship
Senior Director	R.O.C.	Feng-Sheng Qiu	Male	2014.09.01	165,000	0.02%	213	0.00%	0	0.00%	Special assistant to the President office, Epistar Corporation Associate Vice President, Logistic center, Huga Optotech Inc./Formosa Epitaxy Incorporation Associate degree, Department of business management, China University of Technology Manager, Department of management, Hiti Sheng Industrial Corporation BA, Department of Engineering Science, National Cheng Kung University	None	None	None	None
Senior Director	R.O.C.	Yi-Chang Hong	Male	2016.11.24	50,459	0.00%	0	0.00%	0	0.00%		None	None	None	None

● The current shareholding refers to the actual shareholding available on February 29, 2020.

● Where the chairperson of board of directors and the general manager, or person holding an equivalent position (the highest level manager) of a company are the same person, spouses, or relatives within the first degree of kinship, an explanation shall be given of the reason for, reasonableness, necessity thereof, and measures adopted in response thereto: Not applicable.

Note:

1. Bing-Jye Lee:

The Chairman of Epistar JV Holding (BVI) Co., Ltd., the Chairman of Yenrich Technology Corporation., the Chairman of Unikorn Semiconductor Corporation., the Chairman of GaN Ventures Co., Limited, the Chairman of GV Semiconductor Inc, the Chairman of Gan Force Corporation, the Chairman of Country Lighting (BVI) Co., Ltd., the Director of LiteStar JV Holding (BVI) Co., Ltd., the Director of Epicrystal (Hong Kong) Co., Ltd., the Director of Epicrystal Corporation (ChangZhou) Ltd., the Director of Nan Ya Photonics Inc., the Director of Kaistar Lighting (Xiamen) Co., Ltd., and the Director of FormoLight Technologies, Inc.. Said companies are directly or indirectly invested in by Epistar.

2. Chin-Yung Fan:

The Chairman of Lighting Investment Corp., the Chairman of Lighting Investment Ltd., the Chairman of Luxlite (HK) Corporation Limited, the Chairman of Can Yang Investments Limited., the Director of Episky (Hong Kong) Ltd., the Director of Luxlite (Shenzhen) Corporation Limited, the Director of HUGA Holding (Samoa) Limited, the Director of Crystaluxx SARL, the Director of Epistar (Hong Kong) Limited, the Director of LEDOLUX Sp. Zo. O., the Director of Jiangsu Canyang Optoelectronics Ltd., the Director of allureLux Corporation, the Director of TE OPTO Corporation, and the Director of Evertop (Fujian) optoelectronics Co., Ltd. Said companies are directly or indirectly invested in by Epistar.

3. Jen-Chau Wu:

The Chairman of Episky Corporation (Xiamen) Ltd., the Chairman of Epicrystal Corporation (ChangZhou) Ltd., the Chairman of United LED Corporation Hong Kong Limited, the Executive Director of United LED Shan Dong Corporation, the Chairman of Ningbo Formosa Epitaxy Incorporation, the Chairman of Jiangsu Canyang Optoelectronics Ltd., the Director of LiteStar JV Holding (BVI) Co., Ltd., the Director of Epicrystal (Hong Kong) Co., Ltd., the Director of Episky Corporation (Changzhou) Ltd., and the Director of Can Yang Investments Limited. Said companies are directly or indirectly invested in by Epistar.

4. Rong-Yih Hwang:

The Director of Episky Corporation (Xiamen) Ltd., the Director of Luxlite (HK) Corporation Limited., the Director of Luxlite (Shenzhen) Corporation Limited, and the Director of iReach Corporation. Said companies are directly or indirectly invested in by Epistar.

5. Min-Hsun Hsieh:  
The Director of Lighting Investment Corp., the Director of Yenrich Technology Corporation, the Director of GaN Ventures Co., Limited Cooperation, and the Director of GV Semiconductor Inc. the Director of Gan Force Corporation, and the Director of Nan Ya Photonics Inc. Said companies are directly or indirectly invested in by Epistar.
6. Shih-Shien Chang:  
The Chairman of allureLux Corporation, the Director & President of Yenrich Technology Corporation, the Supervisor of Episky Corporation (Xiamen) Ltd., the Director of Luxlite (HK) Corporation Limited., the Director of Luxlite (Shenzhen) Corporation Limited, the Director of LEDOLUX Sp. Zo. O., the Director of Yen-Rich Opto (Hong Kong) Limited, the Director of Full Star Enterprises Limited, the Director of Ecolod Venture Co., Limited, the Director of iReach Corporation, the Director of Play Nitride Inc., the Director of Chi Lin Optoelectronics Co., Ltd, and Said companies are directly or indirectly invested in by Epistar.
7. Chen Ou:  
The Director of Can Yang Investments Limited, and the Director of Jiangsu Canyang Optoelectronics Ltd. Said companies are directly or indirectly invested in by Epistar.
8. Ming-Da Jin:  
The Director of Unikorn Semiconductor Corporation. Said companies are directly or indirectly invested in by Epistar.
9. Lin-Tien Yang:  
The Director & President of Luxlite (Shenzhen) Corporation Limited, the Director & President of SH Optotech Co., Ltd., the Director of Epicrystal (Hong Kong) Co., Ltd., the Director of Luxlite (HK) Corporation Limited., the Director of Epicrystal Corporation (ChangZhou) Ltd., the Director of United LED Corporation Hong Kong Limited, the Director of Crystal Light Enterprises Group Limited, the Director of Can Yang Investments Limited, and the Director of Jiangsu Canyang Optoelectronics Ltd. Said companies are directly or indirectly invested in by Epistar.
10. Wei Shih:  
The Director & President of Unikorn Semiconductor Corporation. Said companies are directly or indirectly invested in by Epistar.
11. Li-Cheng Hung:  
The Chairman of EPISKY Corporation (Changzhou) Ltd. Said companies are directly or indirectly invested in by Epistar.



3.2.3 Remuneration Paid to Directors, General Manager and Vice President in the most recent year  
3.2.3.1 Remuneration Paid to Directors

Title	Name	Compensation Earned by a Director Who is an Employee of Epistar or of Epistar's Consolidated Entities										Total Compensation		Any remuneration outside of subsidiaries from re-investment businesses or the parent company				
		Director Remuneration					Total Remuneration (A+B+C+D) as a % of Net Loss after tax		Employees' Profits Sharing Bonus (G)						From All Consolidated Entities			
		Base Compensation (A)		Severance Pay and Pensions (B)		Compensation to Directors (C)	Allowances (D)		Base Compensation, Bonuses, and Allowances (E)		Severance Pay and Pensions (F)	From Epistar			From All Consolidated Entities		From All Consolidated Entities	From All Consolidated Entities
		From Epistar	From Consolidated Entities	From Epistar	From Consolidated Entities	From Epistar	From Consolidated Entities	From Epistar	From Consolidated Entities	From Epistar	From Consolidated Entities	Cash	Stock Market Value		Cash	Stock Market Value	Cash	Stock Market Value
Chairman	Biing-Jye Lee	0	0	0	0	0	60	19,233	19,233	208	0	0	0	0	0	0	0.52	0
Director	Chih-Yuan Chen	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0.00	0
Director	Nan Yang Wu	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0.00	0
Director	Chin-Yung Fan	0	0	0	0	0	32	0	0	247	247	0	0	0	0	0	0.32	0
Independent Director	Wei-Min Sheng	720	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0.02	0
Independent Director	Feng-Shang Wu	720	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0.02	0
Independent Director	Chi-Yen Liang	720	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0.02	0
Independent Director	Yu-Te Houng (note 1)	382	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0.01	0
Independent Director	Wei-Kuo Chen (note 1)	382	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0.01	0
Former director (Note 2)	Everlight Electronics Co., Ltd.	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0.00	0
Former director (Note 2)	Rep: Hwei-Chen Fu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0
Former director (Note 2)	United Microelectronics Corp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0
Former director (Note 2)	Rep: Shan-Chieh Chien	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0.00	0
Former director (Note 2)	Fon Tain Belon Co., Ltd.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0
Former director (Note 2)	Yi Te Optoelectronics Co., Ltd.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0
Former director (Note 3)	Ming-Jiunn Jou	0	0	0	0	0	28	4,173	6,498	8,534	8,572	0	0	0	0	0	0.33	0.40

Note 1: Newly appointed in June, 20 2019.

Note 2: Resigned as director after the elections on June 20, 2019.

Note 3: Retired due to family reasons on April 30, 2019. Retirement benefits and separation payments were handled in accordance with the relevant laws and the Epistar "Regulations Governing the Resignation or Retirement of Appointed Managers and Directors That Are Also Employees"; resigned as director after the elections on June 20, 2019.

Note 4 : During 2019, Epistar directors collected remuneration for providing their services (such as acting as consultants to employees that are not their subordinates) for all the companies listed in the financial statements. The only exception was Director Nan Yang Wu who served as the legal representative for the subsidiary ProLight Opto Technology Corporation and the director of Edison Opto Corporation, an Epistar re-investment. He received NT\$25,000 and NT\$42,000 respectively from the above companies for attending their Board meetings. No remuneration other than for his role as director or employee was received from any of the companies listed in the financial statement (that is, Epistar and its subsidiaries).

Note 5 : Describe the policy, system, standard and structure of independent director's compensation, as well as how the amount of compensation paid relates to their duties, risks, and time spent: (Page 25)

A: Remuneration to directors in 2019 (including director's salary, duty allowance, severance pay, bonus and reward, et al.)

B: The contributed amount.

C: Allocation of remuneration to directors approved by the board in 2019.

D: Professional practice expenses related to directors in 2019 (including transportation allowance, special allowance, various allowances, and provision of dormitory and car).

E: Received by directors who were also employees in 2019 (including those concurrently holding the position as president, vice president, manager and employee), including salary, duty allowance, severance pay, bonus, reward, transportation allowance, special allowance, various allowances, and provision of dormitory and car, and salary stated according to IFRS 2 "Share-Based Payment."

F: The contributed amount including any retirement benefits or separation payments made to Dr. Ming-Jiunn Jou in accordance with the law and the Epistar "Regulations Governing the Resignation or Retirement of Appointed Managers and Directors That Are Also Employees."

G: Allocation of remuneration to employees approved by the board in 2019, and calculation of the remuneration to be allocated this year based on the actual allocation of remuneration last year.

Net Profit: The net operating loss after tax, NT\$ 3,753,797 thousand, identified in the individual financial statement 2019.

## Remuneration Paid to Directors

Range of Remuneration	Name of Directors				Total of (A-G)
	From EPISTAR	Total of (A-D)	From All Consolidated Entities	From EPISTAR	
NT\$0~ NT\$ 999,999	Biing-Jye Lee Chih-Yuan Chen Nan Yang Wu Chin-Yung Fan Wei-Min Sheng Feng-Shang Wu Chi-Yen Liang Yu-Te Houng Wei-Kuo Chen Everlight Electronics Co., Ltd Fon Tain Belon Co., Ltd. Yi Te Optoelectronics Co., Ltd. Ming-Jiunn Jou	Biing-Jye Lee Chih-Yuan Chen Nan Yang Wu Chin-Yung Fan Wei-Min Sheng Feng-Shang Wu Chi-Yen Liang Yu-Te Houng Wei-Kuo Chen Everlight Electronics Co., Ltd Fon Tain Belon Co., Ltd. Yi Te Optoelectronics Co., Ltd. Ming-Jiunn Jou	Biing-Jye Lee Chih-Yuan Chen Nan Yang Wu Chin-Yung Fan Wei-Min Sheng Feng-Shang Wu Chi-Yen Liang Yu-Te Houng Wei-Kuo Chen Everlight Electronics Co., Ltd Fon Tain Belon Co., Ltd. Yi Te Optoelectronics Co., Ltd. Ming-Jiunn Jou	Chih-Yuan Chen Nan Yang Wu Wei-Min Sheng Feng-Shang Wu Chi-Yen Liang Yu-Te Houng Wei-Kuo Chen Everlight Electronics Co., Ltd Fon Tain Belon Co., Ltd. Yi Te Optoelectronics Co., Ltd.	Chih-Yuan Chen Nan Yang Wu Wei-Min Sheng Feng-Shang Wu Chi-Yen Liang Yu-Te Houng Wei-Kuo Chen Everlight Electronics Co., Ltd Fon Tain Belon Co., Ltd. Yi Te Optoelectronics Co., Ltd.
NT\$1,000,000 ~ NT\$1,999,999	None	None	None	None	None
NT\$2,000,000 ~ NT\$3,499,999	None	None	None	None	None
NT\$3,500,000 ~ NT\$4,999,999	None	None	None	None	None
NT\$5,000,000 ~ NT\$9,999,999	None	None	None	None	None
NT\$10,000,000 ~ NT\$14,999,999	None	None	None	Chin-Yung Fan, Ming-Jiunn Jou	Chin-Yung Fan
NT\$15,000,000 ~ NT\$29,999,999	None	None	None	Biing-Jye Lee	Biing-Jye Lee, Ming-Jiunn Jou
NT\$30,000,000 ~ NT\$49,999,999	None	None	None	None	None
NT\$50,000,000 ~ NT\$99,999,999	None	None	None	None	None
Over NT\$100,000,000	None	None	None	None	None
Total	13	13	13	13	13

3.2.3.2 Remuneration Paid to Supervisor: N/A.

3.2.3.3 Remuneration Paid to President and Vice Presidents (that is, individual compensation paid to the five highest-paid managerial officers)

Title	Name	Salary (A)		Severance Pay and Pensions (B)		Bonuses and Allowances (C)		Employees' Profit Sharing Bonus (D)				Total Compensation as a % of 2019 Net Profit (A+B+C+D)		Any remuneration outside of subsidiaries from re-investments or the parent company
		From EPISTAR	From All Consolidated Entities	From EPISTAR	From All Consolidated Entities	From EPISTAR	From All Consolidated Entities	From EPISTAR		From All Consolidated Entities		From EPISTAR	From All Consolidated Entities	
								Cash	Stock (Fair Market Value)	Cash	Stock (Fair Market Value)			
Strategy officer	Biung-Jye Lee	6,633	6,633	208	208	12,599	12,599	0	0	0	0	0.52	0.52	None
President	Chin-Yung Fan	4,654	4,654	247	247	7,025	7,025	0	0	0	0	0.32	0.32	None
Vice President	Ming-Da Jin	3,387	3,387	212	212	5,097	5,097	0	0	0	0	0.23	0.23	None
Vice President	Shih-Shien Chang	3,518	3,518	218	218	4,855	4,855	0	0	0	0	0.23	0.23	None
Vice President	Min-Hsun Hsieh	3,348	3,348	217	217	4,906	4,906	0	0	0	0	0.23	0.23	None
Vice President	Jen-Chau Wu													
Vice President	Rong-Yih Hwang													
Vice President	Chen Ou	15,413	17,456	859	859	16,881	16,881	0	0	0	0	0.88	0.94	None
Vice President	Lin-Tien Yang													
Vice President	Wei-Shih													

Dec. 31, 2019 Unit: NT\$ thousand

A: Salary, duty allowance and severance pay paid to presidents and vice presidents in 2019.

B: The contributed amount.

C: Received by in 2019 (including those concurrently holding the position as president, vice president), including bonus, reward, transportation allowance, special allowance, various allowances and provision of dormitory and car, and salary stated according to IFRS 2 "Share-Based Payment."

D: Allocation of remuneration to employees approved by the board in 2019, and calculation of the remuneration to be allocated this year based on the actual allocation of remuneration last year. Net Loss: The net operating Profit after tax, NT\$3,753,797 thousand, identified in the individual financial statement 2019.

### Remuneration Paid to President and Vice President

Range of Remuneration	Name of President and Vice President	
	From EPISTAR	From All Consolidated Entities and Non-Consolidated Affiliates
NT\$0~ NT\$ 999,999	None	None
NT\$1,000,000 ~ NT\$1,999,999	None	None
NT\$2,000,000 ~ NT\$3,499,999	None	None
NT\$3,500,000 ~ NT\$4,999,999	None	None
NT\$5,000,000 ~ NT\$9,999,999	Ming-Da Jin, Shih-Shien Chang, Min-Hsun Hsieh, Jen-Chau Wu, Rong-Yih Hwang, Chen Ou, Lin-Tien Yang, Wei-Shih	Ming-Da Jin, Shih-Shien Chang, Min-Hsun Hsieh, Jen-Chau Wu, Rong-Yih Hwang, Chen Ou, Lin-Tien Yang, Wei-Shih
NT\$10,000,000 ~ NT\$14,999,999	Chin-Yung Fan	Chin-Yung Fan
NT\$15,000,000 ~ NT\$29,999,999	Biing-Jye Lee	Biing-Jye Lee
NT\$30,000,000~ NT\$49,999,999	None	None
NT\$50,000,000 ~ NT\$99,999,999	None	None
Over NT\$100,000,000	None	None
Total	10	10

### 3.2.3.4 Employees' Profit Sharing Bonus Paid to Management Team

Title	Title and Name		Stock (Fair Market Value)	Cash	Total Employees' Profit Sharing Bonus	Total Employees' Profit Sharing Bonus Paid to Management Team as a % of Net Loss
	Name	Title				
Strategy officer	Biing-Jye Lee	Vice President				
President	Chin-Yung Fan	Vice President				
Vice President	Jen-Chau Wu	Vice President				
Vice President	Rong-Yih Hwang	Senior Director	0	0	0	0.00%
Vice President	Min-Hsun Hsieh	Senior Director				
Vice President	Shih-Shien Chang	Senior Director				
Vice President	Chen Ou					

Note 1: Allocation of remuneration to employees approved by the board in 2019, and calculation of the remuneration to be allocated this year based on the actual allocation of remuneration last year.

Note 2: Net Profit means the net operating Loss after tax, NT\$3,753,797 thousand, identified in the individual financial statement 2019.

### 3.2.4 Comparison of Remuneration for Directors, Supervisors, President, and Vice Presidents in the Most Recent Two Fiscal Years and Remuneration Policy for Directors, Supervisors, President, and Vice Presidents

#### 1. Remuneration Paid to Directors

The motion for remuneration to directors was proposed by the Remuneration Commission and submitted to the Board of Directors for resolution. The remuneration to directors was allocated by the Board of Directors based on the percentage defined in the Articles of Incorporation (i.e. 2% of the earnings of the given year), and subject to approval by a majority of the directors present at a board of directors meeting attended by two-thirds of the whole directors, and was reported to the shareholders' meeting. The remuneration to the other directors refers to such fixed remuneration as transportation allowance and attendance fees, while no other floating remuneration was allocated.

In order to upgrade the profundity of the Company's corporate governance, the Company assigned the corporate governance unit, which will establish the regulations governing evaluation on performance of the Board of Directors and various functional committees this year, in order to conduct self-assessment or peer review on the Board of Directors, individual directors or functional committees each year and take the performance evaluation result into account when determining payable remuneration.

#### 2. The policy, system, standard and structure of independent director's compensation, as well as how the amount of compensation paid relates to their duties, risks, and time spent

After taking into account of the fact that members of the Remuneration Committee must possess previous work or industry experience in the relevant fields, the necessary skills and experience in corporate governance, and have a good understanding of the Company in order to make a significant contribution through decision-making and the performance of their duties, the decision was made to re-appoint Independent Directors Wei-Min Sheng, Feng-Shang Wu and Chi-Yen Liang as members of Epistar's 4th Remuneration Committee on June 20, 2019.

Independent directors' compensation are determined by the Board of Directors based on recommendations made by the Remuneration Committee after the management team takes market pay rates in the industry and the company's current business performance into account. Members of the Remuneration Committee may not vote on their personal remuneration however and it must be submitted to the Board for discussion and approval.

The Board of Directors decided after taking the company's business performance into account that independent directors shall only be paid fixed compensation such as travel expenses and attendance fees in 2019. No other additional variable compensation was paid.

### 3. Remuneration Paid to President and Vice President

The motion for remuneration to presidents and vice presidents, including salary, bonus and employee remuneration, et al., was based on the need to ensure that fixed salaries must stay competitive in the market. Budgeting for salary adjustments took individual performance, department performance, management ability and the company's business performance in to account. The motion was handled in accordance with the Company's personnel regulations and proposed by Remuneration Committee and submitted to the Board of Directors for resolution. The remuneration to employees was allocated by the Board of Directors based on the percentage defined in the Articles of Incorporation (i.e. 10%~20% of the earnings of the given year, based on 15% for the time being.), and subject to approval by a majority of the directors present at a board of directors meeting attended by two-thirds of the whole directors, and was reported to the shareholders' meeting. The treasury stock transferred to employees in the year, if any, was allocated and transferred in accordance with the "Regulations Governing Repurchase and Transfer of Shares to Employees" passed by the Board of Directors. Notwithstanding, with respect to the part involving managers, it is necessary for the Remuneration Committee to pose suggestions and have the suggestions discussed and authorized by the Board of Directors.

The "annual profit" means the current year pre-tax profit (excluding other benefits or losses, such as the put option right, the call option rights, the conversion rights, and the redeem of overseas convertible bonds) before the deduction of the staff remuneration and director remuneration.

Title	The ratio of total remuneration paid by the Company and by all companies included in the consolidated financial statements for the two most recent fiscal years to directors, President and Vice Presidents of the Company, to the net loss & Profit.			
	2018		2019	
	From EPISTAR	From All Consolidated Entities	From EPISTAR	From All Consolidated Entities
Directors	(0.59)	(0.59)	(0.09)	(0.09)
President and Vice President	(19.85)	(20.45)	(2.41)	(2.46)

Note: (1) The net operating Loss after tax, NT\$456,146 thousand, identified in the individual financial statement 2018. (2) The net operating Loss after tax, NT\$3,753,797 thousand, identified in the individual financial statement 2019.

### 3.3 Implementation of Corporate Governance

#### 3.3.1 Board of Directors Meeting Status

A total of 6 (A) meetings of the Board of Directors were held in 2019. The directors' attendance status is as follows.

Title	Name	Attendance in Person (B)	By Proxy	Attendance Rate (%) 【B/A】	Remarks
Chairman	Biing-Jye Lee	6	0	100.0%	
Director	Chih-Yuan Chen	2	2	50.0%	Renew as natural person on June 20, 2019
Director	Fon Tain Belon Co., Ltd. Rep: Chih-Yuan Chen	1	1	50.0%	Discharged on June 20, 2019
Director	Nan Yang Wu	4	0	100.0%	Renew as natural person on June 20, 2019
Director	Yi Te Optoelectronics Co., Ltd. Rep: Nan Yang Wu	2	0	100.0%	Discharged on June 20, 2019
Director	Chin-Yung Fan	4	0	100.0%	Charged on June 20, 2019
Independent director	Wei-Min Sheng	6	0	100.0%	
Independent director	Feng-Shang Wu	6	0	100.0%	
Independent director	Chi-Yen Liang	6	0	100.0%	
Independent director	Yu-Te Houg	4	0	100.0%	Charged on June 20, 2019
Independent director	Wei-Kuo Chen	4	0	100.0%	Charged on June 20, 2019
Director	Ming-Jiunn Jou	2	0	100.0%	Discharged on June 20, 2019
Director	Everlight Electronics Co., Ltd. Rep: Huei-Chen Fu	1	1	50.0%	Discharged on June 20, 2019
Director	United Microelectronics Corp. Rep: Shan-Chieh Chien	2	0	100.0%	Discharged on June 20, 2019

Note: [Total actual attendance rates/total attendance rates to be fulfilled] of all directors attained 92.6% in 2019.

#### 2019 Independent Directors' Attendance Status:

V: In person o: By proxy X: Absence

2019	March 14	May 6	June 20	August 8	November 14	December 12
Wei-Min Sheng	V	V	V	V	V	V
Feng-Shang Wu	V	V	V	V	V	V
Chi-Yen Liang	V	V	V	V	V	V
Yu-Te Houg	None	None	V	V	V	V
Wei-Kuo Chen	None	None	V	V	V	V

#### Other special disclosure:

- Where the Board of Directors' operation meets any of the following circumstances, please clearly state the directors' meeting date, term, contents of motions and resolution thereof, opinions of all independent directors and the Company's handling of said opinions:

## (1) Securities and Exchange Act §14-3 resolutions:

Term/___st/nd/rd/th time Date	Contents of motion	Independent director's opinion	The Company's handling of independent director's opinion	Resolution
9-17 2019.03.14	Capital injection by issuance of 160 million shares of common stocks through private placement were terminated before the expiry date on 21 June 2018.	None.	N/A	Approved as proposed and re-proposing on March 14, 2019.
9-17 2019.03.14	The issuance of new common shares for cash to sponsor issuance of the global depository receipt and/or issuance of new common shares for cash in private placement.	None.	N/A	The motion was approved, and submitted to the general shareholders' meeting for discussion on June 20, 2019 and had been terminated by the resolution of the Board of directors meeting on February 26 2020, due to lack of qualified strategic investor can be found before the expiry date on June 20 2019.
9-17 108.03.14	Amendments to "Procedures for Loaning Funds to Other Parties," "Procedures for Endorsements and Guarantees," and "Acquisition or Disposal Procedures of Asset" in part.	None.	N/A	It was approved and the shareholders' meeting passed the proposal on June 20, 2019.
9-17 2019.03.14	To release the 10 <sup>th</sup> new Directors Biing-Jye Lee, Chih-Yuan Chen, Nan Yang Wu and Chin-Yung Fan non-competition restrictions.	None.	N/A	In relation to the individual's interest conflicts, each of the directors temporarily left and avoided each other, and did not participate in the discussion and voting. The other directors had no objection to the approval and the shareholders' meeting passed the proposal on June 20, 2019.



Term/___st/nd/rd/th time Date	Contents of motion	Independent director's opinion	The Company's handling of independent director's opinion	Resolution
9-17 2019.03.14	Endorsement of Episky Corporation (Xiamen) Ltd.	None.	N/A	It was approved and as per the resolution was executed.
9-18 2019.05.06	Approved the total amount of the Company's fund which was lent to subsidiary Episky Corporation (Xiamen) shall not exceed RMB\$200 million in total (or the equivalent amount in USD)	None.	N/A	It was approved and as per the resolution was executed.
9-18 2019.05.06	Endorsement of Episky Corporation (Xiamen) Ltd., Jiangsu Canyon Optoelectronics Ltd., Unikorn Semiconductor Corporation, and Yenrich Technology Corporation.	None.	N/A	It was approved and as per the resolution was executed.
10-2 2019.08.08	Evaluate the independence, eligibility, and contents of service and remuneration 2019 about appointment of Ya-Huei, Cheng and Chih-Cheng, Hsieh, CPAs.	None.	N/A	As the case involved the CPA's conflict of interest, Ya-Huei, Cheng and Wilson Wang, the CPAs left the meeting temporarily to recuse themselves from the discussion. The motion was ultimately approved.
10-2 2019.08.08	Amendments to "Statement of Declaration on Internal Control" in part.	None.	N/A	It was approved and as per the resolution was executed.
10-2 2019.08.08	Endorsement of Episky Corporation (Xiamen) Ltd., Jiangsu Canyon Optoelectronics Ltd., Unikorn Semiconductor Corporation.	None.	N/A	It was approved and as per the resolution was executed.
10-2 2019.08.08	Approved the total amount of the Company's fund which was lent to subsidiary Episky Corporation (Xiamen) and Unikorn Semiconductor Corporation shall not exceed RMB\$100 million in total (or the equivalent amount in USD) and TWD \$300 million.	None.	N/A	It was approved and as per the resolution was executed.

(2) There were no other written or otherwise recorded resolutions on which an independent director had a dissenting opinion or qualified opinion in 2019.

2. Recusals of Directors due to conflicts of interests in 2019

Term/___st/nd/rd/th time Date	Contents of motion	Persons recusing themselves	Status
9-17 2019.03.14	To release the 10 <sup>th</sup> new Directors Biing-Jye Lee, Chih-Yuan Chen, Nan Yang Wu and Chin-Yung Fan non-competition restrictions.	Four directors , Biing-Jye Lee, Chih-Yuan Chen, Nan Yang Wu and Chin-Yung Fan.	In relation to the individual's interest conflicts, each of the directors temporarily left and avoided each other, and did not participate in the discussion and voting. The other directors had no objection to the approval and the shareholders' meeting passed the proposal on June 20, 2019.
9-17 2019.03.14	Agree to release company officer from non-compete clause and to also serve concurrently as a managerial officer.	Chairman Biing-Jye Lee	Director Biing-Jye Lee, as the director and chairman of Unikorn Semiconductor Corp., which is not a fully-owned subsidiary of Epistar, temporarily recused himself from the discussion and voting. The resolution was passed unanimously by the rest of the directors.
10-2 2019.08.08	Agree to release company officer from non-compete clause and to also serve concurrently as a managerial officer.	Chairman Biing-Jye Lee	Director Biing-Jye Lee, as the director and chairman of Unikorn Semiconductor Corp., which is not a fully-owned subsidiary of Epistar, temporarily recused himself from the discussion and voting. The resolution was passed unanimously by the rest of the directors.
10-2 2019.08.08	Motion for remuneration to the Company's directors.	Recusal over conflict of interest by ordinary and independent directors.	Ordinary and independent directors recused themselves from the discussion and voting process for relevant motions; all motions were subsequently passed by all (independent) present.

3. Evaluation of Board performance: Not applicable at the present time.

4. Measures taken to strengthen the functionality of the Board:

Upgrade the profundity of the Company's corporate governance, the Board of Directors of 10<sup>th</sup> term increased the number of independent directors as 5 independent directors, a majority of the whole director. The Company has set up the Audit Committee and Remuneration Committee, each consisting of 5 independent directors and 3 independent directors. Both committees' chairpersons would report the committees' activities and actions to the Board of Directors periodically. The external auditors would be invited to attend all meetings called by the Board of Directors, and the Company would communicate with the external auditors about the audit on the quarterly financial reports or audit results and other requirements under the related laws and regulations to seek the external auditor's comments.

### 3.3.2 Audit Committee Meeting Status

A total of 5 (A) Audit Committee meetings were held in 2019. The independent directors' attendance status is as follows.

Title	Name	Attendance in Person (B)	By Proxy	Attendance Rate (%)【B/A】	Remarks
Independent Director	Wei-Min Sheng	5	0	100.0%	Chair
Independent Director	Feng-Shang Wu	5	0	100.0%	
Independent Director	Chi-Yen Liang	5	0	100.0%	
Independent Director	Yu-Te Houg	3	0	100.0%	Note
Independent Director	Wei-Kuo Chen	3	0	100.0%	Note

Note: Charged on June 20, 2019.

#### Other special disclosure:

1. The motions subject to review by Audit Committee and 2019 missions primarily include the following:
  - (1) Audit on financial statements and accounting policy and procedure
  - (2) Effective implementation of internal control system and related policies and procedures
  - (3) Material assets or derivatives trading
  - (4) Significant lending and endorsement/guarantee
  - (5) Placement or offering of securities
  - (6) Matters involving directors' private interest
  - (7) Compliance with related laws and regulations, and control over the Company's existing or potential risks
  - (8) CPA's qualifications, independence, appointment, dismissal or remuneration
  - (9) Appointment and dismissal of financial, accounting, or internal audit officers
  - (10) Upgrade the profundity of the Company's corporate governance
  
2. Where the Audit Committee's operation meets any of the following circumstances, please clearly state the directors' meeting date, term, contents of motions, and resolution of the Audit Committee, and the Company's handling of the Audit Committee's opinions:

#### (1) Resolutions related to Securities and Exchange Act §14-5 and its implementation:

Term/___st/nd/rd/th time Date	Contents of motion	Resolution of Audit Committee	the Company's (the board of directors') handling of Audit Committee's opinion
2-18 2019.03.14	Preparation of 2018 Financial Report.	The motion was approved unanimously.	The motion was approved by all present directors unanimously, and submitted to the general shareholders' meeting for discussion on June 20, 2019.
2-18 2019.03.14	Capital injection by issuance of 160 million shares of common stocks through private placement were terminated before the expiry date on June 21, 2018.	The motion was approved unanimously.	The motion was approved by all present directors unanimously, and submitted to the general shareholders' meeting for discussion on June 20, 2019.
2-18 2019.03.14	The issuance of new common shares for cash to sponsor issuance of the global depository receipt and/or issuance of new common shares for cash in private placement.	The motion was approved unanimously.	The motion was unanimously agreed and executed by all present directors.

Term/___st/nd/rd/th time Date	Contents of motion	Resolution of Audit Committee	the Company's (the board of directors') handling of Audit Committee's opinion
2-18 2019.03.14	Amendments to "Procedures for Loaning Funds to Other Parties," "Procedures for Endorsements and Guarantees," and "Acquisition or Disposal Procedures of Asset" in part.	The motion was approved unanimously.	The motion was approved by all present directors unanimously, and submitted to the general shareholders' meeting for discussion on June 20, 2019.
2-18 2019.03.14	To release the 10 <sup>th</sup> new Directors Biing-Jye Lee, Chih-Yuan Chen, Nan Yang Wu and Chin-Yung Fan non-competition restrictions.	The motion was approved unanimously.	The motion was approved by all present directors unanimously, and submitted to the general shareholders' meeting for discussion on June 20, 2019.
2-18 2019.03.14	Endorsement of Episky Corporation (Xiamen) Ltd.	The motion was approved unanimously.	The motion was unanimously agreed and executed by all present directors.
2-19 2019.05.06	Approved the total amount of the Company's fund which was lent to subsidiary Episky Corporation (Xiamen) shall not exceed RMB\$200 million in total (or the equivalent amount in USD)	The motion was approved unanimously.	The motion was unanimously agreed and executed by all present directors.
2-19 2019.05.06	Endorsement of Episky Corporation (Xiamen) Ltd., Jiangsu Canyang Optoelectronics Ltd., Unikorn Semiconductor Corporation, and Yenrich Technology Corporation.	The motion was approved unanimously.	The motion was unanimously agreed and executed by all present directors.
3-2 2019.08.08	Evaluate the independence, eligibility, and contents of service and remuneration 2019 about appointment of Ya-Huei Cheng and Chih-Cheng. Hsieh, CPAs.	The motion was approved unanimously.	The motion was unanimously agreed and executed by all present directors.
3-2 2019.08.08	Amendments to "Statement of Declaration on Internal Control" in part.	The motion was approved unanimously.	The motion was unanimously agreed and executed by all present directors.
3-2 2019.08.08	Endorsement of Episky Corporation (Xiamen) Ltd., Jiangsu Canyang Optoelectronics Ltd., Unikorn Semiconductor Corporation.	The motion was approved unanimously.	The motion was unanimously agreed and executed by all present directors.
3-2 2019.08.08	Approved the total amount of the Company's fund which was lent to subsidiary Episky Corporation (Xiamen) and Unikorn Semiconductor Corporation shall not exceed RMB\$100 million in total (or the equivalent amount in USD) and TWD \$300 million.	The motion was approved unanimously.	The motion was unanimously agreed and executed by all present directors.
3-2 2019.08.08	Proposed distribution of directors and employees' remuneration for 2019.	The motion was approved unanimously.	The motion was unanimously agreed and executed by all present directors.

- (2) There were no other resolutions that were not approved by the Audit Committee but were approved by two thirds or more of all directors in 2019.
3. There were recusals of independent directors due to conflicts of interests in 2019: None.
4. Descriptions of the communications between the independent directors, the internal auditors, and the independent auditors in 2019:
- (1) Mode of communication
- A. The Company's internal audit officer would report the audit affairs to independent directors at the Audit Committee meeting periodically, and communicate with the committee members about the audit results and status of his follow-up report.
- B. The Company's external auditor would report to independent directors on the result of review or audit on the financial statements of the Company and its domestic/foreign subsidiaries and status of audit on internal control at the Audit Committee's quarterly meeting.

(2) Summary of the communication between independent directors and internal audit officer

The Company's independent directors had fair communication about status and result of the audit affairs. The communication in 2019 was outlined as following:

Date	Points of communication	Communication result
2019.03.14	1. Internal audit report of Q4 in 2018 2. "Statement of Declaration on Internal Control System" 2018 3. Evaluation of adjustments relating to the introduction of IFRS16 to the internal control process	None
2019.05.06	1. Internal audit report of Q1 in 2019 2. Amendments to the operating procedures governing transactions with related persons and group enterprises	None
2019.08.08	1. Internal audit report of Q2 in 2019 2. Amendments to the internal controls for "Investment Cycle" and "Financing Cycle"	None
2019.11.08	1. Internal audit report of Q3 in 2019 2. Audit plan in 2020	None

(3) Summary of the communication between independent directors and the external auditor

The Company's independent directors had fair communication with the external auditor. The communication in 2019 was outlined as following:

Date	Points of communication	Communication result
2019.03.14	1. The report on the audit result of the Company's consolidated and individual financial statements and audit on internal control in 2018. 2. Overview of the new external auditor's report and notes to key audit matter (KAM). 3. Communication with the corporate governance unit. 4. CPA responds and explains the problems of the audit committee. 5. External auditor's independence.	The financial statements have been passed by the Audit Committee, submitted to the Board of Directors for approval, and made public as scheduled and reported to the competent authority.
2019.05.06	1. The report on the audit result of the Company's consolidated financial statements and audit on internal control of Q1 in 2019. 2. Overview of the new external auditor's report and notes to key audit matter (KAM). 3. Communication with the corporate governance unit at the stage of completion. 4. CPA responds and explains the problems of the audit committee. 5. External auditor's independence.	The financial statements have been passed by the Audit Committee, submitted to the Board of Directors for approval, and made public as scheduled and reported to the competent authority.

Date	Points of communication	Communication result
2019.08.08	<ol style="list-style-type: none"> <li>1. The report on the audit result of the Company's consolidated a financial statements and audit on internal control of Q2 in 2019.</li> <li>2. Overview of the new external auditor's report and notes to key audit matter (KAM).</li> <li>3. Communication with the corporate governance unit.</li> <li>4. CPA responds and explains the problems of the audit committee.</li> <li>5. External auditor's independence.</li> </ol>	<p>The financial statements have been passed by the Audit Committee, submitted to the Board of Directors for approval, and made public as scheduled and reported to the competent authority.</p>
2019.11.08	<ol style="list-style-type: none"> <li>1. The report on the audit result of the Company's consolidated a financial statements and audit on internal control of Q3 in 2019.</li> <li>2. Overview of the new external auditor's report and notes to key audit matter (KAM).</li> <li>3. Communication with the corporate governance unit.</li> <li>4. CPA responds and explains the problems of the audit committee.</li> <li>5. External auditor's independence.</li> </ol>	<p>The financial statements have been passed by the Audit Committee, submitted to the Board of Directors for approval, and made public as scheduled and reported to the competent authority.</p>

3.3.3 Status of corporate governance, departures from the Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures

Assessment Item	Implementation Status		Departures from the Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
1. Does the Company follow "Corporate Governance Best Practice Principles for TWSE/TPEX Listed Companies" to establish and disclose its corporate governance principles?	✓		Please see the Relationship with Investor on the Company's official website or M.O.P.S.
2. Shareholding Structure & Shareholders' Rights (1) Does Company have Internal Operation Procedures for handling shareholders' suggestions, concerns, disputes and litigation matters. If yes, has these procedures been implemented accordingly? (2) Does Company possess a list of major shareholders and beneficial owners of these major shareholders? (3) Has the Company built and executed a risk management system and "firewall" between the Company and its affiliates? (4) Has the Company built and executed a risk management system and "firewall" between the Company and its affiliates?	✓ ✓ ✓ ✓		None None None None

Assessment Item	Implementation Status		Departures from the Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
			employees to undergo education and training at various times (please refer to Page 120 herein). At the time of publication, the Company has received no complaints relating to the aforementioned matters and there were no incidents of insider trading in violation of Article 157 of the Securities and Exchange Act.
3. Composition and Responsibilities of the Board of Directors (1) Has the Company established a diversification policy for the composition of its Board of Directors and has it been implemented accordingly? (2) Other than the Remuneration Committee and the Audit Committee that are required by law, does the Company plan to set up other Board committees? (3) Has the Company established regulations governing board performance evaluation and the method of evaluation? Are performance evaluations conducted every year with the outcomes of the performance evaluation reported to the Board of Directors and used as a reference in deciding the remuneration of individual directors and their nomination for re-appointment?	✓	✓	None  Same as explanation.  Same as explanation.



Assessment Item	Implementation Status		Departures from the Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
(4) Does the Company regularly evaluate its external auditors' independence?	✓		<p>Meanwhile, with respect to the Company's related annual policies, Remuneration Committee would periodically review the policies, systems, standards, and structures for performance evaluation and remuneration for directors and managerial officers. The employee performance evaluation system should be combined with corporate social responsibility policies. The remuneration to directors, presidents and insiders would be reviewed by the Committee periodically each year and submitted to the board of directors for discussion and resolution.</p> <p>The motion for evaluation on the independence, eligibility, and contents of service and remuneration 2019 about appointment of Ya-Huei Cheng and Chih-Cheng Hsieh, CPAs conducted by the Company once a year was approved upon resolution of the Audit Committee and board of directors on August 8, 2019. The evaluation procedure for independence and eligibility is summarized as following:</p> <ol style="list-style-type: none"> <li>1. The CPA has no direct or indirect financial interest relationship with the Company.</li> <li>2. The CPA has no financing or guarantee relationship with the Company or the Company's directors.</li> <li>3. The CPA has no close business relationship and potential employment relationship with the Company.</li> <li>4. The CPA and its audit team members do not hold, or didn't hold in the most recent two years, the position as director or managerial officer of the Company or any position that has significant influence on the audit.</li> <li>5. The CPA doesn't provide any non-auditing services that might affect the audit directly.</li> <li>6. The CPA doesn't act as a broker of the stock or other securities issued by the Company.</li> <li>7. The CPA doesn't act as the Company's advocate, or settle the dispute between the Company and a third party on behalf of the Company.</li> </ol> <p style="text-align: center;">None</p>

Assessment Item	Implementation Status		Departures from the Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
4. If a TWSE/TPEX listed company, is there an adequate number of corporate governance personnel, and a chief corporate governance officer appointed in charge of corporate governance affairs (including but not limited to furnishing information required for business execution by directors and supervisors, assisting directors and supervisors with legal compliance, handling matters relating to board meetings and shareholders meetings in accordance with the law, and producing minutes of boarding meetings and shareholders meetings)?	✓		None
			8. The CPA has no kinship relationship with any of the Company's directors or managerial officers, or any persons who hold the position that might affect the audit materially. The corporate governance unit would maintain the fair two-way communication with the team delegated by the CPA firm and related unit periodically. The CPA's audit/review also complies with the independence requirements defined in the Bulletin of Norm of Professional Ethics for Certified Public Accountant of the Republic of China No. 10 to ensure reliability of the public financial information, communicate the auditors' work, and verify the Company's material risk and the management's approaches to mitigate risk. Since the Company's "Corporate Governance Best-Practice Principles" passed by the Board of Directors on August 6, 2015, Mr. Shih-Shieh Chang has held the position as the Corporate Governance Officer concurrently. Upon approval of the Board of Directors on March 14, 2019, the Company assigned the corporate governance unit officially and appointed VP Shih-Shieh Chang to hold the position as Corporate Governance Officer concurrently. All of the staff dedicated in processing related affairs hold the experience in holding the position as the management at the legal affairs, finance, shareholders service or corporate governance units in securities, financial and futures firms or public companies for at least three years, which afford to ensure their effective exercise of duties about corporate governance free from any conflict of interest or violations of the internal control system. In 2019, the relevant practices include the following, which were all held complying with laws: 1. Conducting the related matters of board meeting and shareholders meeting according to the law. 2. Taking the meeting minutes of board meeting and shareholders meeting. 3. Assisting the directors in onboarding and continuous education. 4. Providing the directors with the information relating to perform the duties. 5. Assisting the directors to comply with the law and regulation. 6. Other matters listed in articles of incorporation or contracts.

Assessment Item	Implementation Status		Departures from the Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
			To assist in reminding directors when they execute the business or approving a formal resolution during Board of Directors meeting, they should comply with the laws and regulations and related suggestions. Responsible for reviewing the important information releasing issues over vital resolutions of the board of directors meeting and ensure the lawfulness and correctness of the published contents in a timely manner after the board of directors meeting to protect investors' right on equivalence of transaction information. VP Shih-Shieh Chang will continue to attend the continuing education and training about corporate governance. For details, please refer to Pages 72~73 herein. The additional details, if any, will be disclosed on the Company's official website.
5. Has the Company established a means of communicating with its Stakeholders or created a Stakeholders Section on its Company website? Does the Company respond to stakeholders' questions on corporate responsibilities?	✓		The Company's has set up the stakeholder section on its official website. The up-stream suppliers or contractors outside the organization may verify the laws and regulations related to products through procurement. Customers may verify the status of the Company and products via the customer service mailbox/hotline/sales representatives. The other stakeholders, such as investors/banks/government authorities, may follow up the Company's latest financial information or other information via the Company's official website, TV interview and media report. The stakeholders may contact the Company via the following website: <a href="https://www.epistar.com/EpistarTw/contact">https://www.epistar.com/EpistarTw/contact</a>
6. Has the Company appointed a professional registrar for its Shareholders' Meetings?	✓		The professional shareholder service agent, Horizon Securities, was appointed to handle the affairs related to shareholders' meetings on behalf of the Company. Shareholder Service Agency department of Horizon Securities is also commissioned to tally and verify the proxies on behalf of the Company.
7. Information Disclosure (1) Has the Company established a corporate website to disclose information regarding its financials, business and corporate governance status?	✓		The Company's homepage has set up the sections exclusive for investors' shareholder service and customer service. The related messages may be accessed in the news and CSR sections.

Assessment Item	Implementation Status		Departures from the Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
<p>(2) Does the Company use other information disclosure channels (e.g. maintaining an English-language website, designating staff to handle information collection and disclosure, appointing spokespersons, webcasting investors conference etc.)?</p> <p>(3) Did the Company publish and report its annual financial report within two months after the end of a financial year, and publish and report its financial reports for the first, second, and third quarters as well as the operating status for each month before the specified deadline?</p>	✓		None
<p>8. Has the Company disclosed other information to facilitate a better understanding of its corporate governance practices (e.g. including but not limited to employee rights, employee wellness, investor relations, supplier relations, rights of stakeholders, directors' training records, the implementation of risk management policies and risk evaluation measures, the implementation of customer relations policies, and purchasing insurance for directors)?</p>	✓		<p>Publication and reporting before the specified deadline will depend on the overall availability of company manpower.</p> <p>None</p>
			<p>● The Company has set up the English version of its homepage.</p> <p>● Dedicated personnel designated to collect information and periodically update the homepage.</p> <p>● Contact information including the spokesman system rider@epistar.com; robin_yu@epistar.com</p> <p>● Search the information about investor conferences</p> <p>● Visit the official website: IR/Financials/Investor Conference</p> <p>The compilation of the 2019 annual financial report was completed by the Company by the end of February 2020. It was then signed off by the chairman, managerial officers, and chief accounting officer before being submitted to the Board of Directors at the end of February 2020 and approved. The publication and reporting of the annual financial report was also completed at the same time. Due to time constraints, the early release of financial reports for the first, second and third quarters as well as the operating status for each month will depend on the overall availability of company manpower.</p> <p>● Employee's interests and rights &amp; employee care: Please see the section about management-labor relationship in the annual report (Pages 116~124).</p> <p>● The Company has established the Investor Relations department, and posted the contact information thereof on the Company's official website. The department is dedicated to processing shareholders' suggestions and answering investors' questions.</p> <p>● Suppliers are identified as the important partners helping the Company's sustainable development, as the Company works with the suppliers to achieve the win-win situation and pursue the corporate sustainability and growth jointly. In 2018, the Company enacted the supplier management procedures and supplier evaluation operating procedure, and had the procurement, quality and related units appraise the suppliers' quality, competitiveness, delivery period and prohibition from using hazardous substances. The evaluation result served as the basis for management of the risk over suppliers. The supplier quality system evaluation categorized the suppliers into four grades, namely A</p>

Assessment Item	Implementation Status		Departures from the Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
			<p>(≥90 points), B (≥75~&lt;90 points), C (≥60~&lt;75 points) and D (less than 60 points). If the evaluation result showed Grade C, it would be necessary to strengthen the counseling and improvement with respect to the supplier's management team, and then give scores after the counseling. If the supplier still failed to attain Grade B, it should be identified as Grade D supplier. In 2019, the Company adjusted the frequency of audit and added the audits on the equipment/spare parts suppliers in response to the requirements under IATF. As a result, the Company completed the evaluation on a total of 65 suppliers, including 4 Grade A suppliers who were held qualified and excellent, 60 Grade B suppliers and 1 Grade D supplier. A score of less than 60 indicates a high level of risk in the production environment and operating method. Such suppliers are to be removed and barred from future transactions.</p> <ul style="list-style-type: none"> <li>● The Company has established the stakeholder section. For the time being, the Company identifies 7 major stakeholders, including employees, shareholders/investors/bank, corporate accounts, contractors, suppliers, governmental authorities and outsourcers, et al., who may keep in touch with the Company or submit any suggestions and complaints via various communication channels.</li> <li>● For the status of directors' continuing education, please see Pages 70~72 of the annual report.</li> <li>● For the risk management policies, et al., please see Chapter 7. Review of Financial Conditions, Financial Performance, and Risk Management Pages 142~144, "Information Security Management Review Committee" Pages 151~155, and "Trade Secrets Committee" Pages 155~156.</li> <li>● With respect to health and safety of the product, marketing communication, customers' satisfaction, compliance with laws and customers' privacy, the customers may utilize questionnaire, customer service email box, customers' satisfaction survey and the Company's official website, et al. Meanwhile, the operating center's staff may visit customers or attend related fairs from time to time to facilitate a better understanding of customers and the market</li> </ul>

Assessment Item	Implementation Status		Departures from the Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
		<p>development orientation.</p> <ul style="list-style-type: none"> <li>● For the Company's purchase of product liability insurance for directors and other important information to facilitate a better understanding of the Company's corporate governance practices, please see Pages 70~74 of the annual report, or access the information in the following manner: IR: rider@epistar.com, robin_yu@epistar.com CSR: csr@epistar.com Customer service: sales@epistar.com</li> </ul>	
<p>9. The improvement status for the result of Corporate Governance Evaluation announced by Taiwan Stock Exchange:</p> <p>(1) According to the result of Corporate Governance Evaluation of the 5<sup>th</sup> term announced by Taiwan Stock Exchange, the Company was one of the companies ranking in the first 6%~20%. Notwithstanding, the result of Corporate Governance Evaluation of 6<sup>th</sup> term has not yet been announced before the date of publication of the annual report.</p> <p>(2) The Company has assigned the corporate governance unit. Vice President Shih-Shieh Chang holds the position as Corporate Governance Officer responsible for supervising the unit. All of the staff dedicated in processing related affairs held the experience in managing legal affairs, finance and shareholders service in public companies for at least three years.</p> <p>(3) All of the directors have completed the continuing education of the hours required under the "Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE Listed and TPEX Listed Companies" in 2019.</p> <p>(4) The directors' meeting called by the Company will be pre-arranged annually. Where it is impossible for any directors to attend the meeting, the director may still communicate and understanding the related motion in advance and issue a proxy to express his/her opinion. Where the directors' meeting date is changed temporarily, the Company will try its best to set the meeting on the date on which the director might be available to increase the whole directors' attendance rate.</p>			

### 3.3.4 Remuneration Committee

#### 3.3.4.1 Remuneration Committee Members' Professional Qualifications and Independent Analysis

According to the relevant requirements set by Taiwan's Securities and Futures Bureau, the professional qualifications and independence status of the Company's Remuneration Committee members are listed in the table below.

Name Title/Criteria	Meet the Following Professional Qualification Requirements, Together with at Least Five Years Work Experience		Criteria (Note)										Number of Other Taiwanese Public Companies Concurrently Serving as a Remuneration Committee Member in Taiwan	
	An Instructor or Higher Position in a Department of Commerce, Law, Finance, Accounting, or Other Academic Department Related to the Business Needs of the Company in a Public or Private Junior College, College or University	A Judge, Public Prosecutor, Attorney, Certified Public Accountant, or Other Professional or Technical Specialists Who Has Passed a National Examination and Been Awarded a Certificate in a Profession Necessary for the Business of the Company	Have Work Experience in the Area of Commerce, Law, Finance, or Accounting, or Otherwise Necessary for the Business of the Company	1	2	3	4	5	6	7	8	9		10
Feng-Shang Wu Independent Director	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0
Wei-Min Sheng Independent Director	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1
Chi-Yen Liang Independent Director			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	3

Note: Remuneration Committee Members, during the two years before being elected or during the term of office, meet any of the following situations, please tick the appropriate corresponding boxes:

- Not an employee of the company or any of its affiliates;
- Not a director or supervisor of the company or any of its affiliates (excluding independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, a public company and its parent or subsidiary or a subsidiary of the same parent.)
- Not a natural-person shareholder who holds shares, together with those held by the person's spouse, minor children, or held by the person under others' names, in an aggregate amount of one percent or more of the total number of issued shares of the company or ranks as one of its top ten shareholders;
- Not a spouse, relative within the second degree of kinship, or lineal relative within the third degree of kinship, of a managerial officer under (1) or any of the persons listed in (2) and (3).
- Not a director, supervisor, or employee of a corporate shareholder that directly holds five percent or more of the total number of issued shares of the company, or that ranks among the top five in shareholdings, or that designates its representative to serve as a director or supervisor of the company under Article 27, paragraph 1 or 2 of the Company Act (excluding independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, a public company and its parent or subsidiary or a subsidiary of the same parent).
- Not a director, supervisor, or employee of another company if a majority of the company's director seats or voting shares are controlled by the same person (excluding independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, a public company and its parent or subsidiary or a subsidiary of the same parent).
- Not a director, supervisor, or employee of another company or institution where the chairperson, general manager, or person holding an equivalent position of the company and a person in any of those positions at the other company or institution are the same person or are spouses (excluding independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, a public company and its parent or subsidiary or a subsidiary of the same parent).

8. Not a director, supervisor, officer, or shareholder holding five percent or more of the shares, of a specified company or institution that has a financial or business relationship with the company, (excluding independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, a public company and its parent or subsidiary or a subsidiary of the same parent, where the specified company or institution holds 20 percent or more and no more than 50 percent of the total number of issued shares of the public company).
9. Not a professional individual who, or an owner, partner, director, supervisor, or officer of a sole proprietorship, partnership, company, or institution that, provides auditing services to the company or any affiliate of the company, or that provides commercial, legal, financial, accounting or related services to the company or any affiliate of the company for which the provider in the past 2 years has received cumulative compensation exceeding NT\$500,000, or a spouse thereof. This restriction does not apply to a member of the remuneration committee, public tender offer review committee, or special committee for merger/consolidation and acquisition, who exercises powers pursuant to the Securities and Exchange Act or to the Business Mergers and Acquisitions Act or related laws or regulations.
10. Not been a person of any conditions defined in Article 30 of the Company Act.

### 3.3.4.2 Remuneration Committee Meeting Status

(1) The Company's Remuneration Committee consists of 3 members for the time being, who are all independent directors.

(2) The current members shall hold the position from June 20, 2019 until June 19, 2022 (same as the Board of Directors of 10<sup>th</sup> term). In 2019, the Remuneration Committee has held 3 (A) meetings. The members' attendance is stated as following:

Title	Name	Attendance in Person (B)	By Proxy	Attendance Rate in Person (%) (B/A)	Note
Chair	Feng-Shang Wu	3	0	100.0%	Note 1
Member	Wei-Min Sheng	3	0	100.0%	Note 1
Member	Chi-Yen Liang	3	0	100.0%	Note 1

Note 1: The Board was appointed and renewed on June 20, 2019.

(3) Important resolutions and status thereof

Term/___st/nd/rd/th time Date	Contents of motion	Independent director's opinion	the Company's handling of independent director's opinion
3-10 2019.03.14	<ul style="list-style-type: none"> <li>● Formulated the "Regulations Governing the Resignation or Retirement of Appointed Managers and Directors that are Also Employees."</li> <li>● Mr. Ming-Jiunn Jou filed an application for retirement.</li> <li>● Motion for proportion of allocation of remuneration to directors and employees in 2019. 【2% for remuneration to directors; 15% for remuneration to employees】</li> <li>● Suggestion on salary for the Corporate Governance officer, Shih-Shieh Chang.</li> <li>● Suggestions on raise for managers in 2020.</li> </ul>	Approved by all members unanimously.	Approved by the Board of Directors.
4-1 2019.08.08	<ul style="list-style-type: none"> <li>● Allocation of remuneration to directors in 2019. 【Not higher than 2% for remuneration to directors】</li> <li>● Salary and remuneration to directors.</li> </ul>	Approved by all members unanimously.	Approved by the Board of Directors.
4-2 2019.12.12	Suggestions on raise and reward policy for managers in 2020.	Approved by all members unanimously.	Approved by the Board of Directors.



Annotation :

- There was no recommendation of the Remuneration Committee that was not adopted or was modified by the Board of Directors.
- There were no written or otherwise recorded resolutions on which a member of the Remuneration Committee had a dissenting opinion or qualified opinion.
- The Company will take the salary level and economic trend in the market into account when adjusting employees' salary based on the Company's operating performance and personal performance each year. In the past, the range of raise was used to be higher than the market value, in order to shorten the gap between the market value and benchmark price. Nonetheless, since the gap has been shortened, the range of raise was suggested to be based on the market value. Meanwhile, the incentive compensation for variability was provided as the incentive tool, and a raise would be offered at the same time when any employee was promoted in order to encourage excellent talents.

3.3.5 Status of corporate social responsibility and any variance from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and the reasons for any such variance

Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
1. Has the Company carried out a risk assessment of environmental, social and corporate governance-related issues based on the principle of materiality, and establish related risk management policies or strategies? (Note: Principle of materiality refers to environmental, social and corporate governance issues that have a material impact on investors and other stakeholders. )	✓		None
			The Company has formulated relevant risk management strategies and objectives from three vital perspectives by Economics, Environment, and Social related to fulfill the corporate governance, develop a sustainable environment, maintain social welfare, and strengthen disclosure of information about corporate social responsibility. Meanwhile, the CSR compilation team is engaged in compiling the CSR report via communication with stakeholders, reorganize the issues of concern to the representatives of relevant departments to participate in the promotion and implementation and delivering feedbacks of the implementation status, and the executive secretary regularly reports to the convener to review the effectiveness of the operation. The Stakeholders' issues of concern of 2019, the company's management strategies, goals, and implementation status, please refer to the CSR report.

Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
2. Does the Company have a dedicated (or ad-hoc) CSR organization with Board of Directors authorization for senior management, which reports to the Board of Directors?	✓		None
			<p>The Human Resources Center is responsible for promoting Corporate Social Responsibility. Each functional unit sends representatives to form the "Corporate Social Responsibility Group" (see page 60~62 for the members and job positions of each group), during the period from December to April every year, more than 6 corporate social responsibility discussion meetings were held to recognize annual stakeholders, major issues, and review the performance of major issues of various units. In order to implement corporate social responsibility continually, in addition to formulating long-term plans for corporate governance, developing sustainable environment, and safeguarding social welfare, the group also referencing the status under the annual target every year to further adjust the short and medium-term goals, the stakeholders' concerns were collected and reported to the board of directors (held on December 12, 2019) for the year's implementation and the new year's work plan at the end of the year, the setting of the project objectives are reviewed and amended at the first meeting of the next year after the budget approved by the board of directors then promoted after the convener approved. The Corporate Social Responsibility Report (CSR) issued since 2014 has been verified by the British Standards Association Taiwan Branch (BSI) every year and meets the standards of GRI G3.1 A + and AA1000AS 2008 "Award", and be awarded the CSR award - "Taiwan Corporate Sustainability Awards".</p>

Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
<p>3. Environmentally</p> <p>(1) Is the Company committed to improving resource efficiency and to the use of renewable materials with low environmental impact?</p>	✓		None
<p>(2) Has the Company set an Environmental management system designed to industry characteristics?</p>	✓		None

Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
(3) Has the Company conducted an assessment potential risks and opportunities from climate change on the business now and in the future, and adopted measures in response to climate-related issues?	✓		<p>environmental protection in detail and completely. The data analysis output from the system may also serve as the basis for investment or management to enable the Company to consider the entire environmental management performance comprehensively, in hopes of achieving the purpose of environmental protection sustainability in the most economic and effective manner.</p> <p>The position of “Corporate Social Responsibility Executive Secretary” was established by the Company to support the effective management of climate change. Governance of climate risks and opportunities was also applied to the management of company operations and assets. Climate-related risks and opportunities were also assessed in terms of their level of impact on company operations and probability.</p> <p>The Company’s assessment determined the following potential risks and opportunities from climate change on our business now and in the future:</p> <ol style="list-style-type: none"> <li>1. Potential risks (regulatory risk and water shortage risk) <ul style="list-style-type: none"> <li>(1) Regulatory risk: In response to the regulatory risk from climate change, changes to the energy configuration of the Company’s business locations may lead to increased operating costs or capital expenditure.</li> <li>(2) Water shortage risk: In response to the water shortage risk from climate change, the Company’s need to routinely contract for water tankers on stand-by increases operating costs</li> </ul> </li> </ol>

Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
		<p>Summary</p> <p>2. Potential opportunities (product and service opportunities)</p> <p>Climate change has raised global awareness on energy conservation and environmental protection issues. Climate change adaptation may however also create unlimited opportunities for the Company through increasing resource utilization, cost reduction, use of low-carbon energy, development of new products and services, entry into new markets, and improved supply chain resilience, etc. The technology for miniaturization of luminous-efficacy LEDs represents a business opportunity for Mini LED and Micro LED. Epistar's cutting-edge technology, vertical integration and strategic partners may provide a return on investment, place the Company in a position of strength for sustainable development, and maximize returns for shareholders.</p> <p>In the face of global climate change and massive shifts in the ecological environment, Epistar must take ownership on environmental protection as a part of the global village. A UN report placed Taiwan in the high-risk category of climate change. The main risk from climate change induced by global warming is the cycle between torrential rains and extreme drought. Even if there is no change in total precipitation, this exposes Taiwan to the risk of water shortages every year. The Company has taken the following measures to reduce business risks from climate change and increase product competitiveness:</p>	

Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures	Implementation Status		Assessment Item							
Summary	<table border="1"> <tr> <td>Flood prevention</td> <td>To prevent torrential rains from climate change impacting on production at our plants, disaster mitigation was implemented through the installation of flood gates at driveway entrances and key workshops vulnerable to flooding. Flood prevention plans and standard operating procedures were also established with regular disaster prevention exercises conducted every year as operation of the flood gates and setting up flood prevention pumps at plants.</td> </tr> <tr> <td>Increased water recovery</td> <td>Large amounts of purified water are needed during the production process for washing chips. Water can be reclaimed from some of the processes to improve re-use rate.</td> </tr> <tr> <td>Water planning during water shortages</td> <td>Water restrictions imposed by the water utility may affect some or all of the production capacity at a plant. When a notice is issued by the water utility that the water supply will run at reduced pressure or turned off, if a plant's water storage is below the safe level then water tankers are immediately activated for replenishment. Water restrictions are also imposed for non-production activities. The Epistar Drought Water Restriction - Emergency Response Plan is divided into the several phases: Observation, Response, Crisis Management and Recovery. Different actions are taken in each phase to reduce their impact on customers.</td> </tr> </table>	Flood prevention		To prevent torrential rains from climate change impacting on production at our plants, disaster mitigation was implemented through the installation of flood gates at driveway entrances and key workshops vulnerable to flooding. Flood prevention plans and standard operating procedures were also established with regular disaster prevention exercises conducted every year as operation of the flood gates and setting up flood prevention pumps at plants.	Increased water recovery	Large amounts of purified water are needed during the production process for washing chips. Water can be reclaimed from some of the processes to improve re-use rate.	Water planning during water shortages	Water restrictions imposed by the water utility may affect some or all of the production capacity at a plant. When a notice is issued by the water utility that the water supply will run at reduced pressure or turned off, if a plant's water storage is below the safe level then water tankers are immediately activated for replenishment. Water restrictions are also imposed for non-production activities. The Epistar Drought Water Restriction - Emergency Response Plan is divided into the several phases: Observation, Response, Crisis Management and Recovery. Different actions are taken in each phase to reduce their impact on customers.	<table border="1"> <tr> <td>YES</td> <td>NO</td> </tr> </table>	YES
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YES	NO									

Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures				
	YES	NO					
<p>(4) Has the Company calculated its greenhouse gas emissions, water consumption and total amount of waste in the past two years, and formulated policies on energy conservation and carbon reduction, greenhouse gas reduction, as well as the reduction of water consumption and other wastes?</p>	✓	<table border="1"> <tr> <td>Emphasis on water shortage emergency exercises</td> <td>Water shortage emergency exercises are conducted every year. Exercises are also organized for replenishing the plant's industrial water supply.</td> </tr> <tr> <td>Energy conservation and carbon reduction</td> <td>Power and water conservation plans are implemented every year to protect the environment and do our part for the planet.</td> </tr> </table> <p>The Company places great emphasis on environmental protection. The top priority is "Prevention of pollution, upgrading of energy utilization efficiency, creation of sustainable operations, and fulfillment of corporate social responsibility." Measures taken include consolidation and reduction, efficiency upgrades, continuous improvement, recycling and reuse, low-carbon management, and green procurement. Since 2008, the Company has participated in the Greenhouse Gas ("GHG") project of TOSIA by auditing the greenhouse gas emissions of Company plants in accordance with the ISO 14064-1 standard. Our audits and outcomes were also verified by certification bodies. The Company is continuing to use the tools already in place to cooperate with TOSIA on the updating of GHG audit data.</p> <p>The Company responds to the energy-saving and carbon-reduction policy boosted by the government and deepens its awareness toward environmental protection by setting ten major key performance indicators for environmental protection and completing 2019 EPISTAR environmental protection performance baseline to discuss the descriptions about impact to environment by factory and draft the management programs to keep improving.</p>	Emphasis on water shortage emergency exercises	Water shortage emergency exercises are conducted every year. Exercises are also organized for replenishing the plant's industrial water supply.	Energy conservation and carbon reduction	Power and water conservation plans are implemented every year to protect the environment and do our part for the planet.	None
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Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
			<p>The Company's countermeasures:</p> <ul style="list-style-type: none"> <li>● Aspect of environmental protection expenditure: In 2019, in addition to the costs of factory existing control equipments and government fees, other major application descriptions were as follows : <ol style="list-style-type: none"> <li>1. Company's Fab N3: Extra-set up wastewater monitoring equipment in response to the demands of authorities.</li> <li>2. Company's Fab H1: Extra-set up air pollution control equipments in response to the demands of environmental protection regulations.</li> <li>3. Company's Fab S3: Extra-set up or modified environmental protection control equipments in response to the demands of environmental protection regulations and energy conserving improvement.</li> <li>4. Company's Fab S1/S3: Replaced air-conditioning equipment, lamps and lanterns, and expanded the capacity of the recycled water system to save energy.</li> </ol> </li> <li>● Greenhouse gas emission: The GHG emission in 2019 (169,412 ton CO<sub>2</sub>e) was increased by 7.25% from 2018 (182,656 tons CO<sub>2</sub>e); the GHG emission strength in 2019 declined by 30% from 2012.</li> </ul> <p>To better measure and manage our GHG emissions in order to reduce the business impact of climate change, an initial goal of reducing carbon emissions by 11,000 metric tons CO<sub>2</sub>e was set. We are now building a renewable energy system and working to complete the disclosure of Scope 3 GHG emissions in the CDP questionnaire in order to understand the structure of Epistar's GHG emissions and adjust our indicators in response to future climate change.</p>



Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
			<p>● Water usage: The water usage in 2019 (169,339.65 ton) was declined by 10.76% from 2018 (188,925.95 ton); the water usage strength in 2019 declined by 32% from 2012. Major increases in production capacity at Epistar have led to corresponding investments in water recycling facilities every year as well. Significant progress has been achieved with 600,919 m<sup>3</sup> of water recovered in 2019, accounting for 36.7% of all water consumption and an increase of 18.37% on 2018.</p> <p>● Aspect of pollution prevention: The amount of waste in 2019 was declined 12,217 tons by 2019 (10,313 ton); the amount of waste per unit output in 2019 increased by 72.5% from 2012; mainly due to the treatment of temporary waste in some plants, fab continuous optimization of production capacity and adjustment of annual production capacity.</p> <p>In terms of reducing raw material consumption and waste reduction, Epistar is increasing our recycling rate and reducing the amount of non-recyclable waste (requiring incineration, solidification and landfill) through the development of new vendors. We hope to continue decreasing the proportion of non-recyclable waste by increasing the proportion of recyclable waste. Our short term target is to recycle over 75% of all recyclable waste for 5 consecutive years (waste recycling rate has exceeded 75% for 4 consecutive years since 2015); our medium-term target is to recycle over 80% of all waste from 2020 onwards.</p>

Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
4. Society (1) Does the Company set policies and procedures in compliance with regulations and internationally recognized human rights principles?	✓		<p>Green products:            ● 100% compliance with Restriction of Hazardous Substances (RoHS) and Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Substances of Very High Concern (SVHC); establishment of Hazardous Substance Process Management (HSPM) system; acquisition of SONY Green Partner (GP) and ISO 14001 certification.</p> <p>The Company has always complied with internationally recognized labor rights such as freedom association, collective bargaining rights, looking after disadvantaged groups, prohibition of child labor, elimination of all forms of forced labor, and elimination of all forms of discrimination in recruiting and employment. We have verified that our human resources policy does not discriminate on the basis of gender, race, socio-economic status, age, marital status and family circumstances to ensure equality and fairness in terms of employment, working conditions, compensation, benefits, training, performance evaluation and opportunities for advancement.            The Company also provides effective and appropriate complaint mechanisms for labor rights grievances. Employee complaints also receive a suitable response to ensure impartiality and transparency of the complaints process. Human rights management policies and procedures will be drawn up by the Company in 2020 to fulfill our responsibility on protection of human rights and enhance corporate governance.</p>
			None

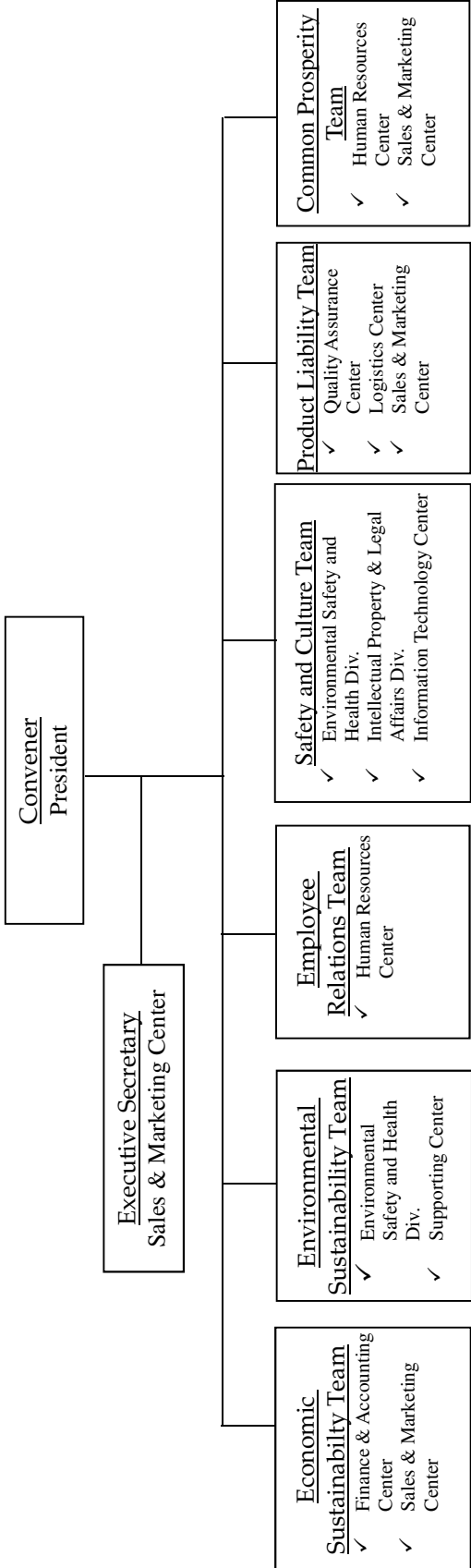
Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
(2) Has the Company established and implemented reasonable employee benefits (including remuneration, leave and other benefits), and is business performance or results appropriately reflected in employee remuneration?	✓		<p>The Company has stipulated rules and regulations to be followed for business partners of suppliers/contractors under the supplier management procedures and regulations governing safety &amp; health management, so that suppliers/contractors are required to comply with the relevant human rights provisions under Labor Standards Law, including the prohibition of child labor and forced labor. PLS refer to CSR report for reference.</p> <p>Remuneration Committee will set the employee reward and punishment system based on the Company's related annual policy and by combining the employee performance evaluation and corporate social responsibility policy, and includes the policies, systems, standards, and structures for remuneration into the remuneration policy for consideration.</p> <p>According to Article 20-1 of the Articles of Incorporation, the Company shall allocate 10%~20% of the profit for the given year, if any, as the remuneration to employees. The receivers of such remuneration shall include the employees of the Company's subsidiaries who meet certain specific requirements. In 2019 financial statement, it was estimated as 15%. Notwithstanding, as the Company suffered loss in 2019 and, therefore, no such remuneration was allocated.</p> <p>The Company will take the salary level and economic trend in the market into account when adjusting employees' salary based on the Company's operating performance and personal performance each year. In the past, the range of raise was used to being higher than the market value, in order to shorten the gap between the market value and benchmark price. Nonetheless, since the gap has been shortened, the range of raise was suggested to be based on the market value in 2019. Meanwhile, the incentive compensation for variability was</p>
			None

Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
(3) Does the Company provide employees with a safe and healthy working environment, with regular safety and health training?	✓		None
(4) Has the Company established effective career development training plans?	✓		None
(5) Does the Company comply with the relevant regulations and international standards on customer health and safety, customer privacy, marketing and labeling for its products and services? Has it established a consumer protection policy and complaints procedure?	✓		None

Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
(6) Has the Company defined a supplier management policy that requires suppliers to comply with the relevant guidelines on environmental protection, occupational health and safety, and human rights issues? How is the policy being implemented?	✓		<p>All Company sales personnel must sign a confidentiality agreement on customer data. Information security targets as well as complete information security management procedures and systems were also put into place. There has been no complaint due to violation of customer privacy or loss of customer data to date.</p> <p>Suppliers that have business dealings with the Company involving the integrity and confidentiality of information assets must first sign confidentiality agreements that also cover customer data. They then understand that all information they obtain while working for the Company are company assets and unauthorized use is not allowed.</p> <p>The information security team should ensure that suppliers under all of the information security requirements, identify all stakeholders that need to be notified of the "Information Security Declaration", and maintain record of notification and confirmation so that customer privacy can be maintained.</p> <p>The relevant complaints channel can be found on the Epistar website: <a href="https://www.epistar.com/EpistarTw/contact">https://www.epistar.com/EpistarTw/contact</a></p> <p>The Company has set up the contractor management system, and constructed the green value chain together with suppliers and vendors to upgrade the performance of environmental protection and safety &amp; health by sharing experience and improving cooperation, thus constructing a value chain of environmental sustainability, fulfillment of occupational safety &amp; health and mutual growth to be oriented toward the harmony relationship with environmental safety.</p> <p>The Company is aware of the concept about sustainable operations and from 2015 asks to extend the concept to the supply chain and introduces the "Supply Chain CSR Management Evaluation" to conduct the evaluation on new suppliers and existing suppliers in terms of the four aspects including environment, labor conditions, human right and impact to society, so as to enable suppliers to</p>

Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
			continue the improvement voluntarily and fulfill corporate social responsibilities. Please refer to the Epistar website for current implementation: <a href="https://www.epistar.com/EpistarTw/Csr2?Id=19&amp;vid=5&amp;cid=50">https://www.epistar.com/EpistarTw/Csr2?Id=19&amp;vid=5&amp;cid=50</a>
5. Did the Company refer to internationally accepted reporting standards or guidelines in preparing reports that disclose the Company's non-financial information such as the CSR Report? Did the aforementioned report obtain an assurance or guarantee statement issued by a third-party certification body?	✓		<ul style="list-style-type: none"> <li>● Obtained Taiwan Corporate Sustainability Awards (TCSA) Corporate Sustainability Report-Silver Award of Electronic Information Manufacturing Group in 2017 and 2019.</li> <li>● Obtained Taiwan Corporate Sustainability Report Award – First Class Report Gold Award 2019.</li> <li>● Obtained BSI Sustainability Award in 2019.</li> <li>● Obtained top 20 companies of Human Resource Agency “Happy corporate” – technology industry “Happy corporate” in 2019.</li> <li>● Obtained Taiwan i Sports – sport corporate certification in 2019.</li> </ul>
6. If the Company has established its corporate social responsibility code of practice according to “Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies”, please describe the operational status and differences.			None
Since the establishment of EPiSTAR, our core business has been “Actualizing LED Potential”. We continue to advance our research and develop new products, focusing on environmentally friendly products and optimizing chip process technology, allowing our LED to be applicable in various applications.			
<p><b>【Economic】</b></p> <p>In the past year, increased production capacity by other LED companies, the US-China trade conflict and weaker-than-expected market demand caused market prices to plummet. The 2019 consolidated revenue was therefore 21.4% lower than 2018; in 2020, the development of miniaturization technology for luminous-efficacy LEDs will begin to produce results and this will lead to an increasing number of new applications. There are still potential growth opportunities. For example, demand is increasing from the application of Mini LED to super-fine pitch high-end displays and monitors. LED’s penetration rate in automotive and other applications have continued to increase as well.</p> <p>The entire operating activities are closely related to stakeholders, which serve as the basis for the Company’s sustainability. The stakeholders may engage in effective communication with the Company via various channels.</p>			

Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
		Summary	
		<p><b>【Corporate Governance】</b>            EPiSTAR advocates and acts upon the principles of operational transparency and respect for shareholders' rights. We believe that one basis for successful corporate governance is a sound and effective Board of Directors. In line with this principle, the EPiSTAR Board of Directors delegates various responsibilities and authority to the two Board Committees, namely Audit Committee and Remuneration Committee. Each Committee has a written charter approved by the Board of Directors. Each Committee's chairperson regularly reports to the Board of Directors on the activities and actions of the relevant committee. The Audit Committee and Remuneration Committee consist solely of independent directors.            The Company also assigned one Corporate Governance Officer on March 14, 2019, who shall be responsible for supervising the corporate governance affairs.</p> <p><b>【Environment】</b>            EPiSTAR is the leading manufacturer of LED chips; therefore, we regard the environmental protection issue very seriously. Our energy consumption, raw material usage, water resource, greenhouse gas and many more all follow the P-D-C-A (Plan-Do-Check-Action) management mode and we continuously implement and improve environment protection programs. Energy conservations through lighting, air pressure and air conditioning and electric equipment all contribute to lower operating costs and in turn lowers impact on the environment. We hope that through energy conservation and process improvement, we can effectively lower our raw materials and energy consumption, increase energy efficiency and in turn create a sustainable corporate environment and protect the earth for our future generations.            Approved by the Board, we have allocated yearly budget, and in 2019, our expenditure was NTD 3.103 billion.            The Company has set the goal for energy saving and carbon reduction since 2012. The Company expects to reduce the emission of CO<sub>2</sub>e by 11,000 tons in 2020, equivalent to the carbon fixation of 1,100,000 trees for one year. By continuing to promote the energy saving and carbon reduction policy, the Company may attain the reduction of CO<sub>2</sub>e emission set by it, and also cut the operating cost in terms of corporate sustainability at the same time. Until the end of 2019, the Company has attained the reduction of CO<sub>2</sub>e emission by 9,338 tons, namely 84.9%.</p> <p><b>【Society】</b>            EPiSTAR provides competitive income, benefits, training, and planning for our employee's career development. We held many activities which promotes family relationships, exercise and health, and continuously to find balance between work and living, allowing our employees to be "happy at work, enjoy living."            In 2019, the Company's social public welfare program focused on the three major aspects, namely rural education, care for children and fostering of industrial development. The Company not only maintains the existing economic support but also hopes to lead more employees and other institutions to participate in the social public welfare to enhance the synergy of contribution to the society.</p>	

<p>Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures</p>	<p>Implementation Status</p>		<p>Assessment Item</p>
<p>Summary</p>	<p>YES</p>	<p>NO</p>	<p>7. Other important information to facilitate better understanding of the Company's implementation of corporate social responsibility:</p> <p>The Company's social participation is briefed as follows:</p> <ul style="list-style-type: none"> <li>● We were invited to participate in Hsinchu Science Park Bureau "Occupational safety &amp; health expert team— man-made hazard preventive consultation" and worked as leader and consultant in 2018. We helped 3 companies, and 6 sessions in total.</li> <li>● As a social citizen, we give back to the society and care for the community. We've participated in charitable events in low-profile including charitable donation of NT\$845,200, 500 X'mas gifts for children in rural areas, 282 second hand toys raised, and Epistar volunteer club activities record.</li> </ul> <p>The organization, members, and functions of the Corporate Social Responsibility Team are listed as following:</p> <p style="text-align: center;"><u>Organization of Corporate Social Responsibility Team</u></p>  <pre> graph TD     Convener[Convener President]     ExecSec[Executive Secretary Sales &amp; Marketing Center]     Convener --- ExecSec     Convener --- Econ[Economic Sustainability Team]     Convener --- Env[Environmental Sustainability Team]     Convener --- Emp[Employee Relations Team]     Convener --- Safety[Safety and Culture Team]     Convener --- Product[Product Liability Team]     Convener --- Prosperity[Common Prosperity Team]          Econ --- EconSub["✓ Finance &amp; Accounting Center ✓ Sales &amp; Marketing Center"]     Env --- EnvSub["✓ Environmental Safety and Health Div. ✓ Supporting Center"]     Emp --- EmpSub["✓ Human Resources Center"]     Safety --- SafetySub["✓ Environmental Safety and Health Div. ✓ Intellectual Property &amp; Legal Affairs Div. ✓ Information Technology Center"]     Product --- ProductSub["✓ Quality Assurance Center ✓ Logistics Center ✓ Sales &amp; Marketing Center"]     Prosperity --- ProsperitySub["✓ Human Resources Center ✓ Sales &amp; Marketing Center"]   </pre>



Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
Department	Functions		Stakeholder Category
Sales & Marketing Center (Executive Secretary)	Marketing and communication compliance, corporate social responsibility management, marketing media relations management, and social public welfare		Employees, Customers
Finance & Accounting Center	Social economic compliance, Risk management and disclosure of finance, capital of tax strategy, dividend policy, etc., and investor relations maintenance		Shareholders/Banks/Investors
Human Resources Center	Labor standards compliance, employees' codes of ethical conduct, human resource recruitment, training and career development, labor-management relations, and promotion of social public welfare		Employees
Environmental Safety and Health Div.	Environmental protection and occupational safety compliance, green production, environmental protection expenditure, occupational safety, culture and responsibility, and pollution prevention		Employees, Shareholders/Banks/Investors, Customers, Suppliers, Contractors, Governments
Supporting Center	Energy saving and carbon reduction, cleaner production		Employees, Shareholders/Banks/Investors, Customers, Suppliers, Contractors
Sales & Marketing Center	Social economic compliance, green products, service market, and Customers' privacy		Customers, Shareholders/Banks/Investors
Logistics Center	Social economic compliance, procurement policy, overview of supply chain, and management of materials and supply chain		Suppliers, Contractors
Quality Assurance Center	RoHS, REACH, international environmental protection regulations and product quality compliance, customer service and satisfaction, product safety and quality management		Customers, Suppliers, Subcontractors
Intellectual Property & Legal Affairs Div.	Social economic compliance, codes of ethical conduct, legal counseling, intellectual property right management, and the Company's confidential information		Employees, Customers, Shareholders/Banks/Investors, Governments
Information Technology Center	Information security compliance, customers' privacy, and information security		Employees, Customers, Shareholders/Banks/Investors

Assessment Item	Implementation Status		Departures from the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
<p>Human Resources Center officer and Corporate Governance Officer had reported the status of fulfillment of corporate social responsibility and ethical management in 2019 to the Board of Directors on December 12, 2019.</p> <ol style="list-style-type: none"> <li>In order to promote the corporate social responsibility, the president acts as the convener. In 2018, Sales &amp; Marketing Center acted as the executive secretary and disclosed the status of corporate social responsibility in the CSR report and on the Company's official website.</li> <li>For the ethical management, Human Resources Center is responsible for planning and executing the various functions and reporting the result and status of budget executed by it. The president also assigns related units to help establish the ethical management policy and prevention program from time to time, and disclose the status thereof in the CSR report and on the Company's official website.</li> </ol> <ul style="list-style-type: none"> <li>The Company acquires the following quality system certification and continues maintaining the same: ISO 9001 Certificate of Quality Management System ISO/TS 16949 Certificate of Automotive Industry Quality Management System SONY GP Certification</li> <li>The Company acquires the following ESH system certification and continues maintaining the same: Environmental Management System-ISO 14001 Greenhouse Gases Emissions-ISO 14064-1 Occupational Health and Safety Management System-OHSAS 18001 Taiwan Occupational Health and Safety Management System-TOSHMS/CNS 15506</li> </ul>		Summary	

3.3.6 Status of corporate social responsibility, and any variance from the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies and the reasons for any such variance

Assessment Item	Implementation Status		Departures from the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
<p>1. Establishment of Corporate Conduct and Ethics Policy and Implementation Measures</p> <p>(1) Has the Company established an ethical management policy approved by the Board, declared its ethical corporate management policies and procedures in its guidelines and external guidelines, as well as the commitment from its board and senior management to implement the policies?</p> <p>(2) Has the Company established a mechanism for evaluating the risk of unethical behavior? Do business activities with a higher risk of unethical behavior undergo regular analysis and assessments so that measures for the prevention of unethical behavior can be formulated, including at a minimum the behaviors defined under Article 7, Paragraph 2 of the "Ethical Corporate Management Best Practice Principles"?</p> <p>(3) Does the Company establish relevant policies that are duly enforced to prevent unethical conduct and provide implementation procedures, guidelines, consequence of violation, complaint procedures in such policies and with the aforementioned measures reviewed and updated on a regular basis?</p>	✓	✓	None
	✓	✓	None
	✓	✓	None

Assessment Item	Implementation Status		Departures from the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
			management best-practice principles, ethical code, operating procedure for prevention of insider trading and employees' complaining channels. For the relevant complaining mechanism, channel, and procedure please visit the Company's official website. These are also incorporated into the internal controls for random audits.
<p>2. Ethic Management Practice</p> <p>(1) Does the Company assess the ethics records of whom it has business relationship with and include business conduct and ethics related clauses in the business contracts?</p> <p>(2) Has the Company established a dedicated (part-time) unit supervised by the Board of Directors for the promotion of ethical corporate management that regularly (at least once a year) reports to the Board of Directors on its ethical management policy, precautions against unethical behavior, and implementation of oversight?</p>	<p>✓</p> <p>✓</p>		<p>None</p> <p>None</p>

Assessment Item	Implementation Status		Departures from the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
<p>(3) Does the Company establish policies to prevent conflict of interests, provide appropriate communication and complaint channels and implement such policies properly?</p> <p>(4) Has the Company established effective systems for both accounting and internal control to facilitate ethical corporate management? Do internal auditors devise and carry out audit plans based on risk assessments of unethical behavior to investigate non-compliance, or have CPAs been retained to conduct such audits?</p> <p>(5) Does the Company provide internal and external ethical conduct training programs on a regular basis?</p>	✓		None
	✓		None
	✓		None
<p>3. Implementation of Complaint Procedures</p> <p>(1) Does the Company establish specific complaint and reward procedures, set up conveniently accessible complaint channels, and designate responsible individuals to handle the complaint received?</p>	✓		None

Assessment Item	Implementation Status		Departures from the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
			<p>Summary</p> <ol style="list-style-type: none"> <li>1. Immediate supervisor</li> <li>2. Audit dept. supervisor, Human Resources Center/Employee Relations department supervisor or legal office &amp; intellectual property right supervisor</li> <li>3. The opinion response mechanism set up by the Company internally</li> <li>4. The channel available to stakeholders</li> <li>5. or other eligible personnel</li> </ol> <p>The opinion response mechanism not only offers the employees' complaining hotline but also sets up the opinion mailbox exclusive for employees. Employee Relations department acts as the dedicated unit responsible for organizing seminars for employees periodically, setting up the "being harassed while performing duties" hotline and mailbox, and organizing the "Heart Communication Meeting" chaired by President from time to time. Additionally, the complaint may be filed with Audit Department. Investor relations mailbox, CSR mailbox, customer service mailbox or channel available to stakeholders may serve as the external communication channel. The Company establishes ESH communication and consultation management procedure to enable the ESH management system to reach the consensus within the Company, and also establishes the ESH consultation and communication channel available to the Company's external stakeholders. Any complaint will be processed as a special case promptly, and the process thereof will be reported to the Chairman of Board. Given this, the Company's complaining channels are considered perfect.</p>

Assessment Item	Implementation Status		Departures from the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
(2) Has the Company established standard operating procedures for the investigation of complaints, what follow-up actions to take once an investigation is complete, and the relevant confidentiality mechanisms?	✓		Employee complaints and reports for offense are investigated in accordance with the relevant internal control procedures and the investigation committee is responsible for conducting investigations on relevant matters in a confidential manner and strictly protecting the reporters; unless otherwise provided by laws, the personal data and reporting materials provided by the reporters shall be kept confidential and we'll provide appropriate protective measures in accordance with the law to confirm that it has been dealt with by relevant protection mechanisms. Please refer to the section on "Whistleblower Mechanism and Whistleblower Protection" for more information.
(3) Does the Company adopt proper measures to prevent a complainant from retaliation for his/her filing a complaint?	✓		Strictly keep the complainant's identity, the process of investigation and related information confidential; if necessary, form a dedicated committee to conduct the related investigation. The members of investigation committee and relevant persons involved are required to keep confidential of the investigation process and related materials, and do their utmost to protect the safety of the reporters, and report the situation to the Chairman.
4. Information Disclosure Does the Company disclose its guidelines on business ethics as well as information about implementation of such guidelines on its website and Market Observation Post System ("MOPS")?	✓		The Company discloses the information related to the Company in the investor service section and stakeholder section on the Company's official website at: <a href="http://www.epistar.com">http://www.epistar.com</a>
5. If the Company has established corporate governance policies based on "the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies," please describe any discrepancy between the policies and their implementation: None.			None

Assessment Item	Implementation Status		Departures from the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures				
	YES	NO					
<p>6. Other important information to facilitate better understanding of the Company's corporate conduct and ethics compliance practices (e.g., review the company's corporate conduct and ethics policy):</p> <p><u>Whistleblowing system and whistleblower protection</u>  Epistar forbids corruption and any forms of malpractice. When any person suspects or finds any violation of laws &amp; regulations (including corruption) or unethical conduct, please inform the Company via the independent whistleblowing mailbox or hotline, subject to the type of accused party, to help the Company assign the case to the relevant management level effectively.</p> <table border="1"> <tr> <td>Communication for outsiders/Contact for stakeholders</td> <td>Communication channel for internal personnel (employees)/Feedback mechanism</td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>● Shareholders/investors, government agencies, trade associations/media, financial institutions</li> <li>● Corporate customers</li> <li>● Suppliers</li> <li>● Contractors</li> <li>● Employees</li> <li>● Corporate social responsibility mailbox</li> <li>● Whistleblowing mailbox for violations of the code of business ethics</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>● Immediate supervisors</li> <li>● Employee Relations Department</li> <li>● Labor-management meeting</li> <li>● Audit Office</li> <li>● Alternatively, the "Contact for Stakeholders."</li> </ul> </td> </tr> </table>				Communication for outsiders/Contact for stakeholders	Communication channel for internal personnel (employees)/Feedback mechanism	<ul style="list-style-type: none"> <li>● Shareholders/investors, government agencies, trade associations/media, financial institutions</li> <li>● Corporate customers</li> <li>● Suppliers</li> <li>● Contractors</li> <li>● Employees</li> <li>● Corporate social responsibility mailbox</li> <li>● Whistleblowing mailbox for violations of the code of business ethics</li> </ul>	<ul style="list-style-type: none"> <li>● Immediate supervisors</li> <li>● Employee Relations Department</li> <li>● Labor-management meeting</li> <li>● Audit Office</li> <li>● Alternatively, the "Contact for Stakeholders."</li> </ul>
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<p>Epistar is used to keeping in confidence the information from internal channels or external channels. Any accused case will be treated as one special case to be resolved by formation of the dedicated committee, adoption of the protection measures against the whistleblower pursuant to laws, protection of the whistleblower's identity and accusation, and undertaking to prevent the whistleblower from being treated improperly.</p> <p>6.1 The whistleblower shall at least provide the following information:</p> <p>6.1.1 The whistleblower's name, and address, Tel. No. and email address accessible to the whistleblower;</p> <p>6.1.2 The accused party's name, or any other information sufficient to identify the accused party's identity or characteristics;</p> <p>6.1.3 Concrete fact and evidence investigable.</p> <p>6.2 Dedicated committee members  The Audit Office, Intellectual Property &amp; Legal Affairs Div., Human Resources Center and 9 senior officers shall act as the members, and 5 out of them shall be elected to form the dedicated committee for each individual case upon exclusion of the concerned parties' supervisors (members).</p>							



Assessment Item	Implementation Status		Departures from the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
	YES	NO	
<p>6.3 Operating procedures adopted by the dedicated committee</p> <p>6.3.1 The accusation involving general employees shall be submitted to the department head. The accusation involving directors or senior management shall be reported to the Chairman of Board and independent directors.</p> <p>6.3.2 The dedicated committee and the management or personnel referred to in the subparagraph shall verify the truth immediately, and ask the related department or such external unit as attorney-at-law and CPA firms for assistance, if necessary.</p> <p>6.3.3 Where it is proven that the accused party does violate the related laws or the Company's ethical management policy and requirements, the Company shall ask the accused party to cease the relevant activity immediately and also take appropriate measures, and claim damages through legal actions to maintain the Company's goodwill, interest and right, if necessary.</p> <p>6.3.4 The acceptance and investigation of accusation and the investigation result shall be recorded in writing and the written record may be maintained in an electronic form for five years. Where any legal action involving the accusation is initiated prior to expiration of the written record, the related information shall be maintained until the legal action is concluded.</p> <p>6.3.5 Where the accusation is proven to be true, the Company shall order the Company's related units to review the relevant internal control system and operating procedures, and propose the corrective action plan to stop the relevant incident from taking place again.</p> <p>6.3.6 The dedicated committee shall report the accusation, resolution thereof and followup on corrective actions to the Chairman of Board, and report the same to the Board of Directors, subject to the materiality of the case.</p> <p>6.3.7 Where it is proven to violate the Company's regulations, systems and ethical management requirements, the Company will render the punishment pursuant to the relevant management regulations, and disclose the person's job title and name, contents of the violation and resolution on the intranet or the Bulletin.</p> <p>6.3.8 Where the case is considered material, the Company shall take necessary legal actions, dismiss the person, and also never hire the same person again.</p> <p>6.3.8 Respond to the whistleblower about the resolution on the accusation.</p>	Summary		Departures from the Ethical Corporate Management Best-Practice Principles for TWSE/TPEX Listed Companies and reasons for such departures
<p>6.4 Operating procedures for handling employees' complaints and accusation</p> <p>6.4.1 The complaint filed by any employee shall specify the following information.</p> <p>6.4.2 Subject to the case, a dedicated committee will be formed in a confidential manner to conduct the relevant investigation and report the resolution to the Board of Directors.</p> <p>6.4.3 Where the accusation against the specific person's corruption or acceptance of bribe, if any, is proven to be true, the Company will provide the whistleblower with incentive rewards and also take appropriate protection measures to undertake that the whistleblower would not be treated improperly due to the accusation and related protection mechanism is adopted. Notwithstanding, where the whistleblower is found fabricating the truth and making misrepresentation for grievance, or defaming others intentionally, the whistleblower shall bear the legal liability for perjury or false accusation solely, and the Company will bring the whistleblower into justice pursuant to laws, and render punishment on the whistleblower pursuant to the Company's internal regulations.</p> <p>6.4.4 For the other procedures, please apply the "Operating Procedures of Dedicated Committees."</p>			

3.3.7 Disclosure of and search for corporate governance best-practice principles and related bylaws

Major Internal Policies	Mode of Disclosure & Search
<ul style="list-style-type: none"> <li>● Articles of Incorporation</li> <li>● Rules of the Shareholders' Meeting</li> <li>● Rules for Elections of Directors and Supervisors</li> <li>● Rules of the Board of Directors' Meeting</li> <li>● Audit Committee Charter</li> <li>● Remuneration Committee Charter</li> <li>● Acquisition or Disposal Procedures of Asset</li> <li>● Procedures for Endorsements and Guarantees</li> <li>● Procedures for Loaning Funds to Other Parties</li> <li>● Corporate Governance Best Practice Principles</li> <li>● Ethical Corporate Management Best Practice Principles</li> <li>● Ethical Conduct</li> <li>● Rules Purview of Independent Directors</li> <li>● Corporate Social Responsibility Best Practice Principles</li> <li>● Procedures for Preventing Insider Trading</li> <li>● Procedure for Halt and Resumption Applications</li> <li>● Articles of Association of Special Committee on M&amp;A</li> </ul>	<p>M.O.P.S.:  <a href="http://mops.twse.com.tw">http:// mops.twse.com.tw</a>                      Search in Basic information section/E-book/Annual report and information about shareholders' meeting or corporate governance section/Establishment of corporate governance best-practice principles.</p> <p>Company's website:  <a href="http://www.epistar.com">http://www.epistar.com</a>                      Search in the IR/Corporate Governance/ Major Internal Policies.</p>

3.3.8 Other important information to facilitate better understanding of the Company's implementation of corporate governance:

3.3.8.1 Continuing Education/Training of Directors in 2019

Title	Name	Date	Host by	Training Title	Duration/Hr
Chairman	Biing-Jye Lee	2019.11.14	Taiwan Corporate Governance Association	Realizing the value of corporate mergers and acquisitions --Discussion on Integration Issues and Establishment of Mergers and Acquisitions Strategy and Evaluation	3.0
Chairman	Biing-Jye Lee	2019.11.14	Taiwan Corporate Governance Association	Mergers and Acquisitions Strategy and Evaluation	3.0
Director	Chih-Yuan Chen	2019.08.07	Taiwan Corporate Governance Association	How Taiwan-funded enterprises respond to and manage the huge risks of the China-US trade war	3.0

Title	Name	Date	Host by	Training Title	Duration/Hr
Director	Chih-Yuan Chen	2019.08.16	KPMG Advisory Services Co., Ltd.	Training for Directors and Senior Officers in Preventing Money Laundering and Fighting	2.0
Director	Chih-Yuan Chen	2019.11.12	Taiwan Institute of Directors	The 8th Annual Chinese Family Business Forum	3.0
Director	Nan Yang Wu	2019.11.14	Taiwan Corporate Governance Association	Realizing the value of corporate mergers and acquisitions --Discussion on Integration Issues and Establishment of	3.0
Director	Nan Yang Wu	2019.11.14	Taiwan Corporate Governance Association	Mergers and Acquisitions Strategy and Evaluation	3.0
Director	Chin-Yung Fan	2019.05.07	Taiwan Stock Exchange Corporation	ESG Investment Promotion Forum	3.0
Director	Chin-Yung Fan	2019.11.14	Taiwan Corporate Governance Association	Realizing the value of corporate mergers and acquisitions --Discussion on Integration Issues and Establishment of	3.0
Director	Chin-Yung Fan	2019.11.14	Taiwan Corporate Governance Association	Mergers and Acquisitions Strategy and Evaluation	3.0
Director	Chin-Yung Fan	2019.12.24	Taiwan Corporate Governance Association	Corporate legal risk and crisis management	3.0
Independent Director	Wei-Min Sheng	2019.11.14	Taiwan Corporate Governance Association	Realizing the value of corporate mergers and acquisitions --Discussion on Integration Issues and Establishment of	3.0
Independent Director	Wei-Min Sheng	2019.11.14	Taiwan Corporate Governance Association	Mergers and Acquisitions Strategy and Evaluation	3.0
Independent Director	Feng-Shang Wu	2019.11.14	Taiwan Corporate Governance Association	Realizing the value of corporate mergers and acquisitions --Discussion on Integration Issues and Establishment of	3.0
Independent Director	Feng-Shang Wu	2019.11.14	Taiwan Corporate Governance Association	Mergers and Acquisitions Strategy and Evaluation	3.0
Independent Director	Chi-Yen Liang	2019.08.08	Taiwan Securities Association	Legal Liability and Case Study of Short-term and Insider Trading	3.0
Independent Director	Chi-Yen Liang	2019.08.28	Taiwan Academy of Banking and Finance	Corporate governance and corporate sustainability	3.0
Independent Director	Chi-Yen Liang	2019.11.14	Taiwan Corporate Governance Association	Realizing the value of corporate mergers and acquisitions --Discussion on Integration Issues and Establishment of	3.0
Independent Director	Chi-Yen Liang	2019.11.14	Taiwan Corporate Governance Association	Mergers and Acquisitions Strategy and Evaluation	3.0

Title	Name	Date	Host by	Training Title	Duration/Hr
Independent Director	Yu-Te Houng	2019.05.03	Securities & Futures Institute	2019 Prevention of Insider Trading Conference	3.0
Independent Director	Yu-Te Houng	2019.11.14	Taiwan Corporate Governance Association	Realizing the value of corporate mergers and acquisitions --Discussion on Integration Issues and Establishment of	3.0
Independent Director	Yu-Te Houng	2019.11.14	Taiwan Corporate Governance Association	Mergers and Acquisitions Strategy and Evaluation	3.0
Independent Director	Wei-Kuo Chen	2019.11.14	Taiwan Corporate Governance Association	Realizing the value of corporate mergers and acquisitions --Discussion on Integration Issues and Establishment of	3.0
Independent Director	Wei-Kuo Chen	2019.11.14	Taiwan Corporate Governance Association	Mergers and Acquisitions Strategy and Evaluation	3.0

Note: All of the active directors have completed the continuing education of the hours required under the "Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE/TPEx Listed Companies."

### 3.3.8.2 Continuing Education/Training of Management in 2019

Title	Name	Date	Host by	Training Title	Duration/Hr
Company Governance & Accounting Officer	Shih-Shien Chang	2019.07.29	Taiwan Investor Relations Institute	Responsibilities and challenges of Corporate Governance Officer	3.0
Company Governance & Accounting Officer	Shih-Shien Chang	2019.10.21	Accounting Research and Development Foundation	The common practice training for Competent authorities requires enterprises to set up auditing compliance with "independent directors" and "audit committees"	6.0
Company Governance & Accounting Officer	Shih-Shien Chang	2019.10.22	Accounting Research and Development Foundation	The impact of the new "Labor Incident Law" on enterprises and the practice of legal compliance inspection	6.0
Company Governance & Accounting Officer	Shih-Shien Chang	2019.11.14	Accounting Research and Development Foundation	Realizing the value of corporate mergers and acquisitions --Discussion on Integration Issues and Establishment of Management Mechanism after Enterprise Merger and Acquisition	3.0
Company Governance & Accounting Officer	Shih-Shien Chang	2019.11.14	Accounting Research and Development Foundation	Mergers and Acquisitions Strategy and Evaluation	3.0

Title	Name	Date	Host by	Training Title	Duration/Hr
Company Governance & Accounting Officer	Shih-Shien Chang	2019.12.09 ~ 2019.12.10	Accounting Research and Development Foundation	the Continuing Education Course for the Accounting Supervisor from Issuer or Securities Dealer	12.0
Acting Accounting Officer	Tao-jung Lin	2019.12.23 ~ 2019.12.24	Accounting Research and Development Foundation	the Continuing Education Course for the Accounting Supervisor from Issuer or Securities Dealer	12.0
Internal Audit Officer	Tzu-Hsiang Tai	2019.03.19	The Institute of Internal Auditors-Chinese Taiwan	Fraud Risk Audit Practice and Management	6.0
Internal Audit Officer	Tzu-Hsiang Tai	2019.06.25	Accounting Research and Development Foundation	Internal audit staff practical issues on compliance with the laws of "Information Security" and "Personal Privacy"	6.0

Note1: Said persons meet Regulations Governing the Qualification Requirements and Professional Development of Principal Accounting Officers of Issuers, Securities Firms, and Securities Exchanges, Regulations Governing Establishment of Internal Control Systems by Public Companies, and Article 29 of the Company's corporate governance best-practice principles related to continuing education requirements. The accountants engaged in preparation of financial statements shall also take the relevant continuing education for 6 hours or more each year.

Note2: The Company's "Corporate Governance Best-Practice Principles" were passed by the Board of Directors on August 6, 2015, and Mr. Shin-Shien Chang has held the position as the Corporate Governance Officer concurrently until now. Meanwhile, the Company set the corporate governance unit officially upon approval of the Board of Directors on March 14, 2019, and Mr. Shih-Shien Chang was appointed to hold the position as the Corporate Governance Officer concurrently. All of the staff dedicated in processing related affairs hold the experience in holding the position as the management at the legal affairs, finance, shareholders service or corporate governance units in securities, financial and futures firms or public companies for at least three years, which afford to ensure their effective exercise of duties about corporate governance free from any conflict of interest or violations of the internal control system. Mr. Shih-Shien Chang attend the continuing education related to corporate governance for 18 hours within one year after he is appointed, and then for 12 hours each year thereafter. The status shall be disclosed on the Company's official website.

### 3.3.8.3 Status of liability insurance maintained by EPISTAR for its directors and officers

Objects	Company	Amount	Duration
All Directors	Insurance Company of North America, Taiwan Branch	USD \$15,000,000	August 25, 2018 ~ August 25, 2019
All Directors	Insurance Company of North America, Taiwan Branch	USD \$20,000,000	August 25, 2019 ~ August 25, 2020

Note: The motion for the insured value, coverage, and premium of the renewed directors'/supervisors' liability insurance was submitted to the Board of Directors on November 14, 2019.

### 3.3.9 Implementation of Internal Control System

3.3.9.1 Statement of Declaration on Internal Control System: See Appendix 1.1 (Page 171).

3.3.9.2 Where a CPA has been hired to carry out a special audit on the internal control system, furnish the CPA audit report: None.

3.3.10 For the most recent fiscal year or during the current fiscal year up to the date of printing of the annual report, disclose any sanctions imposed in accordance with the law upon the Company or its internal personnel. Sanctions imposed by the Company upon its internal personnel for violations of internal control system provisions, principal deficiencies, and the state of any efforts to make improvements:

The Board of Directors resolved on November 12, 2018 to repurchase the treasury stock and transfer the same to employees. The buyback period started from November 13, 2018 to January 12, 2019. However, because the personnel dedicated to order placement wasn't familiar with the operation and operated negligently, the order was placed in the stock exchange by 9:00AM on November 16, 2018 and, therefore, breached Article 28-2 of the Securities and Exchange Act. As a result, the Company was fined NT\$240,000 by Securities and Futures Bureau of FSC on March 13, 2019. Notwithstanding, the Company bought back the treasury stock only in order to transfer the stock to employees, so as to maintain the shareholders' interest and right and retain talents for the Company, and definitely had no intent to manipulate or attempt to affect the stock price.

### 3.3.11 Major Decisions of Shareholders' Meeting and Board Meetings

During the 2018 calendar year or during the current fiscal year up to the date of printing of the annual report, major resolutions approved at Shareholder' Meeting and Board meetings and implementation thereof are summarized below:

#### 3.3.11.1 Shareholder' Meeting

(1) Approved the 2018 Business Report and Financial Statements.

The Group's consolidated operating revenue was NT\$20,306,412 thousand, net operating loss NT\$678,843 thousand, and losses after tax of NT\$505,864 thousand in 2018. The loss was NT\$0.42 per share.

(2) Approved 2018 Deficit Compensation.

The Company's individual loss after tax was NT\$456,146 thousand in 2018, which was covered by the undistributed earnings for the previous years, NT\$71,003 thousand, Appropriated Retained Earnings, NT\$385,142 thousand. After that, the accumulated loss-ending was NT\$0.

(3) To elect 9 directors of the 10<sup>th</sup> term of the Board of Directors (including 5 independent directors). The Board consists of a majority of independent directors.

(4) Ratification of the allocation of capital surplus to shareholders in cash.

The capital surplus at NT\$0.3 per share.

- (5) Approved the amendments to "Articles of Incorporation."  
The resolution shall be fully implemented and the revised regulation shall be uploaded to the company's official website.
- (6) Approved the amendments to "Acquisition or Disposal Procedures of Asset."  
The resolution shall be fully implemented and the revised regulation shall be uploaded to the company's official website and M.O.P.S..
- (7) Approved the amendments to "Procedures for Loaning Funds to Other Parties."  
The resolution shall be fully implemented and the revised regulation shall be uploaded to the company's official website and M.O.P.S..
- (8) Approved the amendments to "Procedures for Endorsements and Guarantees."  
The resolution shall be fully implemented and the revised regulation shall be uploaded to the company's official website and M.O.P.S..
- (9) Approved the issuance of new common shares for cash to sponsor issuance of the global depositary receipt and/or issuance of new common shares for cash in private placement.  
Approved the issuance of no more than 120 million common shares, provided that the motion has not yet been executed as no investors were found before the date of publication of the annual report.
- (10) Approved of releasing the newly elected directors from the non-competition restrictions.

Name	Positions in Other Companies	Engage Business
Biing-Jye Lee	The director of Epicrystal Corporation (ChangZhou) Ltd.	Production and sales of Light-emitting diode epi wafers and chips.
	The director of Kaistar Lighting (Xiamen) Co., Ltd.	Production and sales of Light-emitting diode epi wafers, chips, packages, and modules.
	The director of FormoLight Technologies, Inc.	LED display system and solution provider.
	The Chairman of Unikorn Semiconductor Corporation	III-V Semiconductor Foundry business.
Chih-Yuan Chen	The director of Nan Ya Photonics Inc.	LED lighting applications.
Nan-Yang Wu	The director of EDISON Opto Corporation	The manufacturer and sales of LED packaging.
	The director of ProLight Opto Technology Corporation	The manufacturer and sales of LED packaging.
	The director of Wafer Works Corporation	Semiconductor / IC Manufacturing (Silicon Wafer supplier for Semiconductor)
	The director of GaN Ventures Co., Limited	Investment & sales of electronic components.
	The director of GV Semiconductor Inc.	Research and design of Semiconductors and seller of technology components.
	The director of APT Electronics Co Ltd.	R&D, production, sell of Light emitting diode (LED) and Lighting system.
Chin-Yung Fan	The director of Luxlite (Shenzhen) Corporation Limited	Sales of Light-emitting diode chips.
	The director of LEDOLUX Sp. Zo. O.	Production and sales of Light-emitting diode for lighting products
	The director of Jiangsu Canyang Optoelectronics Ltd.	Production and sales of Light-emitting diode epi wafers and chips.
	The director of Te Opto Corporation	Production and sales of Light-emitting diode epi wafers and chips.

### 3.3.11.2 Board meetings

Date	Major Resolutions	Review on status
2019.03.14	<ol style="list-style-type: none"> <li>(1) Approved 2018 financial report and business report.</li> <li>(2) Approved 2018 Loss make-up proposal.</li> <li>(3) Allocation of capital surplus to shareholders in cash.</li> <li>(4) Resolved to discontinue the motion for issuance of common shares in private placement approved at the general shareholders' meeting 2018.</li> <li>(5) Approved the issuance of new common shares for cash to sponsor issuance of the global depository receipt and/or issuance of new common shares for cash in private placement.</li> <li>(6) Approved the amendments to "Articles of Incorporation" in part.</li> <li>(7) Approved the amendments to "Procedures for Loaning Funds to Other Parties", "Procedures for Endorsements and Guarantees", "Acquisition or Disposal Procedures of Assets", "Rules for the Procedures of the Board of Directors' Meeting" and "Corporate Governance Best Practice Principles" in part, and abolishment of the "Regulations Governing Long-term/Short-term Investment".</li> <li>(8) Approved the time, location and cause of the general shareholders' meeting 2019.</li> <li>(9) Approved the motion for election of 10<sup>th</sup> term directors and candidates for director nominated by the Board of Directors.</li> <li>(10) Motion for termination of the non-competition restrictions on the Company's new directors of 10<sup>th</sup> term.</li> <li>(11) Permitted the Company's managers to hold another position concurrently and engage in competition.</li> <li>(12) Approved the donation of proceeds from disposition of the equity in Crystalrich (Hong Kong) Co., Limited to Episky Corporation (Xiamen) Ltd., a company wholly owned by the Company.</li> <li>(13) Approved the Statement of Declaration on Internal Control System 2018.</li> <li>(14) Approved the application for endorsement of facility granted by bank to the subsidiary.</li> <li>(15) Approved the application with financial organization for renewal of the facility and increase in and renewal of derivatives trading facility.</li> <li>(16) Established the "Regulations Governing Retirement of Employees Holding Positions as Managers and Directors Concurrently."</li> <li>(17) Ming-Jiunn Jou filed a retirement application.</li> </ol>	<p>The Company assigned the corporate governance unit and appointed one Corporate Governance Officer, and the Board of Directors of 10<sup>th</sup> term increased the number of independent directors as 5 independent directors, a majority of the whole director; due to family factors, Ming-Jiunn Jou applied for retirement on April 30, 2019; in 2019, the proportion of remuneration to directors and employees remained 2% and 15%, respectively. The competition engaged in by the managerial officers was posted on the M.O.P.S and the Company's website. The other matters were executed as per the resolution made at the general shareholders' meeting on June 20, 2019.</p>



Date	Major Resolutions	Review on status
	(18) Approved the motion for remuneration ratio to the Company's directors and employees 2019. (19) Approved designation of the Corporate Governance Officer. (20) Approved managerial officers' raise 2019.	
2019.05.06	(1) Approved 2019 financial report of Q1. (2) Approved amendment to proposed offset of the 2019 Accumulated Deficit Offset Table. (3) Approved amendments the Company's "Rules of the Board of Directors' Meeting" and "Procedure for Transactions with Related Parties and Group Affiliates." (4) Approved the total amount of the Company's fund which was lent to the subsidiary, Episky Corporation (Xiamen) Ltd., shall not exceed RMB\$200 million in total (or the equivalent amount in USD) (5) Approved the application for endorsement of facility granted by bank to the subsidiary. (6) Approved the application with financial organization for increase in and renewal of derivatives trading facility.	Implemented in accordance with Board resolutions.
2019.06.20	(1) Election of the 10 <sup>th</sup> chairman. (2) Appointment of members of the 4 <sup>th</sup> remuneration committee.	Biing-Jye Lee renewed the chairman of the company, and appointed members of the 4th remuneration committee: Director Wei-Min Sheng, Director Feng-Shang Wu, and Director Chi-Yen Liang, from June 20, 2019 to June 19, 2022.
2019.08.08	(1) Approved 2019 financial report of Q2. (2) No offset 2019 Q2 loss. (3) Approved the evaluation on independence, eligibility, and contents of service and remuneration 2019 about appointment of the CPAs, Ya-Huei, Cheng and Chin-Cheng, Hsieh. (4) Permitted the Company's managers to hold another position concurrently and engage in competition. (5) Amendments to "Statement of Declaration on Internal Control" in part. (6) Approved the application for endorsement of facility granted by bank to the subsidiary. (7) Approved the total amount of the Company's fund which was lent to the subsidiary, Episky Corporation (Xiamen) Ltd., and Unikorn Semiconductor Corporation, respectively shall not exceed RMB\$100 million (or the equivalent amount in USD), and TWD\$300 million in total. (8) Approved the application with financial organization for increase in and renewal of derivatives trading facility.	The allocation ratio for directors' compensation remained at 2% while all other matters shall be implemented in accordance with Board resolutions.

Date	Major Resolutions	Review on status
	(9) Approved the allocation of remuneration to directors in 2019. (10) Approved the motion for remuneration to the Company's directors.	
2019.11.14	(1) Report on renewal of directors'/supervisors' liability insurance. (2) Approved 2019 financial report of Q3. (3) No offset 2019 Q3 loss (4) Approved the audit plan 2020. (5) Approved the application with financial organization for increase in and renewal of derivatives trading facility.	Implemented in accordance with Board resolutions.
2019.12.12	(1) Report the implementation of corporate social responsibility and integrity management. (2) Report on corporate governance. (including stakeholder identification, issues of concern, communication channels and method of response, as well as the operation of the whistleblower mechanism) (3) Approved 2020 business plan and budget. (4) Approved the application with financial organization for renewal of the facility. (5) Approved the motion for managerial officers' raise 2020.	Implemented in accordance with Board resolutions.
2020.02.26	(1) Approved 2019 financial report and business report. (2) Approved 2019 Loss make-up proposal. (3) Approved 2020 capital expenditure. (4) Resolved to discontinue the motion for issuance of common shares in private placement approved at the general shareholders' meeting 2019. (5) Approved the issuance of new common shares for cash to sponsor issuance of the global depository receipt and/or issuance of new common shares for cash in private placement. (6) Motion for termination of the non-competition restrictions on the Company's directors. (7) Approved the time, location and cause of the general shareholders' meeting 2020. (8) Approved the amendments to "Rules of the Board of Directors' Meeting", "Audit Committee Charter", "Rules Purview of Independent Directors", "Corporate Governance Best Practice Principles", "Corporate Social Responsibility Best Practice Principles", "Ethical Corporate Management Best Practice Principles" and "Procedures for Preventing Insider Trading" in part. (9) Permitted the Company's managers to hold another position concurrently and engage in competition.	The allocation ratios for directors and employees' compensation in 2020 will remain unchanged at 2% and 15% respectively. All other matters shall be implemented in accordance with Board resolutions.

Date	Major Resolutions	Review on status
	(10) Approved the amendments to “Regulations Governing the Preparation of Financial Reports” in part. (11) Approved amendments to “Statement of Declaration on Internal Control” in part. (12) Approved the Statement of Declaration on Internal Control System 2019. (13) Approved the evaluation on independence, eligibility, and contents of service and remuneration 2020 about appointment of the CPAs, Ya-Huei, Cheng was replaced by Tien-Yi, Li. (14) Approved the motion for remuneration ratio to the Company’s directors and employees 2020. (15) Approved managerial officers’ raise 2020.	

3.3.12 Major Issues of Record or Written Statements Made by Any Director Dissenting to Important Resolutions Passed by the Board of Directors during the 2019 Calendar Year and as of the Date of this Annual Report: None.

3.3.13 Resignation or Dismissal of Chairman, General Manager, and Heads of Accounting, Finance, Internal Audit, Corporate Governance Officer and R&D during the 2018 Calendar Year and as of the Date of this Annual Report: None.

### 3.4 Audit Fee

Unit: NT\$ thousand

Accounting Firm	Name of CPA	Audit Fee	Non-audit Fee				Subtotal	Audit Period
			System Design	Company Registration	Human Resource	Others (Note 1)		
PricewaterhouseCoopers, Taiwan	Cheng, Ya-Huei and Chih-Cheng, Hsieh	14,120	0	0	0	1,700	1,700	2019.01.01 ~ 2019.12.31

Note 1: The professional service fees for TP and laws & taxation consulting, NT\$1,700 thousand.

Note 2: When the Company changes its accounting firm and the audit fees paid for the fiscal year in which such change took place are lower than those for the previous fiscal year, the amounts of the audit fees before and after the change and the reasons shall be disclosed: NA

Note 3: When the audit fees paid for the current fiscal year are lower than those for the previous fiscal year by 10% or more, the reduction in the amount of audit fees, reduction percentage, and reason(s) therefore shall be disclosed: NA

### 3.5 Replacement of CPAs

#### 3.5.1 Regarding the former CPA

Replacement Date	February 26, 2020		
Replacement reasons and explanations	According to Article 29 of the Corporate Governance Best Practice Principles, which requires CPA's independence, and in order to be in line with the transfer of CPAs within PricewaterhouseCoopers, Taiwan, as of Q1 of 2020, Ya-Huei, Cheng, CPA and Chin-Cheng, Hsieh, CPA were replaced by Tien-Yi, Li, CPA and Chin-Cheng Hsieh, CPA.		
Describe whether the Company terminated or the CPA did not accept the appointment	Parties		
	Status	CPA	The Company
	Termination of appointment	NA	NA
	No longer accepted (continued) appointment	NA	NA
Other issues (except for unqualified issues) in the audit reports within the last two years	None		
Differences with the company	Yes		Accounting principles or practices
			Disclosure of Financial Statements
			Audit scope or steps
			Others
	None	✓	
	Remarks/specify details: None		
Other Revealed Matters	None		

#### 3.5.2 Regarding the former CPA

Name of accounting firm	PricewaterhouseCoopers, Taiwan
Name of CPA	CPA Tien-Yi, Li and CPA Chin-Cheng, Hsieh
Date of appointment	February 26, 2020
Consultation results and opinions on accounting treatments or principles with respect to specified transactions and the company's financial reports that the CPA might issue prior to the engagement.	None
Succeeding CPA's written opinion of disagreement toward the former CPA	None

#### 3.5.3 The content of the reply letter from the former certified public accountant: NA

3.6 Information on the Company's Chairman, President, or any managerial officer in charge of finance or accounting matters has in the most recent year held a position at the accounting firm of its certified public accountant or at an affiliated enterprise of such accounting firm: None.

### 3.7 Any transfer / pledge / Changes in Shareholding of Directors, Supervisors, Managers, and Major Shareholders holding a stake of greater than 10 percent

#### 3.7.1 Changes in Shareholding of Directors, Supervisors, Managers, and Major Shareholders

Unit: Share

Title	Name	2019		January 1, 2020 ~ February 29, 2020	
		Net Change in Shareholding	Net Change in Shares Pledged	Net Change in Shareholding	Net Change in Shares Pledged
Chairman & CSO	Biing-Jye Lee	(700,000)	0	0	0
Director	Chih-Yuan Chen	0	0	0	0
Director	Shan-Chieh Chien	0	0	0	0
Director	Nan Yang Wu	0	0	0	0
Director & President	Chin-Yung Fan	0	0	0	0
Independent Director	Wei-Min Sheng	0	0	0	0
Independent Director	Feng-Shang Wu	0	0	0	0
Independent Director	Chi-Yen Liang	0	0	0	0
Independent Director	Yu-Te Hounq	0	0	0	0
Independent Director	Wei-Kuo Chen	0	0	0	0
Vice President	Min-Hsun Hsieh	(24,000)	0	(6,000)	0
Vice President	Jen-Chau Wu	0	0	0	0
Vice President	Rong-Yih Hwang	0	0	(10,000)	0
Vice President & CFO & Corporate Governance Officer	Shih-Shien Chang	0	0	0	0
Vice President	Chen Ou	0	0	0	0
Vice President	Ming-Da Jin	0	0	0	0
Vice President	Lin-Tien Yang	0	0	0	0
Vice President	Wei-Shih	(17,000)	0	0	0
Senior Director	Li-Cheng Hung	(14,000)	0	(6,000)	0
Senior Director	Feng-Sheng Qiu	0	0	0	0
Senior Director	Yi-Chang Hong	0	0	0	0

#### 3.7.2 Stock Traded with Related Party

Name	Cause of Equity Transfer	Date	Trading Counterpart	Relationship between the trading counterpart and the Company, director, and shareholder with more than 10% shareholding	Shares	Trading Price (NTD)
Biing-Jye Lee	Disposition (gift)	2019.04.17	Chia-Ren Hu	Spouse	700,000	NA

#### 3.7.3 Stock Pledged with Related Party: None.

### 3.8 Relationship among the Top Ten Shareholders

	Name	Current Shareholding		Spouse and Minor Shareholding		EPISTAR Shareholding by Nominee Arrangement		Name and Relationship between EPISTAR's Shareholders	
		Shares	%	Shares	%	Shares	%	Name	Relationship
1	Mercuries Life Insurance Co., Ltd.	28,418,000	2.61%	NA	NA	NA	NA	None	None
	Chairman: Xiang-Yu Chen	0	0.00%	0	0.00%	0	0.00%	None	None
2	Merrill Lynch Intl-Main Trading-Fia	19,705,526	1.81%	NA	NA	NA	NA	None	None
3	Nomura International Co., Ltd.	19,698,000	1.81%	NA	NA	NA	NA	None	None
4	Cathay Life Insurance Co., Ltd.	19,404,803	1.78%	NA	NA	NA	NA	None	None
	Chairman: Tiao-Kuei Huang	0	0.00%	0	0.00%	0	0.00%	None	None
5	Labor retirement fund (New system)	17,845,000	1.64%	NA	NA	NA	NA	None	None
6	Fubon Life Insurance Co., Ltd.	17,000,000	1.56%	NA	NA	NA	NA	None	None
	Chairman: Ming-Xing Cai	0	0.00%	0	0.00%	0	0.00%	None	None
7	Vanguard Emerging Markets Stock Index Fund, A Series Of Vanguard International Equity Index Funds	16,260,605	1.49%	NA	NA	NA	NA	None	None
8	Vanguard Emerging Markets Stock Index Fund, A Series Of Vanguard International Equity Index Funds	14,835,180	1.36%	NA	NA	NA	NA	None	None
9	UBS Europe SE	14,736,018	1.35%	NA	NA	NA	NA	None	None
10	Tai Li Corp.	13,627,487	1.25%	NA	NA	NA	NA	None	None
	Chairman: Hon-Gji Luo	0	0.00%	0	0.00%	0	0.00%	None	None

Note1: The stock transfer was not suspended before the date of publication of the annual report; therefore, said record date was intended for the quantity of shares held before the latest suspension of stock transfer (namely July 23, 2019).

### 3.9 The total number of shares and total equity stake held in any single enterprise by the Company, its directors and supervisors, managers, and any companies controlled either directly or indirectly by the Company

As of December 31, 2019

Long-term Investment	Ownership by EPISTAR		Ownership by Directors, Managers and Directly/Indirectly Owned Subsidiaries		Total Ownership	
	Shares	%	Shares	%	Shares	%
Lighting Investment Corp.	251,478,518	100.00	0	0.00	251,478,518	100.00
Epistar JV Holding (BVI) Co., Ltd.	48,278	100.00	0	0.00	48,278	100.00
Yenrich Technology Corporation	60,000,000	100.00	0	0.00	60,000,000	100.00
Full Star Enterprises Ltd.	8,660,000	100.00	0	0.00	8,660,000	100.00
GaN Ventures Co., Limited	13,886,743	59.02	1,157,229	4.92	15,043,972	63.94
SH Optotech Co., Ltd.	3,179,176	49.00	0	0.00	3,179,176	49.00
Nan Ya Photonics Inc.	18,806,694	40.80	1,135,430	2.46	19,942,124	43.26
Te Opto Corporation	920,000	40.00	0	0.00	920,000	40.00
Tekcore Co., Ltd	20,247,828	21.05	2,616,932	2.72	22,864,760	23.77
ProLight Opto Technology Corporation	5,800,000	8.52	30,001,234	44.08	35,801,234	52.60

As of December 31, 2019

Long-term Investment	Ownership by EPISTAR		Ownership by Directors, Managers and Directly/Indirectly Owned Subsidiaries		Total Ownership	
	Shares	%	Shares	%	Shares	%
iReach Corporation	7,000,000	100.00	0	0.00	7,000,000	100.00
Unikorn Semiconductor Corporation	100,000,000	85.91	0	0.00	100,000,000	85.91
Gan Force Corporation	1,063,000	64.31	0	0.00	1,063,000	64.31

Note: EPISTAR's long-term investment using the equity method.

## 4. Capital Overview

### 4.1 Capital and Shares

#### 4.1.1 Capitalization

Unit: k share / NT\$ thousand

Month/ Year	Issue Price (Per Share)	Authorized Share Capital		Capital Stock		Remark		
		Shares	Amount	Shares	Amount	Sources of Capital	Capital Increase by Assets Other than Cash	Other (Note)
11/2017	10	1,300,000	13,000,000	1,088,701	10,887,014	Capital reduction for cancellation of treasury shares	None	2

Note 1: Said information refers to that available until the date of publication, February 29, 2020.

Note 2: Chu-Shang-Tze No. 1060032105 dated November 29, 2017.

Unit: Share

Type of Stock	Authorized Share Capital (Listed Stock)		
	Outstanding shares (Note)	Unissued Shares	Total
Common Stock	1,088,701,410	211,298,590	1,300,000,000

Note: Said information refers to that available until the date of publication, including the treasury stock held by the parent company and subsidiaries, totaling 10,364,755 shares.

Shelf Registration: None.

#### 4.1.2 Composition of Shareholders

Type of Shareholders	Government Agencies	Financial Institutions	Other Juridical Persons	Foreign Institutions and Natural Persons	Domestic Natural Persons	Total
Number of Shareholders	5	31	244	301	129,992	130,573
Shareholding	28,426,000	78,206,001	100,221,954	167,716,327	714,131,128	1,088,701,410
Holding Percentage (%)	2.61	7.18	9.21	15.40	65.60	100.00

Note: The stock transfer was not suspended before the date of publication of the annual report; therefore, said record date was intended for the quantity of shares held and issued shares before the latest suspension of stock transfer (namely July 23, 2019).

#### 4.1.3 Distribution Profile of Share Ownership

##### 4.1.3.1 Common Share

Per Share Issue Price is NT\$10

Shareholder Ownership (Unit: Share)	Number of Shareholders	Ownership	Ownership (%)
1~999	36,796	6,740,100	0.62%
1,000~10,000	81,987	255,715,443	23.49%
10,001~20,000	6,367	97,018,187	8.91%
20,001~30,000	2,007	52,041,651	4.78%
30,001~50,000	1,588	63,947,812	5.87%
50,001~100,000	1,039	75,127,729	6.90%
100,001~200,000	425	60,857,736	5.59%
200,001~400,000	194	54,331,198	4.99%
400,001~600,000	61	30,006,476	2.76%



Per Share Issue Price is NT\$10

Shareholder Ownership (Unit: Share)	Number of Shareholders	Ownership	Ownership (%)
600,001 ~ 800,000	29	20,281,985	1.86%
800,001 ~ 1,000,000	12	10,960,564	1.01%
Over 1,000,001	68	361,672,529	33.22%
Total	130,573	1,088,701,410	100.00%

Note: The stock transfer was not suspended before the date of publication of the annual report; therefore, said record date was intended for the quantity of shares held and issued shares before the latest suspension of stock transfer (namely July 23, 2019).

#### 4.1.3.2 Preferred Share: None.

#### 4.1.4 Major Shareholders

Unit: share

Shareholders	Total Shares Owned	Ownership (%)
Mercuries Life Insurance Co., Ltd.	28,418,000	2.61%
Merrill Lynch Intl-Main Trading-Fia	19,705,526	1.81%
Nomura International Co., Ltd.	19,698,000	1.81%
Cathay Life Insurance Co., Ltd.	19,404,803	1.78%
Labor retirement fund (New system)	17,845,000	1.64%
Fubon Life Insurance Co., Ltd.	17,000,000	1.56%
Vanguard Totl International Stock Index Fund, A Series Of Vanguard Star Funds	16,260,605	1.49%
Vanguard Emerging Markets Stock Index Fund, A Series Of Vanguard International Equity Index Funds	14,835,180	1.36%
UBS Europe SE	14,736,018	1.35%
Tai Li Corp.	13,627,487	1.25%

Note: The stock transfer was not suspended before the date of publication of the annual report; therefore, said record date was intended for the quantity of shares held and issued shares before the latest suspension of stock transfer (namely July 23, 2019). It will be posted to the official website of the company after the date of stop transfer for shareholders at March 30, 2020.

#### 4.1.5 Market Price, Net Worth, Earnings, and Dividends Per Common Share

Unit: NTD

Item	Year	2018	2019	01/01/2020 ~02/29/2020
Market Price Per Share	Lowest Market Price	22.80	21.00	28.85
	Average Market Price	39.52	28.19	33.26
	Net Worth Per Share	Before Distribution	45.57	41.93
Net Worth Per Share	After Distribution	45.27	41.93	Note 4
	Earnings Per Share	Weighted Average Shares (thousand shares)	1,084,686	1,078,425
Earnings Per Share	EPS	(0.42)	(3.48)	Note 4

Unit: NTD

Item		Year	2018	2019	01/01/2020 ~02/29/2020
Dividends Per Share	Cash Dividends		0.3	0	—
	Stock Dividends	Share Dividend	0	0	—
		Capital Surplus stock dividend	0	0	—
	Accumulated Undistributed Dividend		0	0	—
Return on Investment	Price/Earnings Ratio (Note 1)		(94.10)	(8.10)	—
	Price/Dividend Ratio (Note 2)		131.73	—	—
	Cash Dividend Yield (%) (Note 3)		0.76	—	—

Note 1: Price/Earnings Ratio = Average Market Price/ Diluted Earnings Per Share

Note 2: Price/Dividend Ratio = Average Market Price/Cash Dividends Per Share

Note 3: Cash Dividend Yield = Cash Dividends Per Share/Average Market Price

Note 4: As of the publication date of the annual report, the financial report for the first quarter of 2020 has not yet been completed, so it does not apply.

#### 4.1.6 Dividend Policy and Implementation Status

##### 4.1.6.1 Dividend Policy

In consideration of the Company's current and future development strategy, investment environment, funding need, and competition, domestically and overseas, as well as the shareholders' equity and capital adequacy ratio, the board of directors is authorized to set 50% of the earnings after tax to be allocated as stock dividends, unless in special circumstances, in which the cash dividends to shareholders shall be no less than 10% of the total stock dividends to be allocated.

##### 4.1.6.2 Proposed Distribution of Dividend

Unit: NTD

Year	Date for Board of Directors to approve Distribution of Dividend	Shareholders Meeting		
		Cash Dividend	Capital Surplus (in cash)	Share Dividend
2019	February 26, 2020	\$0 (NT\$ 0 per share)	\$0 (NT\$ 0 per share)	\$0 (NT\$ 0 per share)

Note: Given the loss after tax 2019, no stock dividend was allocated.

##### 4.1.6.3 Expected dividend policy will have a significant change in circumstances:

Major increase in production by other LED companies, the US-China trade conflict, weaker-than-expected overall market demand and plummeting market prices impacted on the Company's profitability and led to two years of consecutive losses. To fund capital expenditures and maintain cash flow stability in 2020, the Board decided on February 26, 2020, that no share dividend will be disbursed in 2020. After the Company takes the Company's overview of operation into account, retain adequate cash and set aside 10% legal reserve or special reserve, the retained earnings, if any, will be allocated on a quarterly basis insofar as no special circumstances are required to be met. In the first three quarters, the dividends shall be allocated at 30%~40% of the earnings basically, and the total dividends to be allocated through the year shall remain 50%~60% of the earnings after tax for the given year. Meanwhile, the Board of Directors is authorized to resolve whether cash dividend shall be allocated from earnings, subject to the overview of business in each quarter. The cash dividends for

any given quarter had scheduled to be allocated within 6 months upon approval of the meeting of the Board of Directors in next quarter.

#### 4.1.7 Impact to 2020 Business Performance and EPS Resulting from Stock Dividend Distribution: Not applicable.

#### 4.1.8 Remuneration to Directors and Profit Sharing Bonus to Employees

##### 4.1.8.1 Information Relating to Employee Bonus and Directors' and Supervisors' Remuneration in the Articles of Incorporation

Item	Rang
Employee's Profit Sharing Bonus (Cash)	i.e. 10%~20% of the earnings of the given year, and 15% applies for the time being. Said employees' bonus will be distributed in shares or cash. The employees of EPISTAR's subsidiaries who fulfill specific requirements stipulated by the Board of Directors may be granted such bonus.
Remuneration to Directors (Cash)	2 % of annual profit as for the remuneration to directors. Directors may only receive the remuneration in cash.

Note1: The "annual profit" in first paragraph means the current year pre-tax profit (excluding other benefits or losses, such as the put option right, the call option rights, the conversion rights and the redeemed of overseas convertible bonds) before the deduction of the staff remuneration and director remuneration.

Note2: EPISTAR may, by a resolution adopted by a majority vote at a meeting of the Board of Directors attended by two-thirds of the total number of directors, distribute the aforementioned employees' and director's compensation and report to the stockholders' meeting for such distribution.

##### 4.1.8.2 The basis for estimating the amount of remuneration to employees, directors and supervisors, for calculating the number of shares to be distributed as employee compensation, and the accounting treatment of the discrepancy, if any, between the actual distributed amount and the estimated figure, for the current period:

The Company estimated the amounts of the remuneration to employees and, directors and recognizes them in the profit or loss during the periods when earned for the years ended December 31, 2017 and 2018. The Board of Directors estimated the amount by taking into consideration the amendment of the Articles of Incorporation, government regulations and industry averages. If the Board of Directors resolves to distribute the remuneration to employees through stock, the number of stock distributed is calculated based on total remuneration to employees divided by the closing price of the day before the Board of Directors meeting. If the Board of Directors subsequently modifies the estimates significantly, the Company will recognize the change as an adjustment in the profit or loss in the subsequent period. The difference between the estimation and the resolution of the shareholders' meeting will be recognized in profit or loss in the subsequent year.

##### 4.1.8.3 2019 Remuneration to Directors and Employees' Profit Sharing Bonus

Unit: NT\$ thousands

Item	Board Resolution (February 26, 2020)
Remuneration to Directors (Cash)	0
Employee's Profit Sharing Bonus (Cash)	0
Total	0

Note: The proposed amount of the remuneration to employees, directors and supervisors is the same as the estimated amount of the year when the remuneration were recognized.

#### 4.1.8.4 2018 Remuneration to Directors and Employees' Profit Sharing Bonus

Unit: NT\$

Item	Actual Result (June 20, 2019)	Board Resolution (March 14, 2019)	Variance	Cause of variance
Remuneration to Directors (Cash)	0	0	0	None
Employee's Profit Sharing Bonus (Cash)	0	0	0	None
Total	0	0	0	None

#### 4.1.9 Buyback of Treasury Stock:

##### 4.1.9.1 Completed:

Batch Order	The 2nd Batch, 2018
Purpose of buy-back	Transfer to Employees
Timeframe of buy-back	November 13, 2018 ~ January 12, 2019
Price range (Note 1)	NT\$25 ~ NT\$40
Class, quantity of shares buy back	7,800,000 shares
Value of shares bought-back (in NT\$ thousands)	190,327
Ratio of repurchases to planned quantities (%)	52.00%
Shares sold/transferred	0 share
Accumulated number of company shares held	7,800,000 shares
Percentage of total company shares held (%) (Note 2)	0.72%

Note 1: In the event of the buyback price range is less than the minimum price, NT\$25, the buyback may be continued.

Note 2: Calculated according to issued shares on March 14, 2019 (1,088,701,410 shares).

##### 4.1.9.2 Still in Execution: None.

#### 4.2 Issuance of Corporate Bonds: None.

#### 4.3 Preferred Shares: None.

#### 4.4 Issuance of Overseas Depositary Shares

Issuing Date	September 22, 2009
Issuance and Listing	Bourse de Luxembourg
Total Amount (US\$)	351,000,000
Offering Price Per GDR (US\$)	13.00
Units Issued	27,000,000
Underlying Securities	EPISTAR Common Shares from Selling Shareholders
Common Shares Represented	135,000,000
Rights and Obligations of GDR Holders	Same as those of Common Share Holders
Trustee	Not Applicable
Depositary Bank	Citibank, N.A.
Custodian Bank	Citibank, N.A. – Taipei Branch
GDRs Outstanding	As of February 29, 2020, total number of outstanding GDRs was 6,023
Apportionment of Expenses for Issuance and Maintenance	The issuance-related expenses were borne by the issuer and underwriter, while the expenses incurred during the surviving period were borne by the Company.
Terms and Conditions in the Deposit Agreement and Custody Agreement	See Deposit Agreement and Custody Agreement for Details

Closing Price Per GDR (US\$)	2019	High	5.61
		Low	3.36
		Average	4.25
	01/01/2020 ~ 02/29/2020	High	5.97
		Low	4.82
		Average	5.51

4.5 Status of Employee Stock Option Plan: None.

4.6 Status of New Restricted Employee Shares: None.

4.7 Status of New Shares Issuance in Connection with Mergers and Acquisitions: None.

4.8 Financing Plans and Implementation: None.

## 5. Operational Highlights

### 5.1 Business Activities

#### 5.1.1 Business Scope

##### 5.1.1.1 Main areas of business operations

Research, development, manufacturing, and sale of the following products:

- (1) AlGaInP Epi Wafer & Chips
- (2) AlGaAs Epi Wafer & Chips
- (3) InGaN Epi Wafer & Chips
- (4) PHEMT
- (5) InP-based HBT
- (6) GaAsP Wafer & Chips
- (7) GaP Wafer & Chips
- (8) AlGaInN Wafer & Chips
- (9) GaInAsP Wafer & Chips
- (10) Optoelectronic detection components
- (11) Wafer for microwave communications
- (12) Wafer & Chips for fiber-optics communications
- (13) LED and its mold
- (14) System and application parts for the above products
- (15) Phosphor powders

##### 5.1.1.2 Revenue distribution

Consolidated Entities		Unit: NT\$ thousands	
Item	Total Sales in Year 2019	(% of Sales)	
Chip	14,318,758	89.72	
Epi Wafer	163,538	1.02	
The Others	1,477,535	9.26	
Total	15,959,831	100.00	

Note: Based on IFRS

##### 5.1.1.3 Current Products (Services)

Epistar's current main commodities are AlGaInP, Epi Wafer, Chip, InGaN Epi Wafer & Chip and AlGaAs Epi Wafer & Chip. According to different emission colors and materials, its product range as follows:

Color of emitting light	Material	Product Category.
High Brightness Red	AlGaInP	Epitaxial Wafer, Die
High Brightness Orange	AlGaInP	Epitaxial Wafer, Die
High Brightness Amber	AlGaInP	Epitaxial Wafer, Die
High Brightness Yellow Green	AlGaInP	Epitaxial Wafer, Die
High Brightness Blue	InGaN	Epitaxial Wafer, Die
High Brightness Green	InGaN	Epitaxial Wafer, Die
Ultra Violet	InGaN	Epitaxial Wafer, Die
Infrared LED	AlGaAs	Epitaxial Wafer, Die
Infrared VCSEL	AlGaAs	Epitaxial Wafer, Die (Foundry)

#### 5.1.1.4 Plan of new product (service) development

- (1) Proximity sensor/emitting diode-related products for portable and wearable devices
- (2) LED chip products for facial recognition and biometric detection adapted in portable device /notebook
- (3) Infrared LED chip products for in-cabin driver's awareness sensing system
- (4) LED chip products with SpO<sub>2</sub> measurement function adapted in portable and wearable device
- (5) LED chip products for industrial automation equipment /Robot sensing
- (6) Developing ultra-high brightness and ultra-high current density vertical type red, blue and green LED dies for projector application
- (7) Ultra-high wall plug efficiency LED chip for horticultural lighting application
- (8) Ultra-high brightness red and yellow LED chip products for special lighting applications
- (9) Ultra-high efficiency red LED chip products of all chip size for automotive tail lamp
- (10) New small-chip design for more compact and smaller size of package
- (11) LED chip products for electronic sports application
- (12) Ultra-high brightness and current-density LED chip products for projector application
- (13) Developing near-infrared LED new products with wavelength ranging from 1100nm to 1600nm
- (14) Developing high efficiency new blue/green horizontal product
- (15) Developing high efficiency blue LED for high efficiency lighting application
- (16) Developing low-current-driven LED dies for display application
- (17) Develop high brightness LED wafer for wide color gamut display.
- (18) Develop high brightness LED wafer for identification of self-driving car.
- (19) Develop high performance InGaN/GaN blue and green 6 inch Epiwafer for high efficiency LED blue and green chips.
- (20) Developing green and longer-wavelength blue LED for outdoor lighting project
- (21) The high efficiency and quality Mini LED development for display.
- (22) Developing the high efficiency and quality mini LED for BLU of mobile phone and tablet
- (23) The high efficiency and quality Mini LED development for TV BLU
- (24) The high performance and reliable flip-chip GaN LED
- (25) The high quality vertical UV LED development application
- (26) The mini flip-chip LED development for ultra-thin cell phone panel
- (27) The high-end LED product for flash light module
- (28) The high quality multi-cell flip-chip LED development for TV BLU application
- (29) The high reliability multi-cell flip-chip LED development for general lighting application
- (30) Developing UV-C LED for new application in Deep UV region
- (31) Developing High Power Edge Emitting Blue Laser Diode
- (32) Development of new LED CSP for ultra-thin and high contrast LCD BLU
- (33) Development of white LED CSP for high-end flash applications
- (34) Development of high efficiency CSP technique for lighting application
- (35) Development of LED CSP for high color gamut BLU applications
- (36) Development of LED CSP for Direct type BLU with high color gamut
- (37) Development of high voltage white LED CSP
- (38) Development of high reliable white LED CSP for Automotive application

- (39) Development of new product of UV CSP
- (40) Development of GaN-on-Si power device for LED general lighting application
- (41) Developing high voltage IoT IC with HEMT
- (42) Development of switching mode power supply for adapter under 100W
- (43) System integration technology for fine pitch display
- (44) Develop the epitaxy & process technology of small power level VCSEL for the proximity sensor of mobile phone foundry service.
- (45) Develop the epitaxy & process technology of high power level VCSEL for facial recognition and 3D reconstruction of mobile phone foundry service.
- (46) Develop the epitaxy & process of 25G VCSEL & 10G APD for emission & receiver of optical communication.
- (47) Develop the wafer process technology of Micro LED for next generation display foundry service.
- (48) Develop the wafer process technology of EEL 650nm for industrial application foundry service.
- (49) Develop the epitaxy & process technology of VCSEL flip-chip foundry service.

### 5.1.2 Industry Overview

#### 5.1.2.1 The current status and development of the industry

It's been 30 years since the LED industry developed and grew from 1990. The LED components were used firstly as indicators in home appliances, then in cell phone starting 2002, Netbook BLU from 2007... etc. Since 2010 LED had become the only light sources BLUs of every Notebook and Tablet. With Samsung's leading launch of Edge-lit LED BLU LCDTV in 2009, and Direct-lit LED BLU LCD in 2012, the LEDs not only had reached penetration rate of 90% in TV application since 2014, but also support the LCD display industry for superior design and performance.

LEDs also penetrate into other applications including architecture lighting, outdoor lighting, and indoor lighting due to its advantages of high efficacy, low power consumption, low greenhouse emission, mercury-free, and coming in multi-color. In terms of efficiency, we expect LEDs to continue to improve annually, which already met the US DOE's 2015 target of 150 Lm/W and 200 Lm/W of 2020 too. Meanwhile the DOE's "\$10/kLm cost target in 2015 to challenge CFLs" was also met in the second half of 2014 by both LED's technology innovation and supply chain's integration and co-work. With the industry's efforts and government's policies on carbon-emissions, incandescent-banning, street-lamp updating, the worldwide leading lighting branders are expecting LED lighting penetration to reach 70% in 2020. On the basis of the ongoing promotion of the public projects concerning the policies on incandescent light ban, carbon emission and street lighting replacement from different governments, LED lighting is now one of the most important mega trends globally.

The fast-turn-on property of LED lights is very important for automotive lighting & signaling, and so LEDs were adopted in the Center-High-Mount-Stop-Lamp (CHMSL) in the late-1980s. Nowadays, HB LEDs are also used as indicators and lightings both internally and externally, examples like dash board indicators, CHMSL, tail lamp, turning lamp, daytime-running-light, headlight...etc. The All-LED trend is getting popular in both premium and mainstream models.

The high brightness and high purity properties make LEDs the best fit for the indoor and outdoor signage market. The large size RGB LED digital signage displays are used in outdoor commercials, event broadcasting, traffic controls & notifications...

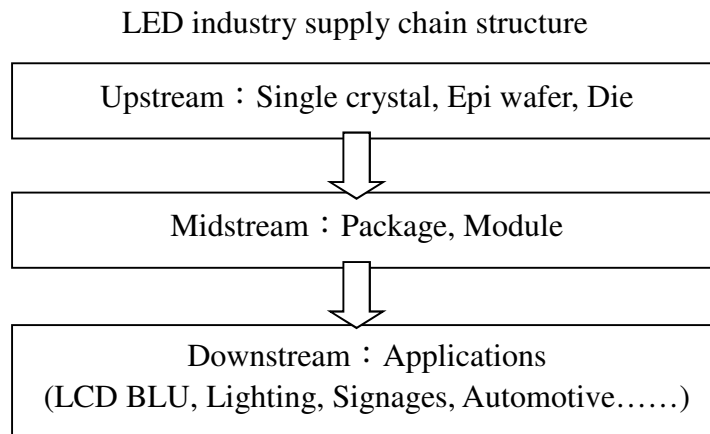


and keep expanding. Meanwhile, fine-pitch high-density LED displays provide premium picture quality due to its high pixel density, detailed greyscale, high contrast, and seamless screen. These superior properties make it a better choice over LCDs, PDPs and DLPs in the military and governmental control-room, broadcasting center, event commercials...etc.

Moreover, LEDs also make many special applications possible including horticulture, bio-medicine, security & surveillance, wireless communication, smart-home lighting, etc. The superior properties of LEDs like small-size, multi-wavelength, fast response time, and better efficacy make it not only fit in many applications, but also help create more possibilities.

### 5.1.2.2 Upstream Downstream supply chain relation

After 20 years of development, Taiwan’s LED industries are now structured into three segments. We can plot it as below including Single Crystal / Epi Wafer / Die the Upstream, package and module assembly the mid-stream, and all kinds of application in the downstream.



### 5.1.2.3 Application developing trend of LED products

#### (1) Indicators and LED Display

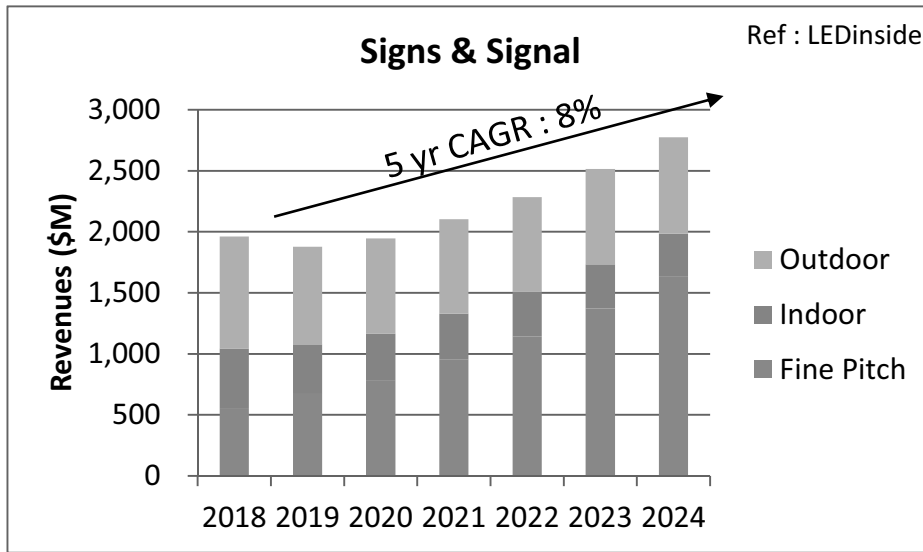
“Ultra-High-Brightness” and “Full-color” are major trends of Visible-LED development. UHB LEDs can provide significantly better contrast and readability for outdoor application like traffic signs, indicators in vehicles, and outdoor LED display under sunlight conditions.

LED displays are an essential medium for bringing real-time information and conveniences to people in all kinds of commercial activities like the Olympic series from 2008, many World Expos, and FIFA World cups. The broad adaption brings fabulous video performances that attract more viewing audiences. As the technology and cost evolves, we can expect the Display application to keep the growing trend.

As the SMD and module technology improved, outdoor LED displays have crossed the 5mm bottle-neck to allow for designs like those with a 3.x and 4.x mm pitch. Moreover, <1.0mm pitch indoor displays are also in production. The indoor applications have evolved from long-distance advertisement to detail information like in the airport flight schedule, replacing traditional display tech like PDP / LCD / Rear Projection Mini-LED or Micro-LED-based high contrast displays also

start to enter high-end retail stores and luxury mansion homes “Fine-pitch” is officially the new industry mainstream for both indoor and outdoor LED displays.

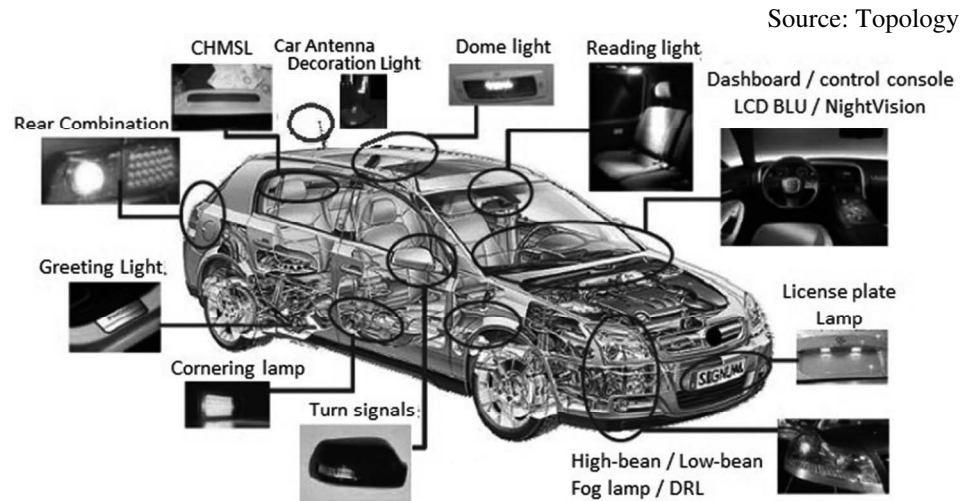
LED revenue in Signs & Signal and Display market, 2018-2024



(2) Automotive Lighting

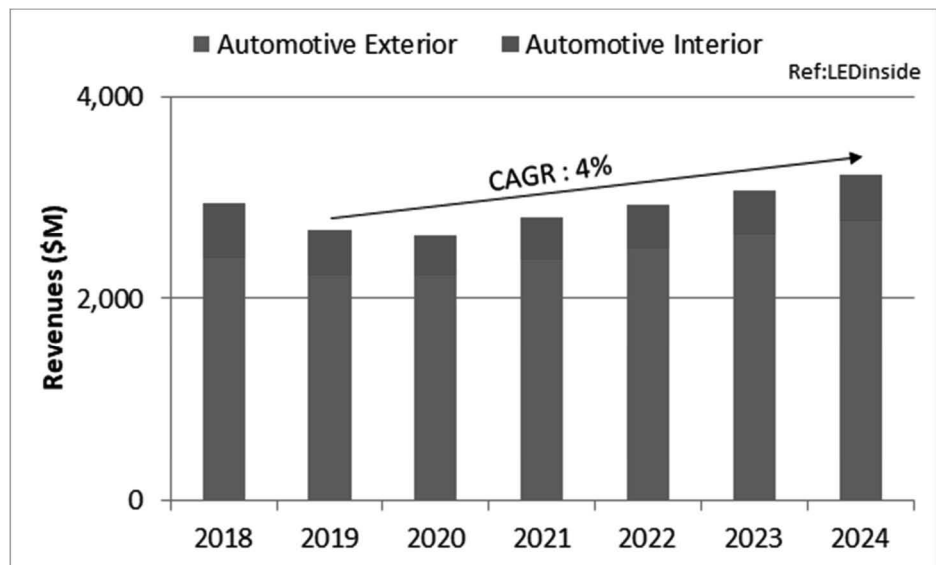
High reliability, energy saving, and instant response make HB LEDs the best light source in both interior and exterior automotive applications. Interior applications include light sources in dashboard and control console, reading light, interior dome light, trunk light, and doorway light. Exterior applications include lighting for visibility (like headlamp, fog lamp, and license plate lamp) and lighting for signaling (like stop lamp, turning lamp, tail lamp, CHMSL, reversing lamp, and DRL). LED light sources are becoming standard equipment in not only premium models but also mainstream models. Meanwhile “Lightsource for communication” also emerge as OEM and headlamp maker developing projector-type and matrix-type headlamp. These new headlamps can “talk” to surroundings with pixel-level accurate pattern while maintaining the illumination function. Both large-area LED and mini-LED could grow in such premium design long-term-wise.

## LED light sources in automotive application



Beyond the above interior & exterior lighting, more optoelectronic devices are designed into ADAS or Auto-driving system. The integration of infrared camera and smart headlamp, and the range-finding sensor fusion of Radar & Lidar & Ultrasonic devices also expand the automotive related market. As the autonomous-driving function matures, in-cabinet displays are expected to grow, the flat or curve displays leave more opportunities for mini-LED BLUs. As vehicle cabinet functions as another living space for work and leisure, high quality and RGB tunable illumination are now crucial for creating atmosphere to match each scenario.

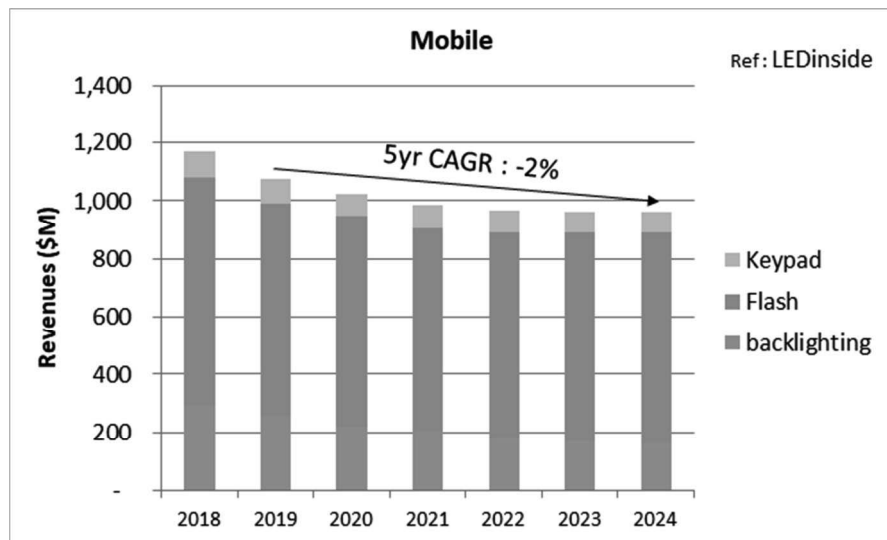
LED revenue in Automotive, 2018-2024



(3) BLU for cellphone and portable handheld devices

The “thin and lightweight” requirement for hand-held consumer electronics like cell phones and GPS make LEDs the best choice for keypads and LCD backlights due to LED’s advantages in both size and weight. Though the quantity growth was slowing in 2016, the trend of increasing size and higher resolution remains. The LED number per phone increased from 6 in 3.5” to 8 in 4” to 12~16 in 5”+. Performance requirements like high brightness and low voltage also drives LED technology advances. Moreover, the flash LED for rear cameras also increased from 2 to 4 in iPhone 7s. We believe this trend will expand the push by other brands to follow suit. Overall the LED revenue in handheld devices could remain flat. Due to the very high driving current and flux requirement of flash applications, CSP types of LEDs are being gradually adapted. Over the long-term, LEDs still could be impacted by the OLED trend in handheld device. Therefore, LED industries are also developing super-thin HDR (High-Dynamic-Range) features by utilizing direct-type mini-LED which is even smaller than current side view LED in edge-BLU. With these thousands of mini-LED, the BLU can perform 2D-local-dimming to very fine zones so reaching super-high contrast, while maintaining excellent power consumption and thickness. In the premium tablet and gaming NB/PC market, the demand for premium picture quality and power consumption also push for mini-LED design to take-off.

LED revenue in handheld applications, 2018-2024



(4) Mid to large size BLU for LCD

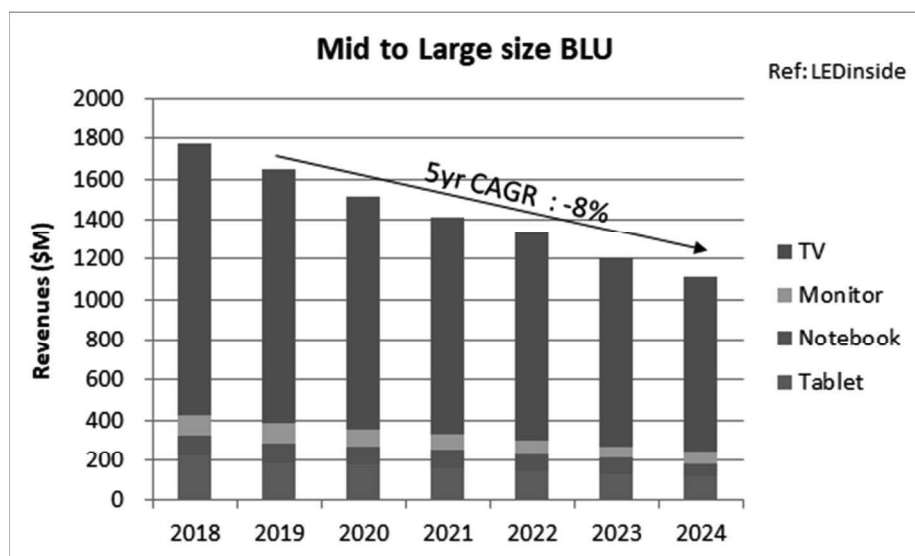
In 2009, LEDs began to replace CCFL as light source for Netbook PC’s BLU. Following Sony’s launch of large-size LCDTVs with LED BLU in 2004, in 2009 Samsung was the first to use the Edge-lit BLU structure to lower the LED number and BLU thickness. The smaller price gap with CCFL counterpart made it a big hit in the consumers market in 2010. Many TV branders then further brought the price to almost CCFL levels by introducing directly lit BLU structure LCD TVs, which pushed the LED penetration rate to 70% with the help of China’s subsidies for energy-efficient appliances. After 2015, the overall LED penetration rate of all mid-to-large LCD BLUs were almost 100%, so it’s generally believed that the LED revenue had reached the peak for this type of application.

Nevertheless, there are some positive factors for this application including:

- A. Trend for average size-up every year. 41.4”@2015,43.6”@2016, 45”@2017 , 46”@2018 and 47”@2019. A 5% increase in panel size and LED count in yearly average can be observed.
- B. Trend to UHD (4k2k). 30%~50% more LED per TV comparing to FHD
- C. Trend to High Color Gamut. The CG target increased from 70% ~ 72%NTSC @2009 to 90~95%, which requires more LED for to compensate the brightness loss by different phosphor. Quantum Dot’s lower conversion efficiency calls for more LED in BLU design. QD-based design also requires lower driving current to avoid heating, and that means more LED per TV too.
- D. High Dynamic Range. To compete with OLED in terms of contrast, the mini-LED for HDR BLU design uses multiple-times of LED per TV will boost the contrast performance, and also LED usage in BLU applications.

Combining all that, although the LED penetration rate is almost saturated, the positive factors like size-up, UHD, HCG, and HDR can still stimulate mid-to-high-end LED revenue. Mini-LED-BLU is another trend in premium monitors design. The benefit of meeting both HDR and slim design make mini-LED a perfect choice to grow with premium monitors for Gaming and Graphic-design users.

LED revenue in mid to large size BLU, 2018-2024

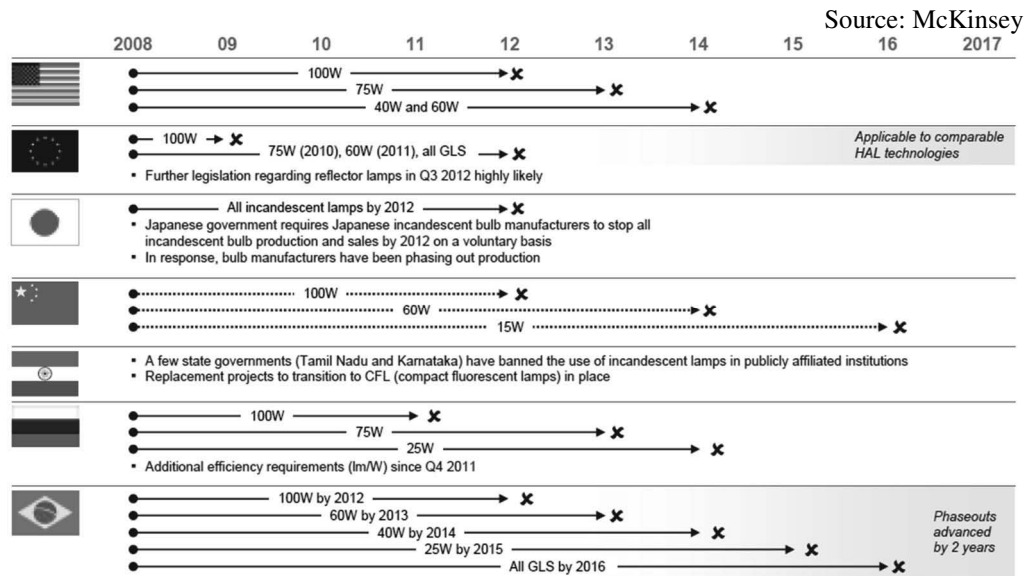


(5) Solid-state lighting market

According to OECD, global lighting electricity consumption accounts for about 19% of total electricity consumption. In recent years, due to the global warming, energy shortages, high oil prices and other issues, the global awareness of energy conservation have been gradually increasing. Generally estimated, if the LED light sources replace existing conventional lighting, about 1,325 TWH savings will be made per year, corresponding to 50% energy savings, savings approximately equal to the amount of 132 nuclear power plants (set 10 TWH as annual electricity generation per nuclear power plant). Therefore, integrating considerations including environmental protection, energy conservation and safety,

governments have embarked on to ban incandescent lamp, and LED lighting is undoubtedly an important solution.

### The policy of ban on incandescent lamp

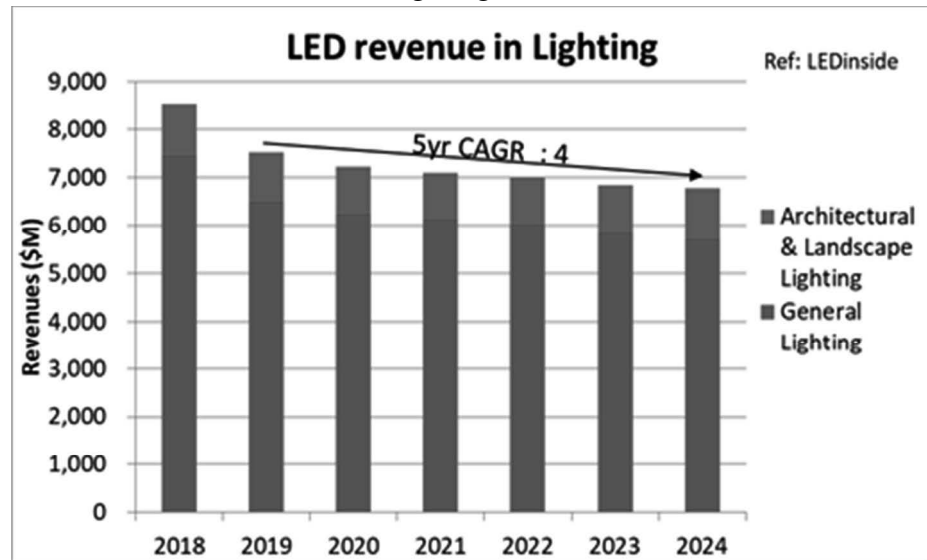


Outdoor street lighting market is the fastest growing category of solid-state lighting applications. Taiwan's government first launched the CNS-15233 LED lights standard in late 2008 to properly define product specifications and market rules, and in 2011 budget 2.768 billion TWD for the replacement of 326,000 streetlights with LEDs. Subsequently, from the US American Recovery and Reinvestment Act (ARRA) providing subsidies for LED streetlights, to China's 12<sup>th</sup> Five-Year Plan to promote the "10 cities with ten thousand lights" and "lighting every village" initiatives, to the EU's 20-20-20 plan, streetlight markets have been key projects for governments. In 2011, the International Energy Agency (IEA) surveyed that about 160 to 180 million existing streetlights, LED lights in 2011 penetration rate was only about 5%. In 2016 the penetration rate already reach 50% and then reached 65% in 2018, with a total demand amounting to more than 100 million LED lights.

In 2014, changes in indoor alternate lighting sources started due to the complete specifications and the arrival of a pricing sweet spot. This allows for a large number of solid-state lighting started penetrating into the consumer market. The US government officially banned the production and import of 40-watt and 60-watt incandescent bulbs in 2014. The EU's policy from 2013 gradually regulated and guided the replacement of low energy efficiency incandescent halogen lamps with efficient LED bulbs. In the United States, state governments and power companies subsidize the purchase of Energy Star certified LED light sources, making the US Department of Energy in advance to reach 2015 target of 1000 lumens/10 USD in the second half of 2014, following by the market penetration rate highly growing year by year. The installed penetration rate is 13% in 2016, and growing to 20% in 2017, forecasted to be over 50% in 2021. Product-wise the LED filament bulbs also gain much popularity among branders and consumers, due to the classic appearance and energy-efficient features.

Besides the consumer lighting market, some niche lighting application also grows faster than average. The horticultural lighting can help both in shortening harvest-time and increase plant density per area. Horticultural LED lighting had been implemented in many high-value plant farms.

LED revenue in Lighting, 2018-2024



(6) Sensing application

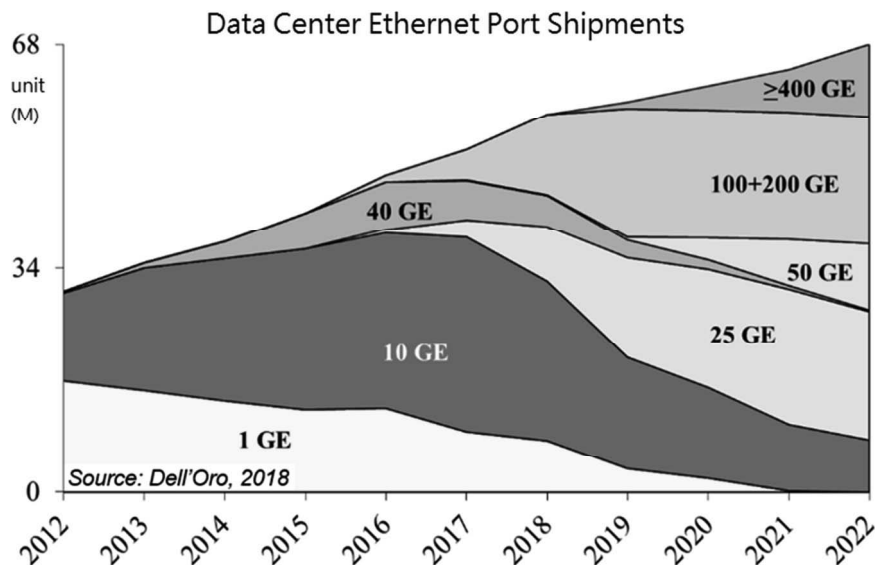
Sensing functions are now applied in many scenarios. The Infrared LED and Camera pair had been used for Facial Biometric Recognition in many IT devices, replacing the routine Password-setting / key-in/ re-new...etc. The lower-power consumption and wavelength-customization-capability are also very favorable in smartphone authentication. The uniqueness and accuracy of Iris tissue has made Iris-Recognition a very popular authentication method. Wearable devices like wristband are widely used in health-monitoring and sport-tracking, with pulse-tracking function that enabled by different absorption-spectrum of blood and vessel tissue. By combining visible and infrared spectrum, the tracking device can provide best S/N ratio of bio-information for the user to judge. Other than just pulse-rate, important bio-metrics like SpO2, blood glucose level are available by using multiple-wavelength Infrared LED. Besides measurement, many Photodynamic Therapies are also under-developing. Infrared LEDs have been used to improve life qualities in terms of Security, Recognition, HealthCare, BioMedical.

VCSEL (Vertical Cavity Surface Emitting Laser) is an important key component in the 3D sensing application. In the past, it was mainly used in the optical communications market. Its 'collimated and coherent' features enable high accuracy, miniaturization, low power consumption, reliability, and excellent response speed. These all contribute to precision distance measurement and recognition. As 3D sensing architecture such as time-of-flight and structured light mature, plus the rapid development of algorithms, major manufacturers gradually introduces 3D sensing technology to mobile devices in response to the demand for new features of consumer electronics products. Since the high-end flagship devices began to accommodate 3D sensing capabilities in 2017, the number of VCSEL shipped for consumer electronics products has exceeded VCSEL for

existing optical communications market. Market research institutes expect VCSELs used on smart phones will reach 5 times the demand for optical communications in 2019. In the future, 3D sensing with VCSEL as an important component can also be extended to new applications such as vacuum-cleaner robots, AR/VR, automotive applications like drones and self-driving cars, or biomedical sensing.

(7) Optical Communication

Data Center traffic has been growing fast as the smart handhelds and internet services getting popular, spurred by cloud and 5G infrastructure implementation. The Data Center Interconnect (DCI) is a key sector of optical communication market. Transceiver module made by Multi-mode VCSEL grows the most in the <2km “inside DC interconnect” due to its high performance and lower cost and power consumption. 10Gbps VCSEL is mainstream now, while 25Gbps are the foundation of 100G(4×25Gbps)Ethernet switch. 25G per channel can be the building block to reach 100G and 200G switch. This flexibility make VCSEL demand grows with healthy DCI market.



5.1.2.4 Current situation in industry competition

Domestic and foreign LED mega manufacturers have unique advantages with LED structures, elements, epitaxy, and technology on process technology. With reference to the public information published by the enterprises, the important technical items are described as follows:

- (1) PHILIPS LUMILEDS performs high efficiency and high power LED with technical advantages of transparent substrate and the flip-chip technologies.
- (2) NICHIA invested in developing InGaN LED technology very early and has advantages on high-efficiency LED technology.
- (3) OSRAM OPTO SEMICONDUCTOR invested in developing Buried Micro - Reflector Type LED and Thin-GaN LED technology and has advantages on high-efficiency LED technology.
- (4) CREE uses vertical adhesive technology and integrated packaging technology on high power InGaN dies, and breaks the records of luminous efficiency frequently.



All enterprises each have leading and dominant technologies in different aspects. While along with rapid changes in technology, companies are able to communicating, research and develop various new LED structure, component, and process technology by using different technology platforms. Then based on considerations including each company's technologies, transferable production, and ROI rate etc., profits will be reduced, and companies will gradually lose competitiveness. Therefore, they will only survive in this strict market if they continually improve their LED technological innovations. The LED industry is a technology-intensive industry, and patents are a key indicator of competitiveness. By the end of 2019, Epistar acquired 4,982 domestic and foreign patents, and has been deemed as the manufacturer with the most key patents in the domestic upstream LED epitaxy / dies in the industry.

### 5.1.3 Research and Development

#### 5.1.3.1 Research and Development Expenses

Consolidated Entities		Unit: NT\$ thousands
Year	Research and Development Expenses	Revenues (%)
2019	1,999,017	12.53

Note: Based on IFRS

#### 5.1.3.2 Successfully developed technologies or products as of the publication of this annual report

- (1) High power 810nm/850nm/940nm wavelength infrared dual junction chip products for facial and iris recognition function adapted in portable device /notebook
- (2) Infrared LED chip for automotive night vision and Advanced Driver Assistance System(ADAS)
- (3) Ultra-high brightness red LED chip products for vehicles rear lamp assembly
- (4) Proximity sensor and biometric detection related products for portable and wearable device
- (5) Wall plug efficiency (WPE) >70% red LED chip for horticultural lighting application
- (6) Small size red flip chip for electronic sports application
- (7) Red PEC-chip (Pad extended chip) for display
- (8) The high brightness horizontal GaN LED technology development
- (9) Development of horizontal GaN LED for automotive console, cluster, reading lamp and daytime running lamp
- (10) The high voltage flip-chip LED development for CSP package. Suitable for all kinds of BLU module and down size LED PKG dimension
- (11) The Mini LED development for ultra fine-pitch display application
- (12) Development of mini LED for mobile phone 、 tablet and TV BLU
- (13) The high voltage (9V-18V) LED development for general lighting application
- (14) Development of high efficiency flip-chip LED development for automotive, the brightness reaches 380lm at 1000mA.
- (15) The UV flip-chip LED development for 365-420nm application
- (16) High efficiency 410~420nm lateral chips for sun-like spectrum lighting.
- (17) High efficiency 520~535nm vertical chips as light source for heart-rate sensing wearable devices
- (18) The ultra-high brightness B/G GaN LED for pico projector application.
- (19) The ultra-high brightness vertical UV (365nm) LED.

- (20) Development of ultra-low voltage horizontal LED for mobile phone sideview BLU application
- (21) The mini flip-chip LED development for ultra-thin cell phone panel application
- (22) The white light technology development for cell phone flash module
- (23) Development of deep UV light source technology for disinfection and purification application
- (24) Development of flip-chip GaN LED for automotive daytime running lamp and head light lamp
- (25) Development of high reliable vertical 365~410nm UV LED
- (26) Development of high efficiency green vertical die for bio-sensing application
- (27) Development of ultra-thin and high color gumut LED CSP for Edge-lit of LCD BLU
- (28) Development of wide angle of LED CSP for ultra-thin and high contrast LCD BLU
- (29) Development of high power and high color gumut LED CSP for BLU
- (30) Development of new LED CSP technique for flash application
- (31) Development of high optical density of LED CSP in lighting applications
- (32) Package and modulation technology for power supply application
- (33) Development of edge-emitting blue laser diode with 4W radiant power
- (34) Development of 4 W radiant power edge-emitting blue laser diode COS (Chip On Submount)
- (35) Development of high voltage IOT IC with HEMT
- (36) Successfully developing SMART process for BAW product (process from customer)
- (37) The Preliminary Research of "GaN on Si" Epitaxial Technology for RF Device
- (38) The Development of Key Technology for Normally-off Transistors(E-HEMT)
- (39) Development of multiple LED dies with super fine pitch for headlamp module
- (40) Development of high brightness LED package for automotive use
- (41) Development of 0404 RGB Package for fine pitch display
- (42) Development of 4in1 RGB Package for P0.9375mm fine pitch display
- (43) Development of 4in1 RGB Package for P0.625mm fine pitch display
- (44) Development of mini LED COB for 27" monitor
- (45) Development and mass-production completed of small power VCSEL chip for proximity sensor of mobile phone
- (46) Development and mass-production completed of VCSEL chip for under-panel proximity sensor of mobile phone
- (47) Development and mass-production completed of small power VCSEL chip for true wireless stereo
- (48) Completed the technology platform of VCSEL flip-chip
- (49) Completed the development of VCSEL 850nm epitaxy for surveillance
- (50) Development and mass-production of small power VCSEL chip for proximity sensor of mobile phone
- (51) Development and repeat run of 25G VCSEL epitaxy
- (52) Development and pilot-run of 10G APD for optical communication
- (53) Completed the wafer process technology of Micro LED for next generation display
- (54) Development and repeat run of EEL 650nm for industrial application

### 5.1.3.3 Ongoing Research and Development Projects and Expenses

Future R&D plans and estimates of R&D expense. The R&D expense of the company in 2020 is roughly 1.813 billion. The R&D items are shown as follows:

- (1) Efficiency improvement of near infrared LED with wavelength ranging from 1100nm to 1600nm
- (2) Mini RGB package for small pitch display
- (3) Develop new flip chip product with high efficiency for lighting market
- (4) Launch/receive device development for biometric detection and recognition
- (5) Ultra-high wall plug efficiency LED chip for horticultural lighting application
- (6) Ultra-high efficiency/Stable reliability LED chip for automotive application
- (7) Ultra-high brightness and current-density RGB chip products for projector application
- (8) Development of high brightness LED epiwafer, running at high current density, for headlamp application
- (9) Development of high brightness LED epiwafer, running at high current density, for general lighting
- (10) Development of high brightness LED epiwafer, running at low current density, for high-efficiency lighting and portable device BLU
- (11) Development of high efficiency LED epiwafer, running at ultra-low current density, for micro-LED application
- (12) Development of new product of high quality and high efficiency Mini-LED
- (13) Development of new product of high quality and high efficiency ultra-thin Mini-LED
- (14) Develop mini-LED for automotive applications
- (15) Develop high efficiency & quality high-voltage flip chip LED product
- (16) High efficiency flip-chip LED product development and performance improvement
- (17) High lumen and reliable flip chip for automotive headlight market
- (18) Develop high current density blue/green vertical GaN LED for pico projector and efficiency improvement
- (19) High efficiency B/G LED development and performance improvement for fine-pitch display application
- (20) High efficiency vertical UV (365-405nm) LED development and performance improvement for industrial or commercial application
- (21) High efficiency UV (410-420nm) LED development and performance improvement for high color gamut lighting applications
- (22) Development of high competitive product with white light LED apply for BLU, general lighting and high-end flash module
- (23) Improvement of output power of 280nm UV-C LED die
- (24) Development of blue laser diode
- (25) Development of new LED CSP for BLU, lighting and high-end flash applications
- (26) Development of LED CSP for automotive head lighting
- (27) Development of LED CSP array with different wavelength
- (28) Design of 2<sup>nd</sup> lens for LED CSP optimization
- (29) Development of integrated GaN-on-Si power device for LED general lighting application
- (30) Development of power supply system for operation over 100W and beyond 1 MHz over 100W operated higher than 1MHz power supply

- (31) Development of GaN power electronics device/circuitry/system for LiDAR application
- (32) Develop high voltage IoT IC for smart home
- (33) Development of device package for 2.5 GHz RT BAW
- (34) Development of 3.5 GHz RT BAW device (polycrystal)
- (35) Development of 2.5 / 3.5 GHz RT BAW device (single crystal)
- (36) Development of 2.5 GHz MT BAW device (polycrystal)
- (37) Development of “GaN on Si” Epitaxial Technology for Microwave Device (RF Device)
- (38) The Development of “GaN on Si” Process Technology for Microwave Device (RF Device)
- (39) Development of 0202 RGB Package for fine pitch display
- (40) Development of 4in1 RGB Package for P0.7812mm fine pitch display
- (41) Development of 16in1 RGB Package for P0.46875mm super fine pitch display
- (42) Development of LED CSP for wide color gamut BLU of automotive cluster
- (43) Development of mini BLU COB for 15.6” NB monitor
- (44) Complete the 1300nm VCSEL epitaxy and product development for ToF 3D sensor
- (45) Complete the 905nm epitaxy and product development for biometric application
- (46) Complete the 650nm-680nm epitaxy and product development for industrial application
- (47) Complete the high power VCSEL chip product for facial recognition and 3D reconstruction of mobile phone
- (48) Complete the product development of 850nm for surveillance
- (49) Complete the product development of VCSEL flip-chip
- (50) Complete the epitaxy & process technology of high power VCSEL for facial recognition and 3D reconstruction of mobile phone foundry service.
- (51) Complete the process technology of 25G VCSEL for optical communication.
- (52) Complete epitaxy technology of 10G APD for optical communication.
- (53) Complete the process technology for shrinkage the Micro LED chip size for new generation display.
- (54) Complete the epitaxy & process technology of VCSEL flip-chip

#### 5.1.4 Long- term and Short-term Business Development Plans

##### 5.1.4.1 Short-term Business Development Plans

- (1) Focus on visible light, UV light, infrared light LED technology development LED wafers and dies, in order to improve product performance and increase profits.
- (2) Provide LED products with high light intensity and cost advantages, high Lm / \$ core competencies to meet specific customer.
- (3) Expand the China, Europe, America, Japan, Korea, and other regional marketing channels, improve the proportion of exports and increase international market share.
- (4) Rapid response to customer demand, adjust the product combination to meet the rapidly changing market.
- (5) Create a virtual vertical integration (VVI) service, to improve the efficiency of cooperation lighting supply chain, improve the popularity of LED lighting. Fastening the adaption of mini-LED and micro-LED solutions by working closely with LCD customer and also supply chains of all display types.

#### 5.1.4.2 Long- term Business Development Plans

- (1) Improve the company's own research and development capabilities, launch technical cooperation with domestic and foreign research institutions and customers, and arrange high proportion of investment in R & D resources to raise liters of long-term international competitiveness.
- (2) Develop long-wavelength infrared light and short-wavelength UV light technology to provide a full spectrum LED product line.
- (3) To become the world's leading LED manufacturer continues to develop new products, improve the efficiency of LED and relevant applications in order to actualize unlimited LED potentials.
- (4) Continually thick technical design capability and enhance patent portfolio basis.
- (5) Continually optimize production technology, lower production costs, and establish a more cost-competitive production capacity.
- (6) Optimize production capacity and complete quality certification system, continuing to improve product quality, shorten product delivery to provide customers with the most satisfactory services.
- (7) To enhance the transferable efficiency of LED products, reduce the heat and thus save energy; committed to the development of other III-V semiconductors technology applications, such as the power element to conserve energy, to develop new applications and VCSEL foundry business.

### 5.2 Market and Sales Overview

#### 5.2.1 Market Analysis

##### 5.2.1.1 Sales (Service) Region

Consolidated Entities		Unit: NT\$ thousands	
Area	Sales	Sales %	
Taiwan	2,757,518	17.28	
Asia	12,969,498	81.26	
Others	232,815	1.46	
Total	15,959,831	100.00	

Note: Based on IFRS

##### 5.2.1.2 Market Share, Supply and Demand, and Future Growth.

Epistar's main products are two categories of epi wafers/LED chips: AlGaInP and InGaN. According to statistics, the total revenue of 8 LED chip manufactures in Taiwan (including publicly traded companies in LED industry) was around 27.2 billion NTD. Epistar's revenue in 2019 was around 16 billion NTD. The market share is about 58.8% in 2019.

Source: MOPS

Ranking	Company	2019 Consolidated Revenue (NTD million)	%
1	Epistar	15,960	58.8%
2	Optotech *	5,418	20.0%
3	Tyntek *	2,520	9.3%
4	Epileds	1,191	4.4%
5	Genesis	744	2.7%
6	HPO	652	2.4%
7	Tekcore	555	2.0%
8	Arima	114	0.4%

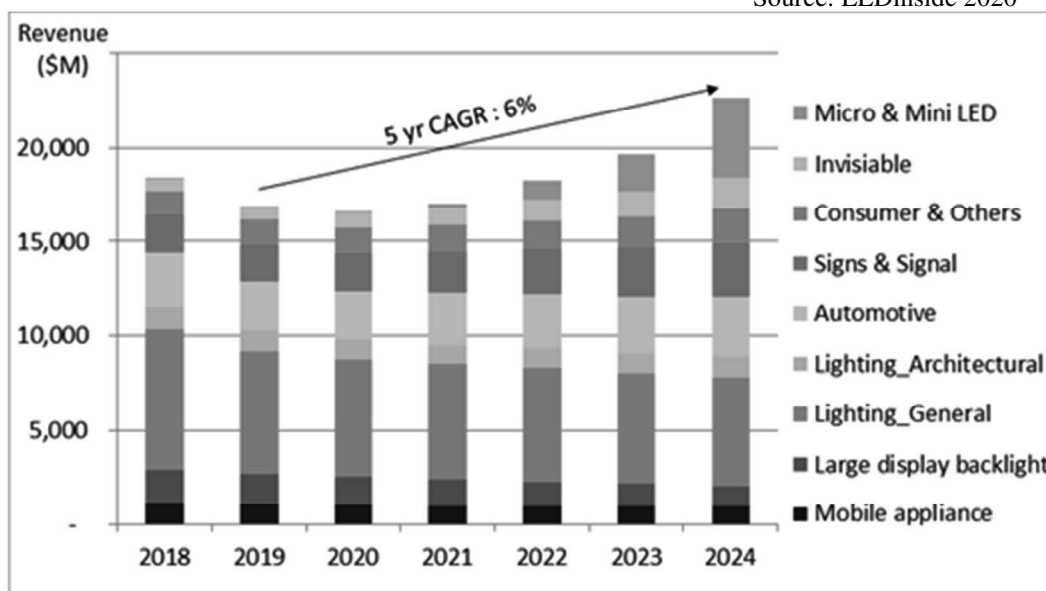
\*: consolidated revenue including non-Epi wafer and non-chip product

Starting in 2009, China’s government subsequent 11<sup>th</sup> and 12<sup>th</sup> 5-year plan subsidized and encouraged Chinese manufacturers to purchase MOCVDs, create joint ventures, or new companies. Many new industry players were created and the market became highly-competitive, and the supply and demand became out-of-balance. The price went down and some players went bankrupt. As a result, the annual revenue of 2015 declined 2~3%.

In spite of the needs of solid state lighting having increased, the consuming habit for general lighting focuses on the “cost / performance ratio” and this factor makes revenue increase quickly but profits sharply decrease. However, the applications like automotive, medical, horticulture, security, and wearable devices are still growing up. We believe that the players equipped with effective production and strong abilities will be bigger and survive in the market after supply and demand is balanced. There are two research companies’ points of view about the estimation of the LED market.

LED revenue in all applications, 2018-2024

Source: LEDinside 2020



### 5.2.1.3 Competitiveness

(1) Full spectrum product portfolio.

Epistar’s AlGaInP product series provides yellow-green, yellow, orange, and red high brightness epi wafers and chips. Epistar’s InGaN product series provide purple, blue, and green epi wafers and chips. Epistar also has ultraviolet and infrared products. From 365nm to 940nm, features of full spectrum product portfolio and one-stop shopping satisfy all kinds of needs for all kinds of applications.

(2) Concentrate on epi wafers and chips manufacturing.

For the 23 years after its founding, Epistar has remained focused on epi wafers and chips, dedicated to the optimization of chip manufacturing technologies. Instead of vertical integration, Epistar chooses horizontal expansion and looks for cooperation in patents, seeks a wide variety of products and depth of technologies.

- (3) Adjust product portfolio and meet market needs rapidly.  
Except for high brightness LEDs and AC LEDs, Epistar started mass production of high voltage LEDs in 2011. The high voltage product series was TAIWAN EXCELLENCE certificated in 2014. It saves driver cost for client and creates more design ability by using high voltage LEDs. The combination of blue and red high voltage LEDs also provides high quality and high CRI warm-white light sources. Epistar also began mass production of pad extension chip (PEC) in 2012. PEC is especially for high operating current and there's no need of the wire bonding process. The PEC also enables higher package density and satisfies the needs for high lumen output in lighting market. Furthermore, Epistar has developed UV LED, infrared ED, and automotive LEDs for a long time. Take niche projector application as an example, in emerging market of portable projectors, it needs extremely high quality and high reliability red, green, and blue light source. Epistar is able to provide one-stop shopping for projector clients. This case embodies the technology and quality value of Epistar.
- (4) Excellent R&D ability with complete IP portfolio.  
Started from establishment, Epistar has been always dedicated to improve manufacturing technologies and develop for innovations. There are over 240 people in R&D Center (EPISTAR LAB) and over 1,400 people in engineering, research, and development. Most of them form Electronic and Optoelectronic System Research Laboratories of ITRI, experts overseas, and domestic professional talents. They are experienced in LED R&D and manufacturing to optimize the technologies of manufacturing LED chips and make LED chips apply to different applications. In 2019, Epistar has 4,982 patents, including patents issued or pending.

For many years, Epistar has been devoted to develop all kinds of technologies for different applications, like "InGaN Blue LED Project" (1999), "InGaN Green LED and White LED Development Project" (2001), "Key Technologies of High Efficiency and High Power Emitting Components Development Project" (2003), "Next Generation Lighting Project" (2003), "Advanced Flat Display Material and Component Integration Project" (2005), "Key Technologies of CPV Solar Cell Development Project" (2007), "Full Color Outdoor Display Development Project" (2014), and "HV LED Application Project" (2014). All of them are key to Epistar's competitiveness.

- (5) Comprehensive and reliable quality and ESH management system.  
Epistar has devoted to improve its product quality since establishing. Epistar was certified by ISO 9001 in March, 1999. In order to further improve product quality to meet the needs of automotive industries, the Company started to introduce TS 16949 and obtained its certification in January, 2006; obtained SONY GP certification in 2009; continued to implement ISO 9001: 2015 and International Automotive Task Force (IATF) 16949: 2016 new edition certification in August, 2018. Besides, in order to strengthen customers' trust in quality of the Company's products, eliminate measurement disputes and enhance corporate image, the Company found its measurement laboratory in 2012 and obtained ISO 17025 certification in the same year.

Epistar also considerably values environmental protection and occupational health and safety, therefore, it obtained not only ISO 14001 certification in July, 2006, but also OHSAS 18001 and CNS 15506 system certification in 2008 and 2009. Epistar also carried out ESH management system (ISO 14001/OHSAS 18001/CNS 15506) three-year re-examination and completed ISO 14001: 2015 revision certification in 2018; besides, in response to the official release of the Occupational Health and Safety Management System ISO 45001:2018, Epistar started planning for it, and implementing the conversion of system standard in the fourth season of 2018, and planned to convert OHSAS 18001 system into ISO 45001 in 2020; it's sufficient to show that Epistar strives in emphasizing and being strict with management of ESH.

#### 5.2.1.4 Favorable factors and unfavorable factors in futures and counter measures.

##### (1) Favorable factors

- A. Products are widely used to all kinds of applications and has great potential  
High brightness LED wafers and chips are widely applied because of several advantages derived from their small dimensions, low electricity consumption, less heat, and long lifetime. Main applications are outdoor display, traffic information display, and light source for automotive lighting, like indicators in interior and third brake light, fog light, tail light, directional light in exterior. Traffic light, traffic signs, light sources for backlight modules in displays, cellphones, and notebooks are also included. For saving energy, LEDs are also widely used for general lighting and streetlights.
- B. LED supply chain is completed and channels are clear and smooth  
Taiwan LED industry has developed for over 20 years and it is well-constructed. Mature and effective manufacturing technologies make Taiwan LED industry an important role in global market. This is a favorable factor for up-stream makers. In addition, Epistar started to develop overseas customers very early and owns abundant down-stream resources. Therefore, forming alliances with downstream customers is one of the important characteristic of Epistar. By work specialization and alliance strategy, Epistar is able to catch market trend and adjust product portfolio to improve competitiveness.
- C. Future application of MOVPE core competence  
MOVPE technology is utilized to manufacture HB-LED and LD due to its strong controls over material purity, epi-layer thickness, and superior uniformity than LPE and VPE technologies. It's also the major technology in manufacturing devices of fibercom and RF front-end module. Those devices include LD & VCSEL in fibercom, CPV Solar cell, HBT in wireless communication. Epistar's management and technology team have years of intensive experiences in both MOVPE epitaxy technology development and MOVPE system design and modification. This expertise brings competence in possible future possible in fibercom and RF related device manufacturing.



(2) Unfavorable factors and counter measures.

A. Risk of patent infringement

After Nichia Corporation successfully developed InGaN blue and green led chips, 5 main suppliers formed patent alliance. Patent infringement became the common issue for development of LED's all spectrum manufacturing.

Counter measures:

Epistar owns a large number of patents of high brightness AlGaInP LED and InGaN LED and dedicates to increase the wideness and deepness of patents by endless research and development. Epistar also signed cross-license agreement with name brands, like TOYODA GOSEI (Japan) in September 2010. Two companies are able to use patents own by others, including InGaN LED and AlGaInP LED technologies. Epistar also signed cross-license agreement with PHILIPS in February 2014 and with CREE in 2015. The cross-license agreement with CREE focuses on InGaN LED technologies.

B. There are great opportunities in LED lighting market. Many players emerged and increased competition.

The price of traditional LED lighting dropped. Future directions tend to focus on high brightness and full color applications. Most of the players target high brightness LEDs. In addition, Asia manufacturers usually earn business by lowering price. It makes market competition get worse.

Counter measures:

Epistar's strategies are focusing on research and development, improving manufacturing technologies and yield rate, strengthening product reliability, and creating manufacturing scale. Through these strategies, Epistar is not only able to reduce cost but also maintain quality to maintain our competitive advantages. Furthermore, Epistar also develops new products, like UV LEDs and AlGaInP LEDs for datalink applications with all the latest technologies.

In addition to effort spent in research and development and yield rate improvement, Epistar also tries to optimize the human resource system, co-work with clients closely, and strengthen customer relationship to get closer to end market needs. Epistar also deepens the management and operation in China by setting up joint ventures and subsidiaries.

## 5.2.2 Important applications and process of main products

### 5.2.2.1 Important applications

LED epi wafers and chips produced by EPICSTAR featured with advantages like small dimension, less electricity consumption, less heat, long life-time. Epistar's chips are widely used for different applications.

(1) Outdoor display, traffic signs, traffic information display

(2) Automotive

Interior: backlight source for meter board, indicators, map light.

Exterior: third brake light, fog light, tail lamp, directional light, day running light.

(3) Consumer products

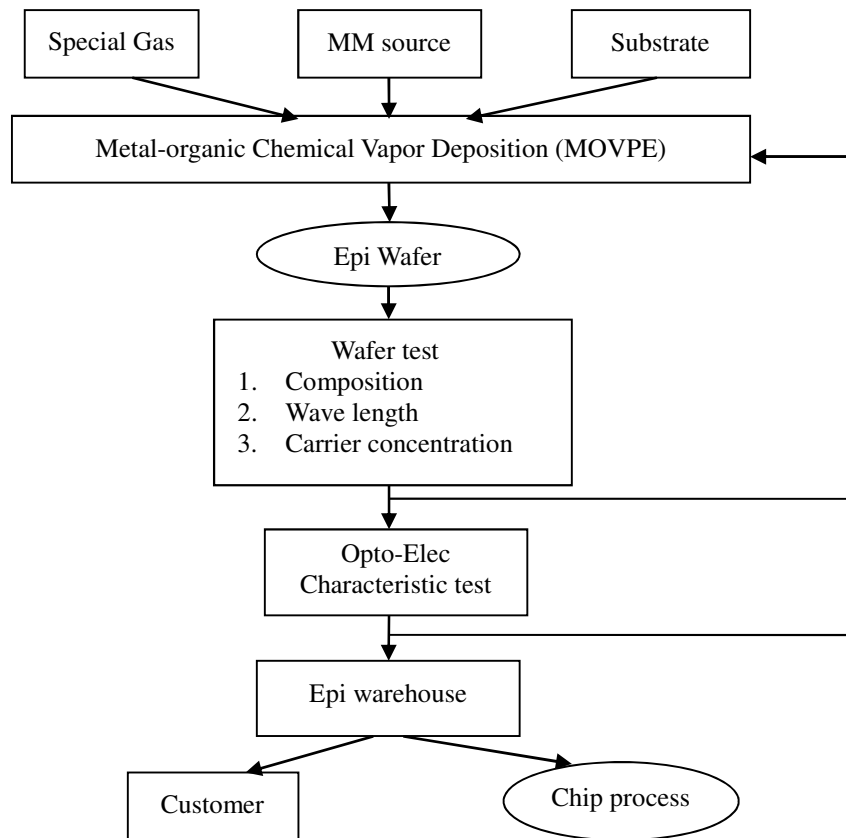
Indicators, 7 segment for all kinds of consumer products.

- (4) Communications industry  
Backlight source, flashlight, and distance measuring in all kinds of cellphones.
- (5) IT industry  
Indicators in all kinds of computer related equipment, backlight source of small display, scan light source of photocopier, CIS light source of fax machine.
- (6) Indicators and display for industry and instruments.
- (7) Light sources for large TV backlight module and projectors.
- (8) Lighting applications like landscape lighting, streetlight, general lighting, commercial lighting, industrial lighting.
- (9) Special lightings like horticulture lighting, medical lighting, and UV.
- (10) Infrared emitting diode for facial and iris recognition in biometric authentication.
- (11) Infrared emitting diode for biomedical sensing in wearable device.

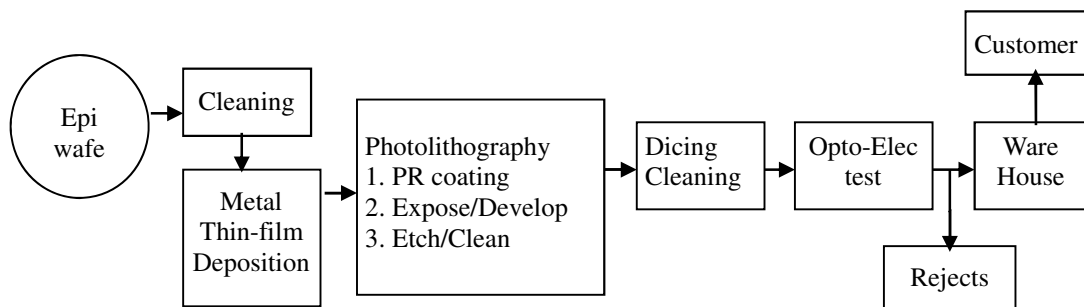
### 5.2.2.2 Manufacturing process

The major process can be categorized as Epi Process and Chip Process

#### (1) Epi Process



#### (2) Chip Process



### 5.2.3 Supply status of major raw materials

Material	Vendor	From	Status
Substrate	Crystalwise Technology Inc. Rigidtech Microelectronics Corp. Sinopatt Technology Co., Ltd.	China and Taiwan	Smooth
MO source	Laminar advanced material Co. Ltd. SAFC Hitech Taiwan Co., Ltd.	Taiwan	Smooth
Special Gas	Taiyo Nippon Sanso Taiwan, Inc. Praxair Chemax Semiconductor Materials Co., Ltd. Versum Materials Taiwan Co., Ltd	Taiwan	Smooth
Metal	Matsuda Sangyo Co., Ltd	Japan	Smooth

5.2.4 Major Suppliers and Clients  
5.2.4.1 Major Clients

Unit: NT\$ thousand

Customer	2018			2019		
	Net Revenue	As % of 2018 Total Net Revenue	Relation to EPISTAR	Net Revenue	As % of 2019 Total Net Revenue	Relation to EPISTAR
A	1,716,675	8.45	The company's CFO of Board acts as the Company's director.	1,234,975	7.74	None
B	2,063,267	10.16	None	1,164,134	7.29	None
Others	16,526,470	81.39	None	13,560,722	84.97	None
Total Net Revenue	20,306,412	100.00		15,959,831	100.00	

Note: Adoption of IFRSs (consolidated entities)

Notes to cause of increase/decrease:

The operating revenue from Customer A and Customer B has varied by no more than 1% and 3% for the most recent two years. Therefore, no significant effect was produced.

5.2.4.2 Major Suppliers

Unit: NT\$ thousand

Supplier	2018			2019		
	Procurement Amount	As % of 2018 Total Net Procurement	Relation to EPISTAR	Procurement Amount	As % of 2019 Total Net Procurement	Relation to EPISTAR
D	1,465,878	13.05	None	1,165,679	14.90	None
E	1,172,803	10.44	None			
Others	8,594,838	76.51	None	7,108,640	86.10	None
Total Net Procurement	11,233,519	100.00		8,274,319	100.00	

Note: Adoption of IFRSs (consolidated entities)

Notes to cause of increase/decrease:

To be in line with planning and adjustment of the Company's production and marketing.

### 5.2.5 Production capacity/output value in the Last Two Years

Unit: Square inch, in the case of chips; thousand pieces, in the case of dies; NT\$ thousand

Year	2018			2019		
	Output	Capacity	Amount	Output	Capacity	Amount
Major Products						
Chips	981,873,425	1,119,707,571	26,201,439	779,462,869	1,234,943,631	15,845,291
Epi Wafer	245,350	68,466,582	91,882	265,364	74,426,181	106,962
Others	—	—	—	124,430	181,121	576,814
Total	—	—	26,293,321	—	—	16,529,067

Note: Adoption of IFRSs (consolidated entities)

### 5.2.6 Consolidated Shipments and Net Revenue in the Last Two Years

Unit: Square inch, in the case of chips; thousand pieces, in the case of dies; NT\$ thousand

Year	2018						2019					
	Local			Export			Local			Export		
	Quantity	Net Revenue	Quantity	Net Revenue	Quantity	Net Revenue	Quantity	Net Revenue	Quantity	Net Revenue	Quantity	Net Revenue
Major Products												
Chip	14,536,210	3,580,564	615,515,713	15,343,018	12,968,274	2,618,213	523,036,635	11,700,545				
Epi Wafer	23,302	44,694	6,109,123	803,854	143,257	38,514	327,101	125,024				
Others	—	17,828	—	516,454	—	109,772	—	1,367,763				
Total	14,559,512	3,643,086	621,624,836	16,663,326	13,111,531	2,766,499	523,363,736	13,193,332				

Note: Adoption of IFRSs (consolidated entities)

### 5.3 Human Resources

Year		2018	2019	FEB. 29, 2020
Number of Employees	Management	449	426	419
	R&D and Technician	1,340	1,227	1,178
	Direct	1,862	1,664	1,606
	Total	3,651	3,317	3,203
Average Age		34.8	36.5	36.5
Average Years of Service		7.0	8.5	8.7
Education	Ph.D.	1.9	1.8	1.8
	Masters	20.2	23.5	23.7
	Bachelor's Degree	42.6	51.2	51.7
	Senior High School & Below Senior High School	35.3	23.5	22.8

Note: Adoption of IFRSs (consolidated entities)

### 5.4 Environmental Protection Expenditure

#### 5.4.1 The loss or penalty caused by environmental pollution during the latest year and up to the printing date of this annual report:

The Company did not suffer any loss or receive indemnity for environmental pollution in 2019. Notwithstanding, the audit result showed that the Company's Fab N6 violated Item 1, Section 1, Article 31 of the Waste Disposal Act, and the Company was fined NT\$6,000 by the competent authority.

#### 5.4.2 Countermeasures and Possible Expenditure

As a member of the global village, since the Company was founded, it has upheld the life cycle idea about Environmental Management System (EMS), and voluntarily and continuously makes improvements at the stages of use, production, circulation, and waste of raw materials and supplies in order to mitigate the effect and impact produced to the environment. Meanwhile, the Company introduced the latest pollution prevention technology at the stage of construction of factory premises. The Company also upgrades the efficiency of energy utilization, builds comfortable living environment, and pursues sustainable operations by the 3R model (Reduce, Reuse and Recycle). In order to continue to upgrade the management result of EMS, the Company maintained its ISO 14001 EMS certification since 2006, and implemented ISO14064-1 verification by association organization level every year until now, and also completed introduction and certification of PAS 2050 standards on carbon footprint of V45H chip in 2011. Furthermore, since 2016, the Company has actively worked with Taiwan Optoelectronic Semiconductor Industry Association (TOSIA) members in research of environmental laws and regulations and countermeasures, also jointly audited the waste disposal with member companies. Through TOSIA member companies' power, the Company regularly discussed with member companies to reduce the impact of environmental protection brought by environmental protection establishing or revising, and hoped to jointly enhance the performance of environmental protection and safety.

With respect to the management of expenditure in prevention of pollution and environmental protection, since 2011, the Company has introduced the environmental accounting management system under guidance of the Environmental Protection Administration. By virtue of environmental classification and code, the Company demonstrated its concrete achievement in environmental protection in detail and completely. The data analysis output from the system may also serve as the basis for

investment or management to enable the Company to consider the entire environmental management performance comprehensively, in hopes of achieving the purpose of environmental protection sustainability in the most economic and effective manner. Meanwhile, the statistics show that the expenditure spent in the entire EMS maintenance and operation was about NT\$140,000,000 in 2019, in addition to the repair and maintenance costs of control equipments and government fees, other major expenditures were as follow: (1) Company's Fab N3 extra-set up wastewater monitoring equipment in response to the demands of authorities; (2) Company's Fab H1 extra-set up air pollution control equipments in response to the demands of environmental protection regulations; (3) Company's Fab S3 extra-set up or modified environmental protection control equipments in response to the demands of environmental protection regulations and energy conserving improvement; (4) Company's Fab S1/S3 replaced air-conditioning equipment, lamps and lanterns, and expanded the capacity of the recycled water system to save energy.

The Company also spared no effort to invest in green production. Since 2014, the optoelectronic semiconductor industry has promoted the implementation of the Cleaner Production Evaluation System to promote cleaner production.

In 2015, the Company's Southern Taiwan Science Park Fab 3 passed the cleaner production and obtained the Cleaner Production Certificate (validity period: 2016/02/01 ~ 2019/01/31). In order to continuously promote and maintain validity of the certificate, the Company submitted the application for extension in September, 2018, and carried out on-site certification and obtained Cleaner Production Certificate (Validity period: Feb. 1, 2019 to Jan. 31, 2022) in December of the same year.

With top-level support from the Company and efforts by various departments, there are continuous many source reduction environmental protection projects that have produced outstanding results and achieved remarkable results. The total reduction benefits of the entire Group amounted to NT\$7,300,000 in 2019.

In order to fulfill corporate social responsibility, the Company also actively participated in the related groups' SHE operations, e.g. participated in the event organized by Health, Safety and Environmental Protection Commission of the Allied Association for Science Park Industries, participated in Taiwan Occupational Safety and Health Management System (TOSHMS) North District Association serving as a cadre, participated in environmental education partners of Hsinchu Science Park Bureau (since 2015), participated in Environmental Protection Development and Promotion Foundation of the Southern Taiwan Science Park, supported the environmental protection sustainability boosting by TOSIA Environmental and Safety Sustainable Development Commission, cooperated with public sectors to boost policies, submitted the suggestions about enactment of environmental protection laws and regulations to governmental departments, and shared the experience in boosting industrial safety and environmental protection work.

There are numerous goals worth pursuing with respect to the safety and environmental protection. In the future, the Company will continue to move forward toward the enterprise's sustainable development and fulfillment of corporate social responsibility, and be dedicated to achieving stakeholders' expectations toward the Company.

## 5.5 Labor Relations

### 5.5.1 Planning and implementation of employee benefit plans, continuing education, training, retirement systems; negotiation of labor relations and various safeguarding measures of employee's rights and interests.

The Company has emphasized maintenance of fair labor-management relations. We supply generous remuneration packages, a flexible leave system, and a complete insurance system to provide a healthy and friendly work environment to prevent the loss of employees and retain talents.

#### 5.5.1.1 Employee Benefit Plans

For the purpose of safeguarding employees and their conditions of daily life, the company not only has provided basic guarantee, but also assisted and sponsored various benefit plans, and help organizing the employee welfare committee for implementing and planning all kinds of matters of employee benefits. PLS refer to the current measures below:

- (1) Employee bonus plan.
- (2) Three important Chinese holiday bonus, incentive bonus, employee patent application reward, employee proposal bonus.
- (3) Entitled to labor insurance, health insurance, and group insurance.
- (4) Subsidy of wedding, funeral, birth and hospitalization.
- (5) Year-end party, birthday bonus, social clubs subsidy, domestic & overseas traveling subsidy, newspapers & magazines, various sports events and leisure activities.
- (6) New staff members' wage is higher than the minimum wage under Labor Standards Law no matter the gender.

For the full protection of employees health; healthy "body", satisfaction in "mind" and joyful "spirit". We've introduced three elements of healthy "body", satisfaction in "mind" and joyful "spirit" into our employee health care project. It's from healthy body and knowledge, satisfaction in "mind", and self-mind dialogue, connecting the health activities in our FAB and extending to family to create a complete, good, and healthy workplace to reach a physical, mental, social, spiritual balance. PLS refer to below situations how we take care of our staff:

#### (1) Physical checkup management:

There is employee in-service physical checkup (including abdominal ultrasonography) twice a year. Special operation and transference checkups are done according to the law. The rate of completion of checkup is 100%.

For the implementation of checkup abnormality management, we keep track of employees who have abnormal checkup records through health education or doctor consultation in our FAB to strengthen the awareness of the healthcare provided. We also supply customized health care project for those who with higher health risks and give health care advice according to the severity levels to carry out the prevention of illness in workplace.

#### (2) Health promotion programs:

To establish staff healthcare self-management attitude and action to do it, and strengthen employees' ability of healthcare self-management; from the passive way of care management to active way of disease prevention, and implement the prevention of disease, instead of the 『preventive medicine』. Starting from 2016



we've cooperated with the hospitals to offer free low-dosage computed tomography scan (CT scan), a total of 158 people (158 people were eligible for the program) participated the program in 2019, the participation rate is 100%. If we compute the hospital checkup fee NT\$6,000 per person, the total derivative benefit is NT\$948,000. Moreover, for the purpose of diversity of health promotion events (courses of lectures, exercise, charitable blood donation, thematic activities on special occasion) has attracted more colleagues to attend. A total of 13,520 people participated in the healthcare events in 2019.

(3) Operational health risk prevention and management:

We formulated human factors hazard prevention SOP based on Occupational Safety and Health Act, and carried it out for all staff. We also conducted hazard assessments for those stations that have higher hazard risk. We may reduce human factors through the improvement of working environment and workmanship.

(4) Infectious disease management:

We've assigned an in-charge unit for monitoring constantly and based on the condition of epidemic to draw up workplace epidemic preventive program, and from the experience accumulated to avoid over-reaction or inappropriate response. In addition to epidemic materials preparation and vaccination (influenza vaccine, hepatitis Type A vaccine for those who relocated to Mainland China), we also promote the knowledge about epidemic prevention through posters, announcements, e-mails, and lectures to strengthen and encourage employees to apply it at workplace and in the family to take care of themselves, family and prevent group infection. We also provide epidemic prevention facemasks, thermometers, record sheets for those who travelling on business when it's necessary.

(5) Occupational injured employee health care:

When employees reinstate from injury or other physical and mental reasons; to prevent frustration from work performance due to their health issue or the original work may worsen their health and result in worries of work safety; through the support from relevant departments, we would carry out healthcare assistance and reinstatement mechanisms to give essential care to the reinstated employees.

(6) Maternal protection & healthy workplace:

To build up a friendly maternal workplace, and implement a complete pregnancy notification mechanism to carry out maternal care and risk prevention control. There were 32 maternal people to be taken care of in 2019 and 32 maternal people were taken care of with a 100% participation rate.

Every plant has a breast-feeding room equipped with comfortable couches, disinfected pots, and other relevant breast-feeding items. Cleaning lady does disinfection on a regular basis. The cleanliness has won the hearts and praises from breast-feeding moms. We also won breast-feeding room certification issued from city/county government. In addition, we have chair for pregnant woman only in production line and priority car parking space in the Company.

To encourage and remind prospective female employees to take the initiative to inform and participate in the protection measure and receive relevant information about pregnancy, childbirth, childcare, we've drawn up "smooth childbirth hand book" and particularly provided maternal employees care gifts, so that they shall be embraced by the caring rendered by the Company and practice a maternal friendly workplace.

(7) A great diversity of activities and soft lectures:

To promote and keep the balance of work and life, we've planned various activities and soft lectures irregularly. We design activities based on different ages and needs, including sports events of basketball, badminton, volleyball, swimming, and road running, as well as health lectures, soul-elevating seminars and parent-child lectures. Meanwhile, there are movies, craft lessons, family day, and parent-child day. We encourage the spirit of teamwork through such activities. We also design activities that enable family members to join in and to thank them for their support, and the special activities combined holidays like Valentine's Day, Mother's Day, and Christmas. Through a wide range of activities, we build up connections between colleagues outside of work, which enhances the Company's coherence. Also, we hold charitable events to enable employees and families to participate in social care and services.

#### 5.5.1.2 Employees' continuing education and training

In order to achieve the Company's business objectives, the Company continues to develop employees' work performance, and develop the training roadmap to launch a series of training programs based on the training structure, including the management series, quality series, technical series, environment, safety and health series, professional series by function courses and orientation training, etc.. Meanwhile, in order to assure the Company's product quality and safety, all new employees shall attend the orientation training, and specific employees shall pass specific qualification evaluation and undergo re-evaluation periodically to ensure that the employees hold the competency to satisfy the qualifications required for the specific duty.

The company's overall training structure is based on a pyramid-shaped design, with the concept of developing ability classification and periodic training. From the basic orientation (total 12.5 hr, including the relevant training & education about human rights) to self-development at the top of the pyramid. The middle of the pyramid includes general ability, competence ability, and management ability. General ability shall include the ability training (till now, Epistar Corporation staff has 100% attended the human rights training) about enterprise culture, general education, versatile e-learning courses, and human rights, information safety, anti-corruption, anti-trust. Our purpose is to define the key behavior index according to the company culture and values to enable employees understand and comply with the company culture behavior. Competence ability include technological training courses, quality related courses, patent & legal matters. Professional courses shall be a required or optional subject according to the nature of work and needs. The purpose is to take root in professional fields to enhance professional competitiveness. In addition, it also includes the cultivation of specific talents, internal lecturer training, production line trainer training...etc.; Management ability includes basic supervising management course, middle-level management course and executive administration course. Training subjects to be taken shall be performance interview, recruitment interview skill,

guidance & authorization management skill, high performance team establishment...etc. Our purpose is to set up a consistency of management language then to bring our team to the top performance. Also, through comprehensive internal office training, not only upgrade employees' professionalism but also enhance the company's overall competitiveness.

Further, in order to practice the ethical management, the Company discloses its ethical management best-practice principles on the official website and organizes the internal/external training related to ethical management issues, including compliance with laws & regulations on ethical management, prevention of insider trading, safety & health management, accounting system and internal control. Among the other things, the Company spares no efforts to protect trade secrets, intellectual property rights and information security, in order to ensure the staff's painstaking results and the Company's competitiveness, and to prevent the Company's important information from being disclosed. Accordingly, the Company establishes the strict "Regulations Governing Information Grading and Protection" to help the staff cultivate the habit to protect documents routinely, and as the basis for access to and processing, communication and utilization of related documents. The Company also establishes the "Information Security Management Review Committee" to upgrade the information security goal. Each of the staff shall accept the information security training to satisfy the expectations from related laws, technology and stakeholders, and integrate with the business strategies. All of the employees shall comply with the "Regulations Governing Information Grading and Protection" and fulfill the responsibility as a good administrator. To this end, the new staff shall complete the online courses about "Introduction to Intellectual Property Rights" and "Information Security Policy of EPISTAR". Meanwhile, the Company produced the additional online course for "Information Confidentiality Classification" in 2018 to enable all of the staff to understand the Company's policy and control requirements, in hopes of achieving the educational propagation and strengthening the staff's awareness toward intellectual property rights and prevention of confidential information disclosure. The seminars on business secret law were held in 2019 towards relevant business units and colleagues at different levels to strengthen the knowledge and application of business secrets.

The total number of people participated in training in 2019 was about 22,000 and the total training hours were about 45,000 hours, and the total training expense was NT\$ 2.24 million. The results of the training are stated as follows:

Unit: NT\$ thousand

Items of 2019	Attendee count	Training hours	Training expense
Series of management	313	920	2,237
Series of quality	4,372	5,579	
Series of technical/research and development	2,289	7,429	
Series of environment/safety/health (ESH)	6,641	16,159	
Series of professional by function	4,402	6,901	
Orientation training (including compliance with integrity management regulations, trade secrets act, information confidentiality classification)	1,599	4,707	
Compliance with laws and regulations on intellectual property right, protection of trade secrets and ethical management	1,540	2,699	
Information security policy and information confidentiality classification	462	335	
Total	21,618	44,729	

Said courses are primarily intended to conduct the educational propagation to the staff. The staff shall perform their duties with due diligence as a good administrator to protect the Company's interest and right from being injured and satisfy the various stakeholders' expectation. During the orientation training for new employees, the Company strengthens the propagation, and the new employees may review the online courses at any time in the "eHRD Portal" on the Company's intranet.

### 5.5.1.3 Retirement Systems

In order to fulfill the social responsibility and stabilize the retired employees' life, the Company and its domestic subsidiaries all established their own "Regulations Governing Retirement of Employees Holding Positions as Managers and Directors Concurrently" and "Regulations Governing Retirement of Employees" in accordance with the "Labor Standard Law" and "Labor Pension Act". Said regulations are reviewed and approved by the Remuneration Committee, and implemented upon approval of the Board of Directors. Meanwhile, the pension fund is contributed on a monthly basis pursuant to laws.

Pension system	Old System	New System
Applicable laws	Labor Standard Law	Labor Pension Act
Contribution	The Company will contribute 2% of the total salary as the pension fund on a monthly basis, and deposit the same in the account maintained at "Bank of Taiwan" in the name of "Labor Pension Supervision Commission".	The Company will contribute 6% of the salary as the labor pension and deposit the same to the employee's personal account maintained at Bureau of Labor Insurance on a monthly basis.
Contributed amount	Balance of the labor pension, NT\$280,245 thousand	The pension cost recognized in 2019 was NT\$181,822 thousand.

The subsidiaries in Mainland China were enrolled into the social insurance programs managed and handled by the local governmental authorities in Mainland China. The programs refer to the defined contribution plan. The Company paid the social insurance premium under the social insurance programs managed by the governments.

The important requirements under the “Regulations Governing Retirement of Employees” are summarized as following:

Old system:

(1) Retirement conditions:

A. Voluntary retirement

- a. Where the worker attains the age of 60 years old (inclusive) and has worked for the Company for more than 10 years (inclusive) consecutively.
- b. Where the worker attains the age of 55 years old (inclusive) and has worked for the Company for more than 15 years (inclusive) consecutively.
- c. Where the worker has worked for the Company more than 25 years (inclusive) consecutively.

B. Compulsory retirement

- a. Where the worker attains the age of 65 years old (inclusive).
- b. Where the worker is unable to perform his/ her duties due to disability physically and mentally.
- c. The Company may request the central competent authority to adjust the age prescribed in Subparagraph 1 of the preceding paragraph if the specific job entails risk, requires substantial physical strength or otherwise of a special nature; provided, however, that the age shall not be reduced below 55 years old.

(2) Payment of pension, standards and deadline for claim

A. Two bases are given for each full year of service rendered for the first 15 years, provided that for the rest of the years over 15 years, one base is given for each full year of service rendered. The total number of bases shall be no more than 45. The length of service is calculated as half year when it is less than six months and as one year when it is more than six months. Said base(s) multiplying by the one month’s average wage applicable when the application for retirement is approved is equivalent to the pension claimable by the worker.

B. The one month’s average wage refers to the average wage for 6 months prior to the retirement.

C. An additional 20% on top of the amount calculated according to the preceding subparagraph shall be given to workers forced to retire due to disability incurred from the execution of their duties.

D. Claim: The employee who satisfies the qualification for claiming the pension shall file the application with the Company’s Human Resources Center pursuant to the Labor Standard Law and related laws. The Company will apply for the benefit of pension with Trust Dept. of Bank of Taiwan on behalf of the employee pursuant to related laws and regulations.

- E. The pension fund contributed by the Company pursuant to laws shall be paid within 30 days as of the worker's retirement. Where it is impossible to allocate the pension in a lump sum, it may be paid in installments upon authorization of the competent authority.
- F. The right to claim will become extinguished if it is not exercised within 5 years as of the month following the retirement.

New system:

(1) Qualifications

- A. Where the worker attains the age of 60 years old (inclusive) and has worked for more than 15 years cumulatively, the worker may claim the pension on a monthly basis, provided that where the worker has worked for less than 15 years cumulatively, the worker may claim the pension in a lump sum.
- B. The seniority referred to in the preceding paragraph shall be calculated based upon the period of which the contributions to the pension have been made. If the seniority is interrupted, the worker's seniority before and after the interruption shall be combined in calculation.
- C. If a worker dies before claiming the pension, his/her survivors or designated person(s) shall claim the pension in a lump sum.

(2) Claim and calculation

The employee who satisfies the qualifications for claiming the pension shall apply with the competent authority for withdrawing the pension from the individual account of labor pension pursuant to the Labor Pension Act and related laws.

(3) Right to claim

The right to claim will be extinguished if it is not exercised within 5 years as of the employee's resignation.

#### 5.5.1.4 Labor-Management Agreements

Harmonious labor relations have always been the major management policy of human resources management. We have established a good communication and consultation channel so that employees can work comfortably and maintain high efficiency. Hence, we have established the Employee Relations Department to provide assistance by integrating professional staff and experts both internally and externally to help solve problems or pressures from work or daily life. We also provide confidential and professional external services and consultations with other professional resources.

Our internal communication channel includes an exclusive suggestion box that enables employees to express their opinions, all of which are kept confidential and listed into labor relations meeting for discussion and follow-ups. We also set up a being harassed while performing duties hot line and mailbox available to employees, job applicants, and suppliers, which will be responded timely. Further, we communicate and coordinate with employees through formal channels, if there is major business change that may affect the employees' rights & interests. We hope to provide the best working environment for all employees.

#### 5.5.1.5 Working Environment and Employee Safety Protection Measures

To secure a safe working environment for employees, please refer to the safety protection measures below:

- (1) To ensure a safe working environment for employees, the Company has set up a professional environmental and safety team to formulate “Decreasing Occupational Accidents program” and give instructions to relevant departments to practice.
- (2) We conduct safety and health training for new staff members and in-service employees.
- (3) We conduct annual environmental assessment in working area to ensure the quality of working environment.
- (4) We conduct annual physical checkup for those who perform special operation and general physical checkup for all active employees for every two years.
- (5) We have the medical staff and medical room located on each site according to laws for preliminary care and further medical treatment at the time of emergency. We also assign occupational disease specialist/doctor in our factory to supply relevant medical care & consultation services and referral services with other medical organization outside the plant.
- (6) According to the rules & regulations, there should be inspection methods for the access of dangerous machinery and equipment to the factory in place. We also have established a department dedicated to facility and equipment maintenance and inspection.
- (7) Each department is required to conduct environment, health, and hygiene self-management. For environment & safety planning, we have the management level to carry out the routine check and safety observation.
- (8) Each site has planned the emergency response team equipped with emergency facility and equipment, dedicated to carrying out various evacuation drills based on different situations.
- (9) According to the rules and regulations, each site has established the safety monitoring control system. Employees and the Company shall be covered through Property and Casualty Insurance for compensation, if there is any accident occurs.

In addition to above protection measures, we also provide friendly working environment as followings:

- (1) Various recreation facilities (ex: treadmill, gymnastic apparatus, table tennis, billiard, yoga room...)
- (2) Various convenient store, and café
- (3) Complete medical room equipped with breast-feeding rooms
- (4) Spacious and joyful dining environments, diversified dining choices and meal allowances.

#### 5.5.1.6 Procedures for Preventing Insider Trading

The prevention of insider trading is included into the internal control system; notify employees, managerial officers and board members from time to time to remind them whether there is any important messages to be disclosed pursuant to laws, and advise them of the related requirements. This prevents staff members from breaching laws and engaging in inside trading. Relevant regulations may be accessible from the Company’s website or internal policies.

Said personnel may access the internal important information due to their identity, occupation, or relation, who shall perform their duties and fulfill their obligation as a good administrator with due diligence and also exercise their authority in a highly self-disciplined and careful manner to ensure strict compliance with the requirements for processing, disclosure and confidentiality of important information defined by the competent authority, or shall be required to sign the non-disclosure agreement case by case, if necessary.

5.5.2 Labor/employer dispute loss in 2019 and as of the publication date of the annual report:  
None.



## 5.6 Material Contract

Subject	Counterparty	Contract term	Main content	Important restrictive clause
Patent licensing	Research Unit	2014.03~ 2020.01	Exclusive license of patent	The Company shall attach patent markings and certification number of patent to products or packages while selling at home and abroad. The Company shall not breach the laws of Republic of China.
Patent licensing	Research Unit	2006.02~ 2023.02	Non-exclusive license of patent	The Company shall attach patent markings and certification number of patent to products or packages while selling at home and abroad. The Company shall not sublicense the patent to any third party. In addition, without prior consent of Ministry of Economic Affairs, the Company will not use the patent to manufacture products in other countries.
Industrial-Academic Collaboration Project and Early-Stage Technology Transfer Agreement with Ministry of Science and Technology, Executive Yuan subsidy	National A University	2014.07.15~ 2021.07.14	Research and manufacture of light-emitting diode array	The technology and related technical information belong to National A University. The University and project investigator may enter into a technology transfer/license agreement with a third party after consent by both parties.
Syndicated Loan Agreement	Jiangsu Canyang Optoelectronics Ltd., Land Bank Of Taiwan Co., Ltd., Taipei FUBON Commercial Bank Co., Ltd., First Commercial Bank Co., Ltd., Mega International Commercial Bank Co., Ltd., CTBC Commercial Bank Co., Ltd., Bank SinoPac Co., Ltd., Bank Of Taiwan Co., Ltd.	2016.05.30~ 2019.05.30	Loan amount: NT\$ 4,000,000,000 and USD\$ 19,000,000	If the Company fails to repay the principal and the interest, or the Bank declares that all liabilities become immediately due and payable upon the event of default, the Company shall pay the default interest and penalty.
Technology transfer	S University of Science and Technology	2017.08.01~	Technology transfer for cooperative research and development result	If the Agreement is terminated due to circumstances attributed to the Company, no royalty for the technology transfer will be refunded to the Company.

Subject	Counterparty	Contract term	Main content	Important restrictive clause
Technology transfer	National C University	2018.03.15~ 2038.03.14	Technology transfer for cooperative research and development result	<p>If the Agreement is terminated due to circumstances attributed to the Company, no royalty for the technology transfer will be refunded to the Company.</p> <p>If the Company intends to execute the research and development of the authorized technology by setting a new spin-off company, the Company shall give a 30-day prior written notice to National C University and obtain the consent of National C University for sublicense, or otherwise sign a contract before transferring the authorized technology to the new spin-off company.</p>
Technology licensing	Research Unit	2018.08.20~ 2019.08.19	License of specific technology	<p>The Company shall not sublicense it to any third party.</p> <p>The Company shall work the technology only in the territories of the ROC.</p>
Loan Agreement	Mega International Commercial Bank Co., Ltd.	2018.04.27~ 2019.04.26	Loan amount: NT\$ 100,000,000	If the Company fails to repay the principal and the interest, or the Bank declares that all liabilities become immediately due and payable upon the event of default, the Company shall pay the default interest and penalty.
Loan Agreement	Shin Kong Bank Co., Ltd. DongSimJhu Branch	2018.07.10~ 2019.07.09	Loan amount: NT\$ 300,000,000	If the Company fails to repay the principal and the interest, or the Bank declares that all liabilities become immediately due and payable upon the event of default, the Company shall pay the default interest and penalty.
Loan Agreement	First Commercial Bank Co., Ltd.	2019.12.02~ 2020.12.02	Loan amount: NT\$ 500,000,000	If the Company fails to repay the principal and the interest, or the Bank declares that all liabilities become immediately due and payable upon the event of default, the Company shall pay the default interest and penalty. The Bank may reduce the loan amount or terminate the Agreement without notice.

Subject	Counterparty	Contract term	Main content	Important restrictive clause
Technology and patent licensing	Research Institute	2018.12.01~	Exclusive license of patent	<p>1. The Company shall not sublicense the patent to any third party.</p> <p>2. The Company shall attach patent markings pursuant to the Patent Act while selling at home and abroad.</p> <p>3. Without prior written consent of the Research Institute, the Company shall implement or use the technology and patent only in the territory of the R.O.C. The Company shall comply with the related regulations governing export and import of strategic high-tech commodities while exporting products.</p> <p>The Company shall be responsible to cause its distributors or agents to comply with the regulations on patent markings while selling at home and abroad, otherwise it will be deemed the Company's breach of the Agreement.</p>
Patent transfer	Research Institute	2019.07.31~	Transfer of patent	<p>The patent is the research and development results funded by the government. The Company hereby agrees to grant to the Ministry of Economic Affairs and the Research Institute a permanent, royalty-free, world-wide non-exclusive and non-transferable license to use or implement all or part of the patent; however that the Research Institute shall not use or implement the patent for business activities.</p> <p>If the Agreement is terminated or rescinded due to the fault of the Company, the Research Institute is not obligated to return the payment that Company has paid for the patent transfer. Both parties agree that, based on the laws and regulations of the Ministry of Economic Affairs, if the Company meets the circumstances specified in the Agreement, the Ministry of Economic Affairs may, at its own discretion or upon the application, grant to the third party a non-exclusive license to implement the patent, or nationalize the patent when it's necessary.</p>

Subject	Counterparty	Contract term	Main content	Important restrictive clause
Patent licensing	Research Institute A	2019.10.01~ (until the last expiration date of the patent)	License of patent relating to CASN phosphor	The Company shall purchase the specific materials only from the manufacturer who has obtained the license from the Research Institute A.
Commissioned research	Research Institute B	2019.07.01~ 2020.06.30	Development of graphene material suitable for UVC LED	Except for those caused by the Research Institute's willful or gross negligence, the liability of the Research Institute under the Agreement shall be limited to the payment that the Research Institute has received from the Company for the research in accordance with the Agreement.
Commissioned research	Research Institute B	2019.07.01~ 2020.06.30	Research and development of narrow-band red and green phosphor suitable for blue-LED	Except for those caused by the Research Institute's willful or gross negligence, the liability of the Research Institute under the Agreement shall be limited to the payment that the Research Institute has received from the Company for the research in accordance with the Agreement.
Industrial-Academic collaboration and research	National D University	2019.11.01~ 2020.10.31	Research on the integration of P-type Boron Nitride and Aluminum Gallium Nitride	If the Agreement is terminated due to the fault of the Company, the Research Institute is not obligated to return the payment that the Research Institute has received from the Company for the research.
Commissioned development	National B University	2019.01.01~ 2019.12.31	Development of technology relating to high power blue laser	Either party's liability under the Agreement shall be limited to the actual payment that the Company has paid for the research in this project.
Patent sublicensing	Company Y	2019.10.01~ (until the last expiration date of the patent)	Sublicense of patent relating to CASN phosphor	Company Y shall purchase the specific materials only from the manufacturer who has obtained the license from the Research Institute A.

Subject	Counterparty	Contract term	Main content	Important restrictive clause
Patent transfer	Company E	2019.03.20~ 2019.10.31	Transfer of patent	In the event that the Company breaches the warranty under the Agreement, Company E may rescind or terminate the Agreement by the written notice at any time, and may request the Company to return the payment and compensate Company E for all the loss and damages.
Patent licensing	Company C	2019.01.01~ 2019.12.31	Non-exclusive license of patent	Upon termination or recession of the Agreement, the party who terminates or rescinds the Agreement may exercise its rights pursuant to the Agreement and the related regulations, and may request the compensation for damages from the defaulting party.
Patent licensing	Company K	2019.01.01~ 2024.12.31	License of patent	The Company releases Company K's liability for indemnification arising from patent litigation before the effective date of the Agreement.
Technology licensing	Research Institute	2019.11.01~ 2021.01.31	Non-exclusive license of technology	If the Company intends to implement any Research Institute's patent regarding this technology, the Company shall enter into a patent license agreement with the Research Institute. The Research Institute's liability under the Agreement shall be limited to the payment that the Research Institute has received from the Company for the research in accordance with the Agreement.
Research and development collaboration	National T University	2019.06.01~ 2020.05.31	New generation high-resolution up-conversion sensor chip	If the Agreement is terminated or rescinded due to the fault of the Company, the University is not obligated to return the payment that Company has paid for the collaboration. If the Agreement is terminated or rescinded due to the fault of the University, the University's liability shall be limited to the amount that Company has paid to the University. The research and development results of this project shall be owned by the University; however that the part of the research and development results solely funded by the Company shall be owned by the Company.

Subject	Counterparty	Contract term	Main content	Important restrictive clause
Industrial-Academic collaboration subsidy project of technology and knowledge application	National K University	2019.07.01~ 2020.06.30	Measurement and process monitoring of material characteristic of functional film	The University makes no warranties or guarantees for products with respect to the licensed technology or other issue under the early-stage technology transfer and licensing agreement. With respect to the research and development results which have submitted the patent application by the University, the Company shall mark "Patent Pending" on products which are applied such research and development results before the patent is approved, and shall mark the patent certificate number clearly on such products after the patent is approved. If the Agreement is terminated due to the fault of the Company, the University is not obligated to return the payment that Company has paid for the project, and the Company shall be liable for the damages.
Early-Stage technology transfer and licensing	National K University	2019.07.01~ 2022.06.30	Exclusive license of technology	If the Company has not implemented or used the licensed technology efficiently within two years from the effective date of the Agreement, the University may terminate the Agreement. In the event that any infringement claim is raised against the Company due to the use of the licensed technology, the University shall assist the Company with its best effort to defend against such claim; however that the amount of such defend shall be limited to twice the expenses of this project. If the Company intends to transfer the rights and obligations under the Agreement to the third party, the Company shall obtain the prior written consent of the University.

## 6. Financial Information

### 6.1 Five-Year Financial Summary

#### 6.1.1 Condensed Balance Sheet

(consolidated entities)

Unit: NT\$ thousand

Item	Year	2015	2016	2017	2018	2019
		Current Assets	30,885,730	24,798,264	26,043,651	23,522,686
Property, Plant and Equipment		34,396,105	27,286,631	24,348,881	22,435,949	20,577,106
Intangible Assets		7,994,637	8,007,219	7,846,962	7,683,928	7,501,798
Other Assets		9,855,452	9,005,320	8,746,175	9,096,079	10,394,658
Total Assets		83,131,924	69,097,434	66,985,669	62,738,642	58,730,610
Current Liabilities	Before Distribution	22,001,168	10,214,070	9,668,814	9,113,835	6,995,560
	After Distribution	22,001,168	10,214,070	10,893,976	9,438,105	6,995,560
Non-Current Liabilities		5,485,999	7,899,368	4,332,943	2,716,897	4,539,692
Total Liabilities	Before Distribution	27,487,167	18,113,438	14,001,757	11,830,732	11,535,252
	After Distribution	27,487,167	18,113,438	15,226,919	12,155,002	11,535,252
Equity Attributable to Owners of the Parent		53,273,900	49,274,144	51,379,181	49,353,583	45,219,189
Share Capital		10,998,443	10,915,492	10,887,014	10,887,014	10,887,014
Capital Surplus		42,810,893	43,016,259	39,970,967	39,515,679	39,212,772
Retained Earnings	Before Distribution	241,512	(3,303,516)	1,614,226	(385,142)	(3,749,510)
	After Distribution	241,512	(3,303,516)	510,829	(385,142)	(3,749,510)
Other equity Interest		143,141	(505,370)	(684,243)	(1,317,990)	(1,285,485)
Treasury Stock		(920,089)	(848,721)	(408,783)	(211,008)	(325,490)
Non-Controlling Interest		2,370,857	1,709,852	1,604,731	1,554,327	1,976,169
Total Equity	Before Distribution	55,644,757	50,983,996	52,983,912	50,907,910	47,195,358
	After Distribution	55,644,757	50,983,996	51,758,750	50,583,640	47,195,358

Note: Certification of Financial Statements by Certified Public Accountants

(individual entity)

Unit: NT\$ thousand

Item	Year	2015	2016	2017	2018	2019
		Current Assets	19,821,426	20,914,997	19,953,571	14,908,320
Property, Plant and Equipment		15,764,303	19,174,184	17,010,006	15,385,565	13,389,355
Intangible Assets		1,339,452	7,813,856	7,684,157	7,556,713	7,363,388
Other Assets		35,102,565	16,949,893	17,320,940	19,434,311	20,545,071
Total Assets		72,027,746	64,852,930	61,968,674	57,284,909	52,978,441
Current Liabilities	Before Distribution	15,483,790	9,090,726	7,399,939	5,870,345	3,876,195
	After Distribution	15,483,790	9,090,726	8,625,101	6,194,615	3,876,195
Non-Current Liabilities		3,270,056	6,488,060	3,189,554	2,060,981	3,883,057
Total Liabilities	Before Distribution	18,753,846	15,578,786	10,589,493	7,931,326	7,759,252
	After Distribution	18,753,846	15,578,786	11,814,655	8,255,596	7,759,252
Equity Attributable to Owners of the Parent		53,273,900	49,274,144	51,379,181	49,353,583	45,219,189
Share Capital		10,998,443	10,915,492	10,887,014	10,887,014	10,887,014
Capital Surplus		42,810,893	43,016,259	39,970,967	39,515,679	39,212,772
Retained Earnings	Before Distribution	241,512	(3,303,516)	1,614,226	(385,142)	(3,749,510)
	After Distribution	241,512	(3,303,516)	510,829	(385,142)	(3,749,510)
Other equity Interest		143,141	(505,370)	(684,243)	(1,317,990)	(1,285,485)
Treasury Stock		(920,089)	(848,721)	(408,783)	(211,008)	(325,490)
Total Equity	Before Distribution	53,273,900	49,274,144	51,379,181	49,353,583	45,219,189
	After Distribution	53,273,900	49,274,144	50,154,019	49,029,313	45,219,189

Note: Certification of Financial Statements by Certified Public Accountants



## 6.1.2 Condensed Statement of Comprehensive Income/Statement of Income

(Consolidated entities)

Unit: NT\$ thousand (Except EPS: NT\$)

Item \ Year	2015	2016	2017	2018	2019
Operating Revenue	25,509,789	25,539,163	25,270,616	20,306,412	15,959,831
Gross Profit from Operations	123,499	1,916,010	5,460,627	2,678,549	(431,897)
Net operating income(loss)	(3,510,547)	(1,255,776)	2,307,150	(678,843)	(3,691,553)
Non-Operating Income and Expense	(110,325)	(2,499,138)	(383,760)	(188,298)	(62,549)
Income (Loss) before Tax	(3,620,872)	(3,754,914)	1,923,390	(867,141)	(3,754,102)
Income (Loss) for Continued Operations	(3,317,582)	(4,012,752)	1,686,213	(505,864)	(3,937,520)
Net Income (Loss)	(3,317,582)	(4,012,752)	1,686,213	(505,864)	(3,937,520)
Other Comprehensive Income (Income after Tax)	(590,541)	(801,435)	(240,158)	(597,231)	(19,997)
Total Comprehensive Income	(3,908,123)	(4,814,187)	1,446,055	(1,103,095)	(3,957,517)
Net Income Attributable to Owners of the Parent	(3,018,757)	(3,546,045)	1,649,913	(456,146)	(3,753,797)
Net Income Attributable to Non-Controlling Interest	(298,825)	(466,707)	36,300	(49,718)	(183,723)
Comprehensive Income Attributable to Owners of the Parent	(3,400,444)	(4,193,030)	1,435,353	(1,022,814)	(3,720,337)
Comprehensive Income Attributable to Non-Controlling Interest	(507,679)	(621,157)	10,702	(80,281)	(237,180)
Earnings (Loss) Per Share	(2.81)	(3.33)	1.55	(0.42)	(3.48)

Note: Certification of Financial Statements by Certified Public Accountants

(Individual entity)

Unit: NT\$ thousand (Except EPS: NT\$)

Item \ Year	2015	2016	2017	2018	2019
Operating Revenue	23,376,051	23,442,193	21,954,472	17,189,772	12,425,234
Gross Profit from Operations	83,703	2,211,199	4,364,300	2,531,314	(222,787)
Net operating income(loss)	(2,373,253)	(252,510)	1,607,791	(407,182)	(2,701,101)
Non-Operating Income and Expense	(918,309)	(3,908,094)	121,618	(415,721)	(920,620)
Income (Loss) before Tax	(3,291,562)	(4,160,604)	1,729,409	(822,903)	(3,621,721)
Income (Loss) for Continued Operations	(3,018,757)	(3,546,045)	1,649,913	(456,146)	(3,753,797)
Net Income (Loss)	(3,018,757)	(3,546,045)	1,649,913	(456,146)	(3,753,797)
Other Comprehensive Income (Income after Tax)	(381,687)	(646,985)	(214,560)	(566,668)	33,460
Total Comprehensive Income	(3,400,444)	(4,193,030)	1,435,353	(1,022,814)	(3,720,337)
Earnings (Loss) Per Share	(2.81)	(3.33)	1.55	(0.42)	(3.48)

Note: Certification of Financial Statements by Certified Public Accountants

## 6.1.3 Auditors' Opinions from 2015 to 2019

Year	Accounting Firm	CPA	Audit Opinion
2015	PricewaterhouseCoopers	Fang-Yu Wen, Ya-Huei Cheng	Modified Unqualified Opinion
2016	PricewaterhouseCoopers	Fang-Yu Wen, Ya-Huei Cheng	Unqualified Opinion
2017	PricewaterhouseCoopers	Ya-Huei Cheng, Chin-Cheng Hsieh	Unqualified Opinion
2018	PricewaterhouseCoopers	Ya-Huei Cheng, Chin-Cheng Hsieh	Unqualified Opinion
2019	PricewaterhouseCoopers	Ya-Huei Cheng, Chin-Cheng Hsieh	Unqualified Opinion

## 6.2 Five-Year Financial Analysis

(Consolidated entities)

Item		Year				
		2015	2016	2017	2018	2019
Financial Structure (%)	Debts Ratio (%)	33.06	26.21	20.90	18.86	19.64
	Long-term Fund to Property, Plant and Equipment (%)	177.73	215.80	235.40	239.01	251.42
Solvency (%)	Current Ratio (%)	140.38	242.79	269.36	258.10	289.57
	Quick Ratio (%)	98.05	181.49	202.35	189.80	229.54
	Times Interest Earned (Times)	(6.55)	(8.48)	9.15	(3.66)	(22.50)
Operating Performance	Average Collection Turnover (Times)	1.84	2.28	2.27	1.86	1.63
	Days Sales Outstanding	197.97	160.02	160.70	196.49	224.19
	Average Inventory Turnover (Times)	3.48	3.70	3.76	3.17	3.39
	Average Payment Turnover (Times)	7.45	7.15	6.16	5.92	6.83
	Average Inventory Turnover Days	104.92	98.54	96.98	114.97	107.77
	Property, Plant and Equipment Turnover (Times)	0.72	0.83	0.98	0.87	0.74
	Total Assets Turnover (Times)	0.29	0.34	0.37	0.31	0.26
Profitability	Return on Total Assets (%)	(3.25)	(4.79)	2.78	(0.49)	(6.23)
	Return on Equity (%)	(5.68)	(7.53)	3.24	(0.97)	(8.03)
	Pre-tax Income to Paid-in Capital Ratio (%)	(32.92)	(34.40)	17.67	(7.96)	(34.48)
	Net Margin (%)	(13.01)	(15.71)	6.67	(2.49)	(24.67)
	Earnings Per Share (NT\$)	(2.81)	(3.33)	1.55	(0.42)	(3.48)
Cash flow	Cash Flow Ratio (%)	30.20	68.01	72.09	49.99	35.90
	Cash Flow Adequacy Ratio (%)	52.72	97.31	125.39	137.56	145.26
	Cash Flow Reinvestment Ratio (%)	7.83	8.99	8.74	4.74	2.91
Leverage	Operating Leverage	(2.10)	(7.06)	5.29	(12.90)	(1.49)
	Financial Leverage	0.88	0.76	1.11	0.79	0.96

### Notes to causes of changes in financial ratios in the most recent two years:

1. Times interest earned:  
Primarily a result of the intensive market competition in 2019 resulting in the declination of gross margin and decrease in earnings, and the decrease in times interest earned accordingly.
2. Profitability:  
Primarily a result of the intensive market competition in 2019 resulting in the declination of gross margin and decrease in earnings, and the declination of profitability accordingly.
3. Cash flow ratio:  
Primarily a result of the intensive market competition in 2019 resulting in the declination of gross margin and generation of current net loss, and the declination of cash flow from operating activities accordingly.
4. Cash re-investment ratio:  
Primarily a result of the intensive market competition in 2019 resulting in the declination of gross margin and generation of current net loss, and the declination of cash flow from operating activities causing the cash re-investment ratio to decrease accordingly.
5. Leverage:  
Primarily a result of the economic cycle in 2019 resulting in the declination of gross margin and operating losses expanded, and the ascension of financial/operating leverages accordingly.

(Individual entity)

Item	Year	2015	2016	2017	2018	2019
	Financial Structure (%)	Debts Ratio (%)	26.04	24.02	17.09	13.85
Long-term Fund to Property, Plant, and Equipment (%)		358.68	290.82	320.80	334.17	366.73
Solvency (%)	Current Ratio (%)	128.01	230.07	269.65	253.96	301.34
	Quick Ratio (%)	97.83	187.14	214.86	193.65	242.71
	Times Interest Earned (Count)	(15.31)	(19.55)	18.52	(27.37)	(99.00)
Operating Performance	Average Collection Turnover (Count)	2.00	2.11	2.19	2.07	1.78
	Days Sales Outstanding	183	173	167	177	204.58
	Average Inventory Turnover (Count)	6.00	5.58	4.96	4.01	4.05
	Average Payment Turnover (Count)	7.64	6.12	5.96	6.32	6.43
	Average Inventory Turnover Days	61	65	76	95	90.22
	Property, Plant and Equipment Turnover (Count)	1.48	1.34	1.21	1.06	0.86
	Total Assets Turnover (Count)	0.32	0.34	0.35	0.29	0.23
Profitability	Return on Total Assets (%)	(3.84)	(4.89)	2.75	(0.72)	(6.75)
	Return on Equity (%)	(5.41)	(6.92)	3.28	(0.91)	(7.94)
	Pre-tax Income to Paid-in Capital Ratio (%)	(29.93)	(38.12)	15.89	(7.56)	(33.27)
	Net Margin (%)	(12.91)	(15.13)	7.52	(2.65)	(30.21)
	Earnings Per Share (NT\$)	(2.81)	(3.33)	1.55	(0.42)	(3.48)
Cash flow	Cash Flow Ratio (%)	17.90	42.01	101.65	89.82	68.41
	Cash Flow Adequacy Ratio (%)	61.76	89.71	118.13	138.28	125.15
	Cash Flow Reinvestment Ratio (%)	2.74	5.58	10.77	9.67	3.60
Leverage	Operating Leverage	(1.25)	(23.73)	5.76	(16.46)	(1.49)
	Financial Leverage	0.93	0.56	1.06	0.94	0.99

Notes to causes of changes in financial ratios in the most recent two years:

1. Times Interest Earned:  
Primarily a result of the intensive market competition in 2019 resulting in the declination of gross margin and decrease in earnings, and the decrease in times interest earned accordingly.
2. Total Assets Turnover:  
Primarily a result of the intensive market competition in 2019 resulting in the declination of gross margin and decrease in earnings, and the declination of total assets turnover.
3. Profitability Analysis:  
Primarily a result of the intensive market competition in 2019 resulting in the declination of gross margin and decrease in earnings, and the declination of profitability accordingly.
4. Cash Flow Ratio:  
Primarily a result of the intensive market competition in 2019 resulting in the declination of gross margin and generation of current net loss, and the declination of cash flow from operating activities accordingly
5. Cash Flow Reinvestment Ratio:  
Primarily a result of the intensive market competition in 2019 resulting in the declination of gross margin and generation of current net loss, and the declination of cash flow from operating activities causing the cash re-investment ratio to decrease accordingly
6. Leverage:  
Primarily a result of the economic cycle in 2019 resulting in the declination of gross margin and operating losses expanded, and the ascension of financial/operating leverages accordingly.

Glossary – Taiwan-IFRSs version:

1. Capital Structure Analysis

- (1) Debt Ratio = Total Liabilities / Total Assets
- (2) Long-term Fund to Property, Plant and Equipment Ratio = (Shareholders' Equity + Noncurrent Liabilities) / Net Property, Plant and Equipment

2. Liquidity Analysis

- (1) Current Ratio = Current Assets / Current Liabilities
- (2) Quick Ratio = (Current Assets - Inventories - Prepaid Expenses) / Current Liabilities
- (3) Times Interest Earned = Earnings before Interest and Taxes / Interest Expenses

3. Operating Performance Analysis

- (1) Average Collection Turnover = Net Sales / Average Trade Receivables
- (2) Days Sales Outstanding = 365 / Average Collection Turnover
- (3) Average Inventory Turnover = Cost of Sales / Average Inventory
- (4) Average Payment Turnover = Cost of Sales / Average Trade Payables
- (5) Average Inventory Turnover Days = 365 / Average Inventory Turnover
- (6) Property, Plant and Equipment Turnover = Net Sales / Average Net Property, Plant, and Equipment
- (7) Total Assets Turnover = Net Sales / Average Total Assets

4. Profitability Analysis

- (1) Return on Total Assets = (Net Income + Interest Expenses \* (1 - Effective Tax Rate)) / Average Total Assets
- (2) Return on Equity = Net Income / Average Equity
- (3) Net Margin = Net Income / Net Sales
- (4) Earnings Per Share = (Net Income - Preferred Stock Dividend) / Weighted Average Number of Shares Outstanding

5. Cash Flow

- (1) Cash Flow Ratio = Net Cash Provided by Operating Activities / Current Liabilities
- (2) Cash Flow Adequacy Ratio = Five-year Sum of Cash from Operations / Five-year Sum of Capital Expenditures, Inventory Additions, and Cash Dividend
- (3) Cash Flow Reinvestment Ratio = (Cash Provided by Operating Activities - Cash Dividends) / (Gross Property, Plant and Equipment + Long-term Investments + Other Noncurrent Assets + Working Capital)

6. Leverage

- (1) Operating Leverage = (Net Sales - Variable Cost) / Income from Operations
- (2) Financial Leverage = Income from Operations / (Income from Operations - Interest Expenses)

- 6.3 Audit Committee's Review Report for the Most Recent Year: See Appendix 1.2 (Page 172)
- 6.4 Financial Statements for the Most Recent Year (including the consolidated financial statements of the parent and subsidiaries): See Appendix 1.4 (Pages 174~286)
- 6.5 The Latest Individual Auditor's Report and Financial Statements Audited and Certified by CPA: See Appendix 1.5 (Pages 287~399)
- 6.6 The Company or its affiliates have experienced financial difficulties in the most recent fiscal year or during the current fiscal year up to the date of printing of the annual report: None.

## 7. Review of Financial Conditions, Financial Performance, and Risk Management

### 7.1 Analysis of Financial Status

(Consolidated entities)

Unit: NT\$ thousand

Item	Year		Difference	%
	Dec. 31, 2018	Dec. 31, 2019		
Current Assets	23,522,686	20,257,048	(3,265,638)	(13.88)
Non-current Financial Assets at Fair Value through Profit or Loss	0	157,762	157,762	100.00
Financial Assets at Fair Value through other comprehensive income-noncurrent and investment under equity method	4,382,833	4,386,511	3,678	0.08
Property, Plant, and Equipment	22,435,949	20,577,106	(1,858,843)	(8.29)
Right-of-use Asset	0	1,564,443	1,564,443	Note
Intangible Assets	7,683,928	7,501,798	(182,130)	(2.37)
Other Assets	4,713,246	4,285,942	(427,304)	(9.07)
Total Assets	62,738,642	58,730,610	(4,008,032)	(6.39)
Current Liabilities	9,113,835	6,995,560	(2,118,275)	(23.24)
Non-Current liabilities	2,716,897	4,539,692	1,822,795	67.09
Total Liabilities	11,830,732	11,535,252	(295,480)	(2.50)
Share Capital	10,887,014	10,887,014	0	0
Capital Surplus	39,515,679	39,212,772	(302,907)	(0.77)
Retained Earnings	479,888	(3,269,622)	(3,749,510)	(781.33)
Other Equity Interest	(1,317,990)	(1,285,485)	(32,505)	(2.47)
Treasury Stocks	(211,008)	(325,490)	114,482	(54.25)
Non-Controlling Interest	1,554,327	1,976,169	421,842	27.14
Total Equity	50,907,910	47,195,358	(3,712,552)	(7.29)

Note: Titles reclassified due to adoption of IFRS 16 as of 2019.

#### 7.1.1 Analysis on main causes for the change by more than 20% and amounting to NT\$10,000 thousand

- Increase in non-current financial assets at fair value through profit or loss:  
In 2018 these were all rated as unrealized losses due to the higher market risk associated with fair value; in 2019 there was an increase in financial assets due unrealized gains from shares of companies not listed on TWSE/TPEX at fair value.
- Increase in right-of-use asset:  
This was due mainly to the introduction of IFRS16 in 2019. Leased assets included land, property, plant and machinery, transportation and office equipment. The lease terms range from 2 to 50 years.
- Decrease in current liabilities:  
This was due mainly to a reduction in accounts payable and payables on equipment in 2019 that in term led to a reduction in current liabilities.

4. Increase in non-current liabilities:  
This was due mainly to long-term loans from banks for operating funds as well as the introduction of the new IFRS16 standards in 2019. Operating lease contracts increase both the amount of assets and liabilities, so the amount of Lease Liabilities - Non-current was added.
5. Decrease in retained earnings: Primarily a result of the intensive market competition in 2019 resulting in the market price decline, decrease in operating revenue, generation of current net loss, and decrease in retained earnings accordingly.
6. Increase in treasury stocks:  
This was due mainly to the buyback of treasury stock in 2019.
7. Increase in non-controlling interest:  
This was due mainly to an increase in non-controlling subsidiaries in 2019.

7.1.2 Major Impact on Financial Position: Said deviations had no major impact on EPISTAR's financial position.

7.1.3 Future Plan on Financial Position: N/A.

## 7.2 Analysis of Financial Performance

(Consolidated entities)

Unit: NT\$ thousand

Item	Year	2018	2019	Difference	%
	Net Revenue		20,306,412	15,959,831	(4,346,581)
Cost of Revenue		(17,651,741)	(16,393,199)	(1,258,542)	(7.13)
Unrealized (gain) loss		23,878	1,471	(22,407)	(93.84)
Gross Margin (loss) Profit		2,678,549	(431,897)	3,110,446	116.12
Operating Expenses		(3,578,341)	(3,517,185)	(61,156)	(1.71)
Other Operating Income and Expenses		220,949	257,529	36,580	16.56
Operating (loss) Profit		(678,843)	(3,691,553)	3,012,710	443.80
Non-Operating Income and Expenses		(188,298)	(62,549)	(125,749)	(66.78)
(Loss) Profit before Income Tax		(867,141)	(3,754,102)	2,886,961	332.93
Income Tax Benefit (Expense)		361,277	(183,418)	544,695	150.77
Net (Loss) Profit		(505,864)	(3,937,520)	3,431,656	678.38
Other comprehensive (loss) income		(597,231)	(19,997)	(577,234)	(96.65)

7.2.1 Analysis on main causes for the change by more than 20% and amounting to NT\$10,000 thousand

1. This was due to a reduction in losses from unrealized sales between companies.  
This was due mainly to transactions between related parties. Inventory stock was progressively sold to end-customers leading to the realization of unrealized losses.
2. Increase in gross margin loss, operating loss, net loss etc.  
This was due mainly to a major increase in production capacity by other LED companies in 2019, along with the US-China trade conflict, and weaker-than-expected overall market demand, that upset the balance between global LED supply-and-demand again. Increased market competition, plummeting market prices and decline in revenues led to an increase in gross loss. The Company's continued investment in the R&D of Mini LED applications as well as other new products and technologies to improve our future competitiveness meant an increase in both operating loss and net loss for this period.
3. Decrease in non-operating income and expenses  
Despite an increase in write-down on investment losses in 2019, large increases in the amount of gains from financial assets, reductions in asset impairment, and gains on bargain purchases all resulted in a reduction in non-operating expenses.
4. Increase in Income Tax Expense  
This was due mainly to temporary increase in deferred income tax assets from 2019.

5. Decrease in other comprehensive loss

This was due mainly to an increase in Unrealized gains (losses) from investments in equity instruments measured at fair value through other comprehensive income in 2019.

7.2.2 Forecast of sales volume and the basis thereof, and the effect thereof upon the Company's financial operations as well as measures to be taken in response

Though there is still a glut of production capacity and intense competition in the LED industry, the importance of energy-efficiency and environmental protection issues along with successes in LED miniaturization technology have led to an increasing number of new applications. There are still potential growth opportunities in the LED market. For example, demand is increasing from the application of Mini LED to super-fine pitch high-end displays and monitors. LED's penetration rate in automotive and other applications have continued to increase, there is increasing interest in LED plant lighting, as well as the use of infra-red (IR) LED in security surveillance and smart phone sensing, etc. Epistar's die shipments are therefore expects to top 689,238 million units in 2020. Due to the trend towards smart technology and high cost vs. performance ratios, continued investment in R&D to refine technologies and reduce costs will be needed in the future. Epistar will continue to release new products to improve our resource utilization, enhance the added value of our products and optimize our product combinations in a bid to secure more high-quality orders. It is hoped that the company will be back in the black again this year.

7.2.3 Analysis on changes of gross profit by 20%

(Consolidated entities) Unit: NT\$ thousand

Item	Increase/decrease in previous and current periods	Cause - advantageous (disadvantageous)			
		Difference in selling price	Difference in cost price	Difference in product portfolio	Difference in quantity
Gross Profit	(3,110,446)	(931,844)	(1,890,393)	257,604	(545,813)

Notes to cause of increase/decrease:

Primarily a result of the production capacity expanded by peer companies in the LED market resulting in the imbalanced supply and demand in the market and the declination of utilization rate and changes of product portfolio, and decrease in gross profit accordingly.

7.3 Analysis of Cash Flow

7.3.1 Analysis of cash flow changes

(Consolidated entities) Unit: NT\$ thousand

Item	Year	2018	2019	Difference	%
	From Operating Activities		4,556,212	2,511,260	(2,044,952)
From Investing Activities		(3,789,426)	(2,523,482)	(1,265,944)	(33.41)
From Financing Activities		(1,942,297)	(128,030)	(1,814,267)	(93.41)

Analysis of Cash Flow

1. Operating activities

This was due mainly to a decrease in operating income and EBITDA in 2019 that resulted in a decrease in cash inflow from operating activities. Cash inflow from operating activities in 2019 was therefore less than 2018.

2. Investing activities

This was due mainly to re-investments being classified in 2018 as financial assets at fair value through other comprehensive income resulting in an increase in cash outflow from investing activities. In 2019, this happened less often. A decrease in other financial assets and the inclusion of subsidiaries for the first time led to cash outflow from investment activities in 2019 being less than 2018.



### 3. Financing activities

This was due mainly to the amount of long-term liabilities repaid in 2018 being higher than 2019. Cash outflow from financing activities in 2019 was therefore less than 2018.

#### Remedial Actions for Liquidity Shortfall:

The Company's net cash inflow from operating activities reached NT\$2.51 billion at the end of 2019 so there is no liquidity shortfall at this time.

### 7.3.2 Liquidity Analysis for 2020

(Consolidated entities)

Unit: NT\$ thousand

Cash balance - beginning  (a)	Anticipated bet cash flow from operating activities in a year  (b)	Anticipated bet cash flow from investing and financing activities in a year  (c)	Anticipated Cash surplus (deficit)  (a)+(b)+(c)	Corrective actions against cash deficit	
				Investing plan	Wealth management plan
5,252,823	3,786,000	(3,335,000)	5,703,823	—	—

#### Analysis of changes in cash flow for 2020

1. Operating Activities:  
primarily a result of the profit earned upon deduction of such expenses without cash flow as depreciations and amortizations resulting in the net cash inflow.
2. Investing Activities:  
Cash outflow was due mainly to capital expenditure on the introduction of new production equipment and for expansion of production capacity to support the development of new businesses.
3. Financing activities:  
Cash inflow was due mainly to an increase in long-term borrowings.

### 7.4 Major Capital Expenditure Items and impact to finance and business for the most recent year

#### 7.4.1 Major capital expenditures and capital sources of the Company and its subsidiaries in 2019:

Unit: NT\$ thousand

Project	Capital sources	Total funding
Purchase belong to equipment for business use	Own fund	2,982,472

#### 7.4.2 Impact on financial business

In 2019, in response to the needs for introducing new product, enhancing product specifications, developing III-V semiconductor foundry and improving competitiveness, the Company added new advanced process equipment, clean rooms, R&D equipment and machine upgrades, and also invested in strengthening environmental protection and safety facilities. The Company has also carefully evaluated the funding need for purchase of machine and equipment, and planned the utilization of working capital adequately. The following table shows that various turnover ratios are maintained stably. Meanwhile, the Company's consolidated operating revenue sources are stable and sufficient, and the Company is free from the risk over insufficient fund resulting from purchase of machine and equipment. Therefore, no significant adverse effect is produced to the financial situation of the Company and its subsidiaries.

Year	2018	2019
Item		
Property, Plant, and Equipment Turnover (Times)	0.87	0.74
Current Ratio (%)	258.10	289.57

Note: The financial ratios are calculated based on the consolidated financial statements prepared by IFRSs and audited (reviewed) by the CPA.

## 7.5 Investment Policy for the most recent year, Main Causes for Profits or Losses, Improvement Plans, and the Investment Plans for the Coming Year

### 7.5.1 Investment policies in the most recent year

The Company and subsidiaries' re-investment focus in the most recent year continued to be on III-V semiconductor foundry and new LED product applications. Investment relationships were used to expand target markets for the Company's products and to promote strategic partnerships that facilitate the effective utilization of resources, accelerate improvements in business performance and boost profitability.

### 7.5.2 Analysis on investment income

The Company focuses mainly on strategic investments in LED-related industries. There was a slight easing in the US-China trade war after a "Phase 1" trade deal was reached in 2019 Q4. The Taiwanese stock market improved on its performance from last year on the back of record highs in Western stock markets, the emergence of high-tech product applications such as 5G, and the repatriation of Taiwanese companies. Re-investment gains totaling NT\$643,337 thousand were recognized by the Group in 2019 (Current financial assets at fair value through profit or loss, Non-current financial assets at fair value through other comprehensive income, and Investments accounted for using equity method).

### 7.5.3 Corrective actions against investment and investment plan for following year

The Company shall continue to make adjustments to the investment structure in support of the Group's development strategy. Investments will continue to focus on III-V semiconductor foundry and new LED product applications in the coming year to actively search for an investment niche. Strategic cooperation will hopefully facilitate rapid business expansion, increase production penetration in different application markets, as well as increase the Company's overall competitiveness, growth and profit margin.

## 7.6 Analysis of Risk Management

### 7.6.1 Risk Management Policies and Organizational Structure

The Group's capital management policy is established by taking into account the industry characteristics, the Group's future development and changes in external environments. The Group plans the working capital of capital expenditures, investments and dividends required for the future based on the capital management policy, makes financial analysis, and examines its capital structure periodically and makes appropriate adjustments to ensure each of the Group members may grow and operate sustainably.

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, interest rate risk, and price risk), credit risk, and liquidity risk. The Group's overall risk management policy focuses on the unpredictability of financial

markets and seeks to minimize potential adverse effects on the Group's financial position and financial performance. The risk management operations are executed by the Group's financial and accounting departments per the policy approved by the Board of Directors. The Group's financial and accounting departments work with the various business units within the Group closely to identify, assess and evade financial risk.

## 1. Market risk

### (1) Foreign exchange risk

The Company operates internationally and is exposed to foreign exchange risk arising from various currencies, primarily NTD, USD and RMB. Foreign exchange risk arises from future commercial transactions, recognized assets and liabilities and net investments in foreign operations. The Group has defined the relevant policy requiring that the entities within the Group should manage the foreign exchange rate risk over their respective functional currencies. The various entities should hedge against the overall foreign exchange rate risk via Financial Dept. of the Group.

### (2) Interest rate risk

The Group's interest rate risk arises from bank deposits and long-term borrowings. Borrowings issued at variable rates expose the Group to cash flow interest rate risk that is partially offset by cash and cash equivalents held at variable rates. Borrowings issued at fixed rates expose the Group to fair value interest rate risk. The Group's borrowings at variable rate were denominated in the RMB, USD, and NTD.

The analysis on sensitivity of interest rate risk refers to stimulation of the maximum effect of changes in interest rate to net profit after tax. The stimulation is carried out per quarter in order to ensure that the maximum loss falls within the limit set by the management.

### (3) Price Risk

The Group's investments focus on domestic listed and unlisted equity instruments classified on the consolidated balance sheets as financial assets at fair value through profit or loss, financial assets at fair value through other comprehensive income, and financial assets available-for-sale. The price of such equity instruments would change due to the uncertainty in the future value of the investment portfolio. Therefore, the Group is exposed to the equity instrument price risk, while the Company is not exposed to the commodity price risk.

## 2. Credit risk

When the Group sold products, we set up a credit policy, evaluate risk of individual client, and factors that will affect payment, including financial position, credit rating, historical transaction records and other, and monitor credit limits.

Credit risk also arises from cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions. For banks and financial institutions, the Group decides whether to transact with them and the transaction amount based on their credit rating and financial position.

### 3. Liquidity risk

Cash flow forecasting is performed by the entities within the Group individually and then summarized by the Group's Treasury Dept. The Group's Treasury Dept. monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining sufficient headroom on its undrawn committed borrowing facilities at all times, so that the Group does not breach borrowing limits or covenants on any of its borrowing facilities. Such forecasting takes into consideration the Group's debt financing plans, covenant compliance, compliance with internal balance sheet ratio targets and external regulatory or legal requirements.

Surplus cash is invested in interest bearing current accounts, time deposits, money market deposits, and marketable securities, with appropriate maturities or sufficient liquidity to provide sufficient headroom and meet the above-mentioned forecasts.

## 7.6.2 Effects of Changes in Interest Rates, Foreign Exchange Rates and Inflation on Corporate Finance, and Future Response Measures

### 1. Interest rate

- (1) For the Company's and its subsidiaries' net deposit, though the interest rate fluctuates under the government's policy, such fluctuation is still held acceptable. Therefore, the fluctuation in interest rate renders limited effect to the profitability.
- (2) The Company and its subsidiaries will keep watching the trend of interest rate in the financial market, strictly control the deposit and loan subject to floating and fixed interest rates, solicit for high-yield investment portfolio insofar as it is considered safe, seek the market average interest rate when evaluating the interest on bank loans, and keep in touch with banks to strive for the most favorable loan interest rate, in hopes of mitigating the risk potentially resulting from the fluctuation in interest rate.

### 2. Foreign exchange rates

The Company's and its subsidiaries' consolidated exchange (losses) and profit were NT\$122,828 thousand and (NT\$127,760) thousand in 2018 and 2019. Based on the Company's and its subsidiaries' functional currency and the correspondent foreign currency, the Company judges the trend of foreign exchange rate and adopts adequate hedging strategies, and continues to strengthen the control over foreign currency position and adjust the exchange currency insofar as it is controllable, in order to reduce the Company's and its subsidiaries' foreign currency asset/liability difference and mitigate the effect of fluctuation in foreign exchange rate to the Company's income.

The Group keeps controlling foreign currency assets and liabilities, and hedges against the entire foreign exchange risk. Therefore, no material market risk is expected.

### 3. Inflation

The Company and its subsidiaries will keep watching the changes in supply & demand and price of raw materials and supplies, and adjust inventory in a timely manner, and seek to reduce the operating cost through research and development of low-cost alternative raw materials and upgrading of the product brightness, in hopes of mitigating the effect of fluctuation in foreign exchange rate to the Company's income.

### 7.6.3 Policies, Main Causes of Gain or Loss and Future Response Measures with Respect to High-risk, High-leveraged Investments, Lending or Endorsement Guarantees, and Derivatives Transactions

#### 1. Loans to others

The total facility of Epistar to other companies or firms should be limited to 30% of the net worth of Epistar; however, in the case of loans to other companies or firms with the necessity of short-term financing demand, Epistar should only approve loans up to 10% of Epistar's net worth. Epistar may loan to the foreign companies of which Epistar directly or indirectly holds shares for 100% voting rights, but the amount limits of loans shall not exceed forty percent (40%) of Epistar's net worth, and the duration of loans shall be no longer than three years.

The limit of loan made by the subsidiary indirectly owned by the Company, Episky Corporation (Xiamen) Ltd., shall be no more than 50% of the net worth in the latest financial statements of Episky Corporation (Xiamen) Ltd. The limit of loan made by Episky Xiamen to any single counterpart shall be no more than 40% of the net worth in its latest financial statement.

The limit of loan made by the subsidiary indirectly owned by the Company, Epicrystal Corporation (Chang Zhou) Ltd., shall be no more than 30% of the net worth in the latest financial statements of Epicrystal Corporation (Chang Zhou) Ltd. The limit of loan made by Epicrystal (Chang Zhou) to any single counterpart shall be no more than 20% of the net worth in its latest financial statement.

The limit of loan made by the subsidiary indirectly owned by the Company, Yen-Rich Opto (Hong Kong) Limited, shall be no more than 40% of the net worth in the latest financial statements of Yen-Rich Opto (Hong Kong) Limited. The limit of loan made by Yen-Rich (Hong Kong) to any single counterpart shall be no more than 40% of the net worth in its latest financial statement.

December 31, 2019 Unit: NT\$ thousand

Lender	Borrower	Balance of loan A	Actual drawdown	A to 2019 Q4 Net value ratio (%)
EPISTAR Corporation	Jiangsu Canyang Optoelectronics Ltd.	430,500	86,160	0.95
EPISTAR Corporation	Episky Corporation (Xiamen) Ltd.	861,000	0	1.90
EPISTAR Corporation	Unikorn Semiconductor Corporation	300,000	300,000	0.66
EPISKY Corporation (Xiamen) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	0	0	0.00
Epicrystal Corporation (ChangZhou) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	344,400	172,200	7.86
Yen-Rich Opto (Hong Kong) Limited	Ecoled Venture Co., Limited	0	0	0.00
Yen-Rich Opto (Hong Kong) Limited	Lighting Investment Corp.	95,936	95,936	32.43
Total subsidiaries		2,031,836	654,296	4.49

Note: The net worth in the financial statements of the Company, Episky Xiamen and Epicrystal (ChangZhou), Yen-Rich (Hong Kong) 2019 was NT\$45,219,189 thousand, RMB498,639 thousand, RMB1,017,303 thousand and USD9,866 thousand respectively.

## 2. Provision of endorsements and guarantees to others

In accordance with the Company's procedures for loaning to others: the ceiling on total endorsements/guarantees is 20% of the Company's net assets, and the limit on endorsements/ guarantees to a single party is 10% of its net assets. In addition, the total endorsements/guarantees made by the Company and its subsidiaries for others as a whole shall be no more than 30% of the net worth referred to in its latest financial statement.

December 31, 2019 Unit: NT\$ thousands

Endorser/guarantor	Endorsee/guarantee	Balance of guaranty A	Actual drawdown	A to 2019 Q4 Net value ratio (%)
EPISTAR Corporation	EPISKY Corporation (Xiamen) Ltd.	2,518,320	953,164	5.57
EPISTAR Corporation	Jiangsu Canyang Optoelectronics Ltd.	389,740	206,640	0.86
EPISTAR Corporation	Unikorn Semiconductor Corporation	699,900	175,658	1.55
EPISTAR Corporation	Yenrich Technology Corporation	149,900	0	0.33
Total consolidated subjects		3,757,860	1,335,462	8.31

Note: The net worth in the financial statement 2019 was NT\$45,219,189 thousand.

## 3. Trading of derivatives

The Company and Luxlite (Shenzhen) Corporation Limited are engaged in trading of derivatives primarily in order to hedge against risk, in accordance with the "Acquisition or Disposal Procedures of Assets" and regulations governing trading of financial derivatives. The maximum loss limits on total trading and for individual contracts are both 15% of the contract amount.

From the beginning of 2019 until the date of publication of the annual report, the Company did not engage in trading of derivatives. To meet the need for hedging foreign exchange rate risk, Luxlite (Shenzhen) Corporation Limited was only engaged in forward foreign exchanges, but was not engaged in other high-risk transactions.

### 7.6.4 Future Research & Development Projects and Corresponding Budget

The Company's and its subsidiaries' R&D entities are all based in Taiwan. The main R&D plan is led by the Company. The R&D expenditure scheduled to be invested in 2020 will remain growing stably. For details, please see Pages 103~104 herein.

### 7.6.5 The impact of material changes of local and foreign government policies and regulations

In 2019, a major increase in production capacity by other LED companies, along with the US-China trade conflict and weaker-than-expected market demand all increased idle production capacity and increased our losses. The Company will continue to launch new products in the future to improve utilization and boost product value. Product combinations will also be optimized to secure more high-end orders in order to alleviate the pricing pressures in the traditional LED market. The Company is therefore monitoring and responding quickly to changes in local and foreign governments and policies.

#### 7.6.6 Effects of and Response to Changes in Technology and the Industry Relating to

The Company will take advantage of the new business opportunities offered by the coming of 5G through new technologies such as Mini LED, and III-V semiconductors such as GaN on Si and VCSEL.

The Company signed a strategic cooperation agreement with GCS Holdings (hereafter referred to as GCS-KY) at the start of 2019 for the Company and our Unicorn Semiconductor Corp. subsidiary to provide GCS-KY with 6” foundry services. GCS-KY and subsidiaries will in turn provide technical support for the III-V semiconductor production process. This strategic cooperation will hopefully combine the production capacity and technical strengths of both companies. It will facilitate further expansion of OEM products and customers in order to increase the scale of our operations and improve profitability.

The Company also announced at the end of 2019 a creation of joint venture with Leyard Optoelectronics (hereafter referred to as “Leyard”). The two groups made up of Yenrich Technology Corp. (a fully-owned subsidiary of Epistar), Episky Corp. (Xiamen), Leyard and its subsidiary will each own a 50% share in the new company to promote the research, development, production and application of Mini LED and Micro LED in order to better satisfy the demand from the LED market.

#### 7.6.7 The Impact of Changes in Corporate Image on Corporate Risk Management, and the Company’s Response Measures

The Company attaches great importance to corporate governance. The support of shareholders resulted in the 10th Board having a majority of independent directors. The introduction of professionals from different backgrounds with extensive professional knowledge, experience and insight injects new blood into the Company.

Epistar has always valued the relationship with clients because we believe that, in the tightly-interwoven LED industry, working closely with clients is critical to producing the highest quality end-products. That is why Epistar has developed a unique “Co-Activation Service Model,” working alongside clients as their partner to co-design chips and production processes, while perfecting quality control. Through such close-knit partnerships, Epistar is able to meet the diverse needs of downstream businesses and consumers, and in essence, satisfy every Epistar partner’s client.

#### 7.6.8 Expected Benefits from, Risks Relating to and Response to Merger and Acquisition Plans

The Company conducts organization reform continually to reach internal efficiency and effectiveness through operation management.

ProLight Opto Technology Corporation is an important strategic partner of the Group. To promote industry cooperation through the integration of upstream and downstream resources in response to the business opportunities from VCSEL/Mini LED applications and the development of their packaging technology, ProLight Opto Technology Corporation became a subsidiary of the Epistar Group in April, 2019, through the acquisition of a 52.60% share in the company as disclosed in the consolidated statement. To respond more quickly to the needs of customers for Mini LED applications, Epistar is continuing to make ProLight Opto the contract manufacturer for the new Mini LED packaging. The strategic direction provided by Epistar Group should generate opportunities for profitability and increase shareholder returns.

#### 7.6.9 Expected Benefits from, Risks Relating to and Response to Factory Expansion Plans

In addition to continuing to consolidate sites and equipment to increase the size and management efficiency of individual plants, the Company is also adding advanced production equipment, clean rooms, R&D equipment, machine upgrades, environmental protection and industrial safety facilities in response to the introduction of new Mini LED products, product upgrades, research and development in the III-V semiconductor contract manufacturing business, and improvements to competitiveness. Capital expenditure in 2020 is estimated to be NT\$6 billion. Once mass production scheduled to commence in 2020 Q4 it should boost the Company's revenues and profits.

#### 7.6.10 Risks Relating to and Response to Excessive Concentration of Purchasing Sources and Excessive Customer Concentration

##### 1. Purchase

There were no material changes in the single supplier of major raw materials for the most recent two years. Notwithstanding, since the suppliers are the Company's important long-term partners, in order to maintain the fair code of business ethics with all suppliers, maintain the Company's corporate identity and honest enterprise culture, all suppliers shall comply with the Company's requirements about integrity. Among the other things, the purchase amount from the top ten suppliers does not exceed 20% of the total purchase amount. Apparently, there is no risk over concentration of purchases.

Due to the recent impact of the coronavirus epidemic on the supply chain, the Company is liaising closely with suppliers to ensure the continuity of supply and keep the production expansion on schedule.

##### 2. Sales

In terms of the top ten customers in the consolidated statements, the sales to customers have not exceeded 20% of the total operating revenue for the most recent two years. The Company will continue to solidify the cooperative relationship with existing customers and also utilize the core technology to develop existing LEDs and other III-V semiconductor products to help the Company develop in different fields. Meanwhile, the Company will engage in the patent or technology cooperation or strategic cooperation with the customers of the Company's product-related applications to accelerate the virtual vertical integration of industries, expand the product marketing channels and co-develop products and markets. Therefore, there is no risk over sales concentrated on any specific company.

#### 7.6.11 Effects of, Risks Relating to and Response to Large Share Transfers or Changes in Shareholdings by Directors, Supervisors, or Shareholders with Shareholdings over 10%:

In consideration of tax planning, Chairman Biing-Jye Lee bestowed 700,000 common shares of Epistar (2448-TW) to his spouse in April 2019, while no effect would be produced to the Company's right of management.

Full board elections were held at the Company's 2019 General Shareholders' Meeting. The support of shareholders saw a majority of independent directors elected to the 10th Board. Even though the legal person directors from the 9th Board have now resigned, the Company still maintains close and friendly relationships with all of them. There were no large changes in shareholder at the time of this report's publication.



7.6.12 Effects of, Risks Relating to and Response to the Changes in Management Rights:  
None.

7.6.13 Litigious or Non-litigious Matters

Case	General issue	Amount of the dispute	Beginning date of the lawsuit	Litigant	Current progress
Patent litigation	On October 12, 2012, Trustees of Boston University filed suit against the Company, alleging patent infringement of US5,686,738, which is related to a blue LED chip containing non-single crystalline GaN buffer.	Subject to the outcome of the proceeding	2012.10.12	Trustees of Boston University	The appeal court revoked the district court's judgment on July 5, 2018 and held that the patent at issue should be invalid. Accordingly, the Company won the appeal.
Civil action arising from accounts receivable & product defect	Disputes of accounts receivable & defective product between the Company and Customer cannot be settled, and both parties filed the complaint.	Customer filed a complaint accusing the damage caused by the defective product and claimed NT 25,867 thousand dollars to Epistar; Epistar made a counterclaim to demand that customers should pay NT 2,917 thousand dollars for the late payment of products.	2015.01.09	Customer: Alder Optomechanical Corp.	The Company and Customer already reached settlement. After Customer paid NT 1,000,000 dollars to the Company as the settlement, both parties have withdrawn the lawsuit on January 28, 2019.
Patent litigation	The Company sued Lowe's for patent infringement under five US patents, which are US6,346,771 、 US8,492,780 、 US7,560,738 、 US8,791,467 and US8,587,020. The products at issue are LED filament and light bulb.	Subject to the outcome of court judgement	2017.04.28	Lowe's	The case is currently pending trial by the United States District Court of California.
Patent litigation	The Company sued All Star Lighting Supplies for patent infringement under eight US patents, which are US7,355,208 、 US7,489,068 、 US7,560,738 、 US8,791,467 、 US9,065,022 、 US9,257,604 、 US9,488,321 US9,664,340. The products at issue are LED filament and light bulb.	Subject to the outcome of court judgement	2017.10.13	All Star Lighting Supplies	Already reached settlement.

#### 7.6.14 Other important risks, and mitigation measures being or to be taken:

Following the global development of Fintech, the information security risk to be dealt with by enterprises is increasing day by day. Meanwhile, in order to protect the staff's painstaking results, the Company established the "Information Security Management Review Committee" and "Trade Secrets Committee" in 2010 and 2018.

##### Information Security Management Review Committee

The Committee holds the meeting once per six months, which shall be attended by the Committee members. The meeting is held in April and October of each year and responsible for reviewing and resolving the (1) information security policy, (2) validity of the information security policy and control measures, (3) resources required by information security. The structure, information security policy and specific control programs of the Company's information security risk management are stated as following:

##### 1. Policy and principles

- (1) The information risk assessment on information assets shall take into account the related laws and business needs, in order to ensure the needs for information security, establish the standard operating procedures, take appropriate information security control measures and ensure the security of information assets.
- (2) Establish the assessment or appraisal system based on the personnel's functions and competencies, and organize the information security educational training and promotional activities, if necessary.
- (3) The granting of the right to access information assets shall be subject to the business needs and take into account the minimum authority, separation of responsibilities and review of independence.
- (4) Establish the information security incidents management procedure to ensure timely response to and control and processing of any incidents, and prepare the business continuity plan and perform periodic drills to ensure the continuing operation of the information system or information service.
- (5) Process and protect personal information and intellectual property rights in accordance with the Personal Information Protection Act and intellectual property rights.
- (6) Conduct the information security audit periodically to ensure that the information security management system is practiced.
- (7) Any violations of the policy and information security-related requirements shall be subject to the punishment rendered by related laws or the Company's personnel regulations.
- (8) Establish the "Declaration of Information Security" for the Company's staff separately, in order to ensure that the staffs are aware of the Company's information security requirements.

##### Declaration of Information Security

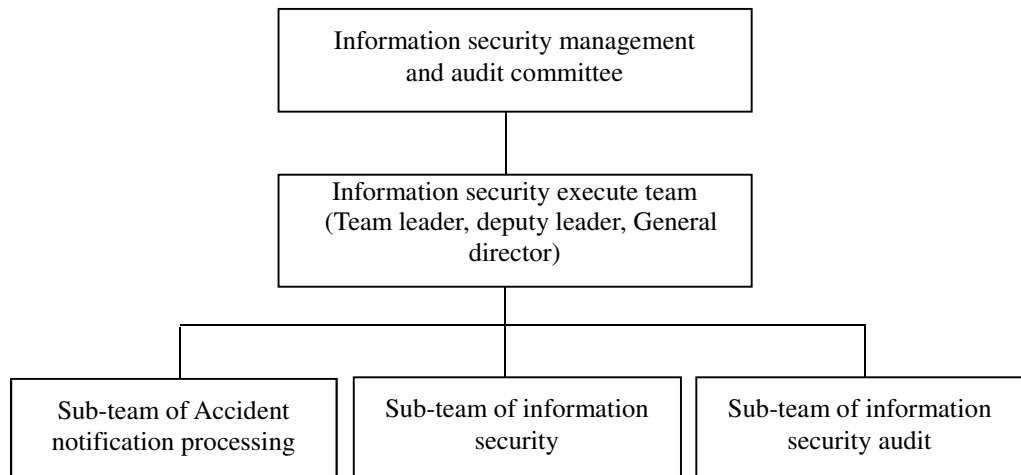
The ultimate goal for the Company's information security operations resides in: ensuring the effective operation of the Company's key business information processing operations through the control over personnel, operations and information technology to prevent any security incidents about confidentiality, completeness and availability affecting the key business operations from arising during the processing of information and support the

Company to achieve the goal for becoming a global photoelectrics manufacturing center.

The Company's information security operations are based on the systematic risk assessment and risk management, and implement the risk control measures by weighing management and technology evenly. The same are practiced by the staff in their daily life, so that they may work with each other to realize the Company's information security goals identified as following:

- The protection of information related to key business completely satisfies the Company's requirement and related laws & regulations.
- The information processing procedure and processing result for key business and support of administrative operations shall be accurate and correct completely.
- The information system and information processing services shall be non-interrupted.

## 2. Structure



## 3. Members, operations and functions

### (1) Committee members

President, VP of Information Technology Center, internal auditor officer, Director-General of Intellectual Property & Legal Affairs Div., and manager of Legal Affairs Dept. of Intellectual Property & Legal Affairs Div.

### (2) Execution team members

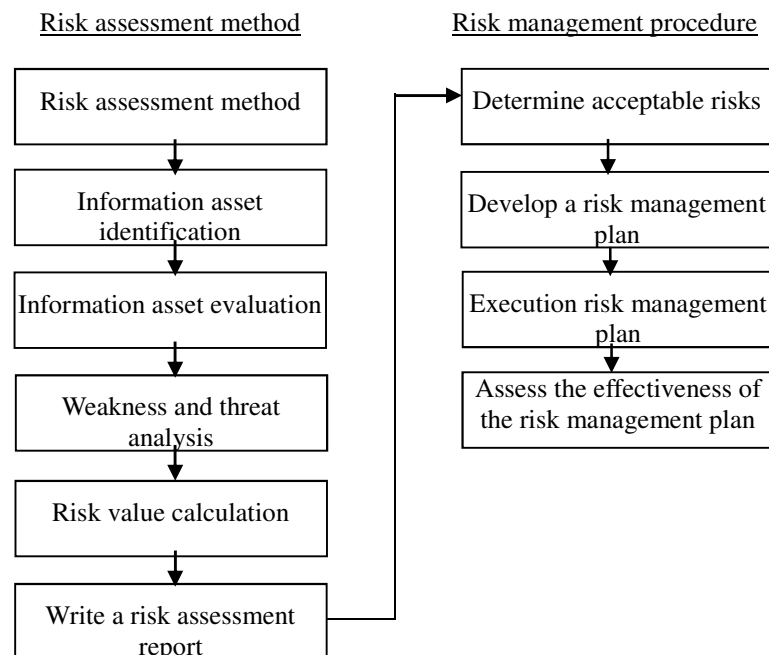
Team leader, deputy leader and secretary

### (3) Operations & functions

Position/Role	Operations & Functions
Information Security Management Review Committee Chairperson	<ul style="list-style-type: none"> <li>● Responsible for reviewing and resolving the motions related to the Company's information security management.</li> <li>● Review and approve information security policy.</li> <li>● Review the validity of information security policy-based goals and control measures.</li> <li>● Review the scope of resources required by information security.</li> </ul>
Information Security Management Review Committee Convener	<ul style="list-style-type: none"> <li>● Responsible for reviewing and resolving the motions related to the Company's information security management.</li> <li>● Review and approve information security policy.</li> </ul>

Position/Role	Operations & Functions
	<ul style="list-style-type: none"> <li>● Review the validity of information security policy-based goals and control measures.</li> <li>● Review the scope of resources required by information security.</li> <li>● Coordinate information security-related operations.</li> <li>● Continue to improve information security management system.</li> </ul>
Information Security Management Review Committee Member	<ul style="list-style-type: none"> <li>● Responsible for reviewing and resolving the motions related to the Company's information security management.</li> <li>● Review and approve information security policy.</li> <li>● Review the validity of information security policy-based goals and control measures.</li> <li>● Review the scope of resources required by information security.</li> </ul>
Information Security Execution Team Leader	<ul style="list-style-type: none"> <li>● Select competent personnel based on the specific information security role and position.</li> <li>● Maintain the awareness toward information security.</li> <li>● Coordinate information security-related operations.</li> <li>● Confirm information security risk and implement risk management.</li> <li>● Conduct independent audit on information security management system.</li> <li>● Continue to improve information security management system.</li> </ul>
Information Security Execution Team Deputy Leader	<ul style="list-style-type: none"> <li>● Help the team leader select competent personnel based on the specific information security role and position.</li> <li>● Help the team leader maintain the awareness toward information security.</li> <li>● Help the team leader coordinate information security-related operations.</li> <li>● Help the team leader confirm information security risk and implement risk management.</li> <li>● Help the team leader conduct independent audit on information security management system.</li> <li>● Help the team leader continue to improve information security management system.</li> </ul>

#### 4. Risk evaluation procedure and risk management procedure



## 5. Timing and approach to conduct the risk evaluation

### (1) Timing to conduct the risk evaluation

- The risk evaluation shall be conducted once per six months, and the scope of evaluation shall be decided by the Information Security Execution Team Leader.
- In the event of changes in organization, operating procedures or information assets, or outbreak of material information security incidents, it is allowed to conduct the risk evaluation on information assets falling in the specific scope.

### (2) Approach to conduct the risk evaluation

- The value of risk (RoA) of information assets consists of such elements as the value of information assets, vulnerability of assets, possibility of threats and effect thereof, and is calculated by multiplying by the value of information assets, vulnerability and possibility of threats and taking into account the effect produced by the threats on the confidentiality, completeness and availability.
- Identification of information assets (identification and inventory taking) refers to the inventory taking of information assets pursuant to the “Operating Procedures for Managing Information Assets” (PIS090003).
- Valuation of information assets (assessment on value) refers to the evaluation conducted by the information assets owner on the confidentiality, completeness and availability, and subject to the characteristics of organization, and requirements by laws and regulations.

## 6. Management system/internal audit/periodic reporting to Board of Directors / preventive measures

### (1) Frequency of audit

Conduct the information security internal audit per six months (may be integrated into the Company’s internal audit operations, if necessary), and conduct the audit on such specific purposes as information security incidents and material changes in the information system from time to time.

### (2) Requirements about internal auditors

In order to ensure the objectivity and independence in the process of audit, the self-audit shall be avoided. The internal auditors shall have the experience in audit on information security systems or attending information security audit-related training programs (including the Company’s internal training courses).

### (3) Audit plan

- It is necessary to plan and prepare the information security audit plan in advance as the guide for audit. The contents thereof shall include the basis, scope, procedure, personnel, items and schedule of the audit, and executed upon approval of the Convener of Information Security Management Review Committee. The audit plan format may refer to the document numbers and standards under the information security management system.

- If the information security audit is integrated into the Company's internal audit operations, the information security plan shall be subject to the approval of the Convener of Information Security Management Review Committee and provided to the Audit Office to be included into the Company's internal audit plan for implementation.

(4) Reporting to Board of Directors

The contents about computerized information system processing and information security inspection have been reported to the Board of Directors on November 12, 2018, and relevant suggestions were posed toward the deficiencies. The deficiencies were followed up and corrected.

(5) Preventive measures

The Company has not yet taken out any information security insurance. Notwithstanding, the Company still spares no efforts to govern the information security and enhance its defensive ability. So far, no infringement upon suppliers' or customers' privacy, disclosure of confidential information or hacking into systems had been found.

The Information Security Execution Team performs the business continuity drill and information security phishing mail drill from time to time, and the restoration procedure in the event of any abnormality in the drilled system, and conducts period audits thereon. The staff accepting the phishing mail shall attend the training and post-test about the information security phishing mails again, in order to reduce the staff's chances to suffer attacks of virus, abducted encryption of data, disclosure of confidential information due to horizontal infection, or system invasion and paralysis.

#### Trade Secrets Committee

The information security is very important. Notwithstanding, it is also necessary to protect the security of the Company's trade secrets and a third party's confidential information held by the Company to ensure the staff's results, maintain the Company's competitiveness and prevent the Company's important information from being disclosed. On January 26, 2018, the Company formed the "Trade Secrets Committee".

1. Structure

Formed by the President and the senior management of such units as Information Technology Center, Audit Office, Human Resources Center, Intellectual Property & Legal Affairs Div., and holding the meeting once a month.

2. Scope and duty of protection

The confidential information includes any information, document, file, formula, product and sample of the Company and its subsidiaries which has not yet been disclosed to the public, or is identified confidential, sensitive or essential. Any violations of the regulations governing protection of trade secrets shall be punished upon the resolution made by Trade Secrets Committee, subject to the materiality of the case.

### 3. Implementation of educational training

- 3.1. Periodic circulation of e-news to perform the educational training and promote laws & regulations to the whole staff.
- 3.2. Irregular arrangement for related experts/trainees to perform educational training on specific employees

#### 7.7 Other important notes:

The 2019 novel coronavirus disease (COVID-19, or commonly referred to as “Wuhan Pneumonia”) was designated by the Ministry of Health and Welfare on January 15, 2020, as category 5 communicable disease under the name “Severe Special Infectious Pneumonia.” The Company is dynamically adjusting our prevention and response plan based on developments in the epidemic. These include the definition of multi-tiered epidemic control and response measures as outlined below. We hope this will help safeguard the health of our employees by preventing the intrusion and spread of the disease.

##### 7.7.1 Epidemic Reporting Measures

Must be reported to the Company with a public statement is to be issued by the spokesperson if necessary.

##### 7.7.2 Epidemic Prevention Measures

- 7.7.2.1 Regular temperature screenings for employees and online registration system. All personnel that enter Company premises must wear a face mask at all times. If necessary, no visitors will be allowed into the plants.
- 7.7.2.2 Minimize movement between plants and unnecessary meetings. Meetings are to be conducted through video-conferencing if necessary and all overseas business trips are suspended.
- 7.7.2.3 Strengthening of environmental hygiene management and disinfection.
- 7.7.2.4 A switch to lunch boxes during meal times. Employee meal times will be staggered. Employees will be separated by empty rows and seats, and the frequency of conversations reduced.
- 7.7.2.5 Increase education on protective self (personal) hygiene, frequent hand washing, minimize entry into crowded public spaces, as well as the provision of proactive care and support.
- 7.7.2.6 Planning for data backup operations, alternative offices and back-up manpower including separation of office areas.

##### 7.7.3 Administrative Management

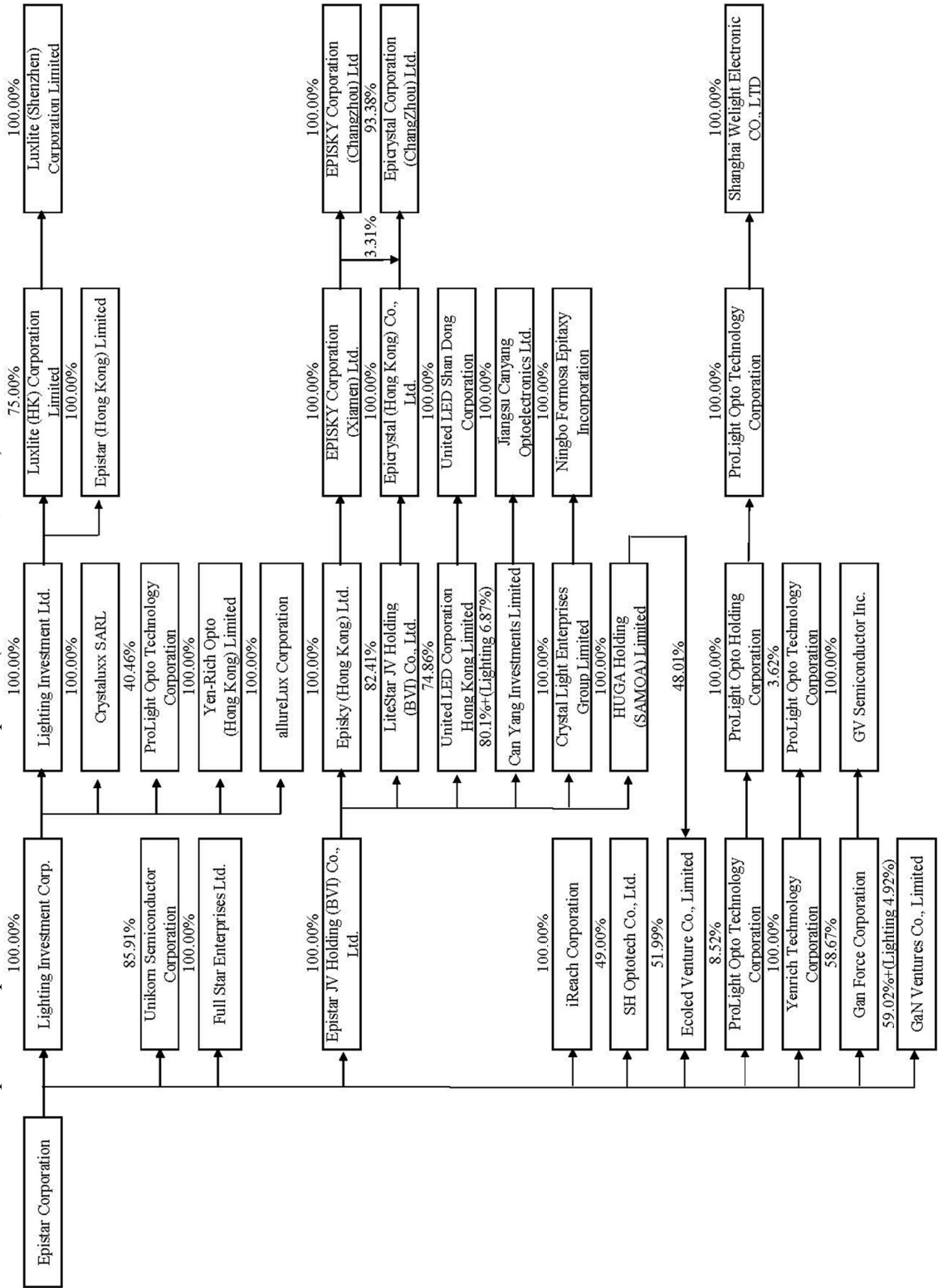
- 7.7.3.1 Attendance and absenteeism regulations for self-health management and home quarantines shall be handled in accordance with government policy and the relevant Company regulations.
- 7.7.3.2 Employees will work from off-site if necessary. Business continuity planning and measures have been devised to ensure continuity of operations.



## 8. Special Disclosure

### 8.1 Summary of Affiliated Companies

#### 8.1.1 Organization Chart of Epistar Corporation's Affiliated Companies (December 31, 2019)



### 8.1.2 Basic Information of Affiliates

Unit: \$ thousands USD, RMB and EUR

Company Name	Date of establishment	Address	Capital Stock	Major business
Lighting Investment Corp.	2007.11.08	2F., No.62, Guanghua 2nd St., North Dist., Hsinchu City 300, Taiwan (R.O.C.)	NTD 2,514,785	Professional investment.
Epistar JV Holding (BVI) Co., Ltd.	2010.01.21	Visira Corporate Services Centre, Wickhams Cay II, Road Town, Tortola, VG1110, British Virgin Islands	USD 482,780	Professional investment.
Yenrich Technology Corporation	2009.12.11	9F-1, No.67, Ziyou Rd., East Dist., Hsinchu City 300, Taiwan (R.O.C.)	NTD 600,000	Manufacture & sales of Electronic component
iReach Corporation	2018.01.09	3F., No.50, Yuanqu 2nd Rd., Hsinchu Science Park, Hsinchu 300, Taiwan (R.O.C.)	NTD 45,000	Design, manufacture & sales of semiconductor light emitting device, package and module
SH Optotech Co., Ltd.	2009.09.25	IF 22, Keya Rd., Central Taiwan Science Park, Taichung 42881, Taiwan	NTD 64,881	Manufacture & sales of LED products.
Ecoled Venture Co., Limited	2014.11.26	Unit 1405-1406, Dominion Centre 43-59 Queen's Road East Wanchai, Hong Kong	USD 3,313	Sales of Smart Lighting products.
Unikorn Semiconductor Corporation	2018.10.11	IF, 5, Li-hsin 5th Rd., Hsinchu Science Park, Hsinchu 300, Taiwan	NTD 582,000	III-V Semiconductor Foundry business
Full Star Enterprises Limited	2008.10.03	Room 2702-03, CC Wu Building, 302-8 Hennessy Road, Wanchai, Hong Kong	USD 8,660	Professional investment.
GaN Ventures Co., Limited	2016.08.04	Unit 1405-1406, Dominion Centre 43-59 Queen's Road East Wanchai, Hong Kong	USD 14,004	Investment & sales of electronic Components.
Lighting Investment Ltd.	2008.05.16	Visira Corporate Services Centre, Wickhams Cay II, Road Town, Tortola, VG1110, British Virgin Islands	USD 4,564	Professional investment.
Crystaluxx SARL	2013.02.28	40, avenue Monterey, L-2163 Luxembourg	EUR 3,320	Professional investment.
Yen-Rich Opto (Hong Kong) Limited	2013.03.22	Room 2702-03, CC Wu Building, 302-8 Hennessy Road, Wanchai, Hong Kong	USD 8,010	Sales of LED products.
allureLux Corporation (Note 1)	2018.03.02	9F-1, No.69, Ziyou Rd., East Dist., Hsinchu City 300, Taiwan (R.O.C.)	NTD 3,000	LED lighting fixture development and design and technical services

Unit: \$ thousands USD, RMB and EUR

Company Name	Date of establishment	Address	Capital Stock	Major business
Episky (Hong Kong) Ltd.	2008.05.06	Room 2702-03, CC Wu Building, 302-8 Hennessy Road, Wanchai, Hong Kong	USD 68,000	Professional investment.
United LED Corporation Hong Kong Limited	2009.10.29	Room 2702-03, C.C.Wu Building, 302-8 Hennessy Road, Wanchai, Hong Kong	USD 89,500	Professional investment.
LiteStar JV Holding (BVI) Co., Ltd.	2010.02.22	Vistra Corporate Services Centre, Wickhams Cay II, Road Town, Tortola, VG1110, British Virgin Islands	USD 132,050	Professional investment.
Can Yang Investments Limited	2009.11.24	Room 2702-03, CC Wu Building, 302-8 Hennessy Road, Wanchai, Hong Kong	USD 76,000	Professional investment.
Crystal Light Enterprises Group Limited	2001.09.28	TrustNet Chambers, P.O. Box3444 Road Town, Tortola, British Virgin Islands	USD 200	Professional investment.
HUGA Holding (Samoa) Limited	2011.01.13	Vistra Corporate Services Centre, Ground Floor NPF Building, Bach Road, Apia Samoa.	USD 12,551	Professional investment.
GV Semiconductor Inc.	2017.06.28	1245 South Winchester Blvd, Suite 300, San Jose, CA 95128 United States of America	USD 6,680	Manufacturing of Semiconductors and seller of technology components
Luxlite (HK) Corporation Limited	2008.12.18	Room 2702-03, CC Wu Building, 302-8 Hennessy Road, Wanchai, Hong Kong	USD 3,800	Professional investment.
Epistar (Hong Kong) Limited	2013.04.25	Room 2702-03, CC Wu Building, 302-8 Hennessy Road, Wanchai, Hong Kong	USD 83	Professional investment.
EPISKY Corporation (Xiamen) Ltd.	2006.12.13	99, Xiang Xing Rd., Xiang'An Branch, Torch Hi-Tech Industrial Development Zone, Xiamen, China	USD 68,000	Manufacture & sales of LED products.
United LED Shan Dong Corporation	2010.02.25	NO.6688 Chongwen Road Jining High & New Technology	USD 84,000	Manufacture & sales of LED products.
Epicrystal (Hong Kong) Co., Ltd.	2010.03.05	Room 2702-03, CC Wu Building, 302-8 Hennessy Road, Wanchai, Hong Kong	USD 146,600	Professional investment.
Jiangsu Canyang Optoelectronics Ltd.	2009.10.12	No.9, Zhouzhuanghe Road, Economic Development Zone, Yangzhou, Jiangsu Province, PRC, 225009	USD 192,000	Production and sales of Light-emitting diode epi wafers and chips.
Ningbo Formosa Epitaxy Incorporation	2004.06.23	Room 5088-17, 5F, No.1558, Jiangnan Road Ningbo, China	USD 200	Sales of LED products.

Unit: \$ thousandsUSD, RMB and EUR

Company Name	Date of establishment	Address	Capital Stock	Major business
Luxlite (Shenzhen) Corporation Limited	2009.02.16	Room 1501,15F, Zhiju Building, No.1 QiTian Road, Linyi Avenue, Taoyuan Street, Nanshan District, Shenzhen	USD 3,000	Sales of LED products.
EPISKY Corporation (Changzhou) Ltd.	2014.02.27	F1, Building 10, No.377 South Wuyi Road, Wujin National Hi-tech Industrial Zone	RMB 20,000	Manufacture & sales of LED products.
Epicrystal Corporation (ChangZhou) Ltd.	2010.04.07	No.66-8, Yanghu Rd. Wu Jin Hi-Tech Industrial Development Zone, Changzhou, Jiangsu	USD 157,000	Manufacture & sales of LED products.
ProLight Opto Technology Corporation	2004.10.22	No.89, Xiyuan Rd., Zhongli Dist., Taoyuan City 320, Taiwan (R.O.C.)	NTD 680,620	Manufacture & sales of LED packaging.
ProLight Opto Holding Corporation	2010.11.11	No.24, Lesperance Industrial Estate, MAHE Seychelles	USD 150,000	Professional investment.
ProLight Opto Technology Corporation	2010.11.15	No.24, Lesperance Industrial Estate, MAHE Seychelles	USD 150,000	Professional investment.
Shanghai Welight Electronic Co., Ltd.	2011.12.02	Room 2308, No. 915 Zhenbei Road, Putuo District, Shanghai	USD 150,000	Sales of LED products.
Gan Force Corporation	2019.10.07	9F-1, No.69, Ziyou Rd., East Dist., Hsinchu City 300, Taiwan (R.O.C.)	NTD 1,812	Manufacturing of Semiconductors and seller of technology components

Note 1 : allureLux Corporation renamed to GaNrich Semiconductor Corporation in February 2020.

8.1.3 Shareholders representing both holding companies and subordinates: None.

8.1.4 Industries Covered by all the Affiliates: Including optoelectronic industry and investment industry.

8.1.5 Name of each affiliated company's Director, Supervisor, and President

Company Name	Title	Name or Representative		Shareholding	
		Name	Legal representative	Shares	%
Lighting Investment Corp.	Chairman	Epistar Corporation	Chin-Yung Fan	251,478,518	100.00%
	Director	Epistar Corporation	Min-Hsun Hsieh		
	Director	Epistar Corporation	Tzu-Hsiang Tai		
	Supervisor	Epistar Corporation	Tao-jung Lin		
	President	Yung-Sheng Yu	0		

As of December 31, 2019

As of December 31, 2019

Company Name	Title	Name or Representative		Shareholding	
		Name	Legal representative	Shares	%
Epistar JV Holding (BVI) Co., Ltd. Yenrich Technology Corporation	Chairman	Biing-Jye Lee		0	0.00%
	Chairman	Epistar Corporation	Biing-Jye Lee	60,000,000	100.00%
	Director	Epistar Corporation	Min-Hsun Hsieh		
	Director	Epistar Corporation	Shih-Shien Chang		
	Supervisor President	Epistar Corporation Shih-Shien Chang	Yung-Sheng Yu	0	0.00%
iReach Corporation	Chairman	Epistar Corporation	Tao-jung Lin	7,000,000	100.00%
	Director	Epistar Corporation	Shih-Shieh Chang		
	Director	Epistar Corporation	Chin-Yuan Chen		
	Director	Epistar Corporation	Rong-Yih Hwang		
	Director Supervisor	Epistar Corporation Zhi-Jiang Lu Liu Jui Chen		preference share 520,000 0	5.78% 0.00%
SH Optotech Co., Ltd.	Chairman	Seoul Optodevice Co., Ltd.	Hyeon Jong Yu	2,725,007	42.00%
	Director	Seoul Optodevice Co., Ltd.	Woo Chul Kwak		
	Director	Epistar Corporation	Lin-Tien Yang	3,179,176	49.00%
	Director	Epistar Corporation	Wen-Chung Lee		
	Supervisor Supervisor President	Tao-jung Lin Seoul Semiconductor Co., Ltd. Lin-Tien Yang	Jong Hyeon Chae	0 583,928 0	0.00% 9.00% 0.00%
Ecoled Venture Co., Limited	Chairman	Shih-Shieh Chang		0	0.00%
	Director	Yung-Sheng Yu		0	0.00%
Unikorn Semiconductor Corporation	Chairman	Epistar Corporation	Biing-Jye Lee	100,000,000	85.91%
	Director	Epistar Corporation	Yung-Sheng Yu		
	Director	Epistar Corporation	Ming-Da Jin		
	Director	Epistar Corporation	Wei-Shih		
	Director Supervisor President	Epistar Corporation Wei-Shih	Shi-Yi Chen Tao-jung Lin	0	0.00%
Full Star Enterprises Limited	Director	Shih-Shieh Chang		0	0.00%
	Chairman	Biing-Jye Lee		0	0.00%
GaN Ventures Co., Limited	Director	DHAYAGUDE Tushar Heramb		0	0.00%
	Director	SHAH Ashok Deepak		0	0.00%
	Director	Min-Hsun Hsieh		0	0.00%
	Director	Nan-Yang Wu		0	0.00%

As of December 31, 2019

Company Name	Title	Name or Representative		Shareholding	
		Name	Legal representative	Shares	%
Lighting Investment Ltd. Crystaluxx SARL	Director	Chin-Yung Fan		0	0.00%
	Director	Lighting Investment Corp.	Chin-Yung Fan	33,200	100.00%
	Director	Lighting Investment Corp.	Tzu-Hsiang Tai		
Yen-Rich Opto (Hong Kong) Limited allureLux Corporation (Note3)	Chairman	Shih-Shieh Chang		0	0.00%
	Chairman	Lighting Investment Corp.	Shih-Shieh Chang	3,000,000	100.00%
	Director	Lighting Investment Corp.	Yung-Sheng Yu		
	Director	Lighting Investment Corp.	Chin-Yung Fan		
	Supervisor	Lighting Investment Corp.	Liu Jui Chen		
Episky (Hong Kong) Ltd. United LED Corporation Hong Kong Limited	Director	Chin-Yung Fan		0	0.00%
	Chairman	Jen-Chau Wu		0	0.00%
	Director	Lin-Tien Yang		0	0.00%
	Director	Chang Bao		0	0.00%
	Director	Chau-Shen Yu		0	0.00%
	Director	Mong Ting Hung		0	0.00%
	Supervisor	Yung-Sheng Yu		0	0.00%
	Supervisor	Yi-Chi Liou		0	0.00%
	Director	Biing-Jye Lee		0	0.00%
	Director	Jen-Chau Wu		0	0.00%
LiteStar JV Holding (BVI) Co., Ltd.	Director	Yuan-Ping Chuang		0	0.00%
	Chairman	Chin-Yung Fan		0	0.00%
	Director	Jen-Chau Wu		0	0.00%
	Director	Chen Ou		0	0.00%
	Director	Cheng-Chi Chiang		0	0.00%
	Director	Lin-Tien Yang		0	0.00%
	Director	Suntrap Corporation Limited	Ching-Huei Wu	2,679,063	3.53%
	Director	Lin-Tien Yang		0	0.00%
	Director	Epistar JV Holding(BVI) Co., Ltd	Chin-Yung Fan	12,551,035	100.00%
	Director				
Can Yang Investments Limited	Chairman	Biing-Jye Lee		0	0.00%
	Director	DHAYAGUDE Tushar Heramb		0	0.00%
	Director	Min-Hsun Hsieh		0	0.00%
	Director	Nan-Yang Wu		0	0.00%
Crystal Light Enterprises Group Limited HUGA Holding (Samoa) Limited	Director				
	Director				
GV Semiconductor Inc.	Chairman				
	Director				

As of December 31, 2019

Company Name	Title	Name or Representative		Shareholding	
		Name	Legal representative	Shares	%
Luxlite (HK) Corporation Limited	Director	Chin-Yung Fan		0	0.00%
	Director	Shih-Shien Chang		0	0.00%
	Director	Wei-Kuo Su		0	0.00%
	Director	Rong-Yih Hwang		0	0.00%
	Director	Lin-Tien Yang		0	0.00%
	Director	Chang Bao		475,000	12.50%
	Director	Chen-Chen Liu		475,000	12.50%
	Director	Chin-Yung Fan		0	0.00%
EPISKY Corporation (Xiamen) Ltd.	Chairman	Episky (Hong Kong) Ltd.	Jen-Chau Wu	NA (Note 1)	100.00%
	Director	Episky (Hong Kong) Ltd.	Chang Bao		
	Director	Episky (Hong Kong) Ltd.	Rong-Yih Hwang		
	Director	Episky (Hong Kong) Ltd.	Wen-Chieh Kuo		
	Supervisor	Episky (Hong Kong) Ltd.	Shih-Shien Chang		
	President	Wen-Chieh Kuo		NA (Note 1)	0.00%
United LED Shan Dong Corporation	Executive Director	United LED Corporation Hong Kong Limited	Jen-Chau Wu	NA (Note 1)	100.00%
	Supervisor	United LED Corporation Hong Kong Limited	Rong-Chang Lin		
	President	Hsien-Chun Weng		NA (Note 1)	0.00%
	Director	Biing-Jye Lee		0	0.00%
Epicrystal (Hong Kong) Co., Ltd.	Director	Yung-Sheng Yu		0	0.00%
	Director	Lin-Tien Yang		0	0.00%
	Director	Jen-Chau Wu		0	0.00%
	Director	Kuang-Chung Chen		0	0.00%
	Director	Yuan-Ping Chuang		0	0.00%
	Chairman	Can Yang Investments Limited	Jen-Chau Wu	NA (Note 1)	100.00%
	Director	Can Yang Investments Limited	Chen Ou		
	Director	Can Yang Investments Limited	Chin-Yung Fan		
Jiangsu Canyang Optoelectronics Ltd.	Director	Can Yang Investments Limited	Lin-Tien Yang		
	Director	Can Yang Investments Limited	Nam Han-Yong		
	Director	Can Yang Investments Limited	Ching-Huei Wu		
	Director	Can Yang Investments Limited	Hui-Nin Chen		
	Supervisor	Can Yang Investments Limited		NA (Note 1)	0.00%
	President	Cheng-Chi Chiang			
	Chairman	Crystal Light Enterprises Group Limited	Jen-Chau Wu	NA (Note 1)	100.00%
	Director	Crystal Light Enterprises Group Limited	Jimbo Wang		
	Director	Crystal Light Enterprises Group Limited	Talung Ho		
	Director	Crystal Light Enterprises Group Limited			
Ningbo Formosa Epitaxy Incorporation	Chairman	Crystal Light Enterprises Group Limited	Jen-Chau Wu	NA (Note 1)	100.00%
	Director	Crystal Light Enterprises Group Limited	Jimbo Wang		
	Director	Crystal Light Enterprises Group Limited	Talung Ho		

As of December 31, 2019

Company Name	Title	Name or Representative		Shareholding			
		Name	Legal representative	Shares	%		
Luxlite (Shenzhen) Corporation Limited	Chairman	Luxlite (HK) Corporation Limited	Chang Bao	NA (Note 1)	100.00%		
	Director	Luxlite (HK) Corporation Limited	Lin-Tien Yang				
	Director	Luxlite (HK) Corporation Limited	Shih-Shien Chang				
	Director	Luxlite (HK) Corporation Limited	Tzu-Hsiang Tai				
	Director	Luxlite (HK) Corporation Limited	Rong-Yih Hwang				
	Director	Luxlite (HK) Corporation Limited	Chin-Yung Fan				
	Director	Luxlite (HK) Corporation Limited	Chen-Chen Liu				
	Supervisor	Luxlite (HK) Corporation Limited	Tao-jung Lin				
	President	Lin-Tien Yang					
	Chairman	EPISKY Corporation (Xiamen) Ltd.	Li-Cheng Hung			NA (Note 1)	0.00%
EPISKY Corporation (Changzhou) Ltd.	Director	EPISKY Corporation (Xiamen) Ltd.	Hsien-Chun Weng	NA (Note 1)	100.00%		
	Director	EPISKY Corporation (Xiamen) Ltd.	Jen-Chau Wu				
	Director	EPISKY Corporation (Xiamen) Ltd.	Liang-Sheng Chi				
	Director	EPISKY Corporation (Xiamen) Ltd.	Talung Ho				
	Supervisor	EPISKY Corporation (Xiamen) Ltd.	Tzu-Hsiang Tai				
	President	Liang-Sheng Chi					
	Chairman	Epicrystal (Hong Kong) Co., Ltd.	Jen-Chau Wu			NA (Note 1)	93.38%
	Director	Epicrystal (Hong Kong) Co., Ltd.	Bing-Jye Lee			NA (Note 1)	3.31%
	Director	Epicrystal (Hong Kong) Co., Ltd.	Lin-Tien Yang				
	Supervisor	Epicrystal (Hong Kong) Co., Ltd.	Chang Bao				
ProLight Opto Technology Corporation	Director	Epicrystal (Hong Kong) Co., Ltd.	Kuang-Chung Chen	NA (Note 1)	100.00% (Note 2)		
	Director	Epicrystal (Hong Kong) Co., Ltd.	Yuan-Ping Chuang				
	Director	Epicrystal (Hong Kong) Co., Ltd.	Tao-jung Lin				
	Supervisor	EPISKY Corporation (Xiamen) Ltd.					
	President	Epicrystal (Hong Kong) Co., Ltd., EPISKY Corporation (Xiamen) Ltd., Lite-On Electronics (Tianjin) Co., Ltd. Cheng-Chi Chiang					
	Chairman	Lighting Investment Corp.	Feng-Ming Chen			NA (Note 1)	0.00%
	Director	Lighting Investment Corp.	Tzu-Hsiang Tai			27,539,234	40.46%
	Director	Lighting Investment Corp.	Li- Yuan Huang				
	Director	Ding Geng Investment Co., Ltd.				1,141,000	1.68%
	Director	Everaliant Corp.				1,813,710	2.66%
Director	Chen-Chen-Lun Hsing		590,241	0.87%			
Independent director	Che-Hsiung Chen						
Independent director	Hui-Chung Chiang						
Independent director	Chih-Ta Yen						



As of December 31, 2019

Company Name	Title	Name or Representative		Shareholding	
		Name	Legal representative	Shares	%
ProLight Opto Holding Corporation	Director	Chen-Chen-Lun Hsing		NA (Note 1)	0.00%
ProLight Opto Technology Corporation	Director	Chen-Chen-Lun Hsing		NA (Note 1)	0.00%
Shanghai Welight Electronic Co., Ltd.	Chairman Supervisor	ProLight Opto Technology Corporation ProLight Opto Technology Corporation	Tung Kuan Ming-Hsien Shih	NA (Note 1)	100.00%
Gan Force Corporation	Chairman	Epistar Corporation	Bing-Jye Lee	1,063,000	64.31%
	Director	Epistar Corporation	Min-Hsun Hsieh		
	Director	Wu Nan-Yang		0	0.00%
	Director	DHAYAGUDE Tushar Heramb		preference share 159,000	100.00%
	Director	Tzu-Hsiang Tai		0	0.00%
	President	DHAYAGUDE Tushar Heramb		preference share 159,000	100.00%

Note 1: Given the type of limited company, the quantity of shares is not applicable.

Note 2: Appointed by shareholders jointly pursuant to PRCCompany Act, and recorded by State Administration for Industry & Commerce for the People's Republic of China.

Note 3 : allureLux Corporation renamed to GaNrich Semiconductor Corporation in February 2020.

### 8.1.6 Affiliates' Operating Results

As of December 31, 2019 Unit: NT in thousands

Company	Capital Stock	Assets	Liabilities	Net Worth	Net Revenues	Income (Loss) from Operation	Net Income (Loss)	Basic Earning (Loss) Per Share
Lighting Investment Corp.	2,514,785	2,286,323	98,377	2,187,946	121,192	67,162	135,696	0.54
Epistar JV Holding (BVI) Co., Ltd.	14,960,129	9,123,035	0	9,123,035	0	(3,095)	(666,350)	Note 1
Yenrich Technology Corporation	600,000	1,412,430	289,415	1,123,015	587,799	(94,816)	(28,223)	(4.70)
GaN Ventures Co., Limited	323,889	22,281	393	21,888	0	(18,203)	(90,478)	Note 1
SH Optotech Co., Ltd.	64,881	18,011	11,497	6,514	78,353	869	1,076	0.17
Ecoled Venture Co., Limited	0	0	0	0	7,164	(7,089)	19,736	Note 1
Full Star Enterprises Limited	262,991	257,947	40	257,907	0	(2,076)	7,599	Note 1
Episky (Hong Kong) Ltd.	2,124,096	2,083,512	0	2,083,512	0	0	(284,375)	Note 1
Lighting Investment Ltd.(BVI)	152,701	609,988	17,220	592,768	0	(5,388)	52,468	Note 1
United LED Corporation Hong Kong Limited	2,689,036	467,293	(435)	467,728	0	52	(165,085)	Note 1
LiteStar JV Holding (BVI) Co., Ltd.	4,169,444	4,054,254	32	4,054,222	0	(77)	(119,528)	Note 1
HUGA Holding (Samoa) Limited	313,322	79,880	0	79,880	0	(104)	51,872	Note 1
Crystaluxx SARL	111,519	14,059	1,324	12,735	0	(1,367)	(1,844)	Note 1
Yen-Rich Opto (Hong Kong) Limited	240,140	299,528	3,748	295,780	19,721	(6)	7,113	Note 1
Crystal Light Enterprises Group Limited	6,754	26,093	0	26,093	0	0	(311)	Note 1
Can Yang Investments Limited	2,324,763	1,828,020	61,094	1,766,926	0	(82)	(275,527)	Note 1
Episky Corporation (Xiamen) Ltd.	1,920,234	4,919,883	2,836,378	2,083,505	3,514,320	(184,333)	(284,408)	Note 1
Luxlite (HK) Corporation Limited	113,924	435,988	7,776	428,212	0	(55)	120,918	Note 1
Epistar (Hong Kong) Limited	2,556	2,248	167	2,081	0	(32)	(32)	Note 1
United LED Shan Dong Corporation	2,519,400	570,055	114,202	455,853	9	(164,326)	(165,485)	Note 1

As of December 31, 2019 Unit: NT in thousands

Company	Capital Stock	Assets	Liabilities	Net Worth	Net Revenues	Income (Loss) from Operation	Net Income (Loss)	Basic Earning (Loss) Per Share
Epicrystal (Hong Kong) Co., Ltd.	4,403,034	4,053,019	0	4,053,019	0	0	(119,460)	Note 1
Ningbo Formosa Epitaxy Incorporation	5,996	26,093	0	26,093	0	0	(311)	Note 1
Jiangsu Canyang Optoelectronics Ltd.	5,756,160	3,282,743	1,462,038	1,820,705	1,317,553	(256,486)	(275,384)	Note 1
Luxlite (Shenzhen) Corporation Limited	87,767	2,050,541	1,733,040	317,501	3,623,048	190,996	125,395	Note 1
Epicrystal Corporation (Changzhou) Ltd.	4,366,122	5,584,760	1,244,411	4,340,349	2,648,542	(130,536)	(127,901)	Note 1
iReach Corporation	35,000	107,030	48,056	58,974	140,037	11,469	11,469	1.64
GV Semiconductor Inc.	200,266	36,554	3,886	32,668	8,032	(88,531)	(87,413)	Note 1
allureLux Corporation (Note 5)	30,000	7,739	100	7,639	0	(1,283)	(4,423)	(1.47)
Unikorn Semiconductor Corporation	582,000	1,179,541	522,365	657,176	125,380	(442,657)	(436,932)	(3.75)
ProLight Opto Technology Corporation	680,620	1,111,279	303,467	807,812	597,893	(50,624)	(55,888)	(0.86)
ProLight Opto Holding Corporation	4,497	(1,446)	59	(1,505)	0	0	2,364	Note 1
ProLight Opto Technology Corporation	4,497	(1,448)	30	(1,478)	0	0	2,364	Note 1
Shanghai Welight Electronic CO., LTD	4,497	166,297	167,435	(1,138)	238,446	2,631	2,689	Note 1
Gan Force Corporation	1,812	87,529	11	87,518	0	(53)	(11,533)	(6.98)
EPISKY Corporation (Changzhou) Ltd	0	0	0	0	9	(7,438)	(9,237)	Note 1, Note 2
AllureLux Inc.	0	0	0	0	0	(2,977)	(2,977)	Note 1, Note 3
EPIRICH (Guangzhou) Co., Ltd.	0	0	0	0	0	0	(69)	Note 1, Note 4

Note 1 : Not applicable, as it is an offshore company.

Note2 : EPISKY Corporation (Changzhou) Ltd was liquidated on December, 2019.

Note3 : AllureLux Inc. was liquidated on February, 2019.

Note4 : EPIRICH (Guangzhou) Co., Ltd. was liquidated on April, 2019.

Note5 : allureLux Corporation renamed to GaNrich Semiconductor Corporation in February 2020.

8.1.7 Affiliates Consolidated Financial Statements: See Appendix 1.3 (Page 173)

8.1.8 Relationship Report: N.A.

8.1.9 Information about endorsement/guarantee to affiliates, loaning to others and trading of financial derivatives

1. Endorsement/guarantee for others: N/A

2. Loaning to others

The limit of total loan made by the subsidiary wholly owned by the Company directly, Episky Corporation (Xiamen) Ltd., and the limit of loan made by it any single counterpart shall be no more than 50% and 40% of the net worth in the latest financial statements of Episky Corporation (Xiamen) Ltd.,

The limit of total loan made by the subsidiary wholly owned by the Company directly, Epicrystal Corporation (ChangZhou) Ltd., and the limit of loan made by it any single counterpart shall be no more than 30% and 20% of the net worth in the latest financial statements of Epicrystal Corporation (ChangZhou) Ltd.,

The limit of total loan made by the subsidiary wholly owned by the Company directly, Yen-Rich Opto (Hong Kong) Limited, and the limit of loan made by it any single counterpart shall be no more than 40% and 40% of the net worth in the latest financial statements of Yen-Rich Corporation (Hong Kong) Limited.

December 31, 2019 Unit: NT\$ thousand

Lender	Borrower	Balance of loan A	Actual drawdown	A to 2019 Q4 Net value ratio (%)
EPISKY Corporation (Xiamen) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	0	0	0.00
Epicrystal Corporation (ChangZhou) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	344,400	172,200	7.86
Yen-Rich Opto (Hong Kong) Limited	Ecoled Venture Co., Limited	0	0	0.00
Yen-Rich Opto (Hong Kong) Limited	Lighting Investment Corp.	95,936	95,936	32.43
Total subsidiaries		440,336	268,136	0.97

Note: The net worth in the financial statements of the Company, Episky Xiamen and Epicrystal (ChangZhou), Yen-Rich (HongKong) 2019 was NT\$45,219,189 thousand, RMB498,639 thousand, RMB1,017,303 thousand and USD9,866 thousand respectively.

3. Trading of derivatives: N/A

## 8.2 Private Placement Securities in the Most Recent Years and up to the date of publication of the annual report

Title	Approved the motion for issuance of securities in private placement at the shareholders' meeting on June 20, 2019 (Note).				
Type of securities in private placement	Common shares of Epistar Corporation				
Date on which the private placement was approved at a shareholders meeting and the amount thus approved	The issuance of new common shares in private placement and new common shares for cash to sponsor issuance of the global depository receipt shall total no more than 120 million shares. The motion was approved upon resolution made at the general shareholders' meeting on June 20, 2019.				
Basis for and reasonableness of the pricing	<p>The private placement price of the Company shall be no less than 80% of the higher of the following two calculation bases prior to the price determination date:</p> <ol style="list-style-type: none"> <li>1. The simple average closing price of the common stock of either the one, three or five consecutive business days immediately before the price determination date, after adjustment for any distribution of stock dividends, cash dividends, or capital reduction.</li> <li>2. The simple average closing price of the common stock of the thirty consecutive business days immediately before the price determination date, after adjustment for any distribution of stock dividends, cash dividends, or capital reduction.</li> </ol>				
Manner in which the specified persons were selected	The specific investor shall be mainly defined in compliance with Article 43-6 of the Securities and Exchange Act and related letter by the Financial Supervisory Commission, R.O.C., which do not cause significant changes in the future under the premise of the right to operate the Company and shall be a strategic investor who is able to promote the Company's business.				
Reasons why the private placement was necessary	Based on the status of the capital market, timeliness, and feasibility of fundraising, issuance cost, and/or the development of the Company, the Company plans to adopt the strategic investors. Since the transfer limitation of privately placed securities can ensure the long-term cooperation between the Company and the strategic investors, and strengthen the stability of running the corporation, the Company shall process fundraising by private placement.				
Date of completion of payment	NA				
Information about offerees	Targets of the private placement	Qualifications	Subscription amounts	Relationship with the Company	Participation in the operations of the Company
	No offerees have been arranged so far.				
Actual subscription price	NA				
Difference between actual subscription price and reference price	NA				
Effect of the private placement to shareholders' equity	In the case of successful issuance of new common shares in private placement and new common shares for cash to sponsor issuance of the global depository receipt exactly totaling 120 million shares, the quantity of issued shares will account for 9.93% of the current (February 26, 2020) paid-in capital upon the capital increase.				
Status of use of the capital raised through the private placement of common shares and implementation progress of the plan	NA				
Realization of the benefits of the plan	NA				

Note: As of the date of printed of the annual report, the motion was discontinued upon resolution made by the board of directors meeting on 26 February 2020, for lack of qualified strategic investor.

8.3 The Shares in the Company Held or Disposed of by Subsidiaries in the Most Recent Years and up to the date of publication of the annual report

Unit: NT\$, Shares; %

Company	Capital Stock (NT\$ K)	Capital sources	The Company's shareholdings	Date of acquisition or disposition	Quantity and amount of shares as acquired	Quantity and amount of shares as disposed of	Investment income	Quantity and amount of shares held until the date of publication of the annual report	Status of pledge	Amount of endorsement/guarantee made by the Company for its subsidiary	Amount of loan made by the Company to its subsidiary
Lighting Investment Corp. (Note 1)	NT\$ 2,514,785 thousand	NA	100.00%	December 28, 2012 (acquired)	2,564,755 shares/ NT\$ 135,163 thousand	0 share/ NT\$0 thousand	—	2,564,755 shares/ NT\$ 82,970 thousand	None	0	0
From 2019 until the date of publication of the annual report											

Note: Subject to the resolution made by the special shareholders' meeting on September 28, 2012, the Company swapped shares with HUGA Optotech Inc. according to Article 29 of the Business Mergers and Acquisitions Act. The record date for the share swap was set as December 28, 2012. Accordingly, HUGA Optotech Inc. held the Company's shares. After that, according to the official letter under Tai-Tsai-Cheng-3-Tze No. 0920124301 dated June 18, 2003, Article 28-2 of the Securities and Exchange Act and Article 13 of the Business Mergers and Acquisitions Act, the Company registered cancellation of shares or transferred the shares. Then, the Company merged HUGA Optotech Inc. on September 29, 2016.

8.4 Other supplementary notes: None.

8.5 Any Events in 2019 the most recent year and up to the Date of publication of this Annual Report that Had Significant Impacts on Shareholders' Right or Security Prices as Stated in Item 3, Paragraph 2 of Article 36 of Securities and Exchange Act of Taiwan: None.

## Appendix 1.1

### Epistar Corporation Statement of Declaration on Internal Control System

February 26, 2020

Epistar Corporation has conducted a self-check on internal control in 2019. The results are as follows:

1. Epistar acknowledges that the Board of Directors and management personnel are responsible for establishing, performing, and maintaining an Internal Control System. Said system has already been duly established at Epistar. The purposes of the Internal Control System are to provide a reasonable assurance for the Company's efficient and effective operations (including profit, performance, safeguard of assets, etc.), reliability of financial reports, and compliance with applicable laws and regulations.
2. Epistar also acknowledges that the Internal Control System possesses inherent constraints irrespective of the intended impeccability of the system design and therefore could only provide a reasonable assurance of the three goals referred to above. Due to the changes in environment and circumstances, the effectiveness of the internal control system may vary accordingly. Nevertheless, the Internal Control System is equipped with self-monitoring mechanisms. Should any flaws be recognized, the Company would enforce corrective measures immediately.
3. The Company evaluates the effectiveness of the design and implementation of its Internal Control System in accordance with the "Guidelines for the Establishment of Internal Control System by Public Companies" (referred to as the "Guidelines" hereinafter). The evaluation on the internal control system adopted by the said Guidelines has the internal control system divided into the following five factors based on the process of the management control: (1) Environment control, (2) risk assessment, (3) control process, (4) information and communication, and (5) supervision. Each component comprises certain factors. Please refer to the Guidelines for the preceding items.
4. Epistar has assessed and evaluated the effectiveness of the internal control system design and implementation in accordance with the internal control system criteria referred to above.
5. Based on the evaluation of said system, Epistar considered the Internal Control System as of December 31, 2019 (including supervision and management of subsidiaries), which, including the Design and performance of the known operation effectiveness and the degree of reaching the efficiency goals, reliability of financial reporting and compliance with the related internal control system under the relevant laws, are all effective. It can ensure that said goals will be reasonably reached.
6. This Statement of Declaration on Internal Control System is the main content of the annual report and prospectus, and will be publicly disclosed. Upon any unlawful acts like pretense and concealment involved in the above-mentioned statement, Epistar will assume the legal responsibilities according to Articles 20, 32, 171, and 174 of the Securities and Exchange Act.
7. This Statement of Declaration on Internal Control System had been approved by Epistar's Board of Directors at the meeting of February 26, 2020 with nine directors presented at the meeting and none disagreeing with this Statement of Declaration on Internal Control System.

Epistar Corporation

Chairman      Biing-Jye Lee

President      Chin-Yung Fan

## **Audit Committee's Review Report**

To: Epistar Corporation Annual General Shareholders' Meeting of 2020

The Board of Directors has prepared and submitted the Company's 2019 Business Report, Financial Statements, and Proposal for Allocation of Loss. Ya-Huei Cheng, CPA and Chih-Cheng Hsieh, CPA of PricewaterhouseCoopers have also audited the financial statements and issued the auditors' report. The Business Report, Financial Statements, and Proposal for 2019 Allocation of Loss have been reviewed and determined to be correct and accurate by the Audit Committee members of Epistar Corporation. According to article 14-4 of the Securities and Exchange Act and Article 219 of the Company Act, we hereby submit the report.

Epistar Corporation

Chairman of the Audit Committee: Mr. Wei-Min Sheng

Date: February 26<sup>th</sup>, 2020



## Appendix 1.3

### Epistar Corporation Affiliates Consolidated Financial Statements Statement

The companies required to be included in the consolidated financial statements of affiliates in accordance with the “Criteria Governing Preparation of Affiliation Reports, Consolidated Business Reports and Consolidated Financial Statements of Affiliated Enterprises” for the year ended December 31, 2019 are all the same as the companies required to be included in the consolidated financial statements of parent and subsidiary companies as provided in International Accounting Standard 10 “Consolidated and Separate Financial Statements.” Relevant information that should be disclosed in the consolidated financial statements of affiliates has all been disclosed in the consolidated financial statements of parent and subsidiary companies. Hence, we have not prepared a separate set of consolidated financial statements of affiliates.

Epistar Corporation

Chairman    Biing-Jye Lee

February 26<sup>th</sup>, 2020

REPORT OF INDEPENDENT ACCOUNTANTS

PWCR19000309

To the Board of Directors and Shareholders of Epistar Corporation

***Opinion***

We have audited the accompanying consolidated balance sheets of Epistar Corporation and its subsidiaries (the “Epistar Group”) as at December 31, 2019 and 2018, and the related consolidated statements of comprehensive income, of changes in equity and of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, based on our audits and the reports of other independent accountants, as described in the *Other matters* section of our report, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of Epistar Group as at December 31, 2019 and 2018, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with the “Regulations Governing the Preparation of Financial Reports by Securities Issuers” and the International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations, and SIC Interpretations as endorsed by the Financial Supervisory Commission.

***Basis for opinion***

We conducted our audit of the consolidated financial statements as of and for the year ended December 31, 2019 in accordance with the “Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants”, "Rule No. Financial-Supervisory-Securities-Auditing-1090360805 issued by the Financial Supervisory Commission on February 25, 2020” and generally accepted auditing standards in the Republic of China (ROC GAAS); and in accordance with the “Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants” and ROC GAAS for our audit of the consolidated financial statements as of and for the year ended December 31, 2018.

### ***Key audit matters***

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole and, in forming our opinion thereon, we do not provide a separate opinion on these matters.

The key audit matters in relation to the consolidated financial statements for the year ended December 31, 2019 are outlined as follows:

### ***Evaluation of Impairment Losses of Property, Plant and Equipment, and Goodwill***

#### Description

Please refer to Note 4(20) of the consolidated financial statement for the accounting policy on impairment losses on non-financial assets, Note 5(2) for the accounting estimates and assumptions in relation to impairment losses on non-financial assets, Note 6(11) for the explanations regarding impairment losses on non-financial assets. As of December 31, 2019, the balances of property, plant and equipment, and goodwill were NT\$20,577,106 thousand and NT\$6,324,659 thousand, respectively.

Epistar Group evaluates the recoverable amounts of idle property, plant and equipment through assessing the fair values after deducting the disposal costs, and of property, plant and equipment, and intangible assets through value in use. Epistar Group evaluates whether impairment losses will be provided for property, plant and equipment, and goodwill utilizing the aforementioned recoverable amounts. The evaluation of value in use for operational property, plant and equipment and intangible assets consists of the estimation of future cash flows and the determination of discount rates. Since the assumptions adopted in the estimation of future cash flows and the results of the estimation would have significant impact on value in use of operational property, plant, and equipment, and intangible assets, it was identified as one of the key audit matters.

#### How our audit addressed the matter

We have obtained the appraisal report of idle property, plant and equipment prepared by independent values from Epistar Group and assessed the reasonableness of evaluation methods and fair values utilized. For value in use of operational property, plant and equipment, and goodwill, the following procedures were conducted:

1. Interviewed with management and obtained an understanding of Epistar Group's operational procedures in estimating future cash flows and verified the consistency to operation plans approved by the Board of Directors.
2. Discussed operation plans with management to understand the product strategies and their respective execution status.
3. Assessed the reasonableness for assumptions utilized in estimating future cash flows, including projected sales volumes, unit prices and unit costs. Assessed the parameters adopted in determining discount rates, including calculating and comparing the weighted average cost of capital at risk-free rates, the industrial risk premium and the long-term rates of returns.

### ***Evaluation of Inventories***

#### Description

Please refer to Note 4(13) of the consolidated financial statement for the accounting policy on inventory valuation, Note 5(2) for the accounting estimates and assumptions in relation to inventory valuation, Note 6(5) for the explanations regarding inventory valuation. As of December 31, 2019, the balances of inventories and the allowance for valuation loss were NT\$4,048,813 thousand and NT\$796,510 thousand, respectively.

Epistar Group is primarily engaged in manufacturing and sales of LED wafers and chips. Due to rapid technological developments, short product lifespans and frequent fluctuations of market prices, the risk of decline in market value and obsolescence for inventories is high. Epistar Group evaluates net realized values for inventories which aged over a specific period of time and specific obsolete inventories in order to provide allowance for valuation loss. Since the identification of the above obsolete inventories and their respective net realizable values are subject to management's judgment, it was identified as one of the key audit matters.

#### How our audit addressed the matter

Our key audit procedures performed in respect of the above included the following:

1. Obtained an understanding of Epistar Group's operations and the nature of its industry and interviewed with management to understand the probability of future sales for those out-of-date inventories and to evaluate the reasonableness of allowance for valuation loss.
2. Obtained and validated the accuracy of the detailed listings of inventories aged over a specific period

of time and specific obsolete inventories. Validated information of historical sales and discounts for those obsolete inventories to assess the reasonableness of policies in providing allowance for inventory valuation loss.

***Other matter – Audited by Other Independent Accountants***

We did not audit the financial statements of certain consolidated subsidiaries. Those financial statements were audited by other independent accountants, whose reports thereon have been furnished to us, and our opinion expressed herein, insofar as it relates to the amounts included in the financial statements and the information on the consolidated subsidiaries disclosed in Note 13 was based solely on the reports of other independent accountants. Total assets of those consolidated subsidiaries amounted to NT\$592,832 thousand and NT\$812,177 thousand, constituting 1.01% and 1.29% of the consolidated total assets as at December 31, 2019 and 2018, respectively, and total operating revenues were both NT\$0 thousand for the years then ended. Furthermore, we did not audit the 2019 and 2018 financial statements of certain equity investments accounted for under the equity method. Those financial statements were audited by other independent accountants whose reports thereon were furnished to us and our opinion expressed herein, insofar as it relates to the amounts included in the consolidated financial statements and certain information disclosed in Note 13 relative to these investments, is based solely on the reports of the other independent accountants. These equity investments amounted to NT\$524,371 thousand and NT\$849,968 thousand, representing 0.89% and 1.35% of the consolidated total assets as of December 31, 2019 and 2018, respectively, and their comprehensive income (including share of loss of associates and joint ventures accounted for under equity method and share of other comprehensive income/(loss) of associates and joint ventures accounted for under equity method) amounted to NT\$70,698 thousand and NT\$78,078 thousand, representing (1.79%) and (7.08%) of the consolidated comprehensive loss for the years then ended.

***Other matter – Parent company only financial reports***

We have also expressed an unmodified opinion on the parent company only financial statements of Epistar Corporation as of and for the years ended December 31, 2019 and 2018.

***Responsibilities of management and those charged with governance for the consolidated financial statements***

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the “Regulations Governing the Preparation of Financial Reports by Securities Issuers” and the International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations, and SIC Interpretations as endorsed by the Financial Supervisory Commission, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Epistar Group’s ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Epistar Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance, including audit committee, are responsible for overseeing the Epistar Group’s financial reporting process.

***Independent accountant’s responsibilities for the audit of the consolidated financial statements***

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue a report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ROC GAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ROC GAAS, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

1. Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
2. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Epistar Group's internal control.
3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
4. Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on Epistar Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our report. However, future events or conditions may cause Epistar Group to cease to continue as a going concern.
5. Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
6. Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within Epistar Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

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Cheng, Ya-Huei

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Hsieh, Chih-Cheng

For and on behalf of PricewaterhouseCoopers, Taiwan

February 26, 2020

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The accompanying consolidated financial statements are not intended to present the financial position and results of operations and cash flows in accordance with accounting principles generally accepted in countries and jurisdictions other than the Republic of China. The standards, procedures and practices in the Republic of China governing the audit of such financial statements may differ from those generally accepted in countries and jurisdictions other than the Republic of China. Accordingly, the accompanying consolidated financial statements and report of independent accountants are not intended for use by those who are not informed about the accounting principles or auditing standards generally accepted in the Republic of China, and their applications in practice.



**EPISTAR CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**  
**DECEMBER 31, 2019 AND 2018**  
(Expressed in thousands of New Taiwan dollars)

Assets	Notes	December 31, 2019		December 31, 2018	
		AMOUNT	%	AMOUNT	%
<b>Current assets</b>					
Cash and cash equivalents	6(1)	\$ 5,252,823	9	\$ 5,532,509	9
Financial assets at fair value through profit or loss - current	6(2)	1,185,215	2	726,406	1
Notes receivable, net	6(4)	2,313,351	4	1,495,653	2
Accounts receivable, net	6(4)	6,705,598	11	7,583,934	12
Accounts receivable - related parties, net	7	172,185	-	1,281,006	2
Other receivables		145,596	-	249,964	-
Other receivables - related parties	7	204	-	305	-
Inventories	6(5)	3,252,303	6	4,705,191	7
Prepayments		943,913	2	1,126,558	2
Non-current assets held for sale - net	6(12)	1,086	-	390,042	1
Other current assets	8	284,774	-	431,118	1
<b>Current Assets</b>		<u>20,257,048</u>	<u>34</u>	<u>23,522,686</u>	<u>37</u>
<b>Non-current assets</b>					
Non-current financial assets at fair value through profit or loss	6(2)	157,762	-	-	-
Non-current financial assets at fair value through other comprehensive income	6(3)	3,640,610	6	3,265,125	5
Investments accounted for under equity method	6(6)	745,901	1	1,117,708	2
Property, plant and equipment	6(7)	20,577,106	35	22,435,949	36
Right-of-use assets	6(8)	1,564,443	3	-	-
Intangible assets	6(9)	7,501,798	13	7,683,928	12
Deferred income tax assets	6(31)	3,944,874	7	3,911,132	6
Other non-current assets	6(10)	341,068	1	802,114	2
<b>Non-current assets</b>		<u>38,473,562</u>	<u>66</u>	<u>39,215,956</u>	<u>63</u>
<b>Total assets</b>		<u>\$ 58,730,610</u>	<u>100</u>	<u>\$ 62,738,642</u>	<u>100</u>

(Continued)

**EPISTAR CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**  
**DECEMBER 31, 2019 AND 2018**  
(Expressed in thousands of New Taiwan dollars)

Liabilities and Equity	Notes	December 31, 2019		December 31, 2018	
		AMOUNT	%	AMOUNT	%
<b>Current liabilities</b>					
Short-term borrowings	6(13) and 8	\$ 1,683,783	3	\$ 1,874,876	3
Short-term notes and bills payable	6(14) and 8	346,318	1	357,717	1
Notes payable		394,586	1	129,942	-
Accounts payable		1,534,323	3	2,301,209	4
Accounts payable - related parties	7	151,677	-	285,825	1
Other payables	6(15) and 7	2,503,852	4	3,820,103	6
Current income tax liabilities		6,774	-	-	-
Current lease liabilities		97,263	-	-	-
Long-term liabilities, current portion	6(16) and 8	117,533	-	165,306	-
Other current liabilities - others		159,451	-	178,857	-
<b>Current Liabilities</b>		<u>6,995,560</u>	<u>12</u>	<u>9,113,835</u>	<u>15</u>
<b>Non-current liabilities</b>					
Long-term borrowings	6(16) and 8	1,011,025	2	409,808	1
Deferred income tax liabilities	6(31)	1,606,655	3	1,402,901	2
Non-current lease liabilities		1,274,186	2	-	-
Other non-current liabilities	6(19)	647,826	1	904,188	1
<b>Non-current liabilities</b>		<u>4,539,692</u>	<u>8</u>	<u>2,716,897</u>	<u>4</u>
<b>Total Liabilities</b>		<u>11,535,252</u>	<u>20</u>	<u>11,830,732</u>	<u>19</u>
<b>Equity attributable to owners of parent company</b>					
<b>Share capital</b>					
Share capital - common stock	6(20)	10,887,014	19	10,887,014	18
<b>Capital surplus</b>					
Capital surplus	6(21)	39,212,772	66	39,515,679	62
<b>Retained earnings</b>					
Legal reserve	6(22)	161,423	-	161,423	-
Special reserve		318,465	1	703,607	1
Accumulated deficit		( 3,749,510)	( 6)	( 385,142)	-
<b>Other equity interest</b>					
Other equity interest	6(23)	( 1,285,485)	( 2)	( 1,317,990)	( 2)
<b>Treasury stocks</b>					
	6(20)	( 325,490)	( 1)	( 211,008)	-
<b>Equity attributable to owners of the parent</b>		<u>45,219,189</u>	<u>77</u>	<u>49,353,583</u>	<u>79</u>
<b>Non-controlling interest</b>		<u>1,976,169</u>	<u>3</u>	<u>1,554,327</u>	<u>2</u>
<b>Total equity</b>		<u>47,195,358</u>	<u>80</u>	<u>50,907,910</u>	<u>81</u>
<b>Total liabilities and equity</b>		<u>\$ 58,730,610</u>	<u>100</u>	<u>\$ 62,738,642</u>	<u>100</u>

The accompanying notes are an integral part of these consolidated financial statements.

**EPISTAR CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
**YEARS ENDED DECEMBER 31, 2019 AND 2018**  
(Expressed in thousands of New Taiwan dollars, except loss per share amounts)

Items	Notes	Year ended December 31			
		2019		2018	
		AMOUNT	%	AMOUNT	%
<b>Sales revenue</b>	6(24) and 7	\$ 15,959,831	100	\$ 20,306,412	100
<b>Operating costs</b>	6(5) and 7	( 16,393,199)	( 103)	( 17,651,741)	( 87)
<b>Operating margin</b>		( 433,368)	( 3)	2,654,671	13
Unrealized loss(profit) from sales		4,266	-	2,795	-
Realized (loss) profit from sales		( 2,795)	-	21,083	-
<b>Net operating margin</b>		( 431,897)	( 3)	2,678,549	13
<b>Operating expenses</b>	6(29)				
Selling expenses		( 299,060)	( 2)	( 280,781)	( 1)
General and administrative expenses		( 1,244,059)	( 8)	( 1,328,003)	( 6)
Research and development expenses		( 1,999,017)	( 12)	( 1,959,743)	( 10)
Reversal of (expected credit losses)		24,951	-	( 9,814)	-
<b>Total operating expenses</b>		( 3,517,185)	( 22)	( 3,578,341)	( 17)
<b>Other income and expenses - net</b>	6(25)	257,529	2	220,949	1
<b>Operating loss</b>		( 3,691,553)	( 23)	( 678,843)	( 3)
<b>Non-operating income and expenses</b>					
Other income	6(26)	280,776	1	290,378	2
Insurance income from disaster		-	-	206,785	1
Other gains and losses	6(27) and 7	( 154,617)	( 1)	( 538,050)	( 3)
Finance costs	6(28)	( 160,271)	( 1)	( 175,678)	( 1)
Reversal of (expected credit losses)		( 7,054)	-	4,121	-
Share of loss of associates and joint ventures	6(6)				
accounted for under equity method		( 21,383)	-	24,146	-
<b>Total non-operating income and expenses</b>		( 62,549)	( 1)	188,298	( 1)
<b>Loss before income tax</b>		( 3,754,102)	( 24)	( 867,141)	( 4)
Income tax (expense) benefit	6(31)	( 183,418)	( 1)	361,277	2
<b>Loss for the year</b>		( \$ 3,937,520)	( 25)	( \$ 505,864)	( 2)

(Continued)

**EPISTAR CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
**YEARS ENDED DECEMBER 31, 2019 AND 2018**  
(Expressed in thousands of New Taiwan dollars, except loss per share amounts)

Items	Notes	Years ended December 31			
		2019		2018	
		AMOUNT	%	AMOUNT	%
<b>Other comprehensive income</b>					
Gains on remeasurements of defined benefit plans	6(16)	\$ 5,372	-	\$ 31,823	-
Unrealized gains (losses) from investments in equity instruments measured at fair value through other comprehensive income	6(3)	334,904	2 (	674,074) (	3)
Share of other comprehensive income of associates and joint ventures accounted for using equity method, components of other comprehensive income that will not be reclassified to profit or loss	6(6)	53,869	-	57,284	-
Income tax related to components of other comprehensive income that will not be reclassified to profit or loss	6(31)	( 71,831)	-	111,198	1
<b>Components of other comprehensive income that will not be reclassified to profit or loss</b>					
		322,314	2 (	473,769) (	2)
<b>Components of other comprehensive income that will be reclassified to profit or loss</b>					
Cumulative translation differences of foreign operations		( 408,151) (	3) (	238,892) (	1)
Share of other comprehensive income of associates and joint ventures accounted for using equity method, components of other comprehensive income that will be reclassified to profit or loss	6(6)	( 6,374)	-	65,149	-
Income tax related to components of other comprehensive income that will be reclassified to profit or loss	6(31)	72,214	1	50,281	-
<b>Components of other comprehensive income that will be reclassified to profit or loss</b>					
		( 342,311) (	2) (	123,462) (	1)
<b>Other comprehensive loss for the year</b>		<u>(\$ 19,997)</u>	<u>-</u>	<u>(\$ 597,231)</u>	<u>( 3)</u>
<b>Total comprehensive loss for the year</b>		<u>(\$ 3,957,517)</u>	<u>( 25)</u>	<u>(\$ 1,103,095)</u>	<u>( 5)</u>
<b>Loss attributable to:</b>					
Equity holders of the parent company		<u>(\$ 3,753,797)</u>	<u>( 24)</u>	<u>(\$ 456,146)</u>	<u>( 2)</u>
Non-controlling interest		<u>(\$ 183,723)</u>	<u>( 1)</u>	<u>(\$ 49,718)</u>	<u>-</u>
<b>Comprehensive loss attributable to:</b>					
Equity holders of the parent company		<u>(\$ 3,720,337)</u>	<u>( 24)</u>	<u>(\$ 1,022,814)</u>	<u>( 5)</u>
Non-controlling interest		<u>(\$ 237,180)</u>	<u>( 1)</u>	<u>(\$ 80,281)</u>	<u>-</u>
<b>Basic loss per share</b>					
<b>Total basic loss per share</b>	6(32)	<u>(\$ 3.48)</u>		<u>(\$ 0.42)</u>	
<b>Diluted earnings loss per share</b>					
<b>Total diluted loss per share</b>	6(32)	<u>(\$ 3.48)</u>		<u>(\$ 0.42)</u>	

The accompanying notes are an integral part of these consolidated financial statements.

**EPISTAR CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY**  
**YEARS ENDED DECEMBER 31, 2019 AND 2018**  
(Expressed in thousands of New Taiwan dollars)

Notes	Equity attributable to owners of the parent									
	Retained earnings			Other equity interest			Total			
	Share capital - common stock	Capital surplus	Legal reserve	Special reserve	Unappropriated retained earnings/accumulated deficit)	Cumulative transition differences of foreign operations	Unrealized gain or loss on available-for-sale financial assets	Treasury stocks	Non-controlling interest	Total
2018										
Balance at January 1, 2018	\$ 10,887,014	\$ 39,970,967	\$ -	\$ -	\$ 1,614,226	(\$ 415,950)	(\$ 268,293)	(\$ 408,783)	\$ 1,604,731	\$ 52,983,912
Effects of retrospective application and retrospective restatement 6(22)/(23)	-	-	-	-	46,946	3,595	268,293	-	1,651	(3,165)
Balance at January 1 after adjustments	10,887,014	39,970,967	-	-	1,661,172	(412,355)	-	(408,783)	1,603,080	52,980,747
Loss for the year 6(22)	-	-	-	-	(456,146)	-	-	-	(49,718)	(505,864)
Other comprehensive income(loss) for the year 6(23)	-	-	-	-	25,129	(92,899)	-	-	(30,563)	(97,231)
Total comprehensive loss	-	-	-	-	(431,017)	(92,899)	-	-	(80,281)	(597,231)
Appropriations of 2017										
Legal reserve used to offset accumulated deficits	-	-	161,423	-	(161,423)	-	-	-	-	-
Special reserve appropriated	-	-	-	703,607	(703,607)	-	-	-	-	-
Cash dividends	-	-	-	-	(749,196)	-	-	-	-	(749,196)
Cash dividends distributed from capital surplus 6(21)	-	(121,765)	-	-	-	-	-	-	-	(121,765)
Adjustments of capital surplus for company's cash dividends received by subsidiaries 6(21)	-	-	-	-	-	-	-	-	-	-
Cash paid for acquisition of non-controlling interests in subsidiaries	-	2,052	-	-	-	-	-	-	-	2,052
Change in investees interest accounted for under equity method 6(21)	-	(458,095)	-	-	-	-	-	-	(29,329)	(487,424)
Difference between consideration and carrying amount of subsidiaries acquired and disposed 6(21)	-	-	-	-	-	-	-	(458,095)	-	(458,095)
Treasury stock transferred to employees 6(21)	-	(732)	-	-	-	-	-	-	-	(732)
Purchase of treasury shares	-	117,780	-	-	-	-	-	273,620	-	391,400
Changes in ownership interests in subsidiaries accounted for using equity method 6(21)	-	-	-	-	-	-	-	(75,845)	-	(75,845)
Proceeds from disposal of financial assets at fair value through other comprehensive income 6(23)	-	5,472	-	-	-	-	-	-	60,857	66,329
Proceeds from disposal of investments accounted for using equity method 6(23)	-	-	-	-	(1,071)	-	-	-	-	(1,071)
Balance at December 31, 2018	\$ 10,887,014	\$ 39,515,679	\$ 161,423	\$ 703,607	(\$ 385,142)	(\$ 499,815)	\$ 818,175	(\$ 211,008)	\$ 1,554,327	\$ 50,907,910

(Continued)

EPISTAR CORPORATION AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(Expressed in thousands of New Taiwan dollars)

Notes	Equity attributable to owners of the parent									
	Retained earnings			Other equity interest			Total			
	Share capital - common stock	Capital surplus	Legal reserve	Special reserve	Unappropriated retained earnings (accumulated deficit)	Cumulative translation differences of foreign operations	Unrealized gain or loss on available-for-sale financial assets	Treasury stocks	Non-controlling interest	Total
2019										
Balance at January 1, 2019	\$ 10,887,014	\$ 39,515,679	\$ 161,423	\$ 703,607	(\$ 385,142)	(\$ 499,815)	(\$ 818,175)	(\$ 211,008)	\$ 1,554,327	\$ 50,907,910
Loss for the year	-	-	-	-	(3,753,797)	-	-	-	(183,723)	(3,937,520)
Other comprehensive income (loss) for the year	-	-	-	-	4,287	(288,854)	318,027	-	(53,457)	(19,997)
Total comprehensive income (loss)	-	-	-	-	(3,749,510)	(288,854)	318,027	-	(237,180)	(3,957,517)
Appropriations of 2018	-	-	-	(385,142)	385,142	-	-	-	-	-
Cash dividends appropriated	-	-	-	-	-	-	-	-	-	-
Cash dividends distributed from capital surplus	-	(324,270)	-	-	-	-	-	-	-	(324,270)
Difference between consideration and carrying amount of subsidiaries acquired and disposed	-	7,304	-	-	-	-	-	-	-	7,304
Changes in ownership interests in subsidiaries accounted for using equity method	-	14,059	-	-	-	-	-	-	151,950	166,009
Proceeds from disposal of investments accounted for using equity method	-	-	-	-	-	-	-	-	-	3,332
Purchase of treasury shares	-	-	-	-	-	3,332	-	(114,482)	-	(114,482)
Cash paid for acquisition of non-controlling interests in subsidiaries	-	-	-	-	-	-	-	-	(8,848)	(8,848)
Non-controlling interests	-	-	-	-	-	-	-	-	515,920	515,920
Balance at December 31, 2019	\$ 10,887,014	\$ 39,212,772	\$ 161,423	\$ 318,465	(\$ 3,749,510)	(\$ 785,337)	(\$ 500,148)	(\$ 325,490)	\$ 1,976,169	\$ 47,195,358

The accompanying notes are an integral part of these consolidated financial statements.

EPSTAR CORPORATION AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(Expressed in thousands of New Taiwan dollars)

	Notes	2019	2018
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
Loss before tax		(\$ 3,754,102 )	(\$ 867,141 )
Adjustments			
Adjustments to reconcile profit (loss)			
Depreciation	6(7)(29)	4,856,814	4,758,265
Amortization (long-term prepaid rents)	6(9)(29)	260,469	274,152
(Reversal of) expected credit losses	12(2)	( 17,897 )	5,693
Net gain on financial assets at fair value through profit or loss	6(27)	( 319,276 )	( 12,382 )
Interest expense	6(28)	159,726	185,417
Interest income	6(26)	( 53,916 )	( 50,650 )
Dividend income	6(26)	( 29,330 )	( 13,940 )
Effect of exchange rate on loans	6(35)	1,105	( 471 )
Share of (gain) loss of associates and joint ventures accounted for under the equity method	6(6)	21,383	( 24,146 )
Impairment loss on non-financial assets	6(11)(27)	209,803	659,774
Loss on disposal of property, plant and equipment	6(27)	1,031	113,219
Loss on disposal of non-current assets held for sale		1,294	-
Loss (gain) on disposal of investments	6(27)	( 36,955 )	( 310,915 )
Gain (loss) on disposal of intangible assets	6(27)	( 5,698 )	141
Bargain purchase gains	6(27)	( 160,110 )	-
Other income from recognition of long-term deferred revenues	6(19)	( 188,081 )	( 161,436 )
Property, plant and equipment transferred to expenses		100,994	5,858
Expense transferred to property, plant and equipment		( 7,318 )	-
Expenses transferred to intangible assets		( 14,403 )	-
Realized loss (profit) from sales		2,795	( 21,083 )
Unrealized loss from sales		( 4,266 )	( 2,795 )
Changes in operating assets and liabilities			
Changes in operating assets			
Financial assets at fair value through profit or loss		( 328,148 )	( 209,576 )
Notes receivable		( 791,870 )	369,378
Accounts receivable		2,068,668	451,896
Other receivables		104,970	633,939
Inventories		1,489,912	( 49,252 )
Prepayments		182,869	55,776
Other non-current assets		94,142	74,329
Changes in operating liabilities			
Notes payable		277,199	58,144
Accounts payable		( 978,059 )	( 575,610 )
Other payables		( 642,277 )	( 515,383 )
Other current liabilities		27,010	42,405
Other non-current liabilities		( 4,312 )	( 24,080 )
Cash inflow generated from operations		2,598,076	4,849,526
Income tax paid		( 40,019 )	( 211,363 )
Interest received		52,717	51,284
Interest paid		( 161,118 )	( 173,884 )
Dividend received		61,604	40,649
Net cash flows from operating activities		<u>2,511,260</u>	<u>4,556,212</u>

(Continued)

EPISTAR CORPORATION AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(Expressed in thousands of New Taiwan dollars)

	<u>Notes</u>	<u>2019</u>	<u>2018</u>
<u>CASH FLOWS FROM INVESTING ACTIVITIES</u>			
Decrease (increase) in other financial assets		\$ 139,253	(\$ 254,105 )
Cash refund from financial assets capital reduction		23,903	12,923
Acquisition of non-current financial assets at fair value through other comprehensive income		( 52,196 )	( 396,196 )
Proceeds from disposal of non-current financial assets at fair value through other comprehensive income		-	3,052
Acquisition of investments accounted for under the equity method		-	( 128,423 )
Proceeds from disposal of investments accounted for under the equity method	6(6)	18,150	273,064
Acquisition for property, plant and equipment	6(34)	( 2,982,472 )	( 3,168,197 )
Proceeds from disposal of property, plant and equipment	6(34)	192,241	76,272
Acquisition of intangible assets	6(34)	( 120,918 )	( 131,521 )
Proceeds from disposal of intangible assets		9,887	-
Decrease (increase) in refundable deposits paid		88,253	( 76,295 )
Effect on initial consolidation of subsidiaries	6(33)	160,417	-
Net cash flows used in investing activities		<u>( 2,523,482 )</u>	<u>( 3,789,426 )</u>
<u>CASH FLOWS FROM FINANCING ACTIVITIES</u>			
(Decrease) increase in short-term loans	6(35)	( 133,587 )	1,203,014
Increase (decrease) in short-term notes and bill payable	6(35)	2,035	( 11,614 )
Repayment of long-term loans	6(35)	( 599,619 )	( 3,693,038 )
Proceeds from long-term loans	6(35)	1,031,500	1,160,000
(Decrease) increase in guarantee deposits received		( 5,790 )	22,251
Repayment of principal portion of lease liabilities		( 141,969 )	-
Cash dividends distributed to non-controlling interest		( 8,848 )	( 29,329 )
Purchase of treasury share		( 114,482 )	( 75,845 )
Proceed from treasury share transferred to employees		-	286,897
Increase in cash paid for acquisition of non-controlling interests		167,000	66,328
Payment of cash dividends (including distribution from capital surplus)	6(21)	( 324,270 )	( 870,961 )
Net cash flows used in financing activities		<u>( 128,030 )</u>	<u>( 1,942,297 )</u>
Effects of foreign currency exchange		( 139,434 )	( 128,677 )
Net decrease in cash and cash equivalents		( 279,686 )	( 1,304,188 )
Cash and cash equivalents at beginning of year		<u>5,532,509</u>	<u>6,836,697</u>
Cash and cash equivalents at end of year		<u>\$ 5,252,823</u>	<u>\$ 5,532,509</u>

The accompanying notes are an integral part of these consolidated financial statements.



EPISTAR CORPORATION AND SUBSIDIARIES  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018

(Expressed in thousands of New Taiwan dollars, except as otherwise indicated)

1. HISTORY AND ORGANIZATION

Epistar Corporation (the “Company”) was incorporated on September 19, 1996 and commenced its operations in August 1997. The Company’s shares have been traded on the Taiwan Stock Exchange in the Republic of China since May 2001.

Effective October 1, 2003, Inforcomm Semiconductor Corporation was merged with the Company. The Company acquired United Epitaxy Company Ltd. on December 30, 2005, Epitech Technology Corporation and Highlink Technology Corporation on March 1, 2007, and CHIP STAR Ltd. on June 29, 2015, and the Group merged with Huga Optotech Inc. and Formosa Epitaxy Incorporation on September 29, 2016.

The Company and its subsidiaries (collectively referred herein as the “Group”) are engaged in the research and development, design, manufacturing and sales of EPI wafers and chips of AlGaInP, AlGaAs and InGaN.

2. THE DATE OF AUTHORIZATION FOR ISSUANCE OF THE CONSOLIDATED FINANCIAL STATEMENTS AND PROCEDURES FOR AUTHORIZATION

These consolidated financial statements were authorized for issuance by the Board of Directors on February 26, 2020.

3. APPLICATION OF NEW STANDARDS, AMENDMENTS AND INTERPRETATIONS

(1) Effect of the adoption of new issuances of or amendments to International Financial Reporting Standards (“IFRS”) as endorsed by the Financial Supervisory Commission (“FSC”)

New standards, interpretations and amendments endorsed by the FSC effective from 2019 are as follows:

<u>New Standards, Interpretations and Amendments</u>	<u>Effective date by International Accounting Standards Board</u>
Amendments to IFRS 9, ‘Prepayment features with negative compensation’	January 1, 2019
IFRS 16, ‘Leases’	January 1, 2019
Amendments to IAS 19, ‘Plan amendment, curtailment or settlement’	January 1, 2019
Amendments to IAS 28, ‘Long-term interests in associates and joint ventures’	January 1, 2019
IFRIC 23, ‘Uncertainty over income tax treatments’	January 1, 2019
Annual improvements to IFRSs 2015-2017 cycle	January 1, 2019

Except for the following, the above standards and interpretations have no significant impact to the Group’s financial condition and financial performance based on the Group’s assessment.

IFRS 16, ‘Leases’

A. IFRS 16, ‘Leases’, replaces IAS 17, ‘Leases’ and related interpretations and SICs. The standard requires lessees to recognise a ‘right-of-use asset’ and a lease liability (except for those leases with terms of 12 months or less and leases of low-value assets). The accounting stays the same for lessors, which is to classify their leases as either finance leases or operating leases and account for those two types of leases differently. IFRS 16 only requires enhanced disclosures to be provided by lessors.

- B. The Group has elected to apply IFRS 16 by not restating the comparative information (referred herein as the ‘modified retrospective approach’) when applying “IFRSs” effective in 2019 as endorsed by the FSC. Accordingly, the Group increased ‘right-of-use asset’ by \$1,689,828, increased ‘lease liability’ by \$1,441,297 and decreased retained earnings by \$248,530 with respect to the lease contracts of lessees on January 1, 2019.
- C. The Group has used the following practical expedients permitted by the standard at the date of initial application of IFRS 16:
- Reassessment as to whether a contract is, or contains, a lease is not required, instead, the application of IFRS 16 depends on whether or not the contracts were previously identified as leases applying IAS 17 and IFRIC 4.
  - The use of a single discount rate to a portfolio of leases with reasonably similar characteristics.
  - The accounting for operating leases whose period will end before December 31, 2019 as short-term leases and accordingly, rent expense of \$23,389 was recognised in the fourth quarter of 2019.
  - The exclusion of initial direct costs for the measurement of ‘right-of-use asset’.
  - The use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease.
- D. The Group calculated the present value of lease liabilities by using the weighted average incremental borrowing interest rate range from 1.855% to 4.35%.
- E. The Group recognised lease liabilities which had previously been classified as ‘operating leases’ under the principles of IAS 17, ‘Leases’. The reconciliation between operating lease commitments under IAS 17 measured at the present value of the remaining lease payments, discounted using the lessee’s incremental borrowing rate and lease liabilities recognised as of January 1, 2019 is as follows:

Operating lease commitments disclosed by applying IAS 17 as at December 31, 2018	\$ 831,026
Less: Short-term leases	( 8,855)
Add: Adjustments as a result of a different treatment of extension and termination options	779,526
Add: Adjustments relating to changes in the index or rate affecting variable lease payments	( 12,759)
Total lease contracts amount recognised as lease liabilities by applying IFRS 16 on January 1, 2019	1,588,938
Incremental borrowing interest rate at the date of initial application	1.855%~4.35%
Lease liabilities recognised as at January 1, 2019 by applying IFRS 16	<u>\$ 1,441,297</u>

(2) Effect of new issuances of or amendments to IFRSs as endorsed by the FSC but not yet adopted by the Group

New standards, interpretations and amendments endorsed by the FSC effective from 2018 are as follows:

New Standards, Interpretations and Amendments	Effective date by International Accounting Standards Board
Amendment to IAS 1 and IAS 8, ‘Disclosure Initiative-Definition of Material’	January 1, 2020

<u>New Standards, Interpretations and Amendments</u>	Effective date by International Accounting Standards Board
Amendments to IFRS 3, ‘Definition of a business’	January 1, 2020
Amendments to IFRS 9, IAS 39 and IFRS7 , ‘Interest rate benchmark reform’	January 1, 2020

The above standards and interpretations have no significant impact to the Group’s financial condition and financial performance based on the Group’s assessment.

(3) IFRSs issued by IASB but not yet endorsed by the FSC

New standards, interpretations and amendments issued by IASB but not yet included in the IFRSs endorsed by the FSC are as follows:

<u>New Standards, Interpretations and Amendments</u>	Effective date by International Accounting Standards Board
Amendments to IFRS 10 and IAS 28, ‘Sale or contribution of assets between an investor and its associate or joint venture’	To be determined by International Accounting Standards Board
IFRS 17, ‘Insurance contracts’	January 1, 2021
Amendments to IAS 1, ‘Classification of liabilities as current or non-current’	January 1, 2022

The above standards and interpretations have no significant impact to the Group’s financial condition and financial performance based on the Group’s assessment.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all the periods presented, unless otherwise stated.

(1) Compliance statement

These consolidated financial statements of the Group have been prepared in accordance with the “Regulation Governing the Preparation of Financial Reports by Securities Issuers” and the International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations, and SIC Interpretations as endorsed by the FSC (collectively referred herein as the “IFRSs”).

(2) Basis of preparation

A. Except for the following items, these consolidated financial statements have been prepared under the historical cost convention:

- (a) Financial assets and financial liabilities at fair value through profit or loss.
- (b) Defined benefit liabilities recognized based on the net amount of pension fund assets less present value of defined benefit obligation.

B. The preparation of financial statements in compliance with IFRSs requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Group’s accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 5.

(3) Basis of consolidation

A. Basis for preparation of consolidated financial statements:

- (a) All subsidiaries are included in the Group's consolidated financial statements. Subsidiaries are all entities controlled by the Group. The Group controls an entity when the Group is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Consolidation of subsidiaries begins from the date the Group obtains control of the subsidiaries and ceases when the Group loses control of the subsidiaries.
- (b) Inter-company transactions, balances and unrealized gains or losses on transactions between companies within the Group are eliminated. Accounting policies of subsidiaries have been adjusted where necessary to ensure consistency with the policies adopted by the Group.
- (c) Profit or loss and each component of other comprehensive income are attributed to the owners of the parent and to the non-controlling interests. Total comprehensive income is attributed to the owners of the parent and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.
- (d) Changes in a parent's ownership interest in a subsidiary that do not result in the parent losing control of the subsidiary (transactions with non-controlling interests) are accounted for as equity transactions, i.e. transactions with owners in their capacity as owners. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity.
- (e) When the Group loses control of a subsidiary, the Group remeasures any investment retained in the former subsidiary at its fair value. That fair value is regarded as the fair value on initial recognition of a financial asset or the cost on initial recognition of the associate or joint venture. Any difference between fair value and carrying amount is recognized in profit or loss. All amounts previously recognized in other comprehensive income in relation to the subsidiary are reclassified to profit or loss, on the same basis as would be required if the related assets or liabilities were disposed of. That is, when the Group loses control of a subsidiary, all gains or losses previously recognized in other comprehensive income in relation to the subsidiary should be reclassified from equity to profit or loss, if such gains or losses would be reclassified to profit or loss when the related assets or liabilities are disposed of.

B. Subsidiaries included in the consolidated financial statements:

Name of Investor	Name of Subsidiary	Main Business Activities	Ownership		Description
			December 31, 2019	December 31, 2018	
Epistar Corporation	Lighting Investment Corporation	Professional investment	100%	100%	
Epistar Corporation	Epistar JV Holding (B.V.I.) Co., Ltd.	Professional investment	100%	100%	Note 7
Epistar Corporation	Yen- Rich Technology Corporation	Manufacturing and sales of LED wafers and chips	100%	100%	Note 5
Epistar Corporation	GaN Ventures Co., Limited	Investment holding; sales of electronic components	59.02%	59.02%	
Epistar Corporation	SH Optotech Co.,Ltd.	Manufacturing and sales of LED wafers and chips	49%	49%	Note 2

Name of Investor	Name of Subsidiary	Main Business Activities	Ownership		Description
			December 31, 2019	December 31, 2018	
Epistar Corporation	Ecoled Venture Co., Limited	Sales of LED lighting products	-	51.99%	Note 13
Epistar Corporation	Full Star Enterprises Limited	Professional investment	100%	100%	
Epistar Corporation	iReach Corporation	Manufacturing, sales, packaging and module design of semiconductor light emitting devices	100%	100%	Note 3
Epistar Corporation	Unikorn Semiconductor Corporation	OEM manufacturing of iii-v semiconductors	85.91%	100%	Note 6
Epistar Corporation	ProLight Opto Technology corporation	Manufacturing and sales of LED wafers and chips	8.52%	12.83%	Note 11
Epistar Corporation	GAN Force Corporation	Design manufacturing and sales of LED	64.31%	-	Note 15
Epistar JV Holding (BVI) Co., Ltd.	LiteStar JV Holding (BVI) Co., Ltd.	Professional investment	82.41%	82.41%	
Epistar JV Holding (B.V.I) Co., Ltd.	United LED Corporation (Hong Kong) Limited	Professional investment	74.86%	74.86%	
Epistar JV Holding (BVI) Co., Ltd.	Episky Hong Kong Co., Limited	Professional investment	100%	100%	Note 8
Epistar JV Holding (BVI) Co., Ltd.	HUGA Holding (SAMOA) Limited	Professional investment	100%	100%	Note 8
Epistar JV Holding(BVI) Co., Ltd	Crystal Light Enterprises Group Limited	Professional investment	100%	100%	Note 8
Epistar JV Holding(BVI) Co., Ltd	Can Yang Investments Limited	Professional investment	80.10%	80.10%	Note 8
LiteStar JV Holding	Epicrystal (Hong Kong) Co., Limited	Professional investment	100%	100%	
Epicrystal (Hong Kong) Co., Limited	Epicrystal Corporation (Changzhou) Ltd.	Manufacturing and sales of LED wafers and chips	93.38%	93.38%	
United LED Corporation (Hong Kong) Limited	United LED Corporation (Shandong) Limited	Manufacturing and sales of LED wafers and chips	100%	100%	
Episky (Hong Kong) Limited	Episky Corporation (Xiamen) Ltd.	Manufacturing and sales of LED wafers and chips	100%	100%	
Episky Corporation (Xiamen) Ltd.	Epicrystal Corporation (Changzhou) Ltd.	Manufacturing and sales of LED wafers and chips	3.31%	3.31%	
Episky Corporation (Xiamen) Ltd.	Episky Corporation (Changzhou) Ltd.	Manufacturing and sales of LED wafers and chips	-	100%	Note 13

Name of Investor	Name of Subsidiary	Main Business Activities	Ownership		Description
			December 31, 2019	December 31, 2018	
Episky Coporation (Xiamen)Ltd.	EPIRICH (Guangzhou) Co., Ltd	R&D and sales of LEDs	-	100%	Note 10
HUGA Holding (Samoa) Limited	Ecoled Venture Co., Limited	Sales of LED lighting products	-	48.01%	Note 13
Crystal Light Enterprise Group	Ningbo Formosa Epitaxy Incorporation	Trading of LED epitaxy and chips	100%	100%	
GaN Ventures Co., Limited	GV Semiconductor Inc.	R&D and sales of electronic components	-	100%	Note 14
Lighting Investment Corporation	Lighting Investment Ltd.	Professional investment	100%	100%	
Lighting Investment Corporation	allureLux Corporation	Manufacturing and sales of LED wafers and chips	100%	100%	Note 1
Lighting Investment Corporation.	Crystaluxx SARL	Professional investment	100%	100%	Note 4
Lighting Investment Corporation.	Yen-Rich Opto (Hong Kong) Limited	Sales of LED lighting products	100%	100%	Note 4
Lighting Investment Corporation.	Can Yang Investments Limited	Professional investment	6.87%	6.87%	Note 4
Lighting Investment Corporation.	ProLight Opto Technology corporation	Manufacturing and sales of LED wafers and chips	40.46%	29.93%	Note 11
Lighting Investment Ltd.	Luxlite (Hong Kong) Corporation Limited	Professional investment	75%	75%	
Lighting Investment Ltd.	Epistar (Hong Kong) Limited	Professional investment	100%	100%	
Lighting Investment Ltd.	GaN Ventures Co., Limited	Investment holding; sales of electronic components	4.92%	4.92%	
Can Yang Investments Limited	Jiangsu Canyang Optoelectronics Ltd.	Manufacturing and sales of LED wafers and chips	100%	100%	
Luxlite (Hong Kong) Corporation Limited	Luxlite (Shenzhen) Corporation Limited	Sales of LED chips and LED lighting facilities	100%	100%	
AllureLux Coporation	AllureLux Inc	Manufacturing and sales of LED wafers and chips	-	100%	Note 1
Yen-Rich Technology Corporation	ProLight Opto Technology corporation	Manufacturing and sales of LED wafers and chips	3.62%	1.18%	Note 11
Prolight Opto Technology Corporation	ProLight Opto Technology corporation	Professional investment	100%	100%	Note 12
Prolight Opto Technology Corporation	ProLight Opto Technology corporation	Professional investment	100%	100%	Note 12
Prolight Opto Technology Corporation	Shanghai Welight Electronic Co., LTD	Wholesale and export and import of LED and related electronic products	100%	100%	Note 12

- Note 1: Newly invested or established companies for the year ended December 31, 2018.
- Note 2: Due to the control over the entity's financial and operational policies, this company is included in the consolidated financial statements.
- Note 3: A preparatory office was set up in December 2017. The registration for the subsidiary's incorporation was completed on January 9, 2018.
- Note 4: Lighting Investment Ltd. proceeded with a simple merger with EPI Crystal Investment Inc. on July 1, 2018. Lighting Investment Ltd. was the surviving company while EPI Crystal Investment Inc. was the dissolved company. Thus, Lighting Investment Ltd. succeeded the shares initially held by EPI Crystal Investment Inc.
- Note 5: On August 13, 2018, Zheng-Yi Technology Corporation has been renamed as Yen-Rich Technology Corporation.
- Note 6: On October 1, 2018, the parent company established the Unicorn Semiconductor Corporation due to the spin-off and transfer of its operation for iii-v semiconductors OEM business. On February 20, 2019, the Board of Directors of Unicorn Semiconductor Corporation during their meeting resolved to increase its capital in the amount of \$164,000. The parent company did not participate in the capital increase, therefore, the parent company's shareholding ratio was decreased to 85.91%.
- Note 7: Epistar JV Holding (BVI) Co., Ltd. proceeded with a simple merger with UEC Investment Ltd., Bee Rich Corporation and HUGA Holding (BVI) Limited on November 1, 2018. Epistar JV Holding (BVI) Co., Ltd. was the surviving company while UEC Investment Ltd., Bee Rich Corporation and HUGA Holding (BVI) Limited were the dissolved companies.
- Note 8: Epistar JV Holding (BVI) Co., Ltd. proceeded with a simple merger with UEC Investment Ltd., Bee Rich Corporation and HUGA Holding (BVI) Limited on November 1, 2018. Epistar JV Holding (BVI) Co., Ltd. was the surviving company while UEC Investment Ltd., Bee Rich Corporation and HUGA Holding (BVI) Limited were the dissolved companies. Thus, Epistar JV Holding (BVI) Co., Ltd. succeeded the shares initially held by UEC Investment Ltd., Bee Rich Corporation and HUGA Holding (BVI) Limited.
- Note 9: The liquidation was completed on February, 2019, as the company will not continue its operation.
- Note 10: The liquidation was completed on April, 2019, as the company will not continue its operation.
- Note 11: Lighting Investment Corporation participated in ProLight Opto Technology Corporation's private placement. The Group's shareholding ratio to ProLight Opto Technology Corporation was increased to 52.6% and the Group has control over ProLight Opto Technology Corporation starting from April 11, 2019, whereby ProLight Opto Technology Corporation became one of the Group's subsidiaries.
- Note 12: ProLight Opto Technology Corporation became one of the Group's subsidiaries, and its wholly-owned subsidiaries were included in the Group's consolidated entities.
- Note 13: The liquidation was completed on December, 2019 as the company will not continue its operation.
- Note 14: On November 11, 2019, GAN Force Corporation acquired a 100% equity interest in GV Semiconductor Inc. from GaN Ventures Co., Limited.
- Note 15: Newly invested or established companies for the year ended December 31, 2019.
- C. Subsidiaries not included in the consolidated financial statements: None.
- D. Adjustments for subsidiaries with different balance sheet dates: None.
- E. Significant restrictions: None.
- F. Subsidiaries that have non-controlling interest that are material to the Group: None.

(4) Foreign currency translation

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (the "functional currency"). The consolidated financial statements are presented in New Taiwan dollars, which is the Company's functional and the Group's presentation currency.

A. Foreign currency transactions and balances

- (a) Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are remeasured. Foreign exchange gains and losses resulting from the settlement of such transactions are recognized in profit or loss in the period in which they arise.
- (b) Monetary assets and liabilities denominated in foreign currencies at the period end are re-translated at the exchange rates prevailing at the balance sheet date. Exchange differences arising upon re-translation at the balance sheet date are recognized in profit or loss.
- (c) Non-monetary assets and liabilities denominated in foreign currencies held at fair value through profit or loss are re-translated at the exchange rates prevailing at the balance sheet date; their translation differences are recognized in profit or loss as part of the fair value gain or loss. Non-monetary assets and liabilities denominated in foreign currencies held at fair value through other comprehensive income are re-translated at the exchange rates prevailing at the balance sheet date; their translation differences are recognized in other comprehensive income. However, non-monetary assets and liabilities denominated in foreign currencies that are not measured at fair value are translated using the historical exchange rates at the dates of the initial transactions.
- (d) Foreign exchange gains and losses that relate to borrowings and cash and cash equivalents are presented in the statement of comprehensive income within "interest income or finance costs". All other foreign exchange gains and losses based on the nature of those transactions are presented in the statement of comprehensive income within "other gains and losses".

B. Translation of foreign operations

- (a) The operating results and financial position of all the group entities that have a functional currency different from the presentation currency are translated into the presentation currency as follows:
  - i. Assets and liabilities for each balance sheet presented are translated at the closing exchange rate at the date of that balance sheet;
  - ii. Income and expenses for each statement of comprehensive income are translated at average exchange rate of that period; and
  - iii. All resulting exchange differences are recognized in other comprehensive income.
- (b) When the foreign operation partially disposed of or sold is an associate or jointly controlled entity, exchange differences that were recorded in other comprehensive income are proportionately reclassified to profit or loss as part of the gain or loss on sale. In addition, even when the Group still retains partial interest in the former foreign associate or jointly controlled entity after losing significant influence over the former foreign associate, or losing joint control of the former jointly controlled entity, such transactions should be accounted for as disposal of all interest in these foreign operations.
- (c) When the foreign operation partially disposed of or sold is a subsidiary, cumulative exchange differences that were recorded in other comprehensive income are proportionately transferred to the non-controlling interest in this foreign operation. In addition, even when the Group still retains partial interest in the former foreign subsidiary after losing control of the former foreign subsidiary, such transactions should be accounted for as disposal of all interest in the foreign operation.



- (d) Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing exchange rates at the balance sheet date.

(5) Classification of current and non-current items

- A. Assets that meet one of the following criteria are classified as current assets; otherwise they are classified as non-current assets:
  - (a) Assets arising from operating activities that are expected to be realized, or are intended to be sold or consumed within the normal operating cycle;
  - (b) Assets held mainly for trading purposes;
  - (c) Assets that are expected to be realized within twelve months from the balance sheet date;
  - (d) Cash and cash equivalents, excluding restricted cash and cash equivalents and those that are to be exchanged or used to pay off liabilities more than twelve months after the balance sheet date.
- B. Liabilities that meet one of the following criteria are classified as current liabilities; otherwise they are classified as non-current liabilities:
  - (a) Liabilities that are expected to be settled within the normal operating cycle;
  - (b) Liabilities arising mainly from trading activities;
  - (c) Liabilities that are to be settled within twelve months from the balance sheet date;
  - (d) Liabilities for which the repayment date cannot be extended unconditionally to more than twelve months after the balance sheet date. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

(6) Cash equivalents

Cash equivalents refer to short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. Time deposits that meet the definition above and are held for the purpose of meeting short-term cash commitments in operations are classified as cash equivalents.

(7) Financial assets at fair value through profit or loss

- A. Financial assets at fair value through profit or loss are financial assets that are not measured at amortised cost or fair value through other comprehensive income.
- B. On a regular way purchase or sale basis, the derivative financial assets are recognised and derecognised using trade date accounting, the beneficiary certificates are recognised and derecognised using settlement date accounting.
- C. At initial recognition, the Group measures the financial liabilities at fair value. All related transaction costs are recognised in profit or loss. The Group subsequently measures these financial liabilities at fair value with any gain or loss recognised in profit or loss.
- D. The Group recognises the dividend income when the right to receive payment is established, future economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

(8) Financial assets at fair value through other comprehensive income

- A. Financial assets at fair value through other comprehensive income comprise equity securities which are not held for trading, and for which the Company has made an irrevocable election at initial recognition to recognise changes in fair value in other comprehensive income and debt instruments which meet all of the following criteria:
  - (a) The objective of the Company's business model is achieved both by collecting contractual cash flows and selling financial assets; and
  - (b) The assets' contractual cash flows represent solely payments of principal and interest.
- B. On a regular way purchase or sale basis, financial assets at fair value through other comprehensive income are recognised and derecognised using trade date accounting.

- C. At initial recognition, the Group measures the financial assets at fair value plus transaction costs. The Group subsequently measures the financial assets at fair value:  
The changes in fair value of equity investments that were recognised in other comprehensive income are reclassified to retained earnings and are not reclassified to profit or loss following the derecognition of the investment. Dividends are recognised as revenue when the right to receive payment is established, future economic benefits associated with the dividend will flow to the Company and the amount of the dividend can be measured reliably.
- (9) Accounts and notes receivable
- A. Accounts and notes receivable entitle the Group a legal right to receive consideration in exchange for transferred goods or rendered services.
- B. The short-term accounts and notes receivable without bearing interest are subsequently measured at initial invoice amount as the effect of discounting is immaterial.
- (10) Impairment of financial assets
- For debt instruments measured at fair value through other comprehensive income and financial assets at amortised cost including accounts receivable or contract assets that have a significant financing component, lease receivables, loan commitments and financial guarantee contracts, at each reporting date, the Group recognises the impairment provision for 12 months expected credit losses if there has not been a significant increase in credit risk since initial recognition or recognises the impairment provision for the lifetime expected credit losses (ECLs) if such credit risk has increased since initial recognition after taking into consideration all reasonable and verifiable information that includes forecasts. On the other hand, for accounts receivable or contract assets that do not contain a significant financing component, the Group recognises the impairment provision for lifetime ECLs.
- (11) Derecognition of financial assets
- The Group derecognizes a financial asset when one of the following conditions is met:
- A. The contractual rights to receive cash flows from the financial asset expire.
- B. The contractual rights to receive cash flows from the financial assets have been transferred and the Group has transferred substantially all risks and rewards of ownership of the financial assets.
- C. The Group neither retains nor transfers substantially all risks and rewards of ownership of the financial asset; however, it has not retained control of the financial asset.
- (12) Leasing arrangements (lessor) – lease receivables/ operating leases
- A. Based on the terms of a lease contract, a lease is classified as a finance lease if the lessee assumes substantially all the risks and rewards incidental to ownership of the leased asset.
- (a) At commencement of the lease term, the lessor should record a finance lease in the balance sheet as ‘lease receivables’ at an amount equal to the net investment in the lease (including initial direct costs). The difference between gross lease receivable and the present value of the receivable is recognised as ‘unearned finance income of finance lease’.
- (b) The lessor should allocate finance income over the lease term based on a systematic and rational basis reflecting a constant periodic rate of return on the lessor’s net investment in the finance lease.
- (c) Lease payments (excluding costs for services) during the lease term are applied against the gross investment in the lease to reduce both the principal and the unearned finance income.
- B. Lease income from an operating lease (net of any incentives given to the lessee) is recognised in profit or loss on a straight-line basis over the lease term.
- (13) Inventories
- Inventories are stated at the lower of cost and net realizable value. Cost is determined using the weighted-average method. The cost of finished goods and work in progress comprise raw materials, direct labor, other direct costs and related production overheads (allocated based on normal operating capacity). It excludes borrowing costs the item by item approach is used in applying the

lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated cost of completion and applicable variable selling expenses.

(14) Non-current assets held for sale

Non-current assets are classified as assets held for sale when their carrying amount is to be recovered principally through a sale transaction rather than through continuing use, and a sale is considered highly probable. They are stated at the lower of carrying amount and fair value less costs to sell.

(15) Investments accounted for using the equity method - associates

A. Associates are all entities over which the Group has significant influence but no control. In general, it is presumed that the investor has significant influence, if an investor holds, directly or indirectly 20 percent or more of the voting power of the investee. Investments in associates are accounted for using the equity method and are initially recognized at cost.

B. The Group's share of its associates' post-acquisition profits or losses is recognized in profit or loss, and its share of post-acquisition movements in other comprehensive income is recognized in other comprehensive income. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognize further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the associate.

C. When changes in an associate's equity that are not recognized in profit or loss or other comprehensive income of the associate and such changes does not affect the Group's ownership percentage of the associate, the Group recognizes change in ownership interests in the associate in 'capital surplus' in proportion to its ownership.

D. Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been adjusted where necessary to ensure consistency with the policies adopted by the Group.

E. In the case that an associate issues new shares and the Group does not subscribe or acquire new shares proportionately, which results in a change in the Group's ownership percentage of the associate but maintains significant influence on the associate, then 'capital surplus' and 'investments accounted for under the equity method' shall be adjusted for the increase or decrease of its share of equity interest. If the above condition causes a decrease in the Group's ownership percentage of the associate, in addition to the above adjustment, the amounts previously recognized in other comprehensive income in relation to the associate are reclassified to profit or loss proportionately on the same basis as would be required if the relevant assets or liabilities were disposed of.

F. Upon loss of significant influence over an associate, the Group remeasures any investment retained in the former associate at its fair value. Any difference between fair value and carrying amount is recognized in profit or loss.

G. When the Group disposes its investment in an associate, if it loses significant influence over this associate, the amounts previously recognized in other comprehensive income in relation to the associate, are reclassified to profit or loss, on the same basis as would be required if the relevant assets or liabilities were disposed of. If it still retains significant influence over this associate, then the amounts previously recognized in other comprehensive income in relation to the associate are reclassified to profit or loss proportionately in accordance with the aforementioned approach.

H. When the Group disposes its investment in an associate, if it loses significant influence over this associate, the amounts previously recognized as capital surplus in relation to the associate are transferred to profit or loss. If it still retains significant influence over this associate, then the

amounts previously recognized as capital surplus in relation to the associate are transferred to profit or loss proportionately.

(16) Property, plant and equipment

- A. Property, plant and equipment are initially recorded at cost. Borrowing costs incurred during the construction period are capitalized.
- B. Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. All other repairs and maintenance are charged to profit or loss during the financial period in which they are incurred.
- C. Land is not depreciated. Other property, plant and equipment apply cost model and are depreciated using the straight-line method to allocate their cost over their estimated useful lives. Each part of an item of property, plant, and equipment with a cost that is significant in relation to the total cost of the item must be depreciated separately.
- D. The assets' residual values, useful lives and depreciation methods are reviewed, and adjusted if appropriate, at each financial year-end. If expectations for the assets' residual values and useful lives differ from previous estimates or the patterns of consumption of the assets' future economic benefits embodied in the assets have changed significantly, any change is accounted for as a change in estimate under IAS 8, 'Accounting Policies, Changes in Accounting Estimates and Errors', from the date of the change.

The estimated useful lives of property, plant and equipment are as follows:

Buildings and structures	20 ~ 50 years
Plant and construction	3 ~ 15 years
Machinery and equipment	2 ~ 20 years
Transportation equipment	3 ~ 5 years
Office equipment	2 ~ 20 years
Leasehold improvements	3 ~ 15 years

(17) Leasing arrangements (lessee) – right-of-use assets/ lease liabilities

Effective 2019

- A. Leases are recognised as a right-of-use asset and a corresponding lease liability at the date at which the leased asset is available for use by the Group. For short-term leases or leases of low-value assets, lease payments are recognised as an expense on a straight-line basis over the lease term.
- B. Lease liabilities include the net present value of the remaining lease payments at the commencement date, discounted using the incremental borrowing interest rate.  
Lease payments are comprised of the following:
  - (a) Fixed payments, less any lease incentives receivable;
  - (b) Variable lease payments that depend on an index or a rate; and
  - (c) Payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The Group subsequently measures the lease liability at amortised cost using the interest method and recognises interest expense over the lease term. The lease liability is remeasured and the amount of remeasurement is recognised as an adjustment to the right-of-use asset when there are changes in the lease term or lease payments and such changes do not arise from contract modifications.

- C. At the commencement date, the right-of-use asset is stated at cost comprising the following:
  - (a) The amount of the initial measurement of lease liability;
  - (b) Any lease payments made at or before the commencement date;

- (c) Any initial direct costs incurred by the lessee; and
- (d) An estimate of costs to be incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease.

The right-of-use asset is measured subsequently using the cost model and is depreciated from the commencement date to the earlier of the end of the asset's useful life or the end of the lease term. When the lease liability is remeasured, the amount of remeasurement is recognised as an adjustment to the right-of-use asset.

(18) Leased assets

Prior to 2019

Payments made under an operating lease (net of any incentives received from the lessor) are recognized in profit or loss on a straight-line basis over the lease term.

(19) Intangible assets

A. Patents

Patents are stated at cost and amortized on a straight-line basis over their legal terms or economic service lives, whichever is shorter.

B. Technology know-how

Technology know-how is stated at cost and amortized on a straight-line basis over their economic service lives.

C. Computer software

Computer software is stated at cost and amortized on a straight-line basis over their estimated useful lives of 2 ~ 10 years.

D. Goodwill

Goodwill arising from a business combination is accounted for by applying the acquisition method.

E. Other intangible assets

Other intangible assets, mainly electricity facilities, are stated at cost and amortized using the straight-line method over 3 to 5 years.

(20) Impairment of non-financial assets

A. The Group assesses at each balance sheet date the recoverable amounts of those assets where there is an indication that they are impaired. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell or value in use. Except for goodwill, when the circumstances or reasons for recognizing impairment loss for an asset in prior years no longer exist or diminish, the impairment loss is reversed. The increased carrying amount due to reversal should not be more than what the depreciated or amortized historical cost would have been if the impairment had not been recognized.

B. The recoverable amounts of goodwill, intangible assets with an indefinite useful life and intangible assets that have not yet been available for use are evaluated periodically. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. Impairment loss of goodwill previously recognized in profit or loss shall not be reversed in the following years.

C. For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the cash-generating units, or groups of cash-generating units, that is/are expected to benefit from the synergies of the business combination. Each unit or group of units to which the goodwill is allocated represents the lowest level within the entity at which the goodwill is monitored for internal management purposes. Goodwill is monitored at the operating segment level.

(21) Borrowings

- A. Borrowings are recognized initially at fair value, net of transaction costs incurred. Borrowings are subsequently stated at amortized cost; any difference between the proceeds and the redemption value is recognized in profit or loss over the period of the borrowings using the effective interest method.
- B. Fees paid on the establishment of loan facilities are recognized as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the drawn-down occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalized as a pre-payment for liquidity services and amortised over the period of the facility to which it relates.

(22) Notes and accounts payable

- A. Accounts payable are liabilities for purchases of raw materials, goods or services and notes payable are those resulting from operating and non-operating activities.
- B. The short-term notes and accounts payable without bearing interest are subsequently measured at initial invoice amount as the effect of discounting is immaterial.

(23) Employee benefits

A. Short-term employee benefits

Short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in respect of service rendered by employees in a period and should be recognized as expenses in that period when the employees render service.

B. Pensions

(a) Defined contribution plans

For defined contribution plans, the contributions are recognized as pension expenses when they are due on an accrual basis. Prepaid contributions are recognized as an asset to the extent of a cash refund or a reduction in the future payments.

(b) Defined benefit plans

- i. Net obligation under a defined benefit plan is defined as the present value of an amount of pension benefits that employees will receive on retirement for their services with the Group in current period or prior periods. The liability recognized in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the balance sheet date less the fair value of plan assets. The defined benefit net obligation is calculated annually by independent actuaries using the projected unit credit method. The rate used to discount is determined by using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension liability; when there is no deep market in high-quality corporate bonds, the Group uses interest rates of government bonds (at the balance sheet date) instead.
- ii. Remeasurement arising on defined benefit plans are recognized in other comprehensive income in the period in which they arise and are recorded as retained earnings.
- iii. Past service costs are recognized immediately in profit or loss.

C. Termination benefits

Termination benefits are employee benefits provided in exchange for the termination of employment as a result from either the Group's decision to terminate an employee's employment before the normal retirement date, or an employee's decision to accept an offer of redundancy benefits in exchange for the termination of employment. The Group recognises expense as it can no longer withdraw an offer of termination benefits or it recognises relating restructuring costs, whichever is earlier. Benefits that are expected to be due more than 12 months after balance sheet date shall be discounted to their present value.

D. Employees' compensation and directors' and supervisors' remuneration

Employees' compensation and directors' and supervisors' remuneration are recognized as expenses and liabilities, provided that such recognition is required under legal obligation or constructive obligation and those amounts can be reliably estimated. Any difference between the resolved amounts and the subsequently actual distributed amounts is accounted for as changes in estimates.

(24) Employee share-based payment

A. For the equity-settled share-based payment arrangements, the employee services received are measured at the fair value of the equity instruments granted at the grant date, and are recognized as compensation cost over the vesting period, with a corresponding adjustment to equity. The fair value of the equity instruments granted shall reflect the impact of market vesting conditions and vesting conditions. Compensation cost is subject to adjustment based on the service conditions that are expected to be satisfied and the estimates of the number of equity instruments that are expected to vest under the non-market vesting conditions at each balance sheet date. And ultimately, the amount of compensation cost recognized is based on the number of equity instruments that eventually vest.

B. Treasury stocks transferred to employees:

(a) Restricted stocks issued to employees are measured at the fair value of the equity instruments granted at the grant date, and are recognized as compensation cost over the vesting period.

(b) For treasury stocks where employees have to pay to acquire those stocks, if employees resign during the vesting period, they must compensate the Group for the difference between the fair value of the equity instruments and their payments on the stocks.

(25) Income tax

A. The tax expense for the period comprises current and deferred tax. Tax is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or items recognized directly in equity, in which cases the tax is recognized in other comprehensive income or equity.

B. The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the Company and its subsidiaries operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in accordance with applicable tax regulations. It establishes provisions where appropriate based on the amounts expected to be paid to the tax authorities. An additional tax is levied on the unappropriated retained earnings and is recorded as income tax expense in the year when the stockholders resolve to retain the earnings.

C. Deferred income tax is recognized, using the balance sheet liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, the deferred income tax is not accounted for if it arises from initial recognition of goodwill or of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is provided on temporary differences arising on investments in subsidiaries and associates, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

D. Deferred income tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized. At each balance sheet date, unrecognized and recognized deferred income tax assets are reassessed.

- E. Current income tax assets and liabilities are offset and the net amount reported in the balance sheet when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the asset and settle the liability simultaneously. Deferred income tax assets and liabilities are offset on the balance sheet when the entity has the legally enforceable right to offset current tax assets against current tax liabilities and they are levied by the same taxation authority on either the same entity or different entities that intend to settle on a net basis or realize the asset and settle the liability simultaneously.
- F. A deferred tax asset shall be recognized for the carryforward of unused tax credits resulting from research and development expenditures and equity investments to the extent that it is possible that future taxable profit will be available against which the unused tax credits can be utilized.

(26) Share capital

- A. Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or stock options are shown in equity as a deduction, net of tax, from the proceeds.
- B. Where the Company repurchases the Company's equity share capital that has been issued, the consideration paid, including any directly attributable incremental costs (net of income taxes) is deducted from equity attributable to the Company's equity holders. Where such shares are subsequently reissued, the difference between their book value and any consideration received, net of any directly attributable incremental transaction costs and the related income tax effects, is included in equity attributable to the Company's equity holders.

(27) Dividends

Dividends are recorded in the Company's financial statements in the period in which they are resolved by the Company's shareholders. Cash dividends are recorded as liabilities.

(28) Revenue recognition

A. Sales of goods:

- (a) The Group is engaged in the research, development and sale of EPI wafers and chips of AlGaInP, AlGaAs and InGaN. Sales are recognised when control of the products has transferred, being when the products are delivered to the customer, the wholesaler has full discretion over the channel and price to sell the products, and there is no unfulfilled obligation that could affect the customer's acceptance of the products. Delivery occurs when the products have been shipped to the specific location, the risks of obsolescence and loss have been transferred to the wholesaler, and either the customer has accepted the products in accordance with the sales contract, or the Group has objective evidence that all criteria for acceptance have been satisfied.
- (b) Sales revenue is recognised on the net amount of contract price after deduction of sales discounts and allowances. The sales discounts and allowances were offered to customers based on aggregate sales over a 12-month period. Accumulated experience is used to estimate and provide for the sales discounts and allowances, using the expected value method, and revenue is only recognised to the extent that it is highly probable that a significant reversal will not occur. The estimation is subject to an assessment at each reporting date. A refund liability is recognised for expected sales discounts and allowances payable to customers in relation to sales made until the end of the reporting period. No element of financing is deemed present as the sales are made with a credit term of 90 days to 120 days, which is consistent with market practice.
- (c) The Group's obligation to provide a refund for faulty products under the standard warranty terms is recognised as a provision.
- (d) A receivable is recognised when the goods are delivered as this is the point in time that the consideration is unconditional because only the passage of time is required before the payment is due.



B. Revenue from licencing intellectual property

- (a) The Group entered into a contract with a customer to grant a licence of patents and intellectual property to the customer. Given the licence is distinct from other promised goods or services in the contract, the Group recognises the revenue from licencing when the licence transfer to a customer either at a point in time or over time based on the nature of the licence granted. The nature of the Group's promise in granting a licence is a promise to provide a right to access the Group's intellectual property if the Group undertakes activities that significantly affect the patents and intellectual property to which the customer has rights, the customer is affected by the Group's activities and those activities do not result in the transfer of a good or a service to the customer as they occur. The royalties are recognised as revenue on a straight-line basis throughout the licencing period. In case the abovementioned conditions are not met, the nature of the Group's promise in granting a licence is a promise to provide a right to use the Group's intellectual property and therefore the revenue is recognised when transferring the licence to a customer at a point in time.
- (b) Some contracts require a sales-based royalty in exchange for a licence of intellectual property. The Group recognises revenue when the performance obligation has been satisfied and the subsequent sale occurs.

C. Incremental costs of obtaining a contract

Given that the contractual period lasts less than one year, the Group recognises the incremental costs of obtaining a contract as an expense when incurred although the Group expects to recover those costs.

(29) Government grants

Government grants are recognized at their fair value only when there is reasonable assurance that the Group will comply with any conditions attached to the grants and the grants will be received. Government grants are recognized in profit or loss on a systematic basis over the periods in which the Group recognizes expenses for the related costs for which the grants are intended to compensate. Government grants related to property, plant and equipment are recognized as non-current liabilities and are amortized to profit or loss over the estimated useful lives of the related assets using the straight-line method.

(30) Business combinations

- A. The Group uses the acquisition method to account for business combinations. The consideration transferred for an acquisition is measured as the fair value of the assets transferred, liabilities incurred or assumed and equity instruments issued at the acquisition date, plus the fair value of any assets and liabilities resulting from a contingent consideration arrangement. All acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. For each business combination, the Group measures at the acquisition date components of non-controlling interests in the acquiree that are present ownership interests and entitle their holders to the proportionate share of the entity's net assets in the event of liquidation at either fair value or the present ownership instruments' proportionate share in the recognised amounts of the acquiree's identifiable net assets. All other non-controlling interests should be measured at the acquisition-date fair value.
- B. The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of any previous equity interest in the acquiree over the fair value of the identifiable assets acquired and the liabilities assumed is recorded as goodwill at the acquisition date. If the total of consideration transferred, non-controlling interest in the acquiree recognised and the fair value of previously held equity interest in the acquiree is less than the fair value of the identifiable assets acquired and the liabilities assumed, the difference is recognised directly in profit or loss on the acquisition date.

(31) Operating segments

Operating segments are reported in a manner consistent with the internal reporting provided to the Chief Operating Decision-Maker. The Chief Operating Decision-Maker is responsible for allocating resources and assessing performance of the operating segments.

5. CRITICAL ACCOUNTING JUDGEMENTS, ESTIMATES AND KEY SOURCES OF ASSUMPTION UNCERTAINTY

The preparation of these consolidated financial statements requires management to make critical judgements in applying the Group's accounting policies and make critical assumptions and estimates concerning future events. Assumptions and estimates may differ from the actual results and are continually evaluated and adjusted based on historical experience and other factors. Such assumptions and estimates have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year; and the related information is addressed below:

(1) Critical judgments in applying the Group's accounting policies

None.

(2) Critical accounting estimates and assumptions

The Group makes estimates and assumptions based on the expectation of future events that are believed to be reasonable under the circumstances at the end of the reporting period. The resulting accounting estimates might be different from the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below:

A. Impairment valuation of goodwill, property, plant and equipment

In assessing assets impairment valuation, the Group estimates useful lives of assets and possible income and expenses in the future based on the Group's subjective judgement, any changes in economic condition and strategy of the Group will affect the recoverable amount, please refer to Note 6(11).

As of December 31, 2019, the Group recognised impaired property, plant and equipment of \$20,577,106 and goodwill of \$6,324,659.

B. Realizability of deferred income tax assets

Deferred income tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences can be utilized. Assessment of the realizability of deferred income tax assets involves critical accounting judgments and estimates of the management, including the assumptions of expected future sales revenue growth rate and profit rate, available tax credits, tax planning, and etc. Any variations in global economic environment, industrial environment, and laws and regulations might cause material adjustments to deferred income tax assets.

As of December 31, 2019, the Group recognized deferred income tax assets amounting to \$3,944,874.

C. Evaluation of inventories

As inventories are stated at the lower of cost and net realizable value, the Group must determine the net realizable value of inventories on balance sheet date using judgements and estimates. Due to the rapid technology innovation, the Group evaluates the amounts of obsolete inventories or inventories without market selling value on balance sheet date, and writes down the cost of inventories to the net realizable value. Such an evaluation of inventories is principally based on the demand for the products within the specified period in the future. Therefore, there might be material changes to the evaluation.

As of December 31, 2019, the carrying amount of inventories was \$3,252,303.

D. Financial assets—fair value measurement of unlisted stocks without active market

The fair value of unlisted stocks held by the Group that are not traded in an active market is determined by considering those companies' recent funding raising activities and technical

development status, fair value assessment of other companies of the same type, market conditions and other economic indicators existing on balance sheet date. Any changes in these judgements and estimates will impact the fair value measurement of these unlisted stocks. Please refer to Note 12(3) for the financial instruments fair value information.

As of December 31, 2019, the carrying amount of unlisted stocks was \$3,465,868.

## 6. DETAILS OF SIGNIFICANT ACCOUNTS

### (1) Cash and cash equivalents

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Cash on hand and petty cash	\$ 1,409	\$ 559
Checking accounts and demand deposits	2,232,459	1,571,952
Time deposits	2,642,491	2,929,936
Bonds sold under repurchase agreement	375,004	1,030,062
Cash on transit	1,460	-
	<u>\$ 5,252,823</u>	<u>\$ 5,532,509</u>

The Group transacts with a variety of financial institutions all with high credit quality to disperse credit risk, so it expects that the probability of counterparty default is remote.

### (2) Financial assets at fair value through profit or loss

<u>Items</u>	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Current items:		
Financial assets mandatorily measured at fair value through profit or loss		
Beneficiary certificates	\$ 42,300	\$ 366,196
Listed stocks	1,285,100	671,789
Emerging stocks	1,775	9,248
	<u>1,329,175</u>	<u>1,047,233</u>
Valuation adjustment	( 143,960)	( 320,827)
	<u>1,185,215</u>	<u>726,406</u>
Non-current items:		
Financial assets mandatorily measured at fair value through profit or loss		
Unlisted stocks	342,178	333,727
Valuation adjustments	( 184,416)	( 333,727)
	<u>157,762</u>	<u>-</u>
	<u>\$ 1,342,977</u>	<u>\$ 726,406</u>

A. The net gain recognized by the Company amounted to \$319,276 and \$12,382 for the years ended December 31, 2019 and 2018, respectively.

B. Information on credit risk of financial assets at fair value through profit or loss is provided in Note 12(2).

(3) Financial assets at fair value through other comprehensive income

Items	December 31, 2019	December 31, 2018
Non-current items:		
Equity instruments		
Listed stocks	\$ 724,909	\$ 724,909
Emerging stocks	40,872	40,872
Unlisted stocks	3,660,396	3,619,815
	4,426,177	4,385,596
Valuation adjustment	( 785,567)	( 1,120,471)
	\$ 3,640,610	\$ 3,265,125

A. Aiming to satisfy the capital expenditure needs, the Group sold \$0 and \$3,051 of equity securities investments at fair value and resulted in cumulative gains on disposal amounting to \$0 and \$1,071 during the years ended December 31, 2019 and 2018, respectively.

B. Amounts recognized in profit or loss and other comprehensive income in relation to the financial assets at fair value through other comprehensive income are listed below:

Equity instruments at fair value through other comprehensive income	Year ended December 31, 2019	Year ended December 31, 2018
Fair value change recognised in other comprehensive income	\$ 334,904	(\$ 674,074)
Cumulative losses reclassified to retained earnings due to derecognition	\$ -	(\$ 1,071)
Held at end of year	\$ 29,330	\$ 26,709

C. As at December 31 2019 and 2018, without taking into account any collateral held or other credit enhancements, the maximum exposure to credit risk in respect of the amount that best represents the financial assets at fair value through other comprehensive income held by the Group was \$3,640,610 and \$3,265,125, respectively.

D. Information relating to credit risk of financial assets at fair value through other comprehensive income is provided in Note 12(2) and (3).

(4) Notes and accounts receivable

	December 31, 2019	December 31, 2018
Notes receivable	\$ 2,313,351	\$ 1,495,653
Less: Allowance for uncollectible accounts	-	-
	\$ 2,313,351	\$ 1,495,653
Accounts receivable	\$ 6,716,270	\$ 7,626,772
Less: Allowance for uncollectible accounts	( 10,672)	( 42,838)
	\$ 6,705,598	\$ 7,583,934

A. The ageing analysis of accounts receivable and notes receivable that were past due but not impaired is as follows:

	December 31, 2019		December 31, 2018	
	Accounts receivable	Notes receivable	Accounts receivable	Notes receivable
Not past due	\$ 5,940,844	\$ 2,313,351	\$ 6,415,993	\$ 1,432,793
Up to 30 days	417,581	-	407,801	62,860
31 to 90 days	251,526	-	646,500	-
91 to 180 days	31,575	-	136,651	-
Over 180 days	74,744	-	19,827	-
	\$ 6,716,270	\$ 2,313,351	\$ 7,626,772	\$ 1,495,653

The above ageing analysis was based on past due date.

- B. As of December 31, 2019 and 2018, the Group had outstanding discounted notes receivable amounting to \$2,087,234 and \$3,349,498. The Group has no payment obligations when the drawers of the notes refuse to pay for the notes at maturity. Those discounted notes receivable were presented as a deduction item to notes receivable. Those discounted notes receivable were deducted from notes receivable directly.
- C. Details of the Group's notes receivable pledged to others as collateral are provided in Note 8.
- D. The Group holds collateral including bank deposits, commercial papers, financial assets as well as machinery and equipment as security for accounts receivable. The fair value of the collateral held cannot be reasonably estimated by the Group since it is impracticable.
- E. As at December 31 2019 and 2018, without taking into account any collateral held or other credit enhancements, the maximum exposure to credit risk in respect of the amount that best represents the notes receivable held by the Company was \$2,313,351 and \$1,495,653; the maximum exposure to credit risk in respect of the amount that best represents the account receivables held by the Company was \$6,705,598 and \$7,583,934.
- F. Information on credit risk of accounts receivable and notes receivable is provided in Note 12(2).

(5) Inventories

	December 31, 2019		
	Cost	Allowance for valuation loss	Book value
Raw materials	\$ 836,777	(\$ 69,171)	\$ 767,606
Work in progress	1,414,292	( 275,074)	1,139,218
Finished goods	1,797,744	( 452,265)	1,345,479
	<u>\$ 4,048,813</u>	<u>(\$ 796,510)</u>	<u>\$ 3,252,303</u>
	December 31, 2018		
	Cost	Allowance for valuation loss	Book value
Raw materials	\$ 1,199,529	(\$ 53,495)	\$ 1,146,034
Work in progress	1,640,894	( 255,534)	1,385,360
Finished goods	2,791,392	( 617,595)	2,173,797
	<u>\$ 5,631,815</u>	<u>(\$ 926,624)</u>	<u>\$ 4,705,191</u>

Expense and loss incurred on inventories for the years ended December 31, 2019 and 2018 were as follows:

	Year ended	Year ended
	December 31, 2019	December 31, 2018
Cost of goods sold	\$ 14,725,377	\$ 16,491,389
Effect of recoverable amounts written off	( 27,840)	( 306,282)
Scrap loss	298,046	268,097
(Gain on reversal of decline)loss on decline in market value	( 162,563)	316,079
Loss on idle capacity	1,560,179	882,458
	<u>\$ 16,393,199</u>	<u>\$ 17,651,741</u>

A decrease in costs of sales was recognised as a result of reversal of net realisable value from sale of obsolete inventories.

(6) Investments accounted for using the equity method

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Associates:		
Nan Ya Photonics Incorporation	\$ 486,534	\$ 419,681
Tekcore Co., Ltd.	37,788	62,978
TE Opto Corporation	45,524	43,556
Country Lighting (BVI) Co., Ltd.	91,723	93,996
ProLight Opto Technology Corporation	-	367,309
LEDOULUX Sp.Zo.O	14,051	15,070
Interelight Optotech (Hong Kong) Ltd.	12,705	13,411
ES-LEDRU LLC.	2,231	2,037
LEDAZ Co., Ltd.	55,345	99,670
	<u>\$ 745,901</u>	<u>\$ 1,117,708</u>

A. The basic information of the associates that are material to the Group is as follows:

<u>Company name</u>	<u>Principal place of business</u>	<u>Shareholding ratio</u>		<u>Nature of relationship</u>	<u>Methods of measurement</u>
		<u>December 31, 2019</u>	<u>December 31, 2018</u>		
Nan Ya Photonics Incorporation	Taiwan	43.26%	43.26%	Associates	Equity method
ProLight Opto Technology corporation	Taiwan	Note 1	42.64%	Note 1	Equity method
KAISTAR Lighting (Xiamen) Co., Ltd.	Mainland China	Note 2	Note 2	Note 2	Note 2

Note 1 : Information is provided in Note (6)B(1)

Note 2 :Information is provided in Note(6) B(j)

B. The summarized financial information of the associates that are material to the Group is as follows:

(a) Balance sheet

	<u>Nan Ya Photonics Incorporation</u>	
	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Current assets	\$ 1,073,694	\$ 929,990
Non-current assets	160,550	130,111
Current liabilities	( 146,214)	( 128,743)
Non-current liabilities	( 9,481)	( 9,520)
Total net assets	<u>\$ 1,078,549</u>	<u>\$ 921,838</u>
Share in associate's net assets	\$ 465,650	\$ 398,797
Goodwill	20,884	20,884
Carrying amount of the associate	<u>\$ 486,534</u>	<u>\$ 419,681</u>

	<u>Prolight Opto Technology Corporation</u>	
	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Current assets	\$ -	\$ 527,783
Non-current assets	-	521,627
Current liabilities	-	( 185,033)
Non-current liabilities	-	( 105,323)
Total net assets	<u>\$ -</u>	<u>\$ 759,054</u>
Share in associate's net assets	\$ -	\$ 326,336
Goodwill	-	40,973
Carrying amount of the associate	<u>\$ -</u>	<u>\$ 367,309</u>

(b) Statement of comprehensive income

	<u>Nan Ya Photonics Incorporation</u>	
	<u>Year ended</u>	<u>Year ended</u>
	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Revenue	\$ 715,223	\$ 879,307
Income for the period from continuing operations	\$ 98,098	\$ 90,519
Other comprehensive income, net of tax	122,470	155,488
Total comprehensive income	<u>\$ 220,568</u>	<u>\$ 246,007</u>
Dividends received from associates	<u>\$ 27,359</u>	<u>\$ -</u>

Prolight Opto Technology Corporation		
	Year ended December 31, 2019	Year ended December 31, 2018
Revenue	\$ 134,787	\$ 612,433
Loss for the period from continuing operations	(\$ 5,829)	(\$ 40,088)
Other comprehensive loss, net of tax	-	( 170)
Total comprehensive loss	(\$ 5,829)	(\$ 40,258)
Dividends received from associates	\$ -	\$ -

KATSTAR Lighting(Xiamen) Co., Ltd.		
	Year ended December 31, 2019	Year ended December 31, 2018
Revenue	\$ -	\$ 2,938,630
Loss for the period from continuing operations	\$ -	(\$ 31,106)
Other comprehensive income, net of tax	-	-
Total comprehensive loss	\$ -	(\$ 31,106)
Dividends received from associates	\$ -	\$ -

- (c) The carrying amount of the Group's interests in all individually immaterial associates and the Group's share of the operating results are summarized as follows:

As of December 31, 2019 and 2018, the carrying amount of the Group's individually immaterial associates amounted to \$259,367 and \$330,718, respectively.

	Year ended December 31, 2019	Year ended December 31, 2018
Loss (income) for the year from continuing operations	(\$ 106,092)	\$ 31,701
Other comprehensive loss	( 63)	( 435)
Total comprehensive (loss) income	(\$ 106,155)	\$ 31,266

- (d) The investment (loss) income from equity method investees for the years ended December 31, 2019 and 2018 amounted to (\$21,383) and \$24,416, respectively.
- (e) The other comprehensive income from equity method investees for the years ended December 31, 2019 and 2018 amounted to \$47,495 and \$122,433, respectively.
- (f) The Group's investment in Tekcore Co., Ltd. has quoted market price. The fair value of Tekcore Co., Ltd. as of December 31, 2019 and 2018 was \$100,024 and \$117,437, respectively.
- (g) The Group disposed all shares of Very Optoelectronic(HUI ZHOU)Co., Ltd. on March 14, 2018 and recognised loss on disposal of investments amounting to \$20,091.
- (h) The Group disposed all its shares of Tops Electrical Technology Co., Ltd. on March 29, 2018 and recognised loss on disposal of investments amounting to \$898.
- (i) The Group lost significant influence over PlayNitride Inc. as the shares of PlayNitride Inc. owned by the Group were less than 20% on March 6, 2018, therefore, the Group reclassified it into financial assets at fair value through other comprehensive income and recognised gains on disposal of investments amounting to \$80,988 in accordance with IFRSs.



- (j) The Group lost significant influence over KAISTAR Lighting (Xiamen) Co., Ltd. as its shares owned by the Group were less than 20% on April 26, 2018. Therefore, the Group reclassified it into financial asset at fair value through other comprehensive income and recognised gain on disposal of investment amounting to \$288,956 in accordance with IFRSs.
- (k) The Group disposed all its shares of Cosmoled Lighting Limited on June 25, 2018 and recognized loss on disposal of investments amounting to \$36,118.
- (l) On April 11, 2019, the Group participated in the private placement raised by Prolight Opto Technology Corporation and had control over Prolight Opto Technology Corporation. The Group recognised loss on disposal of investment amounting to \$66,847, and details of acquired assets and assumed liabilities are provided in Note 6(33).

(7) Property, plant and equipment

	Land	Buildings and structures	Machinery	Office equipment	Leasehold improvements	Others	Construction in progress and equipment to be inspected	Total
At January 1, 2019								
Cost	\$ 124,661	\$ 15,723,057	\$ 42,314,211	\$ 383,665	\$ 140,295	\$ 432,717	\$ 2,359,617	\$ 61,478,223
Accumulated depreciation and impairment	-	( 8,039,526)	( 30,317,096)	( 284,200)	( 93,216)	( 308,236)	-	( 39,042,274)
	<u>\$ 124,661</u>	<u>\$ 7,683,531</u>	<u>\$ 11,997,115</u>	<u>\$ 99,465</u>	<u>\$ 47,079</u>	<u>\$ 124,481</u>	<u>\$ 2,359,617</u>	<u>\$ 22,435,949</u>
2019								
Opening net book amount at January 1	\$ 124,661	\$ 7,683,531	\$ 11,997,115	\$ 99,465	\$ 47,079	\$ 124,481	\$ 2,359,617	\$ 22,435,949
Additions	-	18,398	237,501	3,654	839	5,333	2,223,999	2,489,724
Transfer	-	675,153	2,331,506	64,491	23,866	31,837	( 3,126,853)	-
Acquired from business	387,336	162,444	132,404	1,252	-	59,742	-	743,178
Disposals	-	( 14,306)	( 163,332)	( 28)	-	( 3)	( 8,959)	( 186,628)
Reclassifications	138,524	242,895	( 5,655)	929	-	-	( 98,797)	277,896
Disaster loss	-	( 968,343)	( 3,666,167)	( 36,488)	( 17,454)	( 63,530)	-	( 4,751,982)
Impairment loss	-	( 37,799)	( 154,773)	( 2)	( 15,126)	( 222)	-	( 207,922)
Net exchange differences	-	( 58,809)	( 139,738)	( 3,338)	( 684)	( 4,067)	( 16,473)	( 223,109)
Closing net book amount at December 31	<u>\$ 650,521</u>	<u>\$ 7,703,164</u>	<u>\$ 10,568,861</u>	<u>\$ 129,935</u>	<u>\$ 38,520</u>	<u>\$ 153,571</u>	<u>\$ 1,332,534</u>	<u>\$ 20,577,106</u>
At December 31, 2019								
Cost	\$ 650,521	\$ 16,213,192	\$ 41,452,304	\$ 402,533	\$ 161,373	\$ 591,882	\$ 1,332,534	\$ 60,804,339
Accumulated depreciation and impairment	-	( 8,510,028)	( 30,883,443)	( 272,598)	( 122,853)	( 438,311)	-	( 40,227,233)
	<u>\$ 650,521</u>	<u>\$ 7,703,164</u>	<u>\$ 10,568,861</u>	<u>\$ 129,935</u>	<u>\$ 38,520</u>	<u>\$ 153,571</u>	<u>\$ 1,332,534</u>	<u>\$ 20,577,106</u>

	Land	Buildings and structures	Machinery	Office equipment	Leasehold improvements	Others	Construction in progress and equipment to be inspected	Total
At January 1, 2018								
Cost	\$ 124,661	\$ 15,131,618	\$ 40,882,327	\$ 349,727	\$ 178,294	\$ 438,230	\$ 2,526,031	\$ 59,630,888
Accumulated depreciation and impairment	-	( 7,174,425)	( 27,432,634)	( 297,562)	( 102,100)	( 269,240)	( 6,046)	( 35,282,007)
	<u>\$ 124,661</u>	<u>\$ 7,957,193</u>	<u>\$ 13,449,693</u>	<u>\$ 52,165</u>	<u>\$ 76,194</u>	<u>\$ 168,990</u>	<u>\$ 2,519,985</u>	<u>\$ 24,348,881</u>
2018								
Opening net book amount at January 1	\$ 124,661	\$ 7,957,193	\$ 13,449,693	\$ 52,165	\$ 76,194	\$ 168,990	\$ 2,519,985	\$ 24,348,881
Additions	-	16,067	235,886	3,076	571	408	3,350,860	3,606,868
Transfer	-	828,065	2,607,702	67,978	( 10,331)	14,875	( 3,508,289)	-
Disposals	-	( 48,349)	( 122,492)	( 251)	( 177)	2,213	-	( 169,056)
Reclassified to non-current assets held for sale	-	-	( 99,733)	-	-	-	( 1,571)	( 101,304)
Reclassifications	-	( 408)	136,066	-	-	( 563)	13,460	148,555
Depreciation charge	-	( 914,874)	( 3,743,341)	( 22,423)	( 18,950)	( 58,677)	-	( 4,758,265)
Impairment loss	-	( 117,327)	( 384,148)	-	-	-	-	( 501,475)
differences	-	( 36,836)	( 82,518)	( 1,080)	( 228)	( 2,765)	( 14,828)	( 138,255)
Closing net book amount at December 31	<u>\$ 124,661</u>	<u>\$ 7,683,531</u>	<u>\$ 11,997,115</u>	<u>\$ 99,465</u>	<u>\$ 47,079</u>	<u>\$ 124,481</u>	<u>\$ 2,359,617</u>	<u>\$ 22,435,949</u>
At December 31, 2018								
Cost	\$ 124,661	\$ 15,723,057	\$ 42,314,211	\$ 383,665	\$ 140,295	\$ 432,717	\$ 2,359,617	\$ 61,478,223
Accumulated depreciation and impairment	-	( 8,039,526)	( 30,317,096)	( 284,200)	( 93,216)	( 308,236)	-	( 39,042,274)
	<u>\$ 124,661</u>	<u>\$ 7,683,531</u>	<u>\$ 11,997,115</u>	<u>\$ 99,465</u>	<u>\$ 47,079</u>	<u>\$ 124,481</u>	<u>\$ 2,359,617</u>	<u>\$ 22,435,949</u>

Information about the property, plant and equipment that were pledged to others as collaterals is provided in Note 8.

(8) Leasing arrangements – lessee

Effective 2019

A. The Group leases various assets including land, buildings, machinery and equipment, transportation equipment and office equipment. Rental contracts are typically made for periods of 2 to 50 years. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose covenants, but leased assets may not be used as security for borrowing purposes.

B. Short-term leases with a lease term of 12 months or less comprise buildings, transportation equipment and office equipment. Low-value assets comprise office equipment.

C. The carrying amount of right-of-use assets and the depreciation charge are as follows:

	<u>December 31, 2019</u>
	<u>Carrying amount</u>
Land	\$ 1,202,185
Land use right	233,294
Buildings	49,588
Machinery and equipment	45,659
Transportation equipment	6,071
Office equipment	27,646
	<u>\$ 1,564,443</u>
	<u>Year ended December</u>
	<u>31, 2019</u>
	<u>Depreciation charge</u>
Land	\$ 51,385
Buildings	16,215
Machinery and equipment	21,117
Transportation equipment	6,595
Office equipment	9,520
	<u>\$ 104,832</u>

D. For the year ended December 31, 2019, the additions to right-of-use assets was \$58,592.

E. The information on profit and loss accounts relating to lease contracts is as follows:

	<u>December 31, 2019</u>
<u>Items affecting profit or loss</u>	
Interest expense on lease liabilities	\$ 27,992
Expense on short-term lease contracts	20,102
Expense on leases of low-value assets	3,287

F. For the year ended December 31, 2019, the Group's total cash outflow for leases was \$165,358.

(9) Intangible assets

	<u>Patents</u>	<u>Goodwill</u>	<u>Software</u>	<u>Others</u>	<u>Total</u>
At January 1, 2019					
Cost	\$ 2,396,119	\$ 6,324,659	\$ 356,717	\$ 95,092	\$ 9,172,587
Accumulated amortisation and impairment	( 1,175,693)	-	( 224,972)	( 87,994)	( 1,488,659)
	<u>\$ 1,220,426</u>	<u>\$ 6,324,659</u>	<u>\$ 131,745</u>	<u>\$ 7,098</u>	<u>\$ 7,683,928</u>
<u>2019</u>					
Opening net book amount as at January 1,	\$ 1,220,426	\$ 6,324,659	\$ 131,745	\$ 7,098	\$ 7,683,928
Additions – acquired separately	6,436	-	65,137	1,652	73,225
Additions – acquired through business combinations	153	-	-	331	484
Disposals	( 4,189)	-	-	-	( 4,189)
Reclassifications	8,482	-	3,520	2,400	14,402
Amortisation charge	( 193,543)	-	( 63,453)	( 3,473)	( 260,469)
Net exchange differences	( 4,470)	-	( 1,113)	-	( 5,583)
Closing net book amount as at December 31,	<u>\$ 1,033,295</u>	<u>\$ 6,324,659</u>	<u>\$ 135,836</u>	<u>\$ 8,008</u>	<u>\$ 7,501,798</u>
At December 31, 2019					
Cost	\$ 2,406,242	\$ 6,324,659	\$ 422,203	\$ 99,476	\$ 9,252,580
Accumulated amortisation and impairment	( 1,372,947)	-	( 286,367)	( 91,468)	( 1,750,782)
	<u>\$ 1,033,295</u>	<u>\$ 6,324,659</u>	<u>\$ 135,836</u>	<u>\$ 8,008</u>	<u>\$ 7,501,798</u>
	<u>Patents</u>	<u>Goodwill</u>	<u>Software</u>	<u>Others</u>	<u>Total</u>
At January 1, 2018					
Cost	\$ 2,351,991	\$ 6,324,659	\$ 297,857	\$ 92,391	\$ 9,066,898
Accumulated amortisation and impairment	( 966,045)	-	( 168,754)	( 85,137)	( 1,219,936)
	<u>\$ 1,385,946</u>	<u>\$ 6,324,659</u>	<u>\$ 129,103</u>	<u>\$ 7,254</u>	<u>\$ 7,846,962</u>
<u>2018</u>					
Opening net book amount as at January 1	\$ 1,385,946	\$ 6,324,659	\$ 129,103	\$ 7,254	\$ 7,846,962
Additions – acquired separately	33,030	-	59,400	2,700	95,130
Disposals	-	-	( 141)	-	( 141)
Reclassifications	6,487	-	955	-	7,442
Amortisation charge	( 207,370)	-	( 57,316)	( 2,856)	( 267,542)
Net exchange differences	2,333	-	( 256)	-	2,077
Closing net book amount as at December 31,	<u>\$ 1,220,426</u>	<u>\$ 6,324,659</u>	<u>\$ 131,745</u>	<u>\$ 7,098</u>	<u>\$ 7,683,928</u>
At December 31, 2018					
Cost	\$ 2,396,119	\$ 6,324,659	\$ 356,717	\$ 95,092	\$ 9,172,587
Accumulated amortisation and impairment	( 1,175,693)	-	( 224,972)	( 87,994)	( 1,488,659)
	<u>\$ 1,220,426</u>	<u>\$ 6,324,659</u>	<u>\$ 131,745</u>	<u>\$ 7,098</u>	<u>\$ 7,683,928</u>

Details of amortisation on intangible assets are as follows:

	Year ended December 31, 2019	Year ended December 31, 2018
Operating costs	\$ 117,057	\$ 114,510
Selling expenses	4,576	7,283
Administrative expenses	58,766	58,310
Research and development expenses	80,070	87,439
	<u>\$ 260,469</u>	<u>\$ 267,542</u>

(10) Long-term prepaid rents (shown under “Other non-current assets”)

Effective 2018

	Year ended December 31, 2018
Land use right	<u>\$ 248,530</u>

In December 2006, and May, June and July 2010, the Group signed a land use right contract with Xiamen Municipal Bureau of Land, Resources And Housing Administration, Yangzhou National Territory Resources Bureau, Changzhou Land and Resource Bureau and Jining Municipal Bureau of State Land for use of the land in Xiamen Torch High-tech Industrial Development Zone of the People's Republic of China, Yangzhou Economic & Technological Development Zone, Wujin, Changzhou, Jiangsu, China and Jining National High-tech Industrial Development Zone with term of 50 years. All rentals had been paid on the contract date. The Group recognised rental expenses of \$6,553 for the year ended December 31, 2018.

(11) Impairment of non-financial assets

A. During the years ended December 31, 2019 and 2018, the reallocation of production lines resulted in impairment of the Group's property, plant and equipment and non-current assets classified as held for sale. The Group wrote down the carrying amount of the asset based on the recoverable amount and recognised accordingly an impairment loss of \$209,803 and \$659,774, respectively. The recoverable amount is the property's fair value less costs of disposal. The fair value is classified as a level 3 fair value. The impairment loss is detailed below:

	Year ended December 31, 2019	Year ended December 31, 2018
	<u>Recognised in profit or loss</u>	<u>Recognised in profit or loss</u>
Impairment loss - buildings and structures	\$ 37,799	\$ 117,327
Impairment loss - machinery	154,773	384,148
Impairment loss - non-current assets held for sale	1,881	158,299
Impairment loss - office equipment	2	-
Impairment loss - Leasehold improvements	15,126	-
Impairment loss - other equipment	222	-
	<u>\$ 209,803</u>	<u>\$ 659,774</u>

B. Goodwill is allocated to the Group's cash-generating units identified according to operating segment. The recoverable amount of all cash-generating units has been determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on financial budgets approved by the management covering a five-year period. Cash flows beyond the five-year period are extrapolated using the estimated growth rates stated below.

The recoverable amount of all cash-generating units calculated using the value-in-use exceeded their carrying amount, therefore goodwill was not impaired. The key assumptions used for value-in-use calculations are as follows:

	Year ended December 31, 2019			Year ended December 31, 2018		
	1st year	2~5 years	After 6th year	1st year	2~5 years	After 6th year
Revenue growth rate	33.55%	6.82%~ 14.7%	0%	26.63%	9.87%~ 30.11%	0%
Gross margin rate	17.59%	28.4%~ 34.9%	34.80%	15.56%	23.0%~ 26.8%	26.80%
Discount rate	11.39%	11.39%	11.39%	14.20%	14.20%	14.20%

(a) Revenue growth rate: Estimation refers to relevant market information and relevant operating and sales plan.

(b) Gross margin rate: Estimation refers to historical data and relevant operating and sales plan.

(c) Discount rate: The rate before tax and reflecting specific risk of relevant operating segment.

(12) Non-current assets held for sale

	December 31, 2019	December 31, 2018
Property, plant and equipment	\$ 1,086	\$ 390,042

(13) Short-term borrowings

	December 31, 2019	December 31, 2018
Bank borrowings		
Unsecured borrowings	\$ 1,683,783	\$ 1,874,876
Interest rate range-NTD	1.02%~1.11%	0.90%
Interest rate range-foreign currency	3.92%~4.88%	3.06%~5.22%

As of December 31, 2019 and 2018, the Group has endorsements to Episky Corporation (Xiamen) Ltd., Jiangsu Canyang Optoelectronics Ltd., Ecoled Venture Co., Limited and Yen-Rich Opto (Hong Kong) Limited of \$3,757,860 and \$3,270,624, respectively.

(14) Short-term notes and bills payable

	December 31, 2019			
	Rate (%)	Amount	Name of bank	Collaterals
Payables for bankers' acceptance	-	\$ 346,318	BANK OF COMMUNICATIONS	Note 8
	December 31, 2018			
	Rate (%)	Amount	Name of bank	Collaterals
Payables for bankers' acceptance	-	\$ 357,717	BANK OF COMMUNICATIONS	Note 8

(15) Other payables

Items	December 31, 2019	December 31, 2018
Payables on wages, salaries and bonus	\$ 493,144	\$ 599,908
Compensation due to employees, directors and supervisors	69,641	69,516
Payables on personnel expense	184,760	206,409
Payable on machinery and equipment	545,544	1,153,185
Payables on consumable goods and equipment repair expense	304,019	579,919
Payables on processing fees	353,618	423,397
Payables on reticle expense	19,708	28,043
Payables on gas expense	69,609	76,542
Payables on insurance expense	4,106	7,752
Payable on intangible assets	55,993	47,159
Others	403,710	628,273
	\$ 2,503,852	\$ 3,820,103

(16) Long-term borrowings

Type of borrowings	Borrowing period and repayment term	December 31, 2019
Bank borrowings		
Secured borrowings	Before October 29, 2022	\$ 99,808
Unsecured borrowings	November 2, 2021 Repay fully at maturity	500,000
Unsecured borrowings	Before November 5, 2024	390,000
Secured borrowings	Before December 12, 2024	138,750
		1,128,558
Less: Current portion		( 117,533)
		\$ 1,011,025
Interest rate range		1.20%~1.43%
Type of borrowings	Borrowing period and repayment term	December 31, 2018
Bank borrowings		
Secured borrowings	Before October 29, 2022	\$ 137,971
Unsecured borrowings	Before December 30, 2019	127,143
Unsecured borrowings	November 2, 2021 Repay fully at maturity	10,000
Unsecured borrowings	November 27, 2020 Repay fully at maturity	300,000
		575,114
Less: Current portion		( 165,306)
		\$ 409,808
Interest rate range		1.00%~1.39%

The Company, Formosa Inc. and Jiangsu Canyang Optoelectronics Ltd have signed a syndicated contract with 7 financial institutions including Land Bank of Taiwan. The lead bank is Land Bank of Taiwan. The credit granting period is 3 years from the first drawing date, May 30, 2016. Before the maturity, the granting period can be extended for 2 years upon application. The loan has been paid off in advance and the credit line has been cancelled on May 30, 2018.

A. Credit lines are as follows:

- (a) Tranche (A): Credit line is \$4,000,000. Details of Tranche A are as follows:
    - i Tranche (A-1): To redeem the 2nd overseas convertible bond and the former facility of Tranche (B) of Formosa Inc., the credit line is \$1,500,000 which can be drawn separately but cannot be redrawn.
    - ii Tranche (A-2): Funds for fulfilling the Company's mid-term operational needs. Credit line is \$2,500,000 and can be redrawn.
  - (b) Tranche (B): Credit line is \$1,600,000. Details of Tranche B are as follows:
    - i Tranche (B-1): To repay former financial debt of Formosa Inc., the credit line is \$600,000 and cannot be redrawn.
    - ii Tranche (B-2): To fulfil midterm operating capital, the credit line is \$1,000,000 and can be redrawn.
  - (c) The balance of Tranche (A) and Tranche (B) cannot exceed the total credit line.
  - (d) Tranche (C): Credit line is US\$19,000 thousand. Details of Tranche C are as follows:
    - Tranche (C-1): To repay financial debt of Jiangsu Canyon Optoelectronics Ltd., the credit line is USD 19,000 thousand and can be drawn at lump sum but cannot be redrawn.
- B. The Company has promised to maintain the following financial ratios and conditions that are based on the audited consolidated financial statements within the credit granting period (if violating following financial rates, annual rates of 0.125% should be added in accordance with contract):
- (a) Current ratio more than or equal to 100%;
  - (b) Debt ratio less or equal to 100%;
  - (c) Times interest earned ratio no less than 400%;
  - (d) Tangible net worth (shareholders' equity - intangible assets) not less than \$45,000,000 (inclusive).
- C. Due to the business combination of the Group and Formosa Inc. on September 29, 2016, the aforementioned Tranche (B), Tranche (B-1) and Tranche (B-2) are not applicable to the contract.
- D. The Company's financial commitments to borrowing from Taipei Fubon Commercial Bank Co., Ltd:
- Financial commitments (after the first drawn, following financial ratios shall maintain in the duration):
- i. Current ratio shall exceed (including) 100%.
  - ii. Interest coverage ratio shall exceed (including) 4.
  - iii. Debt ratio shall below (including) 100%.
  - iv. Tangible net assets: shall exceed NTD 45 billion.
- Aforementioned ratios of financial commitment were calculated based on the audited annual consolidated financial statements which will be reviewed once a year. If the financial ratios were violated the restriction, the interest rate plus 0.15%. If the financial ratio were not improved in the continuous 2 periods, the facility shall be examined.

(17) Pensions

- A. (a) The Company has a defined benefit pension plans in accordance with the Labor Standards Law, covering all regular employees for services provided prior to July 1, 2005, and employees who choose to remain in the defined benefit pension plan subsequent to the enforcement of the Labor Pension Act on July 1, 2005. Under the defined benefit pension plan, employees are entitled to two base points for every year of service for the first 15 years and one base point for each additional year thereafter, up to a maximum of 45 base points. The pension payment to employees is computed based on years of service and average salaries or wages of the last six months prior to approved retirement. The Company contributes an amount equal to 2% of salaries and wages paid each month to a pension fund. The pension fund is administered by a pension fund monitoring committee (the "Committee") and



deposited under the Committee's name in the Bank of Taiwan.

Also, the Company would assess the balance in the aforementioned labor pension reserve account by the end of December 31, every year. If the account balance is insufficient to pay the pension calculated by the aforementioned method, to the employees expected to be qualified for retirement next year, the Company will make contributions to cover the deficit by next March.

(b) The amounts recognized in the balance sheet are determined as follows:

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Present value of defined benefit obligations (\$	360,068)	(\$ 357,293)
Fair value of plan assets	<u>280,240</u>	<u>257,354</u>
Net defined benefit liability	<u>(\$ 79,828)</u>	<u>(\$ 99,939)</u>

(c) Movements in net defined benefit liabilities are as follows:

	<u>Present value of defined benefit obligations</u>	<u>Fair value of plan assets</u>	<u>Net defined benefit liability</u>
<u>2019</u>			
Balance at January 1	(\$ 357,293)	\$ 257,354	(\$ 99,939)
Current service cost	( 1,424)	-	( 1,424)
Interest (expense) income	( 3,566)	2,628	( 938)
Past service cost	5,159	-	5,159
Benefits paid	<u>566</u>	<u>( 566)</u>	<u>-</u>
	<u>( 356,558)</u>	<u>259,416</u>	<u>( 97,142)</u>
Remeasurements:			
Return on plan assets (excluding amounts included in interest income or expense)	-	8,883	8,883
Change in demographic assumptions (	3,304)	-	( 3,304)
Change in financial assumptions (	12,511)	-	( 12,511)
Experience adjustments	<u>12,305</u>	<u>-</u>	<u>12,305</u>
	<u>( 3,510)</u>	<u>8,883</u>	<u>5,373</u>
Pension fund contribution	<u>-</u>	<u>11,941</u>	<u>11,941</u>
Balance at December 31	<u>(\$ 360,068)</u>	<u>\$ 280,240</u>	<u>(\$ 79,828)</u>
	<u>Present value of defined benefit obligations</u>	<u>Fair value of plan assets</u>	<u>Net defined benefit liability</u>
<u>2018</u>			
Balance at January 1	(\$ 380,000)	\$ 239,145	(\$ 140,855)
Current service cost	( 1,750)	-	( 1,750)
Interest (expense) income	( 4,738)	3,064	( 1,674)
Benefits paid	<u>3,783</u>	<u>( 3,783)</u>	<u>-</u>
	<u>( 382,705)</u>	<u>238,426</u>	<u>( 144,279)</u>
Remeasurements:			
Return on plan assets (excluding amounts included in interest income or expense)	-	6,411	6,411
Change in demographic assumptions (	105)	-	( 105)
Change in financial assumptions (	13,014)	-	( 13,014)
Experience adjustments	<u>38,531</u>	<u>-</u>	<u>38,531</u>
	<u>25,412</u>	<u>6,411</u>	<u>31,823</u>
Pension fund contribution	<u>-</u>	<u>12,517</u>	<u>12,517</u>
Balance at December 31	<u>(\$ 357,293)</u>	<u>\$ 257,354</u>	<u>(\$ 99,939)</u>

- (d) The Bank of Taiwan was commissioned to manage the Fund of the Company's and domestic subsidiaries' defined benefit pension plan in accordance with the Fund's annual investment and utilisation plan and the "Regulations for Revenues, Expenditures, Safeguard and Utilisation of the Labor Retirement Fund" (Article 6: The scope of utilisation for the Fund includes deposit in domestic or foreign financial institutions, investment in domestic or foreign listed, over-the-counter, or private placement equity securities, investment in domestic or foreign real estate securitization products, etc.). With regard to the utilisation of the Fund, its minimum earnings in the annual distributions on the final financial statements shall be no less than the earnings attainable from the amounts accrued from two-year time deposits with the interest rates offered by local banks. If the earnings is less than aforementioned rates, government shall make payment for the deficit after being authorized by the Regulator. The Company has no right to participate in managing and operating that fund and hence the Company is unable to disclose the classification of plan asset fair value in accordance with IAS 19 paragraph 142. The composition of fair value of plan assets as of December 31, 2019 and 2018 is given in the Annual Labor Retirement Fund Utilisation Report announced by the government.
- (e) The principal actuarial assumptions used were as follows:

	Year ended December 31, 2019	Year ended December 31, 2018
Discount rate	<u>0.75%</u>	<u>1.00%</u>
Future salary increases	<u>2.00%</u>	<u>2.00%</u>

Future mortality rate was estimated separately based on the 5th Taiwan Standard Ordinary Experience Mortality Table.

Because the main actuarial assumption changed, the present value of defined benefit obligation is affected. The analysis was as follows:

	Discount rate		Future salary increases	
	Increase 25%	Decrease 25%	Increase 25%	Decrease 25%
December 31, 2019				
Effect on present value of defined benefit obligation	<u>(\$ 12,483)</u>	<u>\$ 13,079</u>	<u>\$ 12,883</u>	<u>(\$ 12,363)</u>
December 31, 2018				
Effect on present value of defined benefit obligation	<u>(\$ 13,020)</u>	<u>\$ 13,663</u>	<u>\$ 13,492</u>	<u>(\$ 12,926)</u>

The sensitivity analysis above is based on other conditions that are unchanged but only one assumption is changed. In practice, more than one assumption may change all at once. The method of analysing sensitivity and the method of calculating net pension liability in the balance sheet are the same.

The method and assumptions used for the preparation of sensitivity analysis during 2019 and during 2018 are the same.

(f) Expected contributions to the defined benefit pension plans of the Group for the next year amounts to \$11,619.

(g) As of December 31, 2019, the weighted average duration of that retirement plan is 14 years.

B. (a) Effective July 1, 2005, the Company and its domestic subsidiaries have established a defined contribution pension plan (the "New Plan") under the Labor Pension Act (the "Act"), covering all regular employees with R.O.C. nationality. Under the New Plan, the Company and its domestic subsidiaries contribute monthly an amount based on 6% of the employees' monthly salaries and wages to the employees' individual pension accounts at the Bureau of Labor Insurance. The benefits accrued are paid monthly or in lump sum upon termination of employment.

(b) Episky Corporation (Xiamen) Ltd., EPISKY Corporation (Changzhou) LTD, Luxlite (Shenzhen) Corporation Limited, Epicrystal Corporation (Changzhou) Ltd., United LED Shandong Corporation, EPIRICH (Guangzhou) Co., Ltd, Jiangsu Canyon Optoelectronics Ltd. and Ningbo Formosa Epitaxy Incorporation have funded defined contribution plans. Monthly contributions to an independent fund administered by the government in accordance with the pension regulations in the People's Republic of China (PRC) are based on a certain percentage stipulated by the government. Other than the monthly contributions, these companies do not have further obligations.

(c) The pension costs under the defined contribution pension plans of the Group for the years ended December 31, 2019 and 2018 were \$181,822 and \$185,082, respectively.

(18) Share-based payment

A. For the years ended December 31, 2019 and 2018, the Group's share-based payment arrangements were as follows:

Type of arrangement	Grant date	Quantity granted (thousand shares)	Contract period	Vesting condition
Treasury stock Transferred to employees	2017.09.26	20,000	2 years	Note

Note: The Board of Directors adopted a resolution to transfer 20,000 thousand treasury stocks to employees with a subscription price of NT\$26.9 and without transfer restriction during the meeting on September 26, 2017. If employees resign during the vesting period, they are obliged to compensate for the difference between closing market price and the

subscription price on the date of security delivery which is under the discretion of the Chairperson.

- B. For the years ended December 31, 2019 and 2018, the share-based payment arrangements of the Company's subsidiary, United LED Corporation (Hong Kong) Limited, are as follows:

Type of arrangement	Grant date	Quantity granted (thousand shares)	Vesting conditions
Employee stock option	2010.8.1	1,500,000	Note A

Note A: 30% upon completion of 1 year's service; 60% upon completion of 2 years' service; 100% upon completion of 3 years' service.

- C. Details of the share-based payment arrangements are as follows:

	Year ended December 31, 2019		Year ended December 31, 2018	
	No. of shares (in thousands)	Weighted-average exercise price (in US dollars)	No. of shares (in thousands)	Weighted-average exercise price (in US dollars)
Options outstanding from beginning to the end of the period	1,048,700	\$ 0.0001	1,048,700	\$ 0.0001
Options exercisable at end of the period	1,048,700		1,048,700	

(19) Long-term deferred revenue (shown under "Other non-current liabilities")

	December 31, 2019	December 31, 2018
Government grants revenue	\$ 445,956	\$ 583,765
Deferred technical services revenue	12,307	16,266
	<u>\$ 458,263</u>	<u>\$ 600,031</u>

- A. The Company's subsidiaries obtained government grants for acquisitions of equipment and technology investments and recognized such grants as revenue over the economic lives of those assets. Government grants revenue recognized for the years ended December 31, 2019 and 2018 were \$174,876 and \$146,935 (shown under "Other revenue"), respectively.

- B. In 2009 and 2018, the Company signed a technical permission and technical support contract with Litefield Corporation (Dalian) LTD, and recognises technical services revenue over the contract periods. Technical services revenue recognised for the years ended December 31, 2019 and 2018 were \$13,205 and \$14,501, respectively.

(20) Share capital

- A. As of December 31, 2019, the Company's authorized capital was \$13,000,000, consisting of 1,300,000 thousand shares of ordinary stock (including 35,000 thousand shares reserved for employee stock options), and the paid-in capital was \$10,887,014 with a par value of \$10 (in dollars) per share. All proceeds from shares issued have been collected.

Movements of the Company's outstanding ordinary shares are as follows (expressed in thousands of shares):

	2019	2018
At January 1	1,083,051	1,075,836
Repurchase of treasury stocks	( 4,715)	( 3,085)
Treasury stocks transferred to employees	-	10,300
At December 31	<u>1,078,336</u>	<u>1,083,051</u>

- B. Pursuant to the issuance of global depositary receipts (GDRs), the Company issued 135 million shares of common stocks for \$1,350,000 thousand dollars. On September 22, 2009, the issuance of GDRs was completed and the GDRs are traded on the Luxembourg Stock Exchange. The total

GDRs issued were 27,000,000 units, each represented 5 common shares and USD \$13 (in dollars) per unit, amounting to USD \$351 million.

- C. On October 1, 2018, the total operating assets and liabilities of iii-v semiconductors OEM business for spin-off and assignments to Unikorn Semiconductor Corporation were \$1,000,000 and \$0, respectively. Unikorn Semiconductor Corporation issued 100 million shares, at a price of \$10 per share (par value of \$5), to exchange the abovementioned assets and liabilities. The details are as follows:

<u>Assets</u>	<u>October 1, 2018</u>
Bank deposits	\$ 360,172
Property, plant and equipment	639,828
	<u>\$ 1,000,000</u>

D. Treasury shares

- (a) Reason for share reacquisition and movements in the number of the Company's treasury shares are as follows:

<u>Reason for reacquisition</u>	Thousand shares/Thousand				
	Year ended December 31, 2019				
	<u>Beginning balance</u>	<u>Increase</u>	<u>Decrease</u>	<u>Ending balance</u>	<u>Book value</u>
Held by subsidiaries	2,565	-	-	2,565	\$ 135,163
Held by the company	3,085	4,715	-	7,800	190,327
	Year ended December 31, 2018				
	<u>Beginning balance</u>	<u>Increase</u>	<u>Decrease</u>	<u>Ending balance</u>	<u>Book value</u>
Held by subsidiaries	2,565	-	-	2,565	\$ 135,163
Held by the company	-	3,085	-	3,085	75,845
To be reissued to employees	10,300	-	( 10,300)	-	-

- (b) Pursuant to the R.O.C. Securities and Exchange Act, the number of shares bought back as treasury share should not exceed 10% of the number of the Company's issued and outstanding shares and the amount bought back should not exceed the sum of retained earnings, paid-in capital in excess of par value and realised capital surplus.
- (c) Pursuant to the R.O.C. Securities and Exchange Act, treasury shares should not be pledged as collateral and is not entitled to dividends before it is reissued.
- (d) Pursuant to the R.O.C. Securities and Exchange Act, treasury shares should be reissued to the employees within three years from the reacquisition date and shares not reissued within the three-year period are to be retired. Treasury shares to enhance the Company's credit rating and the stockholders' equity should be retired within six months of acquisition.

E. Information of the Company's shares held by subsidiaries – Lighting Investment Corporation is as follows:

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
	<u>Lighting Investment Corporation</u>	<u>Lighting Investment Corporation</u>
Shares	2,565 thousand shares	2,565 thousand shares
Book value	\$ 135,163	\$ 135,163
Fair value	\$ 82,970	\$ 65,658

(21) Capital surplus

- A. Pursuant to the Company Act, capital surplus, including additional paid-in capital in excess of par and donation, shall be exclusively used to cover accumulated deficit or to issue new stock or cash to shareholders in proportion to their ownership when the Company has no accumulated deficit. However, pursuant to the R.O.C. Securities and Exchange Act, capital surplus arising from paid-in capital in excess of par value on issuance of common stock and donations can be capitalized once a year, provided that the Company has no accumulated deficit and the amount to be capitalized does not exceed 10% of the paid-in capital.
- B. The shareholders resolved at their meeting on June 21, 2018 to issue cash to shareholders from capital surplus of \$121,765.
- C. The shareholders resolved at their meeting on June 20, 2019 to issue cash to shareholders from capital surplus of \$324,270.

	<u>Share premium</u>	<u>Treasury share transactions</u>	<u>Changes in ownership interests in subsidiaries</u>	<u>Difference between consideration and carrying amount of subsidiaries acquired or disposed</u>	<u>Change in net equity of associates and joint ventures accounted for under equity method</u>
At January 1, 2019	\$ 38,308,747	\$ 195,387	\$ 840,155	\$ 105,198	\$ 66,192
Capital surplus used to offset accumulated deficits	( 324,270)	-	-	-	-
Treasury stocks transferred to employees	-	-	-	-	7,304
Changes in ownership interest in subsidiaries accounted for using equity method	-	-	14,059	-	-
At December 31, 2019	<u>\$ 37,984,477</u>	<u>\$ 195,387</u>	<u>\$ 854,214</u>	<u>\$ 105,198</u>	<u>\$ 73,496</u>

	Share premium	Treasury share transactions	Changes in ownership interests in subsidiaries	Difference between consideration and carrying amount of subsidiaries acquired or disposed	Change in net equity of associates and joint ventures accounted for under equity method	Employee restricted shares
At January 1, 2018	\$ 38,430,512	\$ 47,649	\$ 834,683	\$ 105,930	\$ 524,287	\$ 27,906
Capital surplus used to offset accumulated deficits	( 121,765)	-	-	-	-	-
Net change in the equity of associates	-	-	-	-	( 458,095)	-
Treasury stocks transferred to employees	-	145,686	-	-	-	( 27,906)
Difference between consideration and carrying amount of subsidiaries acquired or disposed	-	-	-	( 732)	-	-
Changes in owner ship interestet in subsidiaries accounted for using equity method	-	-	5,472	-	-	-
Capital surplus adjustment due to dividend paid to subsidiaries	-	2,052	-	-	-	-
At December 31, 2018	<u>\$ 38,308,747</u>	<u>\$ 195,387</u>	<u>\$ 840,155</u>	<u>\$ 105,198</u>	<u>\$ 66,192</u>	<u>\$ -</u>

(22) Unappropriated retained earnings (Accumulated deficit)

	2019	2018
At January 1	\$ 479,888	\$ 1,614,226
Effect of restrospective application and retrospective restatement	-	46,946
Profit loss for the year	( 3,753,797)	( 456,146)
Proceeds from disposal of financial assets at fair value through other comprehensive income	-	( 1,071)
Remeasurement of defined benefit obligations	4,287	25,129
Appropriation of earnings	-	( 749,196)
At December 31	<u>(\$ 3,269,622)</u>	<u>\$ 479,888</u>

- A. In accordance with the Company's Articles of Incorporation, 10% of current year's earnings, after paying all taxes and dues and covering prior years' losses, shall be appropriated as legal reserve until the total equals the issued share capital. Special reserve shall be appropriated or reversed when needed. The remaining earnings along with the prior years' accumulated unappropriated earnings are considered as distributable earnings, and shall be retained and appropriated in proportion to the number of shares held by each shareholder accordingly.
- B. The Company appropriates earnings based on the factors such as current and future investment environment, capital needs, domestic and overseas competition and capital budget, along with the consideration of shareholders' interest and capital adequacy. The appropriation of cash dividends shall not be lower than 10% of the total dividend appropriated to shareholders.

- C. Except for covering accumulated deficit or issuing new stocks or cash to shareholders in proportion to their share ownership, the legal reserve shall not be used for any other purpose. The use of legal reserve for the issuance of stocks or cash to shareholders in proportion to their share ownership is permitted, provided that the distribution of the reserve is limited to the portion in excess of 25% of the Company's paid-in capital.
- D. In accordance with the regulations, the Company shall set aside special reserve from the debit balance on other equity items at the balance sheet date before distributing earnings. When debit balance on other equity items is reversed subsequently, the special reserve is reversed accordingly and could be included in the distributable earnings.
- E. The earnings appropriation as resolved by the Board of Directors on June 21, 2018 is as follows:

	Year ended December 31, 2017	
	Amount	Dividends per share (in dollars)
Legal reserve	\$ 161,423	\$ -
Reversal of special reserve	703,607	-
Cash dividends	749,196	0.688156
	<u>\$ 1,614,226</u>	

- F. The appropriations of 2018 deficit had been resolved at the shareholders' meeting on June 20, 2019 that offset the deficits by special reserve amounting to \$385,142.
- G. For the information relating to employees' compensation (bonuses) and directors' and supervisors' remuneration, please refer to Note 6(30).

(23) Other equity items

	Unrealized gain or loss on		Total
	Currency translation differences	available-for-sale financial assets	
At January 1, 2019	(\$ 818,175)	(\$ 499,815)	(\$ 1,317,990)
Revaluation - gross	388,784	-	388,784
Revaluation - tax	( 70,757)	-	( 70,757)
Disposal of investments accounted for using equity method	-	3,332	3,332
Currency translation			
-Group	- (	354,694)	( 354,694)
-Tax on Group	-	70,939	70,939
-Associates	- (	6,374)	( 6,374)
-Tax on associates	-	1,275	1,275
At December 31, 2019	<u>(\$ 500,148)</u>	<u>(\$ 785,337)</u>	<u>(\$ 1,285,485)</u>



	Currency translation differences	Unrealized gain or loss on available-for-sale financial assets	Total
At January 1, 2018	(\$ 268,293)	(\$ 415,950)	(\$ 684,243)
Effect of retrospective application and retrospective restatement	( 52,055)	3,595	( 48,460)
Revaluation - gross	( 616,461)	-	( 616,461)
Revaluation - tax	117,563	-	117,563
Revaluation transferred to retained earnings - gross	1,071	-	1,071
Disposal of investments accounted for using equity method	-	5,439	5,439
Currency translation			
–Group	- (	208,330)	( 208,330)
–Tax on Group	-	63,311	63,311
–Associates	-	65,150	65,150
–Tax on associates	- (	13,030)	( 13,030)
At December 31, 2018	(\$ 818,175)	(\$ 499,815)	(\$ 1,317,990)

(24) Operating revenue

	Year ended December 31, 2019	Year ended December 31, 2018
Revenue from contracts with customers:		
Sales revenue	\$ 15,294,741	\$ 19,449,635
Services revenue	605,073	831,243
Other operating revenue	60,017	25,534
	<u>\$ 15,959,831</u>	<u>\$ 20,306,412</u>

Disaggregation of revenue from contracts with customer

The Group derives revenue from the transfer of goods and services over time and at a point in time in the following major product lines and geographical regions:

2019	Epi	Chip	Other	Total
Sales revenue	\$ 14,323,051	\$ 170,297	\$ 801,393	\$ 15,294,741
Services revenue	-	-	605,073	605,073
Other operating revenue	-	-	60,017	60,017
2018	Epi	Chip	Other	Total
Sales revenue	\$ 18,746,372	\$ 209,844	\$ 493,419	\$ 19,449,635
Services revenue	-	-	831,243	831,243
Other operating revenue	-	-	25,534	25,534

(25) Other income and expenses– net

	Year ended December 31, 2019	Year ended December 31, 2018
Other income		
Royalty and technical income	\$ 21,044	\$ 39,286
Government grants revenue	236,485	181,663
Total	<u>\$ 257,529</u>	<u>\$ 220,949</u>

(26) Other income

	<u>Year ended</u> <u>December 31, 2019</u>	<u>Year ended</u> <u>December 31, 2018</u>
Interest income:		
Interest income from bank deposits	\$ 45,637	\$ 45,350
Net currency exchange (losses) gains	( 9,940)	71,633
Other interest income	8,279	5,300
Total interest income	<u>43,976</u>	<u>122,283</u>
Rental revenue	115,538	75,795
Dividend income	29,330	13,940
Miscellaneous income	91,932	78,360
Total	<u>\$ 280,776</u>	<u>\$ 290,378</u>

(27) Other gains and losses

	<u>Year ended</u> <u>December 31, 2019</u>	<u>Year ended</u> <u>December 31, 2018</u>
Losses on disposal of property, plant and equipment	(\$ 1,031)	(\$ 113,219)
Gains (losses) on disposal of intangible assets	5,698	( 141)
(Losses) gains on disposal of investments	( 36,955)	310,915
Loss on disposal of non-current assets held for sale	( 1,294)	-
Net currency exchange (losses) gains	( 117,275)	41,456
Net gains on financial assets at fair value through profit or loss	319,276	12,382
Recognised in loss, non-current assets held for sale	( 1,881)	( 158,299)
Impairment loss on non-financial assets	( 207,922)	( 501,475)
Bargain purchase gains	160,110	-
Miscellaneous losses	( 273,343)	( 129,669)
Total	<u>(\$ 154,617)</u>	<u>(\$ 538,050)</u>

(28) Finance costs

	<u>Year ended</u> <u>December 31, 2019</u>	<u>Year ended</u> <u>December 31, 2018</u>
Interest expense:		
Bank borrowings	\$ 129,486	\$ 158,171
Net currency exchange losses (gains)	545	( 9,739)
Other interest expense	30,240	28,001
	<u>160,271</u>	<u>176,433</u>
Less: capitalisation of qualifying assets	-	( 755)
	<u>\$ 160,271</u>	<u>\$ 175,678</u>

(29) Expenses by nature

	Year ended December 31, 2019	Year ended December 31, 2018
Employee benefit expenses	\$ 4,303,870	\$ 4,516,886
Depreciation charges on property, plant and equipment (Note)	\$ 4,856,814	\$ 4,758,265
Amortisation charges on intangible assets	\$ 260,469	\$ 267,542

Note: Depreciation amounting to \$152,875 and \$75,051 were recognized as a deduction of rental revenue for the years ended December 31, 2019 and 2018, respectively.

(30) Employee benefit expenses

	Year ended December 31, 2019	Year ended December 31, 2018
Wages and salaries	\$ 3,614,649	\$ 3,812,243
Labor and health insurance expenses	285,889	288,578
Pension costs	183,643	188,506
Other personnel expenses	219,689	227,559
	\$ 4,303,870	\$ 4,516,886

A. According to the Articles of Incorporation of the Company, the Company shall distribute employees' compensation and directors' remuneration based on 10%~20% and 2% of the distributable profit of the current year, respectively. If the Company has accumulated deficit, earnings should be reserved to cover losses.

The abovementioned distributable profit of the current year refers to the current year's income before tax (excluding put option, call option, conversion right and reacquisition of corporate bonds on overseas convertible bond that are recorded in other gains and losses) less the profit prior to the appropriation of employees' compensation and directors' remuneration.

B. The aforementioned amounts were recognised in salary expenses. For the years ended December 31, 2019 and 2018, the Company incurred loss and thus did not accrue employees' compensation and directors' and supervisors' remuneration. Information about employees' compensation and directors' and supervisors' remuneration of the Company as resolved by the Board of Directors will be posted in the "Market Observation Post System" at the website of the Taiwan Stock Exchange.

(31) Income tax

A. Income tax expense (benefit)

(a) Components of income tax expense:

	Year ended December 31, 2019	Year ended December 31, 2018
Current tax:		
Current tax on profits for the year	\$ 38,203	\$ 59,998
Prior year income tax underestimation	( 40,189)	18,853
Total current tax	( 1,986)	78,851
Deferred tax:		
Origination and reversal of temporary differences	185,404	( 165,016)
Effect from changes in tax regulation	-	( 275,112)
Total deferred tax	185,404	( 440,128)
Income tax expense (benefit)	\$ 183,418	(\$ 361,277)

(b) The income tax (charge)/credit relating to components of other comprehensive income is as follows:

	Year ended December 31, 2019	Year ended December 31, 2018
Fair value unrealized gains/losses on available-for-sale financial assets	\$ 70,756	(\$ 117,563)
Currency translation differences	( 70,939)	( 50,281)
Share of other comprehensive income of associates	( 1,274)	-
Remeasurement of defined benefit obligations	1,074	6,365
Total	(\$ 383)	(\$ 161,479)

B. Reconciliation between income tax (benefit) expense and accounting profit:

	Year ended December 31, 2019	Year ended December 31, 2018
Tax calculated based on profit (losses) before tax and statutory tax rate	(\$ 750,820)	(\$ 141,122)
Effects from expenses disallowed and tax exempted income by tax regulation	15,198	18,707
Change in assessment of realisation of deferred tax assets	185,404	( 165,016)
Taxable loss not recognised as deferred tax assets	672,090	182,413
Investment tax not recognised as deferred tax assets	101,735	-
Prior year income tax (over) underestimation	( 40,189)	18,853
Effect from changes in tax regulation	-	( 275,112)
Income tax expense (benefit)	\$ 183,418	(\$ 361,277)

C. Amounts of deferred tax assets or liabilities as a result of temporary differences, tax losses and investment tax credit are as follows:

	2019			
	January 1	Recognized in profit or loss	Recognized in other comprehensive income	December 31
Deferred tax assets:				
– Temporary differences:				
Unrealized loss on inventory	\$ 29,555	\$ 64,471	\$ -	\$ 94,026
Unrealized exchange loss	-	21,435	-	21,435
Unrealized sales returns and discounts	38,338	( 21,432)	-	16,906
Bad debt expense	4,036	( 2,993)	-	1,043
Investment loss under equity method	561,842	233,344	-	795,186
Impairment loss for non-financial assets	43,101	-	-	43,101
Loss on valuation of financial assets	254,828	-	( 137,908)	116,920
Impairment loss for financial assets	47	-	-	47
Deferred revenue	65,565	( 6,291)	-	59,274
Currency translation differences	628,485	-	221,819	850,304
Unrealized pension	27,034	( 1,832)	( 1,074)	24,128
Others	183,689	( 56,170)	-	127,519
Tax losses	1,954,622	( 177,892)	-	1,776,730
Investment tax credit	119,990	( 101,735)	-	18,255
Subtotal	<u>\$ 3,911,132</u>	<u>(\$ 49,095)</u>	<u>\$ 82,837</u>	<u>\$ 3,944,874</u>
– Deferred tax liabilities:				
Unrealized				
exchange gain	(\$ 47)	\$ 47	\$ -	\$ -
Unrealized gross profit	( 17,157)	14,047	-	( 3,110)
Bargain purchase gain	( 22,670)	15,295	-	( 7,375)
Investment gain under equity method	( 532,707)	( 31,356)	-	( 564,063)
Gain on valuation of financial assets	( 119,297)	-	60,515	( 58,782)
Currency translation differences	( 477,196)	-	( 127,960)	( 605,156)
Others	( 233,827)	( 134,342)	-	( 368,169)
Subtotal	<u>( 1,402,901)</u>	<u>( 136,309)</u>	<u>( 67,445)</u>	<u>( 1,606,655)</u>
Total	<u>\$ 2,508,231</u>	<u>(\$ 185,404)</u>	<u>\$ 15,392</u>	<u>\$ 2,338,219</u>

	2018			
	January 1	Recognized in profit or loss	Recognized in other comprehensive income	December 31
Deferred tax assets:				
— Temporary differences:				
Unrealized inventory loss	\$ 25,156	\$ 4,399	\$ -	\$ 29,555
Unrealized exchange loss	277	( 277)	-	-
Unrealized sales returns and discounts	9,794	28,544	-	38,338
Bad debt expense	11,158	( 7,122)	-	4,036
Unrealized loss from sales	4,949	( 4,949)	-	-
Investment loss under equity method	513,745	48,097	-	561,842
Impairment loss for non-financial assets	103,733	( 60,632)	-	43,101
Loss on valuation of financial assets	112,585	-	142,243	254,828
Impairment loss for financial assets	3,484	( 3,437)	-	47
Deferred revenue	76,642	( 11,077)	-	65,565
Currency translation differences	515,708	-	112,777	628,485
Unrealized pension	20,206	463	6,365	27,034
Others	9,169	174,520	-	183,689
Tax losses	1,494,734	459,888	-	1,954,622
Investment tax credit	119,990	-	-	119,990
Subtotal	<u>3,021,330</u>	<u>628,417</u>	<u>261,385</u>	<u>3,911,132</u>
— Deferred tax liabilities:				
Unrealized				
exchange gain	-	( 47)	-	( 47)
Unrealized gross profit	-	( 17,157)	-	( 17,157)
Bargain purchase gain	( 36,272)	13,602	-	( 22,670)
Investment gain under equity method	( 516,341)	( 16,366)	-	( 532,707)
Gain on valuation of financial assets	( 104,743)	-	( 14,554)	( 119,297)
Currency translation differences	( 393,055)	-	( 84,141)	( 477,196)
Others	( 47,386)	( 186,441)	-	( 233,827)
Subtotal	<u>( 1,097,797)</u>	<u>( 206,409)</u>	<u>( 98,695)</u>	<u>( 1,402,901)</u>
Total	<u>\$ 1,923,533</u>	<u>\$ 422,008</u>	<u>\$ 162,690</u>	<u>\$ 2,508,231</u>

D. Details of the amount the Group is entitled as investment tax credit and unrecognized deferred tax assets are as follows:

Unutilized tax losses from Company is as follows :

December 31, 2019			
Qualifying items	Unused tax credits	Unrecognised deferred tax assets	Expiry year
Investment credit for stockholder	\$ 499,950	\$ 499,950	2020
Investment credit for stockholder	100,000	8,725	2021
Investment tax credits for industrial innovation	967,447	967,447	2020

December 31, 2018			
Qualifying items	Unused tax credits	Unrecognised deferred tax assets	Expiry year
Investment credit for stockholder	\$ 499,950	\$ -	2020
Investment credit for stockholder	100,000	-	2021
Investment tax credits for industrial innovation	793,193	793,193	2019
Investment tax credits for industrial innovation	967,447	967,447	2020

Unutilized tax losses from the subsidiary is as follows:

December 31, 2019			
Qualifying items	Unused tax credits	Unrecognised deferred tax assets	Expiry year
Investment tax credits for industrial innovation	\$ 25,608	\$ 25,608	2020

E. Expiration dates of unused tax losses and amounts of unrecognized deferred tax assets are as follows:

Unutilized tax losses from the Company is as follow :

December 31, 2019				
Year incurred	Amount filed / assessed	Unused amount	Unrecognised deferred tax assets	Expiry year
2014	Assessed	\$ 3,948,345	\$ 3,948,345	2024
2015	Assessed	1,048,267	4,990	2025
2016	Assessed	3,408,870	-	2026
2018	Filed	852,051	-	2028
2019	Filed	3,375,698	-	2029

December 31, 2018				
Year incurred	Amount filed / assessed	Unused amount	Unrecognised deferred tax assets	Expiry year
2014	Assessed	\$ 3,948,345	\$ -	2024
2015	Assessed	1,048,266	-	2025
2016	Assessed	3,408,870	-	2026
2018	Field	852,051	-	2028

Unutilized tax losses from the subsidiary is as follows:

December 31, 2019

Year incurred	Amount filed /		Unrecognised deferred		Expiry year
	assessed	Unused amount	tax assets		
2011	Assessed	\$ 2,095	\$ 2,095		2021
2012	Assessed	46,635	46,635		2022
2013	Assessed	8,487	8,487		2023
2014	Assessed	19,810	19,810		2024
2015	Filed	447,720	447,720		2020
2015	Assessed	9,427	9,427		2025
2016	Filed	590,727	590,727		2026
2016	Assessed	146,835	146,835		2021
2017	Assessed	155,463	155,463		2027
2017	Assessed	41,066	41,066		2027
2018	Filed	60,356	60,356		2028

December 31, 2018

Year incurred	Amount filed /		Unrecognised deferred		Expiry year
	assessed	Unused amount	tax assets		
2011	Assessed	\$ 1,166	\$ 1,166		2021
2012	Assessed	46,635	46,635		2022
2013	Filed	369,062	369,062		2023
2014	Filed	460,286	460,286		2019
2014	Assessed	19,810	19,810		2024
2015	Filed	470,249	465,088		2020
2015	Assessed	9,427	9,427		2025
2016	Filed	613,643	613,643		2021
2016	Assessed	146,835	146,835		2026
2017	Filed	155,454	155,454		2027

- F. The amounts of deductible temporary difference that are not recognized as deferred tax assets are as follows: None.
- G. The Company's products qualify for "Regulations for Encouraging Manufacturing Enterprises and Technical Service Enterprises in the Newly Emerging, Important and Strategic Industries" and the Company is entitled to the income tax exemption for five consecutive years. The duration has been set to start from January 1, 2017.
- H. The Company's income tax returns through 2017 have been assessed and approved by the Tax Authority.
- I. Under the amendments to the Income Tax Act which was promulgated by the President of the Republic of China on February 7, 2018, the Company's applicable income tax rate was raised from 17% to 20% effective from January 1, 2018. The Company has assessed the impact of the change in income tax rate.



(32) Losses per share

	Year ended December 31, 2019		
	Amount after tax	Weighted average number of outstanding ordinary shares (share in thousands)	Losses per share (in dollars)
<u>Basic losses per share</u>			
Losses attributable to the parent	(\$ 3,753,797)	1,078,425	(\$ 3.48)

	Year ended December 31, 2018		
	Amount after tax	Weighted average number of outstanding ordinary shares (share in thousands)	Losses per share (in dollars)
<u>Basic losses per share</u>			
Losses attributable to the parent	(\$ 456,146)	1,084,686	(\$ 0.42)

(33) Business combinations

- A. On April 11, 2019, the Group acquired 52.6% of the share capital of Prolight Opto Technology Company for \$104,600 thousand dollars and obtained the control over Prolight Opto Technology Company. As a result of the acquisition, the Group is expected to increase its presence in these markets. It also expects to reduce costs through economies of scale.
- B. The following table summarises the consideration paid for Prolight Opto Technology Company and the fair values of the assets acquired and liabilities assumed at the acquisition date, as well as the fair value of the non-controlling interest at the acquisition date:

	April 11, 2019
Purchase consideration	
Cash paid	\$ 104,600
Fair value of equity interest in Prolight Opto Technology Company held before the business combination	307,809
Fair value of the non-controlling interest	515,919
	<u>928,328</u>
Fair value of the identifiable assets acquired and liabilities assumed	
Cash	265,017
Notes receivable	25,829
Accounts receivable	170,038
Other receivables	8,043
Inventories	76,874
Other current assets	23,099
Property, plant and equipment	743,178
Intangible assets	484
Other non-current asset	74,560
Notes payable	( 2,374)
Accounts payable	( 98,616)

	<u>April 11, 2019</u>
Other payables	( 56,818)
Other current liabilities	( 18,328)
Long-term borrowings	( 121,563)
Other non-current liabilities	( 985)
Total identifiable net assets	<u>1,088,438</u>
Bargain purchase gains	<u>(\$ 160,110)</u>

C. Non-controlling interests are measured at the present ownership instruments' proportionate share in the recognised amounts of the acquiree's identifiable assets.

D. The Group recognised loss of \$66,847 as a result of measuring at fair value its 40.2% equity interest in Prolight Opto Technology Company held before the business combination.

E. The business combination had a gain from bargain purchase amounting to \$160,110 because the carrying amounts of acquiree's property and plant were lower than their fair values.

F. The operating revenue included in the consolidated statement of comprehensive income since April 11, 2019 contributed by Prolight Opto Technology Company was \$419,377. Prolight Opto Technology Company also contributed profit before income tax of \$25,422 over the same period. Had Prolight Opto Technology Company been consolidated from January 1, 2019, the consolidated statement of comprehensive income would show operating revenue of \$16,090,141 and profit before income tax of \$3,768,793.

(34) Supplemental cash flow information

A. Investing activities with partial cash payments

	<u>Year ended December 31, 2019</u>	<u>Year ended December 31, 2018</u>
Purchase of property, plant and equipment	\$ 2,489,724	\$ 3,606,868
Add: Opening balance of payable on equipment	1,153,185	848,963
Add: Ending balance of prepayment for equipment	144,179	214,939
Less: Ending balance of payable on equipment	( 545,544)	( 1,153,185)
Less: Opening balance of prepayment for equipment	( 214,939)	( 349,388)
Less: Payable on equipment transferred to other income	( 44,133)	-
Cash paid during the year	<u>\$ 2,982,472</u>	<u>\$ 3,168,197</u>

Intangible assets:

	<u>Year ended December 31, 2019</u>	<u>Year ended December 31, 2018</u>
Purchase of intangible assets	\$ 73,225	\$ 96,142
Add: Opening balance of payables	142,218	177,597
Less: Ending balance of payables	( 94,525)	( 142,218)
Cash paid during the year	<u>\$ 120,918</u>	<u>\$ 131,521</u>

B. Partial cash investing activities

	Year ended December 31, 2019	Year ended December 31, 2018
Sale of property, plant and equipment	\$ 191,537	\$ 74,395
Add: Opening balance of receivables	2,704	4,581
Less: Ending balance of receivables	(2,000)	(2,704)
Cash collected during the period	<u>\$ 192,241</u>	<u>\$ 76,272</u>

C. Cash received from disposal of ownership interests in subsidiaries

	Year ended December 31, 2019	Year ended December 31, 2018
Disposal proceeds	\$ -	\$ 212,757
Add: Opening balance of receivables	17,093	77,400
Less: Ending balance of receivables	(17,093)	(17,093)
Net cash provided by disposal of subsidiaries	<u>\$ -</u>	<u>\$ 273,064</u>

D. Financing activities with partial cash

	Year ended December 31, 2019	Year ended December 31, 2018
Treasury shares reissued to employees	\$ -	\$ 391,400
Less: Shown as 'Other receivables'	-	(104,503)
Cash collected in the year	<u>\$ -</u>	<u>\$ 286,897</u>

(35) Changes in liabilities from financing activities

	Short-term borrowing	Long-term borrowing	Short-term notes and bills payable	Lease liabilities	Guarantee deposits received	Liabilities from financing activities gross
At January 1, 2019	\$ 1,874,876	\$ 575,114	\$ 357,717	\$ 1,441,297	\$ 70,444	\$ 4,319,448
Acquired from business combinations	-	121,563	-	-	-	121,563
Changes in cash flow from financing activities	( 133,587)	431,881	2,035	( 141,969)	( 5,790)	152,570
Effect of interest	-	-	-	27,992	-	27,992
Additions	-	-	-	46,136	-	46,136
Effect of exchange rate changes in borrowings	1,105	-	-	-	-	1,105
Effect of exchange rate	( 58,611)	-	( 13,434)	( 2,007)	( 2,284)	( 76,336)
At December 31, 2019	<u>\$ 1,683,783</u>	<u>\$ 1,128,558</u>	<u>\$ 346,318</u>	<u>\$ 1,371,449</u>	<u>\$ 62,370</u>	<u>\$ 4,592,478</u>

	Short-term borrowing	Long-term borrowing	Short-term notes and bills payable	Guarantee deposits received	Liabilities from financing activities gross
At January 1, 2018	\$ 700,000	\$ 3,098,136	\$ 376,791	\$ 49,501	\$ 3,798,136
Changes in cash flow from financing activities	1,203,014	( 2,533,038)	( 11,614)	22,251	( 1,330,024)
Effect of exchange rate changes in borrowings	( 1,105)	634	-	-	( 471)
Effect of exchange rate	( 27,033)	( 812)	( 7,460)	( 1,308)	( 27,845)
Amortisation of borrowings cost	-	10,194	-	-	10,194
At December 31, 2018	<u>\$ 1,874,876</u>	<u>\$ 575,114</u>	<u>\$ 357,717</u>	<u>\$ 70,444</u>	<u>\$ 2,449,990</u>

## 7. RELATED PARTY TRANSACTIONS

### (1) Names of related parties and relationship

Names of related parties	Relationship with the Group
Everlight Electronics Co., Ltd. and its subsidiaries	Other related parties (Note 6)
Seoul Semiconductor Co., Ltd.	Other related parties
Seoul Viosys Co., Ltd.	Other related parties
Country Lighting(BVI) Co., Ltd.	Associates
ES -LEDRU LLC.	Associates
LEDOLUX Sp. Zo. O.	Associates
LEDAZ Co., Ltd.	Associates
Interlight Optotech (HK) CO., Limited	Associates
Nan Ya Photonics Incorporation	Associates
Tekcore Co., Ltd.	Associates
TE Opto Corporation	Associates
Very Optoelectronics (HUI ZHOU) Co., Ltd	Associates (Note 1)
PlayNitride Inc.	Associates (Note 2)
Tops Electrical Technology Co., Ltd.	Associates (Note 3)
KAISTAR Lighting (Xiamen) Co., Ltd.	Associates (Note 4)
ProLight Opto Technology Corporation	Note 5
Note 1: It is no longer the Company's other related party beginning on March 14, 2018.	
Note 2: It is no longer the Company's other related party beginning on March 6, 2018.	
Note 3: It is no longer the Company's other related party beginning on March 29, 2018.	
Note 4: It is no longer the Company's other related party beginning on April 26, 2018.	
Note 5: It is no longer the Company's other related party beginning on April 11, 2019.	
Note 6: It is no longer the Company's other related party beginning on June 20, 2019.	

### (2) Significant related party transactions and balances

#### A. Operating revenue:

	Year ended December 31, 2019	Year ended December 31, 2018
Other related parties		
Everlight Electronics Co., Ltd and its subsidiaries	\$ 633,080	\$ 1,716,675
Others	79,143	251,975
Subtotal	712,223	1,968,650
Associates	438,292	1,233,180
Total	\$ 1,150,515	\$ 3,201,830

The sales price and collection terms to related parties are generally comparable to those of third parties which is 150 days after month-end closing. Additionally, the sales price offered to certain related parties is not comparable to third parties since there is no such transaction with third parties. All other sales prices to related parties are the same as those to third parties.

B. Purchases:

	Year ended December 31, 2019	Year ended December 31, 2018
Associates		
KAISTAR Lighting (Xiamen) Co.,Ltd	\$ -	\$ 209,703
Others	16,847	80,353
	<u>\$ 16,847</u>	<u>\$ 290,056</u>

Due to the product variety, the purchase price from the above related parties was not comparable to other suppliers while other products have no difference with market price.

C. Receivables from related parties:

	December 31, 2019	December 31, 2018
Accounts receivable:		
Other related parties		
Everlight Electronics Co., Ltd. and its subsidiaries	\$ -	\$ 924,489
Others	788	44,515
Subtotal	<u>788</u>	<u>969,004</u>
Associates		
Others	171,397	312,002
Subtotal	<u>171,397</u>	<u>312,002</u>
Total	<u>\$ 172,185</u>	<u>\$ 1,281,006</u>

The receivables from related parties arise mainly from sale transactions. The receivables are unsecured in nature and bear no interest.

D. Other receivables from related parties:

	December 31, 2019	December 31, 2018
Associates	<u>\$ 204</u>	<u>\$ 305</u>

The other receivables from related parties arise mainly from sales of machinery and equipment and patent licensing transactions.

E. Payables from related parties:

	December 31, 2019	December 31, 2018
Accounts payable:		
Associates	<u>\$ 151,677</u>	<u>\$ 285,825</u>

The payables to related parties arise mainly from purchase transactions. The payables bear no interest.

F. Property transactions:

(a) Purchase of machinery and equipment

	Year ended December 31, 2019	Year ended December 31, 2018
Other related parties	\$ 111	\$ -
Associates	22,093	390
	<u>\$ 22,204</u>	<u>\$ 390</u>

(b) Disposal of property, plant and equipment

	Year ended December 31, 2019		Year ended December 31, 2018	
	Sales price	Gain of disposal	Sales price	Gain of disposal
Associates	\$ 132	\$ 132	\$ 1,836	(\$ 98)

(3) Key management compensation

	Year ended December 31, 2019		Year ended December 31, 2018	
Salaries and other short-term employee benefits	\$	136,356	\$	127,237
Share-based payment		2,561		1,991
Termination benefits		32		-
Total	\$	138,949	\$	129,228

8. PLEGDED ASSETS

The Group's assets pledged as collateral are as follows: (The time deposits described below are recognized as other current assets - non-cash equivalents)

Pledgrd assets	Book value		Purpose
	December 31, 2019	December 31, 2018	
Bank deposits (shown in "Other assets- other")	\$ 150,912	\$ 280,663	Payables for bankers' acceptance
Bank deposits (Shown in "Other assets- other")	105,149	145,446	Lease deposit, customer deposit, Collateral deposits for provisional seizure
Notes receivable	404,867	44,720	
Buildings and structures	782,092	577,376	Long-term borrowings
Machinery and equipment and office equipment	82,129	-	Long-term borrowings
	\$ 1,525,149	\$ 1,048,205	

9. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED CONTRACT COMMITMENTS

A. Capital expenditure contracted for at the balance sheet date but not yet incurred is as follows:

	December 31, 2019	December 31, 2018
Contracted but not provided		
Property, plant and equipment	\$ 779,777	\$ 1,501,681

B. Operating lease commitments

Effective 2018

The Group's operating lease contracts for land, factories, dorms and automobiles are irrevocable and most of them can be renewed at market price at the end of the lease term.

The future aggregate minimum lease payments under non-cancellable operating leases are as follows:

	December 31, 2018
Not later than one year	\$ 94,706
Later than one year but not later than five years	263,156
Later than five years	473,164
Total	\$ 831,026

C. On October 12, 2012, the Trustees of Boston University filed a lawsuit against the Company, alleging

patent infringement. In November 2015, the verdict of a Massachusetts federal jury for the first instance stated that the Company shall pay compensation of US\$9.3 million. However, the Company won the verdict from the United States Court of Appeals for the Federal Circuit that stated in the second instance that the alleging patent infringement is invalid on July 25, 2018.

10. SIGNIFICANT DISASTER LOSS

None.

11. SIGNIFICANT EVENTS AFTER THE BALANCE SHEET DATE

None.

12. OTHERS

(1) Capital risk management

The Group's capital management policy is established taking into account the industry characteristics, the Group's future development and changes in external environments. The Group plans the working capital, capital expenditures, investments and dividends required for the future based on the capital management policy, makes financial analysis, and examines its capital structure periodically and makes appropriate adjustments to ensure that every company within the Group may grow and operate indefinitely.

(2) Financial instruments

A Financial instruments by category

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Financial assets		
Financial assets at fair value through profit or loss		
Financial assets mandatorily measured at fair value through profit or loss	\$ 1,342,977	\$ 726,406
Financial assets at fair value through other comprehensive income	3,640,610	3,265,125
Designation of equity instrument		
Financial assets at amortised cost		
Cash and cash equivalents	5,252,823	5,532,509
Notes receivable	2,313,351	1,495,653
Accounts receivable	6,705,598	7,583,934
Accounts receivable due from related parties	172,185	1,281,006
Other receivables	145,596	249,964
Other receivables due from related parties	204	305
Guarantee deposits paid	11,993	98,675
Other financial assets	282,763	428,380
	<u>\$ 19,868,100</u>	<u>\$ 20,661,957</u>

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Financial liabilities		
Financial liabilities at amortised cost		
Short-term borrowings	\$ 1,683,783	\$ 1,874,876
Short-term notes payable	346,318	357,717
Notes payable	394,586	129,942
Accounts payable	1,534,323	2,301,209
Accounts payable to related parties	151,677	285,825
Other payables	2,503,852	3,820,103
Lease liabilities (including current portion)	1,371,449	-
Long-term borrowings (including current portion)	1,128,558	575,114
Long-term accounts payable	47,365	95,059
Guarantee deposits received	62,370	70,444
	<u>\$ 9,224,281</u>	<u>\$ 9,510,289</u>

B. Financial risk management policies

- (a) The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, interest rate risk and price risk), credit risk and liquidity risk. The purpose of risk management is to minimise potential adverse effects arising from uncertainty on the Group's financial performance.
- (b) Risk management is carried out by treasury and finance departments of the Company under policies approved by the Board of Directors. Treasury and finance departments of the Company identifies, evaluates and hedges financial risks in close co-operation with the Group's operating units. The Board provides written principles for overall risk management, as well as written policies covering specific areas and matters, such as foreign exchange risk, interest rate risk, credit risk, use of derivative financial instruments and non-derivative financial instruments, and investment of excess liquidity.

C. Significant financial risks and degrees of financial risks

(a) Market risk

Foreign exchange risk

- i. The Group operates internationally and is exposed to exchange rate risk arising from the transactions of the Company and its subsidiaries used in various functional currency, primarily with respect to the USD, JPY and RMB. Exchange rate risk arises from future commercial transactions and recognised assets and liabilities.
- ii. Management has set up a policy to require the Group to manage their foreign exchange risk against their functional currency. The companies are required to hedge their entire foreign exchange risk exposure with the Company treasury.
- iii. The Group's businesses involve some non-functional currency operations (the functional currency of the Company and certain subsidiaries is NTD while that of other subsidiaries are USD and RMB). The information on assets and liabilities denominated in foreign currencies whose values would be materially affected by the exchange rate fluctuations is as follows:



December 31, 2019			
(Foreign currency: functional currency)	Foreign currency amount (in Thousands)	Exchange rate	Book value (in Thousands of NTD)
<u>Financial assets</u>			
<u>Monetary items</u>			
USD:NTD	\$ 157,972	29.980	\$ 4,735,998
RMB:NTD	526,647	4.3050	2,267,213
<u>Non-monetary items</u>			
USD:NTD	103,103	29.980	3,091,017
<u>Financial liabilities</u>			
<u>Monetary items</u>			
USD:NTD	46,807	29.980	1,403,273
RMB:NTD	238,302	4.3050	1,025,891
December 31, 2018			
(Foreign currency: functional currency)	Foreign currency amount (in Thousands)	Exchange rate	Book value (in Thousands of NTD)
<u>Financial assets</u>			
<u>Monetary items</u>			
USD:NTD	\$ 181,169	30.715	\$ 5,564,607
RMB:NTD	527,598	4.4720	2,359,418
<u>Non-monetary items</u>			
USD:NTD	103,103	30.715	3,166,821
<u>Financial liabilities</u>			
<u>Monetary items</u>			
USD:NTD	82,933	30.715	2,547,277
RMB:NTD	156,520	4.472	699,960

iv. Please refer to the following table for the details of unrealized exchange gain (loss) arising from significant foreign exchange variation on the monetary items held by the Group.

Year ended December 31, 2019			
Unrealized exchange gain (loss)			
(Foreign currency: functional currency)	Foreign currency		Book value
	amount (in Thousands)	Exchange rate	(in Thousands of NTD)
<u>Financial assets</u>			
<u>Monetary items</u>			
USD:NTD	\$ -	29.980	\$ 114,512)
RMB:NTD	-	4.3050	( 52,515)
<u>Financial liabilities</u>			
<u>Monetary items</u>			
USD:NTD	-	29.980	30,328
RMB:NTD	-	4.3050	12,842
Year ended December 31, 2018			
Unrealized exchange gain (loss)			
(Foreign currency: functional currency)	Foreign currency		Book value
	amount (in Thousands)	Exchange rate	(in Thousands of NTD)
<u>Financial assets</u>			
<u>Monetary items</u>			
USD:NTD	\$ -	30.715	\$ 4,294
RMB:NTD	-	4.4720	( 12,068)
<u>Financial liabilities</u>			
<u>Monetary items</u>			
USD:NTD	-	30.715	7,718
RMB:NTD	-	4.4720	1,507

v. Analysis of foreign currency market risk arising from significant foreign exchange variation:

Year ended December 31, 2019				
Sensitivity analysis				
	Extent of variation		Effect on profit or loss	Effect on equity
(Foreign currency: functional currency)				
<u>Financial assets</u>				
<u>Monetary items</u>				
USD:NTD	1%	\$	47,360	\$ -
RMB:NTD	1%		22,672	-
<u>Non-monetary items</u>				
USD:NTD	1%		-	30,910
<u>Financial liabilities</u>				
<u>Monetary items</u>				
USD:NTD	1%		14,033	-
RMB:NTD	1%		10,259	-
Year ended December 31, 2018				
Sensitivity analysis				
	Extent of variation		Effect on profit or loss	Effect on equity
(Foreign currency: functional currency)				
<u>Financial assets</u>				
<u>Monetary items</u>				
USD:NTD	1%	\$	55,646	\$ -
RMB:NTD	1%		23,594	-
<u>Non-monetary items</u>				
USD:NTD	1%		-	31,668
<u>Financial liabilities</u>				
<u>Monetary items</u>				
USD:NTD	1%		25,473	-
RMB:NTD	1%		7,000	-

Price risk

- i. The Group's equity securities, which are exposed to price risk, are the held financial assets at fair value through profit or loss, financial assets at fair value through other comprehensive income. To manage its price risk arising from investments in equity securities, the Group diversifies its portfolio. Diversification of the portfolio is done in accordance with the limits set by the Group.
- ii. The Group's investments in equity securities comprise shares and open-end funds issued by the domestic companies. The prices of equity securities would change due to the change of the future value of investee companies. If the prices of these equity securities had increased/decreased by 10% with all other variables held constant, post-tax profit for the years ended December 31, 2019 and 2018 would have increased/decreased by \$134,298 and \$72,641, respectively, as a result of gains/losses on equity securities classified as at fair value through profit or loss. Other components of equity would have increased/decreased by \$364,061 and \$326,513, respectively, as a result of other

comprehensive income classified as equity investment at fair value through other comprehensive income.

Interest rate risk

- i. The Group's interest rate risk arises from bank deposits and long-term borrowings. Borrowings issued at variable rates expose the Group to cash flow interest rate risk which is partially offset by cash and cash equivalents held at variable rates. Borrowings issued at fixed rates expose the Group to fair value interest rate risk. The Group's borrowings at variable rate were denominated in the USD, RMB and NTD.
- ii. Based on the simulations performed on sensitivity analysis for interest rate risk, the maximum impact on post-tax profit of a 0.1% shift would be increased/decreased of \$1,798 and \$111 for the years ended December 31, 2019 and 2018, respectively. The simulation is done on a quarterly basis to ensure that the potential maximum loss is within the limit set by the management.

(b) Credit risk

- i. Credit risk refers to the risk of financial loss to the Group arising from default by the clients or counterparties of financial instruments on the contract obligations. The main factor is that counterparties could not repay in full the accounts receivable based on the agreed terms, and the contract cash flows of debt instruments stated at amortised cost, at fair value through profit or loss and at fair value through other comprehensive income.
- ii. The Group adopts the assumptions under IFRS 9, the default occurs when the contract payments are past due over 90 days.
- iii. The Group adopts following assumptions under IFRS 9 to assess whether there has been a significant increase in credit risk on that instrument since initial recognition: If the contract payments were past due over 30 days based on the terms, there has been a significant increase in credit risk on that instrument since initial recognition.
- iv. The following indicators are used to determine whether the credit impairment of debt instruments has occurred:
  - (i) It becomes probable that the issuer will enter bankruptcy or other financial reorganization due to their financial difficulties;
  - (ii) The disappearance of an active market for that financial asset because of financial difficulties;
  - (iii) Default or delinquency in interest or principal repayments;
  - (iv) Adverse changes in national or regional economic conditions that are expected to cause a default.
- v. The Group classifies customers' accounts receivable, contract assets and rents receivable in accordance with credit rating of customer. The Group applies the simplified approach using provision matrix, loss rate methodology to estimate expected credit loss under the provision matrix basis.
- vi. The Group wrote-off the financial assets, which cannot be reasonably expected to be recovered, after initiating recourse procedures. However, the Group will continue executing the recourse procedures to secure their rights. As of December 31, 2019 and 2018, the Group's written-off financial assets that are still under recourse procedures amounted to \$16,735 and \$16,753, respectively.
- vii. The Group used the forecast ability of Taiwan Institute of Economic Research boom observation report to adjust historical and timely information to assess the default possibility of accounts receivable and other receivables. As of December 31, 2019 and 2018, the provision matrix, loss rate methodology is as follows:

	Not past due	Up to 30 days past due	31~90 days past due	91~180 days past due	Over 180 days past due	Total
<u>December 31, 2019</u>						
Expected loss rate	0.01%~1%	0.01%~5%	0.01%~56%	0.01%~100%	0.01%~100%	
Total book value	\$ 8,495,010	\$ 452,363	\$ 271,080	\$ 38,248	\$ 114,031	\$ 9,370,732
Loss allowance	\$ 993	\$ 153	\$ 229	\$ 290	\$ 32,132	\$ 33,797
		Up to 30 days past due	31~90 days past due	91~180 days past due	Over 180 days past due	Total
<u>December 31, 2018</u>						
Expected loss rate	0.02%~1%	0.01%~3%	0.01%~56%	0.01%~100%	0.01%~100%	
Total book value	\$ 9,230,578	\$ 556,189	\$ 671,379	\$ 164,827	\$ 46,797	\$ 10,669,770
Loss allowance	\$ 1,779	\$ 968	\$ 6,637	\$ 13,959	\$ 35,565	\$ 58,908
		Individual provision	Group provision	Total		
<u>December 31, 2019</u>						
Expected loss rate		100%	0.01%~100%			
Total book value		\$ 23,353	\$ 9,347,379	\$ 9,370,732		
Loss allowance		\$ 23,353	\$ 10,444	\$ 33,797		
		Individual provision	Group provision	Total		
<u>December 31, 2018</u>						
Expected loss rate		100%	0.01%~100%			
Total book value		\$ 34,041	\$ 10,635,729	\$ 10,669,770		
Loss allowance		\$ 34,041	\$ 24,867	\$ 58,908		

vii. Movements in relation to the Company applying the simplified approach to provide loss allowance for accounts receivable, and other receivables are as follows:

	Year ended December 31, 2019	
	Accounts receivable	Other receivables
At January 1	\$ 42,838	\$ 16,070
Acquired from business	5,155	-
Provision for impairment	40,396	10,553
Reversal of impairment	( 65,347)	( 3,498)
Write-offs	( 12,018)	-
Effect of exchange rate changes	( 352)	-
At December 31	\$ 10,672	\$ 23,125
	Year ended December 31, 2018	
	Accounts receivable	Other receivables
At January 1_IAS 39	\$ 113,138	\$ 20,270
Adjustments for retrospective application of IFRS9	12,993	-
At January 1_IFRS 9	126,131	20,270
Provision for impairment	25,718	79
Reversal of impairment	( 15,904)	( 4,200)
Write-offs	( 92,944)	( 79)
Effect of exchange rate changes	( 163)	-
At December 31	\$ 42,838	\$ 16,070

(c) Liquidity risk

i. Cash flow forecasting is performed in the operating entities of the Group and aggregated

by Group treasury. Group treasury monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining sufficient headroom on its undrawn committed borrowing facilities at all times so that the Group does not breach borrowing limits or covenants on any of its borrowing facilities. Such forecasting takes into consideration the Group's debt financing plans, covenant compliance, compliance with internal balance sheet ratio targets and external regulatory or legal requirements.

- ii. Surplus cash are invested in interest bearing current accounts, time deposits, money market deposits and marketable securities, with appropriate maturities or sufficient liquidity to provide sufficient headroom and meet the above-mentioned forecasts. As of December 31, 2019 and 2018, the Group held money market position of \$6,595,800 and \$6,258,915, respectively, and those are expected to readily generate cash inflows for managing liquidity risk.
- iii. The table below shows analysis of the Group's non-derivative financial liabilities and net-settled or gross-settled derivative financial liabilities into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date for non-derivative financial liabilities and to the expected maturity date for derivative financial liabilities. The amounts disclosed in the table are the contractual undiscounted cash flows.

Non-derivative financial liabilities:

December 31, 2019	Less than 1 year	Between 1 and 5 years	Between 5 and 7 years	Over 7 years
Short-term borrowings	\$ 1,683,783	\$ -	\$ -	\$ -
Short-term notes and bills payable	346,318	-	-	-
Notes payable	394,586	-	-	-
Accounts payable to related parties	1,686,000	-	-	-
Other payables	2,503,852	-	-	-
Lease liabilities	98,710	296,695	120,571	1,212,735
Long-term borrowings (including current portion)	118,528	1,040,966	-	-
Long-term accounts payable (including current portion)	-	47,365	-	-
Other financial liabilities	61,837	-	533	-

Non-derivative financial liabilities:

December 31, 2018	Less than 1 year	Between 1 and 5 years	Between 5 and 7 years	Over 7 years
Short-term borrowings	\$ 1,847,876	\$ -	\$ -	\$ -
Short-term notes and bills payable	357,717	-	-	-
Notes payable	129,942	-	-	-
Accounts payable	2,587,043	-	-	-
Other payables	3,820,103	-	-	-
Long-term borrowings (including current portion)	171,144	414,535	-	-
Long-term accounts payable (including current portion)	-	95,059	-	-
Other financial liabilities	69,149	762	-	533

- iv. The Group does not expect the timing of the estimated cash outflows through the maturity date analysis will be significantly earlier, nor expect the actual cash flow amount will be significantly different.

(3) Fair value information

A. The different levels that the inputs to valuation techniques are used to measure fair value of financial and non-financial instruments have been defined as follows:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date. A market is regarded as active where a market in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis. The fair value of the Group's investment in listed stocks and beneficiary certificates is included in Level 1.

Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. The fair value of the Group's investment in convertible bonds and most derivative instruments is included in Level 2.

Level 3: Unobservable inputs for the asset or liability. The fair value of the Group's investment in equity investment without active market is included in Level 3.

B. Financial instruments not measured at fair value

(a) Except for those listed in the table below, the carrying amounts of cash and cash equivalents, notes receivable, accounts receivable, other receivables, refundable deposits, other financial assets, short-term borrowings, short-term notes and bills payable, notes payable, accounts payable, other payables, long-term accounts payable and guarantee deposits received are approximate to their fair values.

	December 31, 2019			
	<u>Book value</u>	<u>Fair value</u>		
		<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Financial liabilities:				
Long-term borrowings				
(including current portion)	\$ 1,128,558	\$ -	\$ 1,143,502	\$ -
		December 31, 2018		
	<u>Fair value</u>			
	<u>Book value</u>	<u>Fair value</u>		
		<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Financial liabilities:				
Long-term borrowings				
(including current portion)	\$ 575,114	\$ -	\$ 577,226	\$ -

(b) The methods and assumptions of fair value estimate are as follows:

Long-term borrowings: They are measured at present value, which is calculated based on the cash flow expected to be paid and discounted using a market rate prevailing at balance sheet date.

C. The related information of financial and non-financial instruments measured at fair value by level on the basis of the nature, characteristics and risks of the assets and liabilities at December 31, 2019 and 2018 is as follows:

(a) The related information of natures of the assets and liabilities is as follows:

December 31, 2019	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Assets				
<u>Recurring fair value measurements</u>				
Financial assets at fair value through profit or loss				
Equity securities	\$ 1,142,619	\$ 66	\$ 157,762	\$ 1,300,447
Beneficiary certificates	42,530	-	-	42,530
Available-for-sale financial assets				
Equity securities	326,818	5,686	3,308,106	3,640,610
Total	\$ 1,511,967	\$ 5,752	\$ 3,465,868	\$ 4,983,587

December 31, 2018	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Assets				
<u>Recurring fair value measurements</u>				
Financial assets at fair value through profit or loss				
Equity securities	\$ 352,103	\$ 7,689	\$ -	\$ 359,792
Beneficiary certificates	366,614	-	-	366,614
Available-for-sale financial assets				
Equity securities	<u>335,631</u>	<u>9,502</u>	<u>2,919,992</u>	<u>3,265,125</u>
Total	<u>\$ 1,054,348</u>	<u>\$ 17,191</u>	<u>\$ 2,919,992</u>	<u>\$ 3,991,531</u>

- (b) The methods and assumptions the Group used to measure fair value are as follows:
- i. The instruments the Group used market quoted prices as their fair values (that is, Level 1) are listed below by characteristics:

	<u>Listed shares</u>	<u>Closed-end fund</u>	<u>Open-end fund</u>
Market quoted price	Closing price	Closing price	Net asset value

- ii. Except for financial instruments with active markets, the fair value of other financial instruments is measured by using valuation techniques or by reference to counterparty quotes. The fair value of financial instruments measured by using valuation techniques can be referred to current fair value of instruments with similar terms and characteristics in substance, discounted cash flow method or other valuation methods, including calculated by applying model using market information available at the consolidated balance sheet date.
- iii. When assessing non-standard and low-complexity financial instruments, for example, debt instruments without active market and foreign exchange swap contracts, the Group adopts valuation technique that is widely used by market participants. The inputs used in the valuation method to measure these financial instruments are normally observable in the market.
- iv. For high-complexity financial instruments, the fair value is measured by using self-developed valuation model based on the valuation method and technique widely used within the same industry. The valuation model is normally applied to derivative financial instruments, debt instruments with embedded derivatives or securitised instruments. Certain inputs used in the valuation model are not observable at market, and the Group must make reasonable estimates based on its assumptions. The effect of unobservable inputs to the valuation of financial instruments is provided in Note 12(3)A.
- v. The output of valuation model is an estimated value and the valuation technique may not be able to capture all relevant factors of the Group's financial and non-financial instruments. Therefore, the estimated value derived using valuation model is adjusted accordingly with additional inputs, for example, model risk or liquidity risk and etc. In accordance with the Group's management policies and relevant control procedures relating to the valuation models used for fair value measurement, management believes adjustment to valuation is necessary in order to reasonably represent the fair value of financial and non-financial instruments at the consolidated balance sheet. The inputs and pricing information used during valuation are carefully assessed and adjusted based on current market conditions.



- (c) The following chart is the movement of Level 3 for the years ended December 31, 2019 and 2018:

	<u>Equity securities</u>
At January 1, 2019	\$ 2,919,992
Gain recognised in profit or loss	136,389
Loss recognised in other comprehensive income	334,027
Disposals in the year	( 23,903)
Additions	<u>99,363</u>
At December 31, 2019	<u>\$ 3,465,868</u>
	<u>Equity securities</u>
At January 1, 2018	\$ 1,602,311
Gain recognised in profit or loss	( 232)
Loss recognised in other comprehensive income	( 617,120)
Disposals in the year	( 12,923)
Additions	46,616
Transfers into level 3	<u>1,901,340</u>
At December 31, 2018	<u>\$ 2,919,992</u>

- D. The Company lost significant influence over PlayNitride Inc. and KAISTAR Lighting (Xiamen) Co., Ltd. as their shares owned by the Company were less than 20% as at March 6, 2018 and April 26, 2018, respectively. Therefore, the Company reclassified them into financial assets at fair value through other comprehensive income in accordance with IFRSs. Additionally, the Company transferred the fair values into Level 3 as there is insufficient observable market information.
- E. Because the stocks of Lustrous Technology, Ltd. is no longer publicly traded since March 1, 2017, and there is insufficient observable market information, the Company has transferred the fair value from Level 2 into Level 3.
- F. Treasury department is in charge of valuation procedures for fair value measurements being categorised within Level 3, which is to verify independent fair value of financial instruments. Such assessment is to ensure the valuation results are reasonable by applying independent information to make results close to current market conditions, confirming the resource of information is independent, reliable and in line with other resources and represented as the exercisable price, and frequently calibrating valuation model, performing back-testing, updating inputs used to the valuation model and making any other necessary adjustments to the fair value.

G. The following is the qualitative information of significant unobservable inputs and sensitivity analysis of changes in significant unobservable inputs to valuation model used in Level 3 fair value measurement:

	Fair value at December 31, 2019	Valuation technique	Significant unobservable input	Range (weighted average)	Relationship of inputs to fair value
Non-derivative equity instrument:					
Unlisted shares	\$ 2,459,259	Market comparable companies	Price to book ratio multiple	0.79~2.96	The higher the multiple, the higher the fair value.
			Discount for lack of marketability	20%~30%	The higher the discount for lack of marketability, the lower the fair value.
Unlisted shares	791,211	Market comparable companies	Price to earnings ratio multiple	16.83~17.50	The higher the multiple, the higher the fair value.
			Discount for lack of marketability	20%	The higher the discount for lack of marketability, the lower the fair value.
Unlisted shares	215,398	Market comparable companies	Enterprise value to operating income ratio multiple	2.57	The higher the multiple value, the higher the fair value.
			Discount for lack of marketability	20%	The higher the discount for lack of marketability, the lower the fair value.
	Fair value at December 31, 2018	Valuation technique	Significant unobservable input	Range (weighted average)	Relationship of inputs to fair value
Non-derivative equity instrument:					
Unlisted shares	\$ 2,402,469	Market comparable companies	Price to book ratio multiple	0.45~2.71	The higher the multiple, the higher the fair value.
			Discount for lack of marketability	20%~30%	The higher the discount for lack of marketability, the lower the fair value.
Unlisted shares	465,131	Market comparable companies	Price to earnings ratio multiple	19.30~19.39	The higher the multiple, the higher the fair value.
			Discount for lack of marketability	20%	The higher the discount for lack of marketability, the lower the fair value.
Unlisted shares	52,392	Market comparable companies	Enterprise value to operating income ratio multiple	26.11	The higher the multiple value, the higher the fair value.
			Discount for lack of marketability	20%	The higher the discount for lack of marketability, the lower the fair value.

H. The Group has carefully assessed the valuation models and assumptions used to measure fair value. However, use of different valuation models or assumptions may result in different measurement. The following is the effect of profit or loss or of other comprehensive income from financial assets and liabilities categorised within Level 3 if the inputs used to valuation models have changed:

				December 31, 2019			
				Recognised in profit or loss		Recognised in other comprehensive income	
		Input	Change	Favourable change	Unfavourable change	Favourable change	Unfavourable change
Financial assets							
Equity instrument	Multiple	±1%		\$ 1,578	(\$ 1,578)	\$ 33,081	(\$ 33,081)
				December 31, 2018			
		Input	Change	Favourable change	Unfavourable change	Favourable change	Unfavourable change
Financial assets							
Equity instrument	Multiple	±1%		\$ -	\$ -	\$ 29,200	(\$ 29,200)

### 13. SUPPLEMENTARY DISCLOSURES

#### (1) Significant transactions information

- A. Loans to others: Please refer to table 1.
- B. Provision of endorsements and guarantees to others: Please refer to table 2.
- C. Holding of marketable securities at the end of the period (not including subsidiaries, associates and joint ventures): Please refer to table 3.
- D. Acquisition or sale of the same security with the accumulated cost exceeding \$300 million or 20% of the Company's paid-in capital: Please refer to table 4.
- E. Acquisition of real estate reaching NT\$300 million or 20% of paid-in capital or more: None.
- F. Disposal of real estate reaching NT\$300 million or 20% of paid-in capital or more: None.
- G. Purchases or sales of goods from or to related parties reaching NT\$100 million or 20% of paid-in capital or more: Please refer to table 5.
- H. Receivables from related parties reaching NT\$100 million or 20% of paid-in capital or more: Please refer to table 6.
- I. Trading in derivative instruments undertaken during the reporting periods: None.
- J. Significant inter-company transactions during the reporting periods: Please refer to table 7.

#### (2) Information on investees

Names, locations and other information of investee companies (not including investees in Mainland China) : Please refer to table 8.

#### (3) Information on investments in Mainland China

- A. Basic information: Please refer to table 9.
- B. Significant transactions, either directly or indirectly through a third area, with investee companies in the Mainland Area: Please refer to table 10.

#### 14. SEGMENT INFORMATION

##### (1) General information:

The Group operates business only in a single industry, primarily engaged in developing, manufacturing and sale of AlInGaP, aluminum gallium arsenide and indium gallium nitride and other epi-wafer chip and die. The Chief Operating Decision-Maker who allocates resources and assesses performance of the Group as a whole, has identified that the Group has only one reportable operating segment.

##### (2) Information about segment profit or loss, assets and liabilities:

The segment information provided to the Chief Operating Decision-Maker for the reportable segments and reconciliations is as follows:

	Year ended December 31, 2019	Year ended December 31, 2018
Revenues from external customers	\$ 15,959,831	\$ 20,306,412
Segment income (loss)	( 3,937,520)	( 505,864)
Segment income (loss) including :		
Interest income	43,975	122,283
Interest expense	( 160,271)	( 175,678)
Depreciation and amortisation	( 5,117,282)	( 5,025,807)
Investment (loss) profit under equity method	( 21,383)	24,146
Income tax (expense) benefit	( 183,418)	361,277
Segment assets	58,730,610	62,738,642

Impacts on the segment information in 2019 as a result of the adoption of IFRS 16, 'Leases' are provided in Note 6(8).

##### (3) Information on products and services

Information is provided in Note 6(24).

##### (4) Geographical information

Geographical information for the years ended December 31, 2019 and 2018 is as follows:

	Year ended December 31, 2019		Year ended December 31, 2018	
	Revenue	Non-current assets	Revenue	Non-current assets
Taiwan	\$ 2,757,518	\$ 23,938,021	\$ 3,643,086	\$ 23,755,024
China	8,988,468	5,821,971	10,923,088	6,557,203
HK	556,523	356,632	958,101	570,364
Korea	973,558	-	1,507,791	-
Malaysia	1,207,758	-	1,570,836	-
Others	1,476,006	25,553	1,703,510	24,217
Total	<u>\$ 15,959,831</u>	<u>\$ 30,142,177</u>	<u>\$ 20,306,412</u>	<u>\$ 30,906,808</u>

##### (5) Major customer information

Major customer information of the Group for the years ended December 31, 2019 and 2018 is as follows:

	Year ended December 31, 2019	Year ended December 31, 2018
	Revenue	Revenue
Customer A	\$ 1,234,985	\$ 1,716,675
Customer B	\$ 1,164,134	\$ 2,063,267

EPISTAR CORPORATION AND SUBSIDIARIES

Loans to others  
Year ended December 31, 2019

Expressed in thousands of NTD  
(Except as otherwise indicated)

Table 1

No.	Creditor	Borrower	General ledger account	Is a related party	Maximum outstanding balance during December 31, 2019	Balance at December 31, 2019	Actual amount drawn down	Interest rate	Nature of loan	Amount of transactions with the borrower	Reason for short-term financing	Allowance for doubtful accounts	Item	Value	Limit on loans granted to a single party	Ceiling on total loans granted	Footnote
0	Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd	Other receivables-related	Y	\$ 879,000	\$ 430,500	\$ 86,100	4.20%	Short-term financing	-	Working capital	\$ -	None	\$ -	4,521,919	\$ 13,565,757	Note 1
0	Epistar Corporation	Episky Corporation (Xiamen) Ltd.	Other receivables-related parties	Y	1,824,000	861,000	-	5.53%	Short-term financing	-	Working capital	-	None	-	4,521,919	13,565,757	Note 1
0	Epistar Corporation	Yen-Rich Technology Corporation.	Other receivables-related parties	Y	300,000	300,000	-	1.25%	Short-term financing	-	Working capital	-	None	-	4,521,919	13,565,757	Note 1
1	Episky Corporation (Xiamen) Ltd.	Jiangsu Canyang Optoelectronics Ltd	Other receivables-related	Y	460,300	-	-	5.00%	Short-term financing	-	Working capital	-	None	-	858,656	1,073,320	Note 2
2	Epicrystal (Changzhou) Co., Ltd.	Jiangsu Canyang Optoelectronics Ltd	Other receivables-related	Y	368,240	344,400	172,200	4.35%	Short-term financing	-	Working capital	-	None	-	875,898	1,313,847	Note 3
3	Yen-Rich Opto (Hong Kong) Limited	Ecoled Venture Co., Limited	Other receivables-related	Y	15,800	-	-	3.02%	Short-term financing	-	Working capital	-	None	-	115,553	115,553	Note 4
3	Yen-Rich Opto (Hong Kong) Limited	Lighting Investment Corporation.	Other receivables-related parties	Y	101,120	95,936	95,936	3.50%	Short-term financing	-	Working capital	-	None	-	115,553	115,553	Note 4

Note 1: In accordance with Epistar Corporation's Procedures for Provision of Loans: the limit on loans granted to a single party is 10% of its net equity, and the ceiling on total loans granted is 30% of its net equity.

Note 2: In accordance with Episky Corporation (Xiamen) Ltd.'s Procedures for Provision of Loans: the limit on loans granted to a single party is 40% of its net equity, and the ceiling on total loans granted is 50% of its net equity.

Note 3: In accordance with Epicrystal (Changzhou) Co., Ltd.'s Procedures for Provision of Loans: the limit on loans granted to a single party is 20% of its net equity, and the ceiling on total loans granted is 30% of its net equity.

Note 4: In accordance with Yen-Rich Opto (Hong Kong) Limited's Procedures for Provision of Loans: the limit on loans granted to a single party is 40% of its net equity, and the ceiling on total loans granted is 40% of its net equity.

EPISTAR CORPORATION AND SUBSIDIARIES  
Provision of endorsements and guarantees to others  
Year ended December 31, 2019

Table 2

Expressed in thousands of NTD  
(Except as otherwise indicated)

Number (Note 1)	Endorser/ guarantor	Company name	Relationship with the endorser/ guarantor (Note 2)	Limit on endorsements/ guarantees provided for a single party	Maximum outstanding endorsement/ guarantee amount as of December 31, 2019	Outstanding endorsement/ guarantee amount at December 31, 2019	Actual amount drawn down	Amount of endorsements/ guarantees secured with collateral	Ratio of accumulated endorsement/ guarantee amount to net asset value of the endorser/ guarantor company	Ceiling on total amount of endorsements/ guarantees/ provided (Note 3)	Provision of endorsements/ guarantees by parent company to subsidiary	Provision of endorsements/ guarantees by subsidiary to parent company	Provision of endorsements/ guarantees to the party in Mainland China	Footnote
0	Epistar Corporation	Episky Corp.(Xiamen) Ltd.	3	\$ 4,521,919	\$ 4,551,550	\$ 2,518,320	\$ 953,164	\$ -	5.57	\$ 9,043,838	Y	N	Y	
0	Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd	3	4,521,919	663,600	389,740	206,640	-	0.86	9,043,838	Y	N	Y	
0	Epistar Corporation	Unikom Semiconductor Corporation	3	4,521,919	706,950	699,900	175,658	-	1.55	9,043,838	Y	N	N	
0	Epistar Corporation	Yen-Rich Technology Corporation.	3	4,521,919	158,000	149,900	-	-	0.33	9,043,838	Y	N	N	

Note 1: The numbers filled in for the endorsements/guarantees provided by the Company or subsidiaries are as follows:

(1) The Company is '0'.

(2) The subsidiaries are numbered in order starting from '1'.

Note 2: Relationship between the endorser/guarantor and the party being endorsed/guaranteed is classified into the following six categories; fill in the number of category each case belongs to:

(1) Having business relationship.

(2) The endorser/guarantor parent company owns directly more than 50% voting shares of the endorsed/guaranteed subsidiary.

(3) The endorser/guarantor parent company and its subsidiaries jointly own more than 50% voting shares of the endorsed/guaranteed company.

(4) The endorsed/guaranteed parent company directly or indirectly owns more than 50% voting shares of the endorser/guarantor subsidiary.

(5) Mutual guarantee of the trade as required by the construction contract.

Note 3: In accordance with the Company's Procedures for Provision of Loans: the ceiling on total endorsements/guarantees is 20% of the Company's net assets, and the limit on endorsements/guarantees to a single party is 10% of its net assets.

EPISTAR CORPORATION AND SUBSIDIARIES  
Holding of marketable securities at the end of the period (not including subsidiaries, associates and joint ventures)

December 31, 2019

As of December 31, 2019

Securities held by	Marketable securities	Relationship with the securities issuer	General ledger account	As of December 31, 2019				Footnote
				Number of shares	Book value	Ownership (%)	Fair value	
Epistar Corporation	E&E Japan Co.Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	140	\$ 2,143	17.07	\$ 2,143	
Epistar Corporation	NATEC CORPORATION (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	120,000	1,748	7.50	1,748	
Epistar Corporation	Esleds Co.,Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	1,000	148	10.00	148	
Epistar Corporation	Lynk Labs,Inc. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	92,523	4,587	7.45	4,587	
Epistar Corporation	Advanced Photoelectronic Technology Limited (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	1,339,235	270,562	12.24	270,562	
Epistar Corporation	Chi Lin Optoelectronics Co., Ltd. (Stock)	None	Non-current financial assets at fair value through profit or loss	9,561,340	157,762	12.57	157,762	
Epistar Corporation	Dominant Opto Technologies Sdn. Bhd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	11,000,000	791,211	10.00	791,211	
Epistar Corporation	POWERLIGHTEC CO., LTD (Stock)	None	Non-current financial assets at fair value through profit or loss	141,730	-	17.53	-	
Epistar Corporation	Crystalwise Technology Inc. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	6,340,628	60,109	3.06	60,109	

Table 3

Expressed in thousands of NTD  
(Except as otherwise indicated)

As of December 31, 2019

Securities held by	Marketable securities	Relationship with the securities issuer	General ledger account	As of December 31, 2019			Footnote
				Number of shares	Book value	Ownership (%)	
Epistar Corporation	XENIO CORPORATION (stock)	None	Non-current financial assets at fair value through profit or loss	7,878	\$ -	0.06	\$ -
Epistar Corporation	Edison Opto Corp. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	9,424,000	124,868	7.54	\$ 124,868
Epistar Corporation	Pheeda Technology Co., Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	600,000	-	2.11	-
Epistar Corporation	Elit Fine Ceramics Co., Ltd. (Stock)	None	Non-current financial assets at fair value through profit or loss	2,200,000	-	4.68	-
Epistar Corporation	NanoCrystal Technology Inc. (Stock)	None	Non-current financial assets at fair value through profit or loss	6,000,000	-	11.11	-
Epistar Corporation	PlayNitride Inc. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	4,568,669	210,461	12.74	210,461
Epistar Corporation	OSTENDO TECHNOLOGIES, INC. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	67,500	-	4.50	-
Epistar Corporation	Global Communication semiconductors LLC (Stock)	None	Current financial assets at fair value through profit or loss	3,627,000	249,900	3.99	249,900
Epistar JV Holding (BVI) Co., Ltd.	Everlight electronic(Fujian) Co., Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	Cash USD2,500,000	44,223	10.00	44,223
Epistar JV Holding (BVI) Co., Ltd.	KAISTAR Lighting (Xiamen) Co., Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	Cash USD48,000,000	1,428,696	17.65	1,428,696



As of December 31, 2019

Securities held by Epistar JV Holding (BYJ) Co.,Ltd.	Marketable securities		Relationship with the securities issuer		General ledger account Current financial assets at fair value through profit or loss	Number of shares 2,750,000	Book value \$ 151,039	Ownership (%) 3.03	Fair value \$ 151,039	Footnote
	Global Communication semiconductors(Beneficiary certificates)		None							
Episky Corp.(Xiamen) Ltd.	China Firstar Optoelectronic Materials Co., Ltd. (Stock)	None	None	Non-current investments in equity instruments at fair value through other comprehensive income	Cash RMB7,500,000	22,320	15.00	Unlisted company, no comparable market price available		
Episky Corp.(Xiamen) Ltd.	APT Electronics Co., Ltd.(Stock)	None	None	Non-current investments in equity instruments at fair value through other comprehensive income	4,678,240	50,317	1.14	Unlisted company, no comparable market price available		
Episky Corp.(Xiamen) Ltd.	China Crystal Technologies Co.,Ltd.(Stock)	None	None	Non-current investments in equity instruments at fair value through other comprehensive income	8,064,516	29,070	4.08	Unlisted company, no comparable market price available		
Lighting Investment Corp.	Advanced Photoelectronic Technology Limited (Stock)	None	None	Non-current investments in equity instruments at fair value through other comprehensive income	562,018	113,543	5.14	113,543		
Lighting Investment Corp.	Oree Advanced Illumination Solutions, Inc. (Stock)	None	None	Non-current financial assets at fair value through profit or loss	79,407	-	5.00	-		
Lighting Investment Corp.	Lustrous Technology, Ltd. (Stock)	None	None	Non-current financial assets at fair value through profit or loss	266,892	-	8.99	-		
Lighting Investment Corp.	TERA XTAL TECHNOLOGY CORPORATION (Stock)	None	None	Non-current financial assets at fair value through profit or loss	795,000	-	0.42	-		
Lighting Investment Corp.	FormoLight Technologies Inc. (Stock)	None	None	Non-current investments in equity instruments at fair value through other comprehensive income	2,038,230	9,728	10.00	9,728		
Lighting Investment Corp.	XENIO CORPORATION (Stock)	None	None	Non-current financial assets at fair value through profit or loss	16,462	-	0.13	-		

As of December 31, 2019

Securities held by	Marketable securities	Relationship with the securities issuer	General ledger account	Number of shares	Book value	Ownership (%)	Fair value	Footnote
Lighting Investment Corp.	Joint Power eXponent, Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	1,250,000	\$ 5,000	13.89	\$ 5,000	
Lighting Investment Corp.	Edison Opto Corp. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	10,705,000	141,841	8.56	141,841	
Lighting Investment Corp.	Rigidtech Microelectronics Cops. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	1,532,500	5,686	2.14	5,686	
Lighting Investment Corp.	Le Dimond Opto Corporation (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	1,100,000	5,643	16.92	5,643	
Lighting Investment Corp.	LEDLITEK Co., Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	50,000	62,498	6.20	62,498	
Lighting Investment Corp.	De-an Venture Capital Co., Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	2,000,000	20,127	10.77	20,127	
Lighting Investment Corp.	iReach Corporation. (Stock)	Investee company accounted for under the equity method of the Company	Non-current investments in equity instruments at fair value through other comprehensive income	150,000	759	1.67	759	
Lighting Investment Corp.	Tekcore Co., Ltd. (Stock)	Investee company accounted for under the equity method of the Company	Current financial assets at fair value through profit or loss	2,616,932	12,928	2.72	12,928	
Lighting Investment Corp.	Edison Opto Corp. (Stock)	None	Current financial assets at fair value through profit or loss	5,851,182	77,528	4.68	77,528	
Lighting Investment Corp.	Epistar Corporation (Stock)	Parent company	Current financial assets at fair value through profit or loss	2,564,755	82,970	0.24	82,970	Note

As of December 31, 2019

Securities held by	Marketable securities	Relationship with the securities issuer	General ledger account	Number of shares		Book value		Ownership (%)		Fair value	Footnote
Lighting Investment Corp.	Rigidtech Microelectronics Corp. (Stock)	None	Current financial assets at fair value through profit or loss	17,753	\$ 66	66	0.02	\$ 66			
Lighting Investment Corp.	Global Communication semiconductors LLC (Stock)	None	Current financial assets at fair value through profit or loss	2,748,000	189,337	189,337	3.03	189,337			
Lighting Investment Corp.	Taishin 1699 Money Market Fund (Beneficiary certificates)	None	Current financial assets at fair value through profit or loss	2,588,671	35,165	35,165	N/A	35,165			
Lighting Investment Ltd.	LEDLITEK Co.,LTD. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	41,500	51,873	51,873	5.15	51,873			
Lighting Investment Ltd.	Verticle Inc. (Stock)	None	Non-current financial assets at fair value through profit or loss	582,983	-	-	3.00	-			
Lighting Investment Ltd.	Achrolux Inc. (Stock)	None	Non-current financial assets at fair value through profit or loss	987,500	-	-	6.91	-			
Lighting Investment Ltd.	PlayNitride Inc. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	778,541	35,864	35,864	2.17	35,864			
Lighting Investment Ltd.	Advanced Photoelectronic Technology Limited.(Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	200,000	40,405	40,405	1.83	40,405			
Full Star Enterprises Limited	Ufeco Technology Inc. (Stock)	None	Non-current financial assets at fair value through profit or loss	Cash USD250,000	-	-	10.00	-			

As of December 31, 2019

Securities held by	Marketable securities	Relationship with the securities issuer	General ledger account	As of December 31, 2019				
				Number of shares	Book value	Ownership (%)	Fair value	Footnote
Full Star Enterprises Limited	PlayNirride Inc. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	600,000	\$ 27,640	1.67	\$ 27,640	
Full Star Enterprises Limited	Global Communication Semiconductors LLC.(Beneficiary certificates)	None	Current financial assets at fair value through profit or loss	2,100,000	115,339	2.31	115,339	
HUGA Holding (SAMOA) Ltd.	China Crystal Technologies Co.,Ltd.(Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	17,741,935	67,526	8.97	67,526	
HUGA Holding (SAMOA) Ltd.	OEPIE SEMICONDUCTORS,INC.(Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	377,358	9,139	7.90	9,139	
Yen-Rich Technology Corporation.	Global Communication seiconductors LLC(Stock)	None	Current financial assets at fair value through profit or loss	4,113,000	283,386	4.53	283,386	
Yen-Rich Opto (Hong Kong) Limited	Global Communication Semiconductors LLC.(Beneficiary certificates)	None	Current financial assets at fair value through profit or loss	1,150,000	63,162	1.27	63,162	
AllureLux Corporation	Franklin Templeton Simsom Money Market Fund(Beneficiary certificates)	None	Current financial assets at fair value through profit or loss	680,537	7,063	N/A	7,063	
AllureLux Corporation	Hua Nan Phoenix Money Market Fund(Beneficiary certificates)	None	Current financial assets at fair value through profit or loss	18,454	301	N/A	301	
ProLight Opto Technology Corporation.	ISON Corporation(Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	150,000	1,252	2.50	1,252	

Note : Shown as treasury stocks of Epistar Corporation.

EPSTAR CORPORATION AND SUBSIDIARIES

Acquisition or sale of the same security with the accumulated cost exceeding \$300 million or 20% of the Company's paid-in capital  
Year ended December 31, 2019

Table 4

Expressed in thousands of NTD  
(Except as otherwise indicated)

Investor	Marketable securities	General ledger account	Counterparty	Relationship with the counterparty	Balance as at January 1, 2019 (Note)			Addition			Disposal			Balance as at December 31, 2019 (Note)		
					Number of shares	Amount	\$	Number of shares	Amount	\$	Number of shares	Selling price	Book value	Gain (loss) on disposal	Number of shares	Amount
EPISKY Corporation (Changzhou) LTD	CR Yuanta Money Market Fund B Class(Beneficiary certificates)	Financial assets at fair value through profit or loss	-	NA	-	36,500,000	157,133	\$	36,500,000	157,685	\$	157,133	\$	552	-	\$
Epiyystal Corporation (Changzhou) Ltd.	CR Yuanta Money Market Fund B Class(Beneficiary certificates)	Financial assets at fair value through profit or loss	-	NA	-	157,800,000	679,329		157,800,000	681,905		679,329		2,576	-	
Epistar Corporation	CTBC Hwa-win Money Market Fund	Financial assets at fair value through profit or loss	-	NA	-	28,567,808	315,000		28,567,808	315,110		315,000		110	-	
Epistar Corporation	Taishin 1699 Money Market Fund	Financial assets at fair value through profit or loss	-	NA	-	30,666,839	415,000		30,666,839	415,244		415,000		244	-	
Epistar Corporation	Jin Sun Mooney Market Fund	Financial assets at fair value through profit or loss	-	NA	-	38,980,503	578,000		38,980,503	578,448		578,000		448	-	
Epistar Corporation	Prudential Financial Money Market Fund	Financial assets at fair value through profit or loss	-	NA	-	22,803,397	361,000		22,803,397	361,269		361,000		269	-	
Epistar Corporation	FSITC Taiwan Money Market Fund	Financial assets at fair value through profit or loss	-	NA	-	19,923,250	305,000		19,923,250	305,187		305,000		187	-	
Yen-Rich Technology Corporation.	Taishin 1699 Money Market Fund	Financial assets at fair value through profit or loss	-	NA	-	22,911,086	310,000		22,911,086	310,265		310,000		265	-	
Yen-Rich Technology Corporation.	FSITC Taiwan Money Market Fund	Financial assets at fair value through profit or loss	-	NA	-	23,517,813	360,000		23,517,813	360,363		360,000		363	-	
Epistar Corporation	Yen-Rich Technology Corporation.	Investments accounted for using equity method	-	Subsidiary	-	-	918,728		-	-		-		-	-	918,728

Note 1: The balance consists gain on valuation of financial assets.

EPISTAR CORPORATION AND SUBSIDIARIES

Purchases or sales of goods from or to related parties reaching NT\$100 million or 20% of paid-in capital or more  
Year ended December 31, 2019

Table 5

Expressed in thousands of NTD  
(Except as otherwise indicated)

Purchaser/seller	Counterparty	Relationship with the counterparty	Purchases (sales)	Transaction			Differences in transaction terms			Notes/accounts receivable (payable)	
				Amount (\$)	Percentage of total purchases (sales)	Credit term	Unit price	Credit term	Balance	Percentage of total notes/accounts receivable (payable)	Footnote
Epistar Corporation	Everlight Electronics Co., Ltd and its subsidiaries	Director of the Company	Sales	633,080	5	150 days after month-end closing	N/A	Normal	\$ -	-	-
Epistar Corporation	LEDAZ Co., Ltd	Investee company accounted for using equity method by the Company's subsidiary	Sales	( 179,599)	1	90 days after month-end closing	N/A	Normal	71,314	1	1
Epistar Corporation	Yen-Rich Technology Corporation.	Subsidiary of the Company	Sales	( 230,511)	2	120 days after month-end closing	N/A	Normal	86,508	1	1
Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	The Company's indirectly owned subsidiary	Sales	( 184,669)	1	180 days after next month-end closing	N/A	Normal	87,845	1	1
Epistar Corporation	Luxlite (Shenzhen) Corporation Limited	The Company's indirectly owned subsidiary	Sales	( 1,425,371)	11	180 days after next month-end closing	N/A	Normal	775,081	12	12
Epistar Corporation	Episky Corp.(Xiamen) Ltd.	The Company's indirectly owned subsidiary	Sales	( 768,584)	6	180 days after next month-end closing	N/A	Normal	335,714	5	5
Epistar Corporation	Epicrystal Corporation (Changzhou) Ltd.	The Company's indirectly owned subsidiary	Sales	( 449,614)	4	90 days after month-end closing	N/A	Normal	83,183	1	1

Transaction		Differences in transaction terms				Notes/accounts receivable (payable)					
Purchaser/seller	Counterparty	Relationship with the counterparty	Purchases (sales)	Amount	Percentage of total purchases (sales)	Credit term	Unit price	Credit term	Balance	Percentage of total notes/accounts receivable (payable)	Footnote
Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	The Company's indirectly owned subsidiary	Purchases	\$ 378,190	5	30 days after month-end closing	N/A	Normal	( \$ 38,419)	2	
Epistar Corporation	Episky Corp.(Xiamen) Ltd.	The Company's indirectly owned subsidiary	Purchases	287,519	4	60 days after next month-end closing	N/A	Normal	( 50,045)	3	
Epistar Corporation	Epicrystal Corporation (Changzhou) Ltd.	The Company's indirectly owned subsidiary	Purchases	1,230,596	17	150 days after month-end closing	N/A	Normal	( 497,916)	28	
Yen-Rich Technology Corporation.	LEDAZ Co., Ltd	Note 1	Sales	( 196,254)	33	90 days after month-end closing	N/A	Normal	78,196	36	
Yen-Rich Technology Corporation.	Epistar Corporation	Subsidiary of the Company	Purchases	230,511	38	120 days after month-end closing	N/A	Normal	( 86,508)	37	
Jiangsu Canyang Optoelectronics Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary	Sales	( 378,190)	39	30 days after month-end closing	N/A	Normal	38,419	6	
Jiangsu Canyang Optoelectronics Ltd.	Episky Corp.(Xiamen) Ltd.	Note 1	Sales	( 419,324)	43	90 days after month-end closing	N/A	Normal	146,164	22	
Jiangsu Canyang Optoelectronics Ltd.	Epicrystal Corporation (Changzhou) Ltd.	Note 1	Sales	( 228,902)	23	90 days after month-end closing	N/A	Normal	17,453	3	
Jiangsu Canyang Optoelectronics Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary	Purchases	184,669	18	180 days after month-end closing	N/A	Normal	( 87,845)	46	

Transaction		Differences in transaction terms				Notes/accounts receivable (payable)					
Purchaser/seller	Counterparty	Relationship with the counterparty	Purchases (sales)	Amount	Percentage of total purchases (sales)	Credit term	Unit price	Credit term	Balance (\$)	Percentage of total notes/accounts receivable (payable)	Footnote
Jiangsu Canyang Optoelectronics Ltd.	Epicrystal Corporation (Changzhou) Ltd.	Note 1	Purchases	201,471	20	90 days after month-end closing	N/A	Normal	76,311	40	
Luxlite (Shenzhen) Corporation Limited	Epistar Corporation	The Company's indirectly owned subsidiary	Purchases	1,425,371	44	180 days after next month-end closing	N/A	Normal	( 775,081)	47	
Luxlite (Shenzhen) Corporation Limited	Episky Corp.(Xiamen) Ltd.	Note 1	Purchases	1,806,330	56	120 days after month-end closing	N/A	Normal	( 856,519)	52	
Episky Corp.(Xiamen) Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary	Sales	( 287,519)	9	60 days after next month-end closing	N/A	Normal	50,045	2	
Episky Corp.(Xiamen) Ltd.	Luxlite (Shenzhen) Corporation Limited	Note 1	Sales	( 1,806,330)	55	120 days after month-end closing	N/A	Normal	856,519	39	
Episky Corp.(Xiamen) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	The Company's indirectly owned subsidiary	Purchases	419,324	15	90 days after month-end closing	N/A	Normal	( 146,164)	11	
Episky Corp.(Xiamen) Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary	Purchases	768,584	28	180 days after next month-end closing	N/A	Normal	( 335,714)	24	
Episky Corp.(Xiamen) Ltd.	Epicrystal Corporation (Changzhou) Ltd.	Note 1	Purchases	1,081,074	40	90 days after month-end closing	N/A	Normal	( 943,635)	68	
Epicrystal Corporation (Changzhou) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	Note 1	Sales	( 201,471)	9	90 days after month-end closing	N/A	Normal	76,311	4	



Transaction		Differences in transaction terms					Notes/accounts receivable (payable)				
Purchaser/seller	Counterparty	Relationship with the counterparty	Purchases (sales)	Amount	Percentage of total purchases (sales)	Credit term	Unit price	Credit term	Balance	Percentage of total notes/accounts receivable (payable)	Footnote
Epicrystal Corporation (Changzhou) Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary	Sales	(\$ 1,230,596)	53	150 days after month-end closing	N/A	Normal	\$ 497,916	24	
Epicrystal Corporation (Changzhou) Ltd.	Episky Corp.(Xiamen) Ltd.	Note 1	Sales	( 1,081,074)	46	90 days after month-end closing	N/A	Normal	943,635	46	
Epicrystal Corporation (Changzhou) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	Note 1	Purchases	228,902	14	90 days after month-end closing	N/A	Normal	( 17,453)	3	
Epicrystal Corporation (Changzhou) Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary	Purchases	449,614	27	90 days after month-end closing	N/A	Normal	( 83,183)	13	
ProLight Opto Technology Corporation	Shanghai Welight Electronic Co., LTD.	Note 1	Sales	( 170,826)	38	120 days after month-end closing	N/A	Normal	167,605	72	
Shanghai Welight Electronic Co., LTD.	ProLight Opto Technology Corporation	Note 1	Purchases	170,826	99	120 days after month-end closing	N/A	Normal	( 167,605)	100	

Note 1: Investee company accounted for under the equity method directly and indirectly.

EPSTAR CORPORATION AND SUBSIDIARIES

Receivables from related parties reaching NT\$100 million or 20% of paid-in capital or more  
December 31, 2019

Creditor	Counterparty	Relationship with the counterparty	Balance as at December 31, 2019			Overdue receivables			Amount collected subsequent to the balance sheet date	Allowance for doubtful debts
			Subsidiary of the Company	Accounts receivable	Other receivable	Total	Turnover rate	Amount		
			\$	\$	\$	\$			\$	
Epistar Corporation	Yen-Rich Technology Corporation.	Subsidiary of the Company		86,508	37,537	124,045	3.72	1,958	22,144	-
Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	The Company's indirectly owned subsidiary		87,845	231,137	318,982	0.56	131,255	15,635	-
Epistar Corporation	Luxlite (Shenzhen) Corporation Limited	The Company's indirectly owned subsidiary		775,081	960	776,041	2.15	14	122,207	-
Epistar Corporation	Episky Corp.(Xiamen) Ltd.	The Company's indirectly owned subsidiary		335,714	34,368	370,082	1.13	25,049	55,035	-
Epistar Corporation	Epicrystal Corporation (Changzhou) Ltd.	The Company's indirectly owned subsidiary		83,183	23,060	106,243	4.10	350	24,831	-
Epistar Corporation	Unikom Semiconductor Corporation	Subsidiary of the Company		6,116	106,577	112,693	1.08	7,351	8,821	-
Yen-Rich Technology Corporation.	LEDAZ Co., Ltd	Note 2		78,196	-	78,196	5.02	23,170	40,330	-
Episky Corp.(Xiamen) Ltd.	Luxlite (Shenzhen) Corporation Limited	Note 2		856,519	-	856,519	2.03	267,865	43,050	-
Epicrystal Corporation (Changzhou) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	Note 2		76,311	174,109	250,420	0.65	312	573	-
Epicrystal Corporation (Changzhou) Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary		497,916	606	498,522	3.84	92	108,839	-

Table 6

Expressed in thousands of NTD  
(Except as otherwise indicated)

Creditor	Counterparty	Relationship with the counterparty	Balance as at December 31, 2019			Overdue receivables			Amount collected subsequent to the balance sheet date	Allowance for doubtful debts
			Accounts receivable	Other receivable	Total	Amount	Turnover rate	Action taken		
Epistar Corporation (Changzhou) Ltd.	Episky Corp.(Xiamen) Ltd.	Note 2	\$ 943,635	\$ 1,191	\$ 944,826	619,838	1.86	-	\$ -	
ProLight Opto Technology Corporation	Shanghai Welight Electronic Co., LTD.	Note 2	167,605	-	167,605	-	2.04	-	37,159	

Note 1: The Company endeavored to purpose the overdue amount. Epistar has receive \$1,519、\$1,647、\$14 and \$244 from Yen-Rich、Jiangsu Canyon、Luxlite and Epicrystal, respectively; Yen-Rich has receive \$23,170 from LEDAZ respective; Episky(xiamen) has receive \$43,050 from Luxlite respectively; Epicrystal has receive \$312 and \$92 from Jiangsu Canyon and Epistar respectively.

Note 2: Investee company accounted for under the equity method directly and indirectly.

EPISTAR CORPORATION AND SUBSIDIARIES

Significant inter-company transactions during the reporting periods  
Year ended December 31, 2019

Expressed in thousands of NTD  
(Except as otherwise indicated)

Number (Note 1)	Company name	Counterparty	Relationship (Note 2)	General ledger account	Transaction		Percentage of consolidated total operating revenues or total assets (Note 3)
					Amount	Transaction terms	
0	Epistar Corporation	LEDAZ Co., Ltd	1	Sales	\$ 179,599	Conducted in the ordinary course of business with terms similar to those with third parties	1.13
0	Epistar Corporation	Yen-Rich Technology Corporation.	1	Sales	230,511	Conducted in the ordinary course of business with terms similar to those with third parties	1.44
0	Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	1	Sales	184,669	Conducted in the ordinary course of business with terms similar to those with third parties	1.16
0	Epistar Corporation	Luxlite (Shenzhen) Corporation Limited	1	Sales	1,425,371	Conducted in the ordinary course of business with terms similar to those with third parties	8.93
0	Epistar Corporation	Episky Corp.(Xiamen) Ltd.	1	Sales	768,584	Conducted in the ordinary course of business with terms similar to those with third parties	4.82
0	Epistar Corporation	Epi-crystal Corporation (Changzhou) Ltd.	1	Sales	449,614	Conducted in the ordinary course of business with terms similar to those with third parties	2.82
0	Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	1	Cost of goods sold	378,190	Conducted in the ordinary course of business with terms similar to those with third parties	2.37
0	Epistar Corporation	Episky Corp.(Xiamen) Ltd.	1	Cost of goods sold	287,519	Conducted in the ordinary course of business with terms similar to those with third parties	1.80

Transaction							
Number (Note 1)	Company name	Counterparty	Relationship (Note 2)	General ledger account	Amount	Transaction terms	Percentage of consolidated total operating revenues or total assets (Note 3)
0	Epistar Corporation	EpiCrystal Corporation (Changzhou) Ltd.	1	Cost of goods sold	\$ 1,230,596	Conducted in the ordinary course of business with terms similar to those with third parties	7.71
0	Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	1	Accounts receivable	87,845	Conducted in the ordinary course of business with terms similar to those with third parties	0.15
0	Epistar Corporation	Luxlite (Shenzhen) Corporation Limited	1	Accounts receivable	775,081	Conducted in the ordinary course of business with terms similar to those with third parties	1.32
0	Epistar Corporation	Episky Corp.(Xiamen) Ltd.	1	Accounts receivable	335,714	Conducted in the ordinary course of business with terms similar to those with third parties	0.57
0	Epistar Corporation	LEDAZ Co., Ltd	1	Accounts payable	148,416	Conducted in the ordinary course of business with terms similar to those with third parties	0.25
0	Epistar Corporation	EpiCrystal Corporation (Changzhou) Ltd.	1	Accounts payable	497,916	Conducted in the ordinary course of business with terms similar to those with third parties	0.85
0	Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	1	Other receivable	231,137	Based on contract terms	0.39
0	Epistar Corporation	Unikorn Semiconductor Corporation	3	Other receivable	106,577	Conducted in the ordinary course of business with terms similar to those with third parties	0.18
1	Episky Corp.(Xiamen) Ltd.	Luxlite (Shenzhen) Corporation Limited	3	Sales	1,806,330	Conducted in the ordinary course of business with terms similar to those with third parties	11.32

Transaction							
Number (Note 1)	Company name	Counterparty	Relationship (Note 2)	General ledger account	Amount \$	Transaction terms	Percentage of consolidated total operating revenues or total assets (Note 3)
1	Episky Corp.(Xiamen) Ltd.	Luxlite (Shenzhen) Corporation Limited	3	Accounts receivable	856,519	Conducted in the ordinary course of business with terms similar to those with third parties	1.46
2	Epicrystal Corporation (Changzhou) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	3	Sales	201,471	Conducted in the ordinary course of business with terms similar to those with third parties	1.26
2	Epicrystal Corporation (Changzhou) Ltd.	Episky Corp.(Xiamen) Ltd.	3	Sales	1,081,074	Conducted in the ordinary course of business with terms similar to those with third parties	6.77
2	Epicrystal Corporation (Changzhou) Ltd.	Episky Corp.(Xiamen) Ltd.	3	Accounts receivable	943,635	Conducted in the ordinary course of business with terms similar to those with third parties	1.61
2	Epicrystal Corporation (Changzhou) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	3	Other receivable	174,109	Based on contract terms	0.30
3	Yen-Rich Technology Corporation.	LEDZAZ Co., Ltd	3	Sales	196,254	Conducted in the ordinary course of business with terms similar to those with third parties	1.23
3	Yen-Rich Technology Corporation.	LEDZAZ Co., Ltd	3	Accounts receivable	78,196	Conducted in the ordinary course of business with terms similar to those with third parties	0.13
4	Jiangsu Canyang Optoelectronics Ltd.	Episky Corp.(Xiamen) Ltd.	3	Sales	419,324	Conducted in the ordinary course of business with terms similar to those with third parties	2.63
4	Jiangsu Canyang Optoelectronics Ltd.	Epicrystal Corporation (Changzhou) Ltd.	3	Sales	228,902	Conducted in the ordinary course of business with terms similar to those with third parties	1.43

Number (Note 1)	Company name	Counterparty	Relationship (Note 2)	Transaction		Percentage of consolidated total operating revenues or total assets (Note 3)
				General ledger account	Amount	
4	Jiangsu Canyang Optoelectronics Ltd.	Epicrystal Corporation (Changzhou) Ltd.	3	Accounts receivable	\$ 17,453	Conducted in the ordinary course of business with terms similar to those with third parties
4	Jiangsu Canyang Optoelectronics Ltd.	Epicrystal Corporation (Changzhou) Ltd.	3	Processing Fees	416	Conducted in the ordinary course of business with terms similar to those with third parties
5	ProLight Opto Technology Corporation	Shanghai Weilight Electomic Co., LTD.	3	Sales	170,826	Conducted in the ordinary course of business with terms similar to those with third parties
5	ProLight Opto Technology Corporation	Shanghai Weilight Electomic Co., LTD.	3	Accounts receivable	167,605	Conducted in the ordinary course of business with terms similar to those with third parties

Note 1: Parent company is '0'. The subsidiaries are numbered in order starting from '1'.

Note 2: Relationship between transaction company and counterparty is classified into the following three categories; fill in the number of category each case belongs to (If transactions between parent company and subsidiaries or between subsidiaries refer to the same transaction, it is not required to disclose twice.

For example, if the parent company has already disclosed its transaction with a subsidiary, then the subsidiary is not required to disclose the transaction; for transactions between two subsidiaries, if one of the subsidiaries has disclosed the transaction, then the other is not required to disclose the transaction.);

(1) Parent company to subsidiary.

(2) Subsidiary to parent company.

(3) Subsidiary to subsidiary.

Note 3: Regarding percentage of transaction amount to consolidated total operating revenues or total assets, it is computed based on period-end balance of transaction to consolidated total assets for balance sheet accounts and based on accumulated transaction amount for the period to consolidated total operating revenues for income statement accounts.

Note 4: Disclosure of the transactions over 100 million New Taiwan dollars only and the related party transactions for counterparty are not disclosed.

EPISTAR CORPORATION AND SUBSIDIARIES

Information on investees

Year ended December 31, 2019

Table 8

Expressed in thousands of NTD  
(Except as otherwise indicated)

Investor	Investee	Location	Main business activities	Initial investment amount		Shares held as at December 31, 2019			Net profit (loss) of the investee for the year ended December 31, 2019	Investment income (loss) recognised by the Company for the year ended December 31, 2019	Footnote
				Balance as at December 31, 2019	Balance as at December 31, 2018	Number of shares (Note)	Ownership (%)	Book value			
Epistar Corporation	iReach Corporation	Taiwan	Packaging, module design, manufacturing and sales of LED	\$ 70,000	\$ 70,000	7,000,000	100.00	\$ 48,974	\$ 11,469	\$ 11,469	
Epistar Corporation	Ecoled Venture Co., Limited	Hong Kong	Sales of LED lighting facilities	-	82,348	-	0.00	-	19,736	10,261	Note 1
Epistar Corporation	Epistar JV Holding (BVI) Co., Ltd.	British Virgin Islands	Professional investment	14,960,129	14,960,129	48,278	100.00	9,030,452	( 666,350)	( 766,532)	
Epistar Corporation	Full Star Enterprises Limited	Hong Kong	Professional investment	166,785	166,785	Cash USD8,660,000	100.00	257,907	7,599	7,599	
Epistar Corporation	GaN Ventures Co., Limited	Hong Kong	Investment holding, sales of electronic components	212,667	275,117	13,886,743	59.02	12,919	( 90,478)	( 53,400)	
Epistar Corporation	Yen-Rich Technology Corporation.	Taiwan	Manufacturing and sales of electronic components	600,000	600,000	60,000,000	100.00	1,123,339	( 28,223)	( 28,223)	
Epistar Corporation	Lighting Investment Corp.	Taiwan	Professional investment	2,161,814	2,161,814	251,478,518	100.00	2,081,416	135,696	140,662	
Epistar Corporation	Nan Ya Photonics Incorporation	Taiwan	LED light application, manufacturing and sales	840,381	840,381	18,806,694	40.80	450,672	98,067	40,012	



Investor	Investee	Location	Main business activities	Initial investment amount		Shares held as at December 31, 2019			Net profit (loss) of the investee for the year ended December 31, 2019	Investment income (loss) recognised by the Company for the year ended December 31, 2019	Footnote
				Balance as at December 31, 2019	Balance as at December 31, 2018	Number of shares (Note)	Ownership (%)	Book value			
Epistar Corporation	Tekcore Co., Ltd.	Taiwan	Manufacturing and sales of LED chips and LED lighting facilities	\$ 1,169,412	\$ 1,169,412	20,247,828	21.05	\$ 37,788	\$ 120,081	(25,279)	
Epistar Corporation	Unikom Semiconductor Corporation	Taiwan	Development, manufacturing and sales of LED chips and LED lighting facilities	1,000,000	1,000,000	100,000,000	85.91	571,113	(436,932)	(377,906)	
Epistar Corporation	ProLight Opto Technology Corporation	Taiwan	Packaging, manufacturing and sales of LED	101,500	130,375	5,800,000	8.52	88,278	(55,888)	(4,849)	
Epistar Corporation	SH Optotech Co., Ltd.	Taiwan	Sales of LED chips and LED lighting facilities	31,792	31,792	3,179,176	49.00	3,192	1,076	527	
Epistar Corporation	TE Opto Corporation	Taiwan	Sales of LED chips and LED lighting facilities	9,200	9,200	920,000	40.00	45,524	13,075	5,230	
Epistar Corporation	GaN Force Corporation	Taiwan	Design, manufacturing and sales of LED	63,800	-	1,063,000	64.31	56,283	(11,533)	(7,417)	
Crystaluxx SARL	LEDOLUX Sp.Zo.O.	Poland	Assembling and sales of LED bulbs	133,455	133,455	156,994	60.00	14,051	(798)	(479)	
Epistar JV Holding (BVI) Co.,Ltd.	Country Lighting (BVI) Co.,Ltd.	British Virgin Islands	Professional investment	89,843	89,843	3,060,000	36.43	91,723	(65)	(24)	
Epistar JV Holding (BVI) Co.,Ltd.	Crystal Light Enterprise Group Ltd.	British Virgin Islands	Professional investment	6,754	6,754	Cash USD200,000	100.00	26,093	(311)	(311)	

Investor	Investee	Location	Main business activities	Initial investment amount		Shares held as at December 31, 2019		Ownership (%)	Book value	Net profit (loss) of the investee for the year ended December 31, 2019	Investment income (loss) recognised by the Company for the year ended December 31, 2019	Footnote
				Balance as at December 31, 2019	Balance as at December 31, 2018	Number of shares (Note)						
Epistar JV Holding (BVI) Co.,Ltd.	HUGA Holding (SAMOA) Limited	SAMOA	Professional investment	\$ 334,967	\$ 331,951	12,551,035	\$ 79,880	100.00	\$ 51,872	\$ 51,872	\$ 51,872	
Epistar JV Holding (BVI) Co.,Ltd.	LineStar JV Holding (BVI) Co.,Ltd.	British Virgin Islands	Professional investment	3,408,835	3,408,835	10,882	3,341,085	82.41	( 119,528)	( 98,503)		
Epistar JV Holding (BVI) Co.,Ltd.	United LED Corporation (Hong Kong) Limited	Hong Kong	Professional investment	2,029,760	2,029,760	67,000,165	342,534	74.86	( 165,085)	( 123,583)		
Epistar JV Holding (BVI) Co.,Ltd.	Episky (Hong Kong) Ltd.	Hong Kong	Professional investment	2,124,096	2,124,096	Cash USD68,000,000	2,083,512	100.00	( 284,375)	( 284,375)		
Epistar JV Holding (BVI) Co.,Ltd.	Can Yang Investments Limited	Hong Kong	Professional investment	4,291,894	4,291,894	Cash USD141,272,700	1,415,308	80.10	( 275,527)	( 168,451)		
GaN Ventures Co., Limited	GV Semiconductor Inc.	USA	R&D and sales of electronic components	177,602	91,225	-	-	0.00	( 76,243)	( 76,243)		
GaN Force Corporation	GV Semiconductor Inc.	USA	R&D and sales of electronic components	44,466	-	Cash USD6,680,000	32,668	100.00	( 11,449)	( 11,449)		
HUGA Holding (SAMOA) Limited	Ecoled Venture Co., Limited	Hong Kong	Sales of LED lighting facilities	-	24,655	-	-	0.00	19,736	9,475	Note 1	
Lighting Investment Ltd.	GaN Ventures Co., Limited	Hong Kong	Investment holding, sales of electronic components	64	64	1,500,000	1,077	4.92	( 90,478)	( 4,452)		

Investor	Investee	Location	Main business activities	Initial investment amount		Shares held as at December 31, 2019			Footnote	
				Balance as at December 31, 2019	Balance as at December 31, 2018	Number of shares (Note)	Ownership (%)	Book value	Net profit (loss) of the investee for the year ended December 31, 2019	Investment income (loss) recognised by the Company for the year ended December 31, 2019
Lighting Investment Ltd.	LEDAZ CO., Ltd.	Korea	Engineering service of LED	\$ 48,166	\$ 48,166	88,460	28.13	\$ 34,117	\$ 46,707	\$ 27,071
Lighting Investment Ltd.	Interlight OProtech (HK) Co., Limited	Hong Kong	Packaging, manufacturing and sales of LED	12,806	12,806	429,000	30.00	12,705	( 1,232)	( 397)
Lighting Investment Ltd.	Epistar (Hong Kong) Limited	Hong Kong	Professional investment	2,556	2,556	82,850	100.00	2,080	( 32)	( 32)
Lighting Investment Ltd.	Luxlite (HK) Corporation Limited	Hong Kong	Professional investment	91,286	91,286	2,850,000	75.00	321,159	120,918	90,689
LiteStar JV Holding (BVI) Co., Ltd.	Epicrystal (Hong Kong) Co. Ltd.	Hong Kong	Professional investment	4,403,034	4,403,034	146,600,000	100.00	4,053,019	( 119,460)	( 119,460)
Lighting Investment Corp.	Crystaluxx S.A.R.L.	Luxembourg	Professional investment	131,659	131,659	33,200	100.00	12,734	( 1,844)	( 1,844)
Lighting Investment Corp.	LEDAZ CO., Ltd.	Korea	Engineering service of LED	23,993	23,993	44,065	14.01	21,228	( 46,707)	( 13,447)
Lighting Investment Corp.	Lighting Investment Ltd.	British Virgin Islands	Professional investment	152,701	152,701	45,642	100.00	592,768	52,468	52,468
Lighting Investment Corp.	Yen-Rich Opto (Hong Kong) Limited	Hong Kong	Sales of LED light components	250,731	250,731	8,010,000	100.00	295,781	7,113	7,113

Investor	Investee	Location	Main business activities	Initial investment amount		Shares held as at December 31, 2019			Book value	Net profit (loss) of the investee for the year ended December 31, 2019	Investment income (loss) recognised by the Company for the year ended December 31, 2019	Footnote
				Balance as at December 31, 2019	Balance as at December 31, 2018	Number of shares (Note)	Ownership (%)					
Lighting Investment Corp.	Nan Ya Photonics Incorporation	Taiwan	LED light application	\$ 50,561	\$ 50,561	1,135,430	2.46	\$ 35,862	\$ 98,085	\$ 2,416		
Lighting Investment Corp.	ProLight Opto Technology Corporation	Taiwan	Packaging and sales of LED chips and LED lighting facilities	318,929	214,329	27,539,234	40.46	420,117	( 55,888)	( 22,023)		
Lighting Investment Corp.	Can Yang Investments Limited	Hong Kong	Professional investment	72,436	72,436	5,218,605	6.87	121,388	( 275,527)	( 18,929)		
Lighting Investment Corp.	allureLux Corporation	Taiwan	Development and design services of LED lamps	30,000	30,000	3,000,000	100.00	7,638	( 4,423)	( 4,423)		
Yen-Rieh Technology Corporation.	ProLight Opto Technology Corporation	Taiwan	Packaging, manufacturing and sales of LED	29,372	-	2,462,000	3.62	37,537	( 51,586)	( 1,868)		
Epistar (Hong Kong) Limited	ES-LEDRU LLC.	Russia	Sales of LED products	2,474	2,474	4,036,069	49.00	2,231	-	-		
Episky Corp.(Xiamen) Ltd.	Epicrystal Corporation (Changzhou) Ltd.	China-Changzhou	Assembling and sales of LED bulbs	147,472	147,472	Cash USD5,200,000	3.31	143,666	( 127,901)	( 4,234)		
Episky Corp.(Xiamen) Ltd.	Episky Corporation (Changzhou) Ltd.	China-Changzhou	Manufacturing and sales of LED chips and LED lighting facilities	-	99,056	-	0.00	-	( 9,237)	( 9,237)	Note 1	
Episky Corp.(Xiamen) Ltd.	EPHRIICH (Guangzhou)Co.,Ltd	China-Guangzhou	Development and sales of LED products	-	40,382	-	0.00	-	( 69)	( 69)	Note 3	

Investor	Investee	Location	Main business activities	Initial investment amount		Shares held as at December 31, 2019		Ownership (%)	Book value	Net profit (loss) of the investee for the year ended December 31, 2019	Investment income (loss) recognised by the Company for the year ended December 31, 2019	Footnote
				Balance as at December 31, 2019	Balance as at December 31, 2018	Number of shares (Note)						
allureLux Corporation	AllureLux Inc.	USA	Design and sales of LED lighting	\$ -	\$ 16,795	-	0.00	\$ -	(\$ 2,977)	\$ 2,977	Note 2	
ProLight Opto Technology Corporation	ProLight Opto Holding Corporation	Seychelles	Professional investment	4,402	4,402	150,000	100.00	( 1,211)	2,364	4,443		
ProLight Opto Holding Corporation	ProLight Opto Technology Corporation	Seychelles	Professional investment	4,403	4,403	150,000	100.00	( 1,184)	2,364	4,443		

Note 1: The liquidation was completed on December, 2019 as the company will not continue its operation.

Note 2: The liquidation was completed on February, 2019 as the company will not continue its operation.

Note 3: The liquidation was completed on April, 2019 as the company will not continue its operation.

EPISTAR CORPORATION AND SUBSIDIARIES  
Information on investments in Mainland China  
Year ended December 31, 2019

Expressed in thousands of NTD  
(Except as otherwise indicated)

Table 9

Investee in Mainland China	Main business activities	Paid-in capital	Investment method (Note 1)	Amount remitted from Taiwan to			Ownership held by the Company (direct or indirect)	Investment income (loss) recognised by the Company for the year ended December 31, 2019 (Note 2)	Book value of investments in Mainland China as of December 31, 2019	Accumulated amount of investment income remitted back to Taiwan as of December 31, 2019	Footnote
				Accumulated amount of remittance from Taiwan to Mainland China as of January 1, 2019	Amount remitted back to Taiwan for the year ended December 31, 2019	Accumulated amount of remittance from Taiwan to Mainland China as of December 31, 2019					
		\$ 2,038,640	(Note 1)	\$ 2,038,640	\$ -	\$ 2,038,640	100.00	\$ 284,408	\$ 2,083,505	\$ -	2(3)
Episky Corporation (Xiamen) Ltd.	Manufacturing and sales of LED chips and LED lighting facilities		2								
		2,518,320		1,911,225	-	1,911,225	74.86	(123,882)	341,252	-	2(3)
United LED Shandong Corporation	Manufacturing and sales of LED chips and LED lighting facilities		2								
		4,706,860		3,585,608	-	3,585,608	76.95	(98,426)	3,340,092	-	2(1)
Epitcrystal Corporation (Changzhou) Ltd.	Manufacturing and sales of LED chips and LED lighting facilities		2								
		89,940		22,511	-	22,511	75.00	94,046	238,126	57,861	2(1)
Luxlite (Shenzhen) Corporation Limited	Sales of LED lighting facilities		2								

Investee in Mainland China	Main business activities	Paid-in capital	Investment method (Note 1)	Amount remitted from Taiwan to			Ownership held by the Company (direct or indirect)	Investment income (loss) recognised by the Company for the year ended December 31, 2019 (Note 2)	Book value of investments in Mainland China as of December 31, 2019	Accumulated amount of investment income remitted back to Taiwan as of December 31, 2019	Footnote
				Accumulated amount of remittance from Taiwan to Mainland China as of January 1, 2019	Amount remitted back to Taiwan for the year ended December 31, 2019	Accumulated amount of remittance from Taiwan to Mainland China as of December 31, 2019					
		\$ 8,154,525		\$ 1,530,779	\$ -	\$ 1,530,779	\$ 18.77	\$ -	\$ 1,428,696	\$ -	2(3)
KAISTAR Lighting (Xiamen) Co., Ltd.	Manufacturing and sales of LED chips and LED lighting facilities		2								7
		749,500		74,950	-	74,950	10.00	-	44,223	-	2(3)
Everlight Electronics (Fujian) Co., Ltd	Manufacturing and sales of LED backlight and related parts		2								
		1,771,488		218,751	36,898	255,649	11.81	-	-	-	2(3)
APT Electronics Co., Ltd.	Developing, manufacture and sale of LED extension and chip, module and light instrument		3								
		851,380		100,632	-	100,632	8.97	(9,582)	67,526	-	2(3)
China Crystal Technologies Co., Ltd.	Developing, manufacture and sale of gallium arsenide unit crystal and chips		2								
		\$ 74,950		\$ 7,808	\$ -	\$ 7,808	10.00	\$ -	\$ -	\$ -	2(3)
Ufeco Technology Inc.	Developing and manufacturing LED application and sales of self-product		2								

Investee in Mainland China	Main business activities	Paid-in capital	Investment method (Note 1)	Amount remitted from Taiwan to			Ownership held by the Company (direct or indirect)	Investment income (loss) recognised by the Company for the year ended December 31, 2019 (Note 2)	Book value of investments in Mainland China as of December 31, 2019	Accumulated amount of investment income remitted back to Taiwan as of December 31, 2019	Footnote
				Accumulated amount of remittance from Taiwan to Mainland China as of January 1, 2019	Amount remitted back to Taiwan for the year ended December 31, 2019	Accumulated amount of remittance from Taiwan to Mainland China as of December 31, 2019					
		430,500		219,457	-	219,457	0.00	-	-	2(3)	
	Research and development, manufacturing and sale of LED packaging; research and development, manufacturing and sale of backlight module, lighting modules and accessories		2								
Very Optoelectronics (HUIZHOU) Co., Ltd.											
		5,996		50,463	-	50,463	100.00	311	26,093	2(3)	
Ningbo Formosa Epitaxy Incorporation	Manufacturing and sales of LED chips and LED lighting facilities		2								
		5,756,160		2,387,089	-	2,387,089	86.97	239,626	1,536,695	2(3)	
Jiangsu Canyang Optoelectronics Ltd.	Manufacturing and sales of LED chips and LED lighting facilities		2								
		\$ 4,497		\$ 4,497	-	4,497	52.60	\$ 4,443	\$ 1,157	2(2)	
Shanghai Welight Electronic Co., LTD.	Wholesale and export and import of LED and related electronic products		2								



Company name	Accumulated amount of remittance from Taiwan to Mainland China as of December 31, 2019	Investment amount approved by the Investment Commission of the Ministry of Economic Affairs (MOEA)	Ceiling on investments in Mainland China imposed by the Investment Commission of MOEA
Epistar Corporation	\$ 12,241,483	\$ 13,277,209	\$ 28,317,215

Note 1: The investments are classified in three types; they are numbered as follows:

1. Direct investment in Mainland China companies;
2. Through investing in an existing company in the third area, which then invested in the investee in Mainland China.
3. Other ways.

Note 2: Investment income or loss in this period:

The bases for recognition of investment income or loss are classified into four types; they are numbered as follows:

1. The financial statements that are audited by the international accounting firm which has a cooperative relationship with the R.O.C. accounting firm;
2. The financial statements that are audited by the R.O.C. parent company's independent accountants;
3. Others: The financial statements that are not audited by the independent accountants

Note 3: The amount disclosed was based on Investment Commission, MOEA Regulation No. 09704604680 announced on August 29, 2008.

Note 4: The numbers in the table shall be expressed in NTD. Foreign currencies shall be translated into NTD at the exchange rate prevailing on the financial reporting date.

Note 5: The 'amounts' are expressed in thousands of New Taiwan dollars.

Note 6: The shares of Very Optoelectronics (HUI ZHOU) Co., Ltd. and Cosmoleo Lighting Limited were all disposed on March 14, 2018 and June 25, 2018.

Note 7: The Group lost significant influence over KAISTAR Lighting (Xiamen) Co., Ltd. as the shares of it owned by the Group were less than 20% on April 26, 2018.

Therefore, the Group reclassified them into financial assets at fair value through other comprehensive income in accordance with IFRSs.

EPISTAR CORPORATION AND SUBSIDIARIES

Significant transactions conducted with investees in Mainland China directly or indirectly through other companies in the third areas  
Year ended December 31, 2019

Expressed in thousands of NTD  
(Except as otherwise indicated)

Table 10

Investee in Mainland China	Sale (purchase)		Property transaction		Accounts receivable (payable)		Provision of endorsements/guarantees or collaterals		Financing		Interest during the year ended December 31, 2019
	Amount	%	Amount	%	Balance at December 31, 2019	%	Balance at December 31, 2019	Maximum balance during the year ended December 31, 2019	Balance at December 31, 2019	Interest rate	
Shanghai Welight Electronic Co., LTD.	\$ 170,826	1	\$ -	-	\$ 167,605	-	\$ -	\$ -	\$ -	-	\$ -
Jiangsu Canyang Optoelectronics Ltd.	184,669	1	132,258	15	87,845	-	389,740	879,000	430,500	4.2%	5,868
Jiangsu Canyang Optoelectronics Ltd.	( 378,190)	2)	( 11,851)	-	( 38,419)	-	-	-	-	-	-
Luxlite (Shenzhen) Corporation Limited	1,425,371	9	-	-	775,081	1	-	-	-	-	-
Episky Corporation (Xiamen) Ltd.	768,584	5	29,708	3	335,714	1	2,518,320	1,824,000	861,000	5.53%	-
Episky Corporation (Xiamen) Ltd.	( 287,519)	2)	-	-	( 50,045)	-	-	-	-	-	-
Epicrystal Corporation (Changzhou) Ltd	449,614	3	16,405	2	83,183	-	-	-	-	-	-
Epicrystal Corporation (Changzhou) Ltd	( 1,230,596)	8)	( 11,839)	-	( 497,916)	( 1)	-	-	-	-	-

REPORT OF INDEPENDENT ACCOUNTANTS

PWCR19000308

To the Board of Directors and Shareholders of Epistar Corporation

***Opinion***

We have audited the accompanying parent company only balance sheets of Epistar Corporation (the “Company”) as at December 31, 2019 and 2018, and the related parent company only statements of comprehensive income, of changes in equity and of cash flows for the years then ended, and notes to the parent company only financial statements, including a summary of significant accounting policies.

In our opinion, based on our audits and the reports of other independent accountants, as described in the *Other matters* section of our report, the accompanying parent company only financial statements present fairly, in all material respects, the parent company only financial position of the Company as at December 31, 2019 and 2018, and its parent company only financial performance and its parent company only cash flows for the years then ended in accordance with the “Regulations Governing the Preparation of Financial Reports by Securities Issuers”.

***Basis for opinion***

We conducted our audit of the financial statements as of and for the year ended December 31, 2019 in accordance with the “Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants”, "Rule No. Financial-Supervisory-Securities-Auditing-1090360805 issued by the Financial Supervisory Commission on February 25, 2020” and generally accepted auditing standards in the Republic of China (ROC GAAS); and in accordance with the “Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants” and ROC GAAS for our audit of the financial statements as of and for the year ended December 31, 2018.

### ***Key audit matters***

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the parent company only financial statements of the current period. These matters were addressed in the context of our audit of the parent company only financial statements as a whole and, in forming our opinion thereon, we do not provide a separate opinion on these matters.

The key audit matters in relation to the parent company only financial statements for the year ended December 31, 2019 are outlined as follows:

### ***Evaluation of Impairment Losses of Property, Plant and Equipment, and Goodwill***

#### Description

Please refer to Note 4(19) for accounting policies on impairment losses on non-financial assets, Note 5(2) for the accounting estimates and assumptions in relation to non-financial assets valuation and Note 6(10) for the explanations regarding impairment losses on non-financial assets. As of December 31, 2019, the balances of property, plant and equipment, and goodwill were NT\$13,389,354 thousand and NT\$6,324,659 thousand, respectively.

The Company evaluates the recoverable amounts of idle property, plant and equipment through assessing the fair values after deducting the disposal costs, and of property, plant and equipment, and intangible assets through value in use. The Company evaluates whether impairment losses will be provided for property, plant and equipment, and goodwill utilizing the aforementioned recoverable amounts. The evaluation of value in use for operational property, plant and equipment and intangible assets consists of the estimation of future cash flows and the determination of discount rates. Since the assumptions adopted in the estimation of future cash flows and the results of the estimation would have significant impact on value in use of operational property, plant, and equipment, and intangible assets, it was identified as one of the key audit matters.

#### How our audit addressed the matter

We have obtained the appraisal report of idle property, plant and equipment prepared by independent values from the Company and assessed the reasonableness of evaluation methods and fair values utilized. For value in use of operational property, plant and equipment, and goodwill, the following procedures were conducted:

1. Interviewed with management and obtained an understanding of the Company's operational procedures in estimating future cash flows and verified the consistency to operation plans approved by the Board of Directors.
2. Discussed operation plans with management to understand the product strategies and their respective execution status.
3. Assessed the reasonableness for assumptions utilized in estimating future cash flows, including projected sales volumes, unit prices and unit costs. Assessed the parameters adopted in determining discount rates, including calculating and comparing the weighted average cost of capital at risk-free rates, the industrial risk premium and the long-term rates of returns.

### ***Evaluation of Inventories***

#### Description

Please refer to Note 4(12) for accounting policies on inventory valuation, Note 5(2) for the accounting estimates and assumptions in relation to inventory valuation and Note 6(5) for the explanations regarding inventories. As of December 31, 2019, the balances of inventories and the allowance for valuation loss were NT\$2,589,853 thousand and NT\$522,882 thousand, respectively.

The Company is primarily engaged in manufacturing and sales of LED wafers and chips. Due to rapid technological developments, short product lifespans and frequent fluctuations of market prices, the risk of decline in market value and obsolescence for inventories is high. The Company evaluates net realized values for inventories which aged over a specific period of time and specific obsolete inventories in order to provide allowance for valuation loss. Since the identification of the above obsolete inventories and their respective net realizable values are subject to management's judgment, it was identified as one of the key audit matters.

#### How our audit addressed the matter

Our key audit procedures performed in respect of the above included the following:

1. Obtained an understanding of the Company's operations and the nature of its industry and interviewed with management to understand the probability of future sales for those out-of-date inventories and to evaluate the reasonableness of allowance for valuation loss.
2. Obtained and validated the accuracy of the detailed listings of inventories aged over a specific period of time and specific obsolete inventories. Validated information of historical sales and discounts for

those obsolete inventories to assess the reasonableness of policies in providing allowance for inventory valuation loss.

***Other matter – Audited by Other Independent Accountants***

We did not audit the 2019 and 2018 financial statements of certain subsidiaries and equity investments accounted for under the equity method. These equity investments amounted to NT\$866,906 thousand and NT\$1,329,419 thousand, representing 1.64% and 2.32% of the total assets as of December 31, 2019 and 2018, respectively, and their comprehensive loss (including share of income (loss) of associates and joint ventures accounted for under equity method and share of other comprehensive income of associates and joint ventures accounted for under equity method) amounted to NT\$131,781 thousand and NT\$67,099 thousand, representing 3.52% and 6.56% of the comprehensive loss for the years then ended. The financial statements of the aforementioned subsidiaries and investees were audited by other independent accountants whose reports thereon were furnished to us and our opinion expressed herein, insofar as it relates to the amounts included in the financial statements is based solely on the reports of the other independent accountants.

***Responsibilities of management and those charged with governance for the parent company only financial statements***

Management is responsible for the preparation and fair presentation of the parent company only financial statements in accordance with the “Regulations Governing the Preparation of Financial Reports by Securities Issuers”, and for such internal control as management determines is necessary to enable the preparation of parent company only financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the parent company only financial statements, management is responsible for assessing the Company’s ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance, including audit committee, are responsible for overseeing the Company’s financial reporting process.

## ***Independent accountant's responsibilities for the audit of the parent company only financial statements***

Our objectives are to obtain reasonable assurance about whether the parent company only financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ROC GAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these parent company only financial statements.

As part of an audit in accordance with ROC GAAS, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

1. Identify and assess the risks of material misstatement of the parent company only financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
2. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
4. Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the parent company only financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our report. However, future events or conditions may cause the Company to cease to continue as a going concern.
5. Evaluate the overall presentation, structure and content of the parent company only financial statements, including the disclosures, and whether the parent company only financial statements

represent the underlying transactions and events in a manner that achieves fair presentation.

6. Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the parent company only financial statements. We are responsible for the direction, supervision and performance of the audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the parent company only financial statements of the current period and are therefore the key audit matters. We describe these matters in our report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

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Cheng, Ya-Huei

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Hsieh, Chih-Cheng

For and on behalf of PricewaterhouseCoopers, Taiwan

February 26, 2020

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The accompanying parent company only financial statements are not intended to present the financial position and results of operations and cash flows in accordance with accounting principles generally accepted in countries and jurisdictions other than the Republic of China. The standards, procedures and practices in the Republic of China governing the audit of such financial statements may differ from those generally accepted in countries and jurisdictions other than the Republic of China. Accordingly, the accompanying parent company only financial statements and report of independent accountants are not intended for use by those who are not informed about the accounting principles or auditing standards generally accepted in the Republic of China, and their applications in practice.



EPISTAR CORPORATION  
PARENT COMPANY ONLY BALANCE SHEETS  
DECEMBER 31, 2019 AND 2018  
(Expressed in thousands of New Taiwan dollars)

Assets	Notes	December 31, 2019		December 31, 2018	
		AMOUNT	%	AMOUNT	%
<b>Current assets</b>					
Cash and cash equivalents	6(1)	\$ 2,312,265	4	\$ 3,012,708	5
Financial assets at fair value through profit or loss - current	6(2)	249,900	1	40,923	-
Notes receivable, net	6(4)	813,367	2	521,031	1
Accounts receivable, net	6(4)	3,896,102	7	4,076,544	7
Accounts receivable - related parties, net	7	1,500,686	3	3,100,860	5
Other receivables		98,448	-	191,748	-
Other receivables - related parties	7	435,164	1	326,576	1
Inventories	6(5)	2,066,971	4	2,884,535	5
Prepayments		204,905	-	267,343	1
Non-current assets held for sale - net	6(11)	827	-	388,500	1
Other current assets	8	101,992	-	97,552	-
<b>Current Assets</b>		<u>11,680,627</u>	<u>22</u>	<u>14,908,320</u>	<u>26</u>
<b>Non-current assets</b>					
Non-current financial assets at fair value through profit or loss	6(2)	157,762	-	-	-
Non-current financial assets at fair value through other comprehensive income	6(3)	1,465,837	3	1,097,917	2
Investments accounted for under equity method	6(6)	13,807,857	26	14,376,759	25
Property, plant and equipment	6(7) and 8	13,389,355	25	15,385,565	27
Right-of-use assets	6(8)	1,269,935	3	-	-
Intangible assets	6(9)	7,363,388	14	7,556,713	13
Deferred income tax assets	6(29)	3,798,489	7	3,764,894	7
Other non-current assets		45,191	-	194,741	-
<b>Non-current assets</b>		<u>41,297,814</u>	<u>78</u>	<u>42,376,589</u>	<u>74</u>
<b>Total assets</b>		<u>\$ 52,978,441</u>	<u>100</u>	<u>\$ 57,284,909</u>	<u>100</u>

(Continued)

**EPISTAR CORPORATION**  
**PARENT COMPANY ONLY BALANCE SHEETS**  
**DECEMBER 31, 2019 AND 2018**  
(Expressed in thousands of New Taiwan dollars)

Liabilities and Equity	Notes	December 31, 2019		December 31, 2018	
		AMOUNT	%	AMOUNT	%
<b>Current liabilities</b>					
Short-term borrowings	6(12)	\$ -	-	\$ 449,295	1
Notes payable		4,122	-	9,421	-
Accounts payable		1,058,122	2	1,565,828	3
Accounts payable - related parties	7	734,828	2	538,248	1
Other payables	6(13) and 7	1,743,340	3	2,852,214	5
Current lease liabilities		71,628	-	-	-
Long-term liabilities, current portion	6(14) and 8	78,561	-	165,306	-
Other current liabilities - others		185,594	-	290,033	-
<b>Current Liabilities</b>		<u>3,876,195</u>	<u>7</u>	<u>5,870,345</u>	<u>10</u>
<b>Non-current liabilities</b>					
Long-term borrowings	6(14) and 8	911,247	2	409,808	1
Deferred income tax liabilities	6(29)	1,577,354	3	1,383,631	2
Non-current lease liabilities		1,237,625	3	-	-
Other non-current liabilities	6(15)(17)	156,831	-	267,542	1
<b>Non-current liabilities</b>		<u>3,883,057</u>	<u>8</u>	<u>2,060,981</u>	<u>4</u>
<b>Total Liabilities</b>		<u>7,759,252</u>	<u>15</u>	<u>7,931,326</u>	<u>14</u>
<b>Equity</b>					
<b>Share capital</b> 6(18)					
Share capital - common stock		10,887,014	21	10,887,014	19
<b>Capital surplus</b> 6(19)					
Capital surplus		39,212,772	74	39,515,679	69
<b>Retained earnings</b> 6(20)					
Legal reserve		161,423	-	161,423	-
Special reserve		318,465	1	703,607	1
Accumulated deficit		( 3,749,510)	( 7)	( 385,142)	( 1)
<b>Other equity interest</b> 6(21)					
Other equity interest		( 1,285,485)	( 3)	( 1,317,990)	( 2)
<b>Treasury stocks</b> 6(18)					
		( 325,490)	( 1)	( 211,008)	-
<b>Total equity</b>		<u>45,219,189</u>	<u>85</u>	<u>49,353,583</u>	<u>86</u>
<b>Total liabilities and equity</b>		<u>\$ 52,978,441</u>	<u>100</u>	<u>\$ 57,284,909</u>	<u>100</u>

The accompanying notes are an integral part of these parent company only financial statements.

**EPISTAR CORPORATION**  
**PARENT COMPANY ONLY STATEMENTS OF COMPREHENSIVE INCOME**  
**YEARS ENDED DECEMBER 31, 2019 AND 2018**

(Expressed in thousands of New Taiwan dollars, except loss per share amounts)

Items	Notes	Year ended December 31			
		2019		2018	
		AMOUNT	%	AMOUNT	%
<b>Sales revenue</b>	6(22) and 7	\$ 12,425,234	100	\$ 17,189,772	100
<b>Operating costs</b>	6(5)(27)(28) and 7	( 12,577,783)	( 101)	( 14,773,356)	( 86)
<b>Net operating margin</b>		( 152,549)	( 1)	2,416,416	14
Unrealized loss (profit) from sales		15,549	-	85,787	1
Realized profit on from sales		( 85,787)	( 1)	29,111	-
<b>Net operating margin</b>		( 222,787)	( 2)	2,531,314	15
<b>Operating expenses</b>	6(27)(28) and 7				
Selling expenses		( 182,305)	( 1)	( 234,788)	( 1)
General and administrative expenses		( 858,475)	( 7)	( 999,512)	( 6)
Research and development expenses		( 1,567,818)	( 13)	( 1,827,561)	( 11)
Reverval of (expected credit losses)		8,670	-	( 2,758)	-
<b>Total operating expenses</b>		( 2,599,928)	( 21)	( 3,064,619)	( 18)
<b>Other income and expenses - net</b>	6(23) and 7	121,614	1	126,123	1
<b>Operating loss</b>		( 2,701,101)	( 22)	( 407,182)	( 2)
<b>Non-operating income and expenses</b>					
Other income	6(24) and 7	314,004	2	339,338	2
Insurance income from disaster		-	-	206,785	1
Other gains and losses	6(3)(10)(25) and 7	( 116,246)	( 1)	( 689,718)	( 4)
Finance costs	6(26)	( 36,764)	-	( 28,022)	-
Reverval of (expected credit losses)		( 33,768)	-	4,121	-
Share of loss of subsidiaries, associates and joint ventures accounted for using equity method, net	6(6)	( 1,047,846)	( 8)	( 248,225)	( 2)
<b>Total non-operating income and expenses</b>		( 920,620)	( 7)	( 415,721)	( 3)
<b>Loss before income tax</b>		( 3,621,721)	( 29)	( 822,903)	( 5)
Income tax (expense) benefit	6(29)	( 132,076)	( 1)	366,757	2
<b>Loss for the year</b>		( \$ 3,753,797)	( 30)	( \$ 456,146)	( 3)
<b>Other comprehensive income</b>					
Gain on remeasurements of defined benefit plans	6(15)	\$ 5,372	-	\$ 31,823	-
Unrealised gains (losses) from investments in equity instruments measured at fair value through other comprehensive income	6(3)	367,920	3	( 468,008)	( 3)
Share of other comprehensive income of subsidiaries, associates and joint ventures accounted for using equity method, components of other comprehensive income that will not be reclassified to profit or loss		20,853	-	( 148,782)	( 1)
Income tax related to components of other comprehensive income that will not be reclassified to profit or loss	6(29)	( 71,831)	( 1)	111,198	1
<b>Components of other comprehensive income that will not be reclassified to profit or loss</b>		322,314	2	( 473,769)	( 3)
Total Share of other comprehensive income of subsidiaries, associates and joint ventures accounted for using equity method, components of other comprehensive income that will be reclassified to profit or loss		( 361,068)	( 3)	( 143,180)	( 1)
Income tax relate to the components of other comprehensive income that will be reclassified to profit or loss	6(29)	72,214	1	50,281	1
<b>Components of other comprehensive income that will be reclassified to profit or loss</b>		( 288,854)	( 2)	( 92,899)	-
<b>Other comprehensive income (loss) for the year</b>		\$ 33,460	-	( \$ 566,668)	( 3)
<b>Total comprehensive loss for the year</b>		( \$ 3,720,337)	( 30)	( \$ 1,022,814)	( 6)
<b>Basic loss per share</b>	6(30)				
<b>Total basic loss per share</b>		( \$ 3.48)		( \$ 0.42)	
<b>Total diluted loss per share</b>		( \$ 3.48)		( \$ 0.42)	

The accompanying notes are an integral part of these parent company only financial statements.

**EPSTAR CORPORATION**  
**PARENT COMPANY ONLY STATEMENTS OF CHANGES IN EQUITY**  
**YEARS ENDED DECEMBER 31, 2019 AND 2018**  
(Expressed in thousands of New Taiwan dollars)

	Notes	Retained Earnings				Other equity interest			Total			
		Share capital - common stock	Capital surplus	Legal reserve	Special reserve	Unappropriated retained earnings (accumulated deficit)	Financial statements translation differences of foreign operations	Unrealized gains (losses) from financial assets measured at fair value through other comprehensive income		Unrealized gain or loss on available-for-sale financial assets	Treasury stocks	
<b>2018</b>												
Balance at January 1, 2018		\$ 10,887,014	\$ 39,970,967	\$ -	\$ -	\$ 1,614,226	\$ 415,950	\$ -	(\$ 268,293)	(\$ 408,783)	(\$ 51,379,181)	
Effects of retrospective application and retrospective restatement		-	-	-	-	46,946	3,595	320,348	268,293	-	1,514	
Balance at January 1 after adjustments		10,887,014	39,970,967	-	-	1,661,172	412,355	320,348	-	(408,783)	51,377,667	
Loss for the year	6(20)	-	-	-	-	456,146	-	-	-	-	(456,146)	
Other comprehensive income (loss) for the year	6(20)(21)	-	-	-	-	25,129	(92,899)	(498,898)	-	-	566,608	
Total comprehensive loss for the year		-	-	-	-	431,017	(92,899)	(498,898)	-	-	(1,022,814)	
Appropriations of 2017 earnings		-	-	-	-	(161,423)	-	-	-	-	-	
Legal reserve appropriated	6(20)	-	-	161,423	-	(703,607)	-	-	-	-	-	
Special reserve appropriated	6(19)	-	-	-	703,607	(749,196)	-	-	-	-	(749,196)	
Cash dividends	6(19)	-	(121,765)	-	-	-	-	-	-	-	(121,765)	
Cash dividends distributed from capital surplus	6(19)	-	-	-	-	-	-	-	-	-	-	
Adjustments of capital surplus for company's cash dividends received by subsidiaries		-	-	-	-	2,052	-	-	-	-	2,052	
Purchase of treasury shares		-	-	-	-	-	-	-	-	-	-	
Change in investees interest accounted for under equity method	6(19)	-	-	-	-	(458,095)	-	-	-	(75,845)	(75,845)	
Difference between consideration and carrying amount of subsidiaries acquired and disposed	6(19)	-	-	-	-	(732)	-	-	-	-	(732)	
Treasury stock transferred to employees	6(19)	-	117,780	-	-	-	-	-	-	273,620	391,400	
Changes in ownership interests in subsidiaries accounted for using equity method	6(19)	-	-	-	-	-	-	-	-	-	-	
Proceeds from disposal of financial assets at fair value through other comprehensive income	6(20)(21)	-	5,472	-	-	-	-	-	-	-	5,472	
Proceeds from disposal of investments accounted for using equity method	6(21)	-	-	-	-	(1,071)	-	1,071	-	-	-	
Balance at December 31, 2018		10,887,014	39,515,679	161,423	703,607	385,142	499,815	818,175	-	(211,008)	49,353,583	
<b>2019</b>												
Balance at January 1, 2019		\$ 10,887,014	\$ 39,515,679	\$ 161,423	\$ 703,607	\$ 385,142	\$ 499,815	\$ 818,175	\$ -	\$ (211,008)	\$ 49,353,583	
Loss for the year	6(20)	-	-	-	-	385,142	-	-	-	-	(385,142)	
Other comprehensive income (loss) for the year	6(20)(21)	-	-	-	-	3,753,797	(4,287)	318,027	-	-	3,753,797	
Total comprehensive income (loss) for the year		-	-	-	-	3,749,510	(3,749,510)	318,027	-	-	3,749,510	
Appropriations of 2018		-	-	-	-	-	-	-	-	-	-	
Special reserve used to offset accumulated deficits		-	-	-	(385,142)	385,142	-	-	-	-	-	
Cash dividends distributed from capital surplus	6(19)	-	(324,270)	-	-	-	-	-	-	-	(324,270)	
Change in investees interest accounted for under equity method	6(19)	-	7,304	-	-	-	-	-	-	-	7,304	
Difference between consideration and carrying amount of subsidiaries acquired and disposed	6(19)	-	14,059	-	-	-	-	-	-	-	14,059	
Proceeds from disposal of investments accounted for using equity method	6(21)	-	-	-	-	-	-	3,332	-	-	3,332	
Purchase of treasury shares		-	-	-	-	-	-	-	-	(114,482)	(114,482)	
Balance at December 31, 2019		10,887,014	39,212,772	161,423	318,465	3,749,510	785,337	500,148	-	(325,490)	45,219,189	

The accompanying notes are an integral part of these parent company only financial statements.

EPISTAR CORPORATION  
PARENT COMPANY ONLY STATEMENTS OF CASH FLOWS  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(Expressed in thousands of New Taiwan dollars)

	Notes	2019	2018
<b><u>CASH FLOWS FROM OPERATING ACTIVITIES</u></b>			
Loss before tax		(\$ 3,621,721 )	(\$ 822,903 )
Adjustments			
Adjustments to reconcile profit (loss)			
Depreciation	6(9)(27)	3,424,225	3,499,184
Amortization	6(9)(27)	246,948	253,705
(Reverl of) expected credit losses		25,097	( 1,363 )
Net gain on financial assets at fair value through profit or loss	6(25)		
Interest expense	6(26)	( 193,066 )	( 4,504 )
Interest income	6(24)	36,219	28,278
Dividend income	6(24)	( 28,246 )	( 31,680 )
Effect of exchange rate on loans	6(32)	( 13,789 )	( 12,910 )
Share of loss of subsidiaries and associates accounted for using equity method	6(6)	1,105	-
Impairment loss on non-financial assets	6(25)	1,047,846	248,225
(Gain) loss on disposal of property, plant and equipment	6(25)	178,603	615,949
Gain on disposal intangible assets	6(25)	( 89,361 )	126,690
Loss (gain) on disposal of investments	6(25)	( 5,698 )	-
Other income from recognition of long-term deferred revenues	6(17)	20,001	( 100,804 )
Property, plant and equipment transferred to expenses		( 57,830 )	( 23,647 )
Expenses transferred to intangible assets		98,250	5,858
Realized loss (profit) from sales		( 13,566 )	-
Unrealised loss from sales		85,787	( 29,111 )
Bargain purchase gains		( 15,548 )	( 85,787 )
Changes in operating assets and liabilities		( 23,541 )	-
Changes in operating assets			
Financial assets at fair value through profit or loss		( 197,576 )	( 301,363 )
Notes receivable		( 292,336 )	( 325,967 )
Accounts receivable		1,755,519	1,463,422
Other receivables		250,093	1,246,730
Inventories		811,472	213,393
Prepayments		62,438	59,421
Other non-current assets		8,034	4,135
Changes in operating liabilities			
Notes payable		( 5,299 )	( 15,372 )
Accounts payable		( 311,126 )	( 433,237 )
Other payables		( 479,984 )	( 402,911 )
Other current liabilities		( 104,440 )	175,704
Other non-current liabilities		262	22,624
Cash inflow generated from operations		2,598,772	5,371,759
Income tax paid		( 1,174 )	( 157,529 )
Interest received		28,332	33,297
Interest paid		( 35,895 )	( 29,388 )
Dividend received		61,604	55,084
Net cash flows from operating activities		<u>2,651,639</u>	<u>5,273,223</u>

(Continued)

EPISTAR CORPORATION  
PARENT COMPANY ONLY STATEMENTS OF CASH FLOWS  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(Expressed in thousands of New Taiwan dollars)

	Notes	2019	2018
<u>CASH FLOWS FROM INVESTING ACTIVITIES</u>			
Increase in other receivables from related parties	7	(\$ 1,872,620 )	(\$ 1,007,840 )
Decrease in other receivables from related parties	7	1,764,032	1,013,300
Cash refund from financial assets capital reduction		23,903	-
Increase in other financial assets		( 4,440 )	( 386 )
Acquisition for property, plant and equipment	6(31)	( 1,865,194 )	( 2,745,833 )
Proceeds from disposal of property, plant and equipment	6(31)	159,467	98,355
Acquisition of intangible assets	6(31)	( 93,351 )	( 155,153 )
Proceeds from disposal intangible assets		11,569	-
(Increase) decrease in refundable deposits paid		( 526 )	13,654
Acquisition of subsidiaries and investment of associates		( 908,978 )	( 1,443,106 )
Proceeds from disposal of intangible assets		-	7,844
Cash flows used in spinoff transition	6(18)	-	( 360,172 )
Net cash flows used in investing activities		( 2,786,138 )	( 4,579,337 )
<u>CASH FLOWS FROM FINANCING ACTIVITIES</u>			
Decrease in short-term loans	6(12)	( 450,400 )	( 250,705 )
Repayment of long-term loans	6(14)	( 575,306 )	( 3,239,824 )
Proceeds from long-term loans	6(14)	990,000	1,160,000
Decrease in guarantee deposits received		( 1,782 )	( 783 )
Repayment of principal portion of lease liabilities		( 89,704 )	-
Purchase of treasury shares	6(19)	( 114,482 )	( 75,845 )
Proceed from treasury share transferred to employees	6(18)	-	286,897
Cash dividends distributed from capital surplus	6(19)	( 324,270 )	( 121,765 )
Cash dividends paid	6(19)	-	( 749,196 )
Net cash flows used in financing activities		( 565,944 )	( 2,991,221 )
Net decrease in cash and cash equivalents		( 700,443 )	( 2,297,335 )
Cash and cash equivalents at beginning of year		3,012,708	5,310,043
Cash and cash equivalents at end of year		\$ 2,312,265	\$ 3,012,708

The accompanying notes are an integral part of these parent company only financial statements.

EPISTAR CORPORATION  
NOTES TO THE PARENT COMPANY ONLY FINANCIAL STATEMENTS  
YEARS ENDED DECEMBER 31, 2019 AND 2018  
(EXPRESSED IN THOUSANDS OF NEW TAIWAN DOLLARS, EXCEPT AS OTHERWISE  
INDICATED)

1. HISTORY AND ORGANIZATION

Epistar Corporation (the “Company”) was incorporated on September 19, 1996 and commenced its operations in August 1997. The Company’s shares have been traded on the Taiwan Stock Exchange in the Republic of China since May 2001.

Effective October 1, 2003, Inforcomm Semiconductor Corporation was merged with the Company. The Company acquired United Epitaxy Company Ltd. on December 30, 2005, Epitech Technology Corporation and Highlink Technology Corporation on March 1, 2007, and CHIP STAR Ltd. on June 29, 2015, and the Company merged with Huga Optotech Inc. and Formosa Epitaxy Incorporation on September 29, 2016.

The Company is engaged in the research and development, design, manufacturing and sales of EPI wafers and chips of AlGaInP, AlGaAs and InGaN.

2. THE DATE OF AUTHORIZATION FOR ISSUANCE OF THE PARENT COMPANY ONLY FINANCIAL STATEMENTS AND PROCEDURES FOR AUTHORIZATION

These parent company only financial statements were authorized for issuance by the Board of Directors on February 26, 2020.

3. APPLICATION OF NEW STANDARDS, AMENDMENTS AND INTERPRETATIONS

(1) Effect of the adoption of new issuances of or amendments to International Financial Reporting Standards (“IFRS”) as endorsed by the Financial Supervisory Commission (“FSC”)

New standards, interpretations and amendments endorsed by the FSC effective from 2019 are as follows:

<u>New Standards, Interpretations and Amendments</u>	<u>Effective date by International Accounting Standards Board</u>
Amendments to IFRS 9, ‘Prepayment features with negative compensation’	January 1, 2019
IFRS 16, ‘Leases’	January 1, 2019
Amendments to IAS 19, ‘Plan amendment, curtailment or settlement’	January 1, 2019
Amendments to IAS 28, ‘Long-term interests in associates and joint ventures’	January 1, 2019
IFRIC 23, ‘Uncertainty over income tax treatments’	January 1, 2019
Annual improvements to IFRSs 2015-2017 cycle	January 1, 2019

Except for the following, the above standards and interpretations have no significant impact to the Company’s financial condition and financial performance based on the Company’s assessment.

## IFRS 16, 'Leases'

- A. IFRS 16, 'Leases', replaces IAS 17, 'Leases' and related interpretations and SICs. The standard requires lessees to recognise a 'right-of-use asset' and a lease liability (except for those leases with terms of 12 months or less and leases of low-value assets). The accounting stays the same for lessors, which is to classify their leases as either finance leases or operating leases and account for those two types of leases differently. IFRS 16 only requires enhanced disclosures to be provided by lessors.
- B. The Group has elected to apply IFRS 16 by not restating the comparative information (referred herein as the 'modified retrospective approach') when applying "IFRSs" effective in 2019 as endorsed by the FSC. Accordingly, the Group increased 'right-of-use asset' by \$1,402,458, and increased 'lease liability' by \$1,402,458.
- C. The Group has used the following practical expedients permitted by the standard at the date of initial application of IFRS 16:
- (a) Reassessment as to whether a contract is, or contains, a lease is not required, instead, the application of IFRS 16 depends on whether or not the contracts were previously identified as leases applying IAS 17 and IFRIC 4.
  - (b) The use of a single discount rate to a portfolio of leases with reasonably similar characteristics.
  - (c) The accounting for operating leases whose period will end before December 31, 2019 as short-term leases and accordingly, rent expense of \$13,217 was recognised in 2019.
  - (d) The exclusion of initial direct costs for the measurement of 'right-of-use asset'.
  - (e) The use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease.
- D. The Group calculated the present value of lease liabilities by using the weighted average incremental borrowing interest rate of 1.855%.
- E. The Group recognised lease liabilities which had previously been classified as 'operating leases' under the principles of IAS 17, 'Leases'. The reconciliation between operating lease commitments under IAS 17 measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate and lease liabilities recognised as of January 1, 2019 is as follows:

Operating lease commitments disclosed by applying IAS 17 as at December 31, 2018	\$ 630,297
Add/Less: Adjustments as a result of a different treatment of extension and termination options	<u>773,422</u>
Total lease contracts amount recognised as lease liabilities by applying IFRS 16 on January 1, 2019	1,403,719
Incremental borrowing interest rate at the date of initial application	1.855%
Lease liabilities recognised as at January 1, 2019 by applying IFRS 16	<u>\$ 1,402,458</u>



(2) Effect of new issuances of or amendments to IFRSs as endorsed by the FSC but not yet adopted by the Company

New standards, interpretations and amendments endorsed by the FSC effective from 2018 are as follows:

<u>New Standards, Interpretations and Amendments</u>	<u>Effective date by International Accounting Standards Board</u>
Amendment to IAS 1 and IAS 8, 'Disclosure Initiative-Definition of Material'	January 1, 2020
Amendments to IFRS 3, 'Definition of a business'	January 1, 2020
Amendments to IFRS 9, IAS 39 and IFRS 7, 'Interest rate benchmark reform'	January 1, 2020

The above standards and interpretations have no significant impact to the Company's financial condition and financial performance based on the Company's assessment.

(3) IFRSs issued by IASB but not yet endorsed by the FSC

New standards, interpretations and amendments issued by IASB but not yet included in the IFRSs endorsed by the FSC are as follows:

<u>New Standards, Interpretations and Amendments</u>	<u>Effective date by International Accounting Standards Board</u>
Amendments to IFRS 10 and IAS 28, 'Sale or contribution of assets between an investor and its associate or joint venture'	To be determined by International Accounting Standards Board
IFRS 17, 'Insurance contracts'	January 1, 2021
Amendments to IAS 1, 'Classification of liabilities as current or noncurrent'	January 1, 2022

The above standards and interpretations have no significant impact to the Company's financial condition and financial performance based on the Company's assessment.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies applied in the preparation of these parent company only financial statements are set out below. These policies have been consistently applied to all the periods presented, unless otherwise stated.

(1) Compliance statement

The parent company only financial statements of the Company have been prepared in accordance with the "Regulations Governing the Preparation of Financial Reports by Securities Issuers".

(2) Basis of preparation

A. Except for the following items, these parent company only financial statements have been prepared under the historical cost convention:

- (a) Financial assets and financial liabilities at fair value through profit or loss.

- (b) Financial assets at fair value through other comprehensive income.
- (c) Defined benefit liabilities recognized based on the net amount of pension fund assets less present value of defined benefit obligation.

B. The preparation of financial statements in compliance with International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations, and SIC Interpretations as endorsed by the FSC (collectively referred herein as the “IFRSs”) requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Company’s accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the parent company only financial statements are disclosed in Note 5.

(3) Foreign currency translation

Items included in the financial statements of the Company is measured using the currency of the primary economic environment in which the operates (the “functional currency”). The parent company only financial statements are presented in New Taiwan dollars, which is the Company’s functional currency.

A. Foreign currency transactions and balances

- (a) Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are remeasured. Foreign exchange gains and losses resulting from the settlement of such transactions are recognized in profit or loss in the period in which they arise.
- (b) Monetary assets and liabilities denominated in foreign currencies at the period end are re-translated at the exchange rates prevailing at the balance sheet date. Exchange differences arising upon re-translation at the balance sheet date are recognized in profit or loss.
- (c) Non-monetary assets and liabilities denominated in foreign currencies held at fair value through profit or loss are re-translated at the exchange rates prevailing at the balance sheet date; their translation differences are recognized in profit or loss as part of the fair value gain or loss. Non-monetary assets and liabilities denominated in foreign currencies held at fair value through other comprehensive income are re-translated at the exchange rates prevailing at the balance sheet date; their translation differences are recognized in other comprehensive income. However, non-monetary assets and liabilities denominated in foreign currencies that are not measured at fair value are translated using the historical exchange rates at the dates of the initial transactions.
- (d) Foreign exchange gains and losses that relate to borrowings and cash and cash equivalents are presented in the statement of comprehensive income within “interest income or finance costs”. All other foreign exchange gains and losses based on the nature of those transactions are presented in the statement of comprehensive income within “other gains and losses”.

## B. Translation of foreign operations

- (a) The operating results and financial position of all the group entities, associates and joint arrangements that have a functional currency different from the presentation currency are translated into the presentation currency as follows:
  - i. Assets and liabilities for each balance sheet presented are translated at the closing exchange rate at the date of that balance sheet;
  - ii. Income and expenses for each statement of comprehensive income are translated at average exchange rates of that period; and
  - iii. All resulting exchange differences are recognised in other comprehensive income.
- (b) When the foreign operation partially disposed of or sold is an associate or joint arrangement, exchange differences that were recorded in other comprehensive income are proportionately reclassified to profit or loss as part of the gain or loss on sale. In addition, even when the Group retains partial interest in the former foreign associate or joint arrangement after losing significant influence over the former foreign associate, or losing joint control of the former joint arrangement, such transactions should be accounted for as disposal of all interest in these foreign operations.
- (c) When the foreign operation partially disposed of or sold is a subsidiary, cumulative exchange differences that were recorded in other comprehensive income are proportionately transferred to the non-controlling interest in this foreign operation. In addition, even when the Group retains partial interest in the former foreign subsidiary after losing control of the former foreign subsidiary, such transactions should be accounted for as disposal of all interest in the foreign operation.
- (d) Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing exchange rates at the balance sheet date.

## (4) Classification of current and non-current items

- A. Assets that meet one of the following criteria are classified as current assets; otherwise they are classified as non-current assets:
  - (a) Assets arising from operating activities that are expected to be realized, or are intended to be sold or consumed within the normal operating cycle;
  - (b) Assets held mainly for trading purposes;
  - (c) Assets that are expected to be realized within twelve months from the balance sheet date;
  - (d) Cash and cash equivalents, excluding restricted cash and cash equivalents and those that are to be exchanged or used to pay off liabilities more than twelve months after the balance sheet date.
- B. Liabilities that meet one of the following criteria are classified as current liabilities; otherwise they are classified as non-current liabilities:
  - (a) Liabilities that are expected to be settled within the normal operating cycle;

- (b) Liabilities arising mainly from trading activities;
- (c) Liabilities that are to be settled within twelve months from the balance sheet date;
- (d) Liabilities for which the repayment date cannot be extended unconditionally to more than twelve months after the balance sheet date. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

(5) Cash equivalents

Cash equivalents refer to short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. Time deposits that meet the definition above and are held for the purpose of meeting short-term cash commitments in operations are classified as cash equivalents.

(6) Financial assets at fair value through profit or loss

- A. Financial assets at fair value through profit or loss are financial assets that are not measured at amortised cost or fair value through other comprehensive income.
- B. On a regular way purchase or sale basis, the derivative financial assets are recognised and derecognised using trade date accounting, the beneficiary certificates are recognised and derecognised using settlement date accounting.
- C. At initial recognition, the Company measures the financial liabilities at fair value. All related transaction costs are recognised in profit or loss. The Company subsequently measures these financial liabilities at fair value with any gain or loss recognised in profit or loss.
- D. The Company recognises the dividend income when the right to receive payment is established, future economic benefits associated with the dividend will flow to the Company and the amount of the dividend can be measured reliably.

(7) Financial assets at fair value through other comprehensive income

- A. Financial assets at fair value through other comprehensive income comprise equity securities which are not held for trading, and for which the Company has made an irrevocable election at initial recognition to recognise changes in fair value in other comprehensive income and debt instruments which meet all of the following criteria:
  - (a) The objective of the Company's business model is achieved both by collecting contractual cash flows and selling financial assets; and
  - (b) The assets' contractual cash flows represent solely payments of principal and interest.
- B. On a regular way purchase or sale basis, financial assets at fair value through other comprehensive income are recognised and derecognised using trade date accounting.
- C. At initial recognition, the Company measures the financial assets at fair value plus transaction costs. The Company subsequently measures the financial assets at fair value:  
The changes in fair value of equity investments that were recognised in other comprehensive income are reclassified to retained earnings and are not reclassified to profit or loss following the derecognition of the investment. Dividends are recognised as revenue when the right to receive

payment is established, future economic benefits associated with the dividend will flow to the Company and the amount of the dividend can be measured reliably.

(8) Accounts and notes receivable

- A. Accounts and notes receivable entitle the Company a legal right to receive consideration in exchange for transferred goods or rendered services.
- B. The short-term accounts and notes receivable without bearing interest are subsequently measured at initial invoice amount as the effect of discounting is immaterial.

(9) Impairment of financial assets

For debt instruments measured at fair value through other comprehensive income and financial assets at amortised cost including accounts receivable or contract assets that have a significant financing component, lease receivables, loan commitments and financial guarantee contracts, at each reporting date, the Company recognises the impairment provision for 12 months expected credit losses if there has not been a significant increase in credit risk since initial recognition or recognises the impairment provision for the lifetime expected credit losses (ECLs) if such credit risk has increased since initial recognition after taking into consideration all reasonable and verifiable information that includes forecasts. On the other hand, for accounts receivable or contract assets that do not contain a significant financing component, the Company recognises the impairment provision for lifetime ECLs.

(10) Derecognition of financial assets

The Company derecognizes a financial asset when one of the following conditions is met:

- A. The contractual rights to receive cash flows from the financial asset expire.
- B. The contractual rights to receive cash flows from the financial assets have been transferred and the Company has transferred substantially all risks and rewards of ownership of the financial assets.
- C. The Company neither retains nor transfers substantially all risks and rewards of ownership of the financial asset; however, it has not retained control of the financial asset.

(11) Leasing arrangements (lessor) – lease receivables/operating leases

- A. Based on the terms of a lease contract, a lease is classified as a finance lease if the lessee assumes substantially all the risks and rewards incidental to ownership of the leased asset.
  - (a) At commencement of the lease term, the lessor should record a finance lease in the balance sheet as 'lease receivables' at an amount equal to the net investment in the lease (including initial direct costs). The difference between gross lease receivable and the present value of the receivable is recognized as 'unearned finance income of finance lease'.
  - (b) The lessor should allocate finance income over the lease term based on a systematic and rational basis reflecting a constant periodic rate of return on the lessor's net investment in the finance lease.
  - (c) Lease payments(excluding costs for services) during the lease term are applied against the gross investment in the lease to reduce both the principal and the unearned finance income.

B. Lease income from an operating lease (net of any incentives given to the lessee) is recognized in profit or loss on a straight-line basis over the lease term.

(12) Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the weighted-average method. The cost of finished goods and work in progress comprise raw materials, direct labor, other direct costs and related production overheads (allocated based on normal operating capacity). It excludes borrowing costs and the item by item approach is used in applying the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated cost of completion and applicable variable selling expenses.

(13) Non-current assets held for sale

Non-current assets are classified as assets held for sale when their carrying amount is to be recovered principally through a sale transaction rather than through continuing use, and a sale is considered highly probable. They are stated at the lower of carrying amount and fair value less costs to sell.

(14) Investments accounted for using the equity method – subsidiaries and associates

A. Subsidiaries are all entities (including structured entities) controlled by the Company. The Company controls an entity when the Company is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

B. Inter-company transactions, balances and unrealised gains or losses on transactions between companies within the Company are eliminated. Accounting policies of subsidiaries have been adjusted where necessary to ensure consistency with the policies adopted by the Company.

C. The Company's share of its associates' post-acquisition profits or losses is recognised in profit or loss, and its share of post-acquisition movements in other comprehensive income is recognised in other comprehensive income. When the Company's share of losses in a subsidiary equals or exceeds its interest in the subsidiary, the Company continues to recognise losses proportionate to its ownership.

D. Changes in a parent's ownership interest in a subsidiary that do not result in the parent losing control of the subsidiary (transactions with non-controlling interests) are accounted for as equity transactions, i.e. transactions with owners in their capacity as owners. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity.

E. When the Company loses control of a subsidiary, the Company remeasures any investment retained in the former subsidiary at its fair value. That fair value is regarded as the fair value on initial recognition of a financial asset or the cost on initial recognition of the associate or joint venture. Any difference between fair value and carrying amount is recognised in profit or loss. All amounts previously recognised in other comprehensive income in relation to the subsidiary are reclassified to profit or loss on the same basis as would be required if the related assets or

liabilities were disposed of. That is, when the Company loses control of a subsidiary, all gains or losses previously recognised in other comprehensive income in relation to the subsidiary should be reclassified from equity to profit or loss, if such gains or losses would be reclassified to profit or loss when the related assets or liabilities are disposed of.

- F. Associates are all entities over which the Company has significant influence but not control. In general, it is presumed that the investor has significant influence, if an investor holds, directly or indirectly 20 percent or more of the voting power of the investee. Investments in associates are accounted for using the equity method and are initially recognised at cost.
- G. The Company's share of its associates' post-acquisition profits or losses is recognized in profit or loss, and its share of post-acquisition movements in other comprehensive income is recognized in other comprehensive income. When the Company's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Company does not recognize further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the associate.
- H. When changes in an associate's equity that are not recognized in profit or loss or other comprehensive income of the associate and such changes does not affect the Company's ownership percentage of the associate, the Company recognizes change in ownership interests in the associate in 'capital surplus' in proportion to its ownership.
- I. Unrealized gains on transactions between the Company and its associates are eliminated to the extent of the Company's interest in the associates. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been adjusted where necessary to ensure consistency with the policies adopted by the Company.
- J. In the case that an associate issues new shares and the Company does not subscribe or acquire new shares proportionately, which results in a change in the Company's ownership percentage of the associate but maintains significant influence on the associate, then 'capital surplus' and 'investments accounted for under the equity method' shall be adjusted for the increase or decrease of its share of equity interest. If the above condition causes a decrease in the Company's ownership percentage of the associate, in addition to the above adjustment, the amounts previously recognized in other comprehensive income in relation to the associate are reclassified to profit or loss proportionately on the same basis as would be required if the relevant assets or liabilities were disposed of.
- K. Upon loss of significant influence over an associate, the Company remeasures any investment retained in the former associate at its fair value. Any difference between fair value and carrying amount is recognized in profit or loss.
- L. When the Company disposes its investment in an associate, if it loses significant influence over this associate, the amounts previously recognized in other comprehensive income in relation to the associate, are reclassified to profit or loss, on the same basis as would be required if the

relevant assets or liabilities were disposed of. If it still retains significant influence over this associate, then the amounts previously recognized in other comprehensive income in relation to the associate are reclassified to profit or loss proportionately in accordance with the aforementioned approach.

M. When the Company disposes its investment in an associate, if it loses significant influence over this associate, the amounts previously recognized as capital surplus in relation to the associate are transferred to profit or loss. If it still retains significant influence over this associate, then the amounts previously recognized as capital surplus in relation to the associate are transferred to profit or loss proportionately.

N. Pursuant to the “Regulations Governing the Preparation of Financial Reports by Securities Issuers,” profit (loss) of the current period and other comprehensive income in the non-consolidated financial statements shall equal to the amount attributable to owners of the parent in the financial statements prepared with basis for consolidation. Owners’ equity in the non-consolidated financial statements shall equal to equity attributable to owners of the parent in the financial statements prepared with basis for consolidation.

(15) Property, plant and equipment

A. Property, plant and equipment are initially recorded at cost. Borrowing costs incurred during the construction period are capitalized.

B. Subsequent costs are included in the asset’s carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Company and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. All other repairs and maintenance are charged to profit or loss during the financial period in which they are incurred.

C. Land is not depreciated. Other property, plant and equipment apply cost model and are depreciated using the straight-line method to allocate their cost over their estimated useful lives. Each part of an item of property, plant, and equipment with a cost that is significant in relation to the total cost of the item must be depreciated separately.

D. The assets’ residual values, useful lives and depreciation methods are reviewed, and adjusted if appropriate, at each financial year-end. If expectations for the assets’ residual values and useful lives differ from previous estimates or the patterns of consumption of the assets’ future economic benefits embodied in the assets have changed significantly, any change is accounted for as a change in estimate under IAS 8, ‘Accounting Policies, Changes in Accounting Estimates and Errors’, from the date of the change.



The estimated useful lives of property, plant and equipment are as follows:

Buildings and structures	20 ~ 50 years
Plant and construction	3 ~ 15 years
Machinery and equipment	2 ~ 20 years
Transportation equipment	3 ~ 5 years
Office equipment	2 ~ 20 years
Leasehold improvements	3 ~ 15 years

(16) Leasing arrangements(lessee) – right-of-use assets/lease liabilities

Effective 2019

A. Leases are recognized as a right-of-use asset and a corresponding lease liability at the date at which the leased asset is available for use by the Group. For short-term leases or leases of low-value assets, lease payments are recognized as an expense on a straight-line basis over the lease term.

B. Lease liabilities include the net present value of the remaining lease payments at the commencement date, discounted using the incremental borrowing interest rate .

Lease payments are comprised of the following:

- (a) Fixed payments, less any lease incentives receivable;
- (b) Variable lease payments that depend on an index or a rate; and
- (c) Payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The Group subsequently measures the lease liability at amortised cost using the interest method and recognizes interest expense over the lease term. The lease liability is remeasured and the amount of remeasurement is recognised as an adjustment to the right-of-use asset when there are changes in the lease term or lease payments and such changes do not arise from contract modifications.

C. At the commencement date, the right-of-use asset is stated at cost comprising the following:

- (a) The amount of the initial measurement of lease liability;
- (b) Any lease payments made at or before the commencement date;
- (c) Any initial direct costs incurred by the lessee; and
- (d) An estimate of costs to be incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the term and conditions of the lease.

The right-of-use asset is measured subsequently using the cost model and is depreciated from the commencement date to the earlier of the asset's useful life or the end of the lease term. When the lease liability is remeasured, the amount of remeasurement is recognized as an adjustment to the right-of -use asset.

(17) Leased assets

Prior to 2019

Payments made under an operating lease (net of any incentives received from the lessor) are recognized in profit or loss on a straight-line basis over the lease term.

(18) Intangible assets

A. Patents

Patents are stated at cost and amortized on a straight-line basis over their legal terms or economic service lives, whichever is shorter.

B. Technology know-how

Technology know-how is stated at cost and amortized on a straight-line basis over their economic service lives.

C. Computer software

Computer software is stated at cost and amortized on a straight-line basis over their estimated useful lives of 2 ~ 10 years.

D. Goodwill

Goodwill arising from a business combination is accounted for by applying the acquisition method.

E. Other intangible assets

Other intangible assets, mainly electricity facilities, are stated at cost and amortized using the straight-line method over 3 to 5 years.

(19) Impairment of non-financial assets

A. The Company assesses at each balance sheet date the recoverable amounts of those assets where there is an indication that they are impaired. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell or value in use. Except for goodwill, when the circumstances or reasons for recognizing impairment loss for an asset in prior years no longer exist or diminish, the impairment loss is reversed. The increased carrying amount due to reversal should not be more than what the depreciated or amortized historical cost would have been if the impairment had not been recognized.

B. The recoverable amounts of goodwill, intangible assets with an indefinite useful life and intangible assets that have not yet been available for use are evaluated periodically. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. Impairment loss of goodwill previously recognized in profit or loss shall not be reversed in the following years.

C. For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the cash-generating units, or groups of cash-generating units, that is/are expected to benefit from the synergies of the business combination. Each unit or group of units to which the goodwill is allocated represents the lowest level within the entity at which the goodwill is

monitored for internal management purposes. Goodwill is monitored at the operating segment level.

(20) Borrowings

- A. Borrowings comprise long-term and short-term bank borrowings. Borrowings are recognised initially at fair value, net of transaction costs incurred. Borrowings are subsequently stated at amortised cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognised in profit or loss over the period of the borrowings using the effective interest method.
- B. Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw-down occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a pre-payment for liquidity services and amortised over the period of the facility to which it relates.

(21) Notes and accounts payable

- A. Accounts payable are liabilities for purchases of raw materials, goods or services and notes payable are those resulting from operating and non-operating activities.
- B. The short-term notes and accounts payable without bearing interest are subsequently measured at initial invoice amount as the effect of discounting is immaterial.

(22) Employee benefits

A. Short-term employee benefits

Short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in respect of service rendered by employees in a period and should be recognized as expenses in that period when the employees render service.

B. Pensions

(a) Defined contribution plans

For defined contribution plans, the contributions are recognized as pension expenses when they are due on an accrual basis. Prepaid contributions are recognized as an asset to the extent of a cash refund or a reduction in the future payments.

(b) Defined benefit plans

- i. Net obligation under a defined benefit plan is defined as the present value of an amount of pension benefits that employees will receive on retirement for their services with the Company in current period or prior periods. The liability recognized in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the balance sheet date less the fair value of plan assets. The defined benefit net obligation is calculated annually by independent actuaries using the projected unit credit method. The rate used to discount is determined by using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension liability; when there is no

deep market in high-quality corporate bonds, the Company uses interest rates of government bonds (at the balance sheet date) instead.

- ii. Remeasurement arising on defined benefit plans are recognized in other comprehensive income in the period in which they arise and are recorded as retained earnings.
- iii. Past service costs are recognized immediately in profit or loss.

#### C. Termination benefits

Termination benefits are employee benefits provided in exchange for the termination of employment as a result from either the Company's decision to terminate an employee's employment before the normal retirement date, or an employee's decision to accept an offer of redundancy benefits in exchange for the termination of employment. The Company recognizes expense as it can no longer withdraw an offer of termination benefits or it recognises relating restructuring costs, whichever is earlier. Benefits that are expected to be due more than 12 months after balance sheet date shall be discounted to their present value.

#### D. Employees' compensation and directors' and supervisors' remuneration

Employees' compensation and directors' and supervisors' remuneration are recognized as expenses and liabilities, provided that such recognition is required under legal obligation or constructive obligation and those amounts can be reliably estimated. Any difference between the resolved amounts and the subsequently actual distributed amounts is accounted for as changes in estimates.

### (23) Employee share-based payment

A. For the equity-settled share-based payment arrangements, the employee services received are measured at the fair value of the equity instruments granted at the grant date, and are recognized as compensation cost over the vesting period, with a corresponding adjustment to equity. The fair value of the equity instruments granted shall reflect the impact of market vesting conditions and non-market vesting conditions. Compensation cost is subject to adjustment based on the service conditions that are expected to be satisfied and the estimates of the number of equity instruments that are expected to vest under the non-market vesting conditions at each balance sheet date. And ultimately, the amount of compensation cost recognized is based on the number of equity instruments that eventually vest.

#### B. Treasury stocks transferred to employees:

- (a) Restricted stocks issued to employees are measured at the fair value of the equity instruments granted at the grant date, and are recognised as compensation cost over the vesting period.
- (b) For treasury stocks where employees have to pay to acquire those stocks, if employees resign during the vesting period, they must compensate the Company for the difference between the fair value of the equity instruments and their payments on the stocks.

### (24) Income tax

A. The tax expense for the period comprises current and deferred tax. Tax is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or

items recognized directly in equity, in which cases the tax is recognized in other comprehensive income or equity.

- B. The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the Company and its subsidiaries operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in accordance with applicable tax regulations. It establishes provisions where appropriate based on the amounts expected to be paid to the tax authorities. An additional tax is levied on the unappropriated retained earnings and is recorded as income tax expense in the year when the stockholders resolve to retain the earnings.
- C. Deferred income tax is recognized, using the balance sheet liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the parent company only financial statements. However, the deferred income tax is not accounted for if it arises from initial recognition of goodwill or of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is provided on temporary differences arising on investments in subsidiaries and associates, except where the timing of the reversal of the temporary difference is controlled by the Company and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.
- D. Deferred income tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized. At each balance sheet date, unrecognized and recognized deferred income tax assets are reassessed.
- E. A deferred tax asset shall be recognised for the carryforward of unused tax credits resulting from acquisitions of equipment or technology, research and development expenditures and equity investments to the extent that it is possible that future taxable profit will be available against which the unused tax credits can be utilised.

(25) Share capital

- A. Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or stock options are shown in equity as a deduction, net of tax, from the proceeds.
- B. Where the Company repurchases the Company's equity share capital that has been issued, the consideration paid, including any directly attributable incremental costs (net of income taxes) is deducted from equity attributable to the Company's equity holders. Where such shares are subsequently reissued, the difference between their book value and any consideration received, net of any directly attributable incremental transaction costs and the related income tax effects, is included in equity attributable to the Company's equity holders.

(26) Dividends

Dividends are recorded in the Company's financial statements in the period in which they are resolved by the Company's shareholders. Cash dividends are recorded as liabilities.

(27) Revenue recognition

A. Sales of goods:

- (a) The Company is engaged in the research, development and sales of EPI wafers and chips of AlGaInP, AlGaAs and InGaN. Sales are recognised when control of the products has transferred, being when the products are delivered to the customer, the wholesaler has full discretion over the channel and price to sell the products, and there is no unfulfilled obligation that could affect the customer's acceptance of the products. Delivery occurs when the products have been shipped to the specific location, the risks of obsolescence and loss have been transferred to the wholesaler, and either the customer has accepted the products in accordance with the sales contract, or the Company has objective evidence that all criteria for acceptance have been satisfied.
- (b) Sales revenue is recognised on the net amount of contract price after deduction of sales discounts and allowances. The sales discounts and allowances were offered to customers based on aggregate sales over a 12-month period. Accumulated experience is used to estimate and provide for the sales discounts and allowances, using the expected value method, and revenue is only recognised to the extent that it is highly probable that a significant reversal will not occur. The estimation is subject to an assessment at each reporting date. A refund liability is recognised for expected sales discounts and allowances payable to customers in relation to sales made until the end of the reporting period. No element of financing is deemed present as the sales are made with a credit term of 90 days to 120 days, which is consistent with market practice.
- (c) The Company's obligation to provide a refund for faulty products under the standard warranty terms is recognised as a provision.
- (d) A receivable is recognised when the goods are delivered as this is the point in time that the consideration is unconditional because only the passage of time is required before the payment is due.

B. Revenue from licencing intellectual property

- (a) The Company entered into a contract with a customer to grant a licence of patents and intellectual property to the customer. Given the licence is distinct from other promised goods or services in the contract, the Company recognises the revenue from licencing when the licence transfer to a customer either at a point in time or over time based on the nature of the licence granted. The nature of the Company's promise in granting a licence is a promise to provide a right to access the Company's intellectual property if the Company undertakes activities that significantly affect the patents and intellectual property to which the customer has rights, the customer is affected by the Company's activities and those activities do not

result in the transfer of a good or a service to the customer as they occur. The royalties are recognised as revenue on a straight-line basis throughout the licencing period. In case the abovementioned conditions are not met, the nature of the Group's promise in granting a licence is a promise to provide a right to use the Group's intellectual property and therefore the revenue is recognised when transferring the licence to a customer at a point in time.

- (b) Some contracts require a sales-based royalty in exchange for a licence of intellectual property. The Company recognises revenue when the performance obligation has been satisfied and the subsequent sale occurs.

C. Incremental costs of obtaining a contract

Given that the contractual period lasts less than one year, the Company recognises the incremental costs of obtaining a contract as an expense when incurred although the Company expects to recover those costs.

(28) Government grants

Government grants are recognized at their fair value only when there is reasonable assurance that the Company will comply with any conditions attached to the grants and the grants will be received. Government grants are recognized in profit or loss on a systematic basis over the periods in which the Company recognizes expenses for the related costs for which the grants are intended to compensate. Government grants related to property, plant and equipment are recognized as non-current liabilities and are amortized to profit or loss over the estimated useful lives of the related assets using the straight-line method.

5. CRITICAL ACCOUNTING JUDGEMENTS, ESTIMATES AND KEY SOURCES OF ASSUMPTION UNCERTAINTY

The preparation of these parent company only financial statements requires management to make critical judgements in applying the Company's accounting policies and make critical assumptions and estimates concerning future events. Assumptions and estimates may differ from the actual results and are continually evaluated and adjusted based on historical experience and other factors. Such assumptions and estimates have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year; and the related information is addressed below:

(1) Critical judgments in applying the Company's accounting policies

None.

(2) Critical accounting estimates and assumptions

A. Impairment valuation of goodwill, property, plant and equipment

In assessing assets impairment valuation, the Company estimates useful lives of assets and possible income and expenses in the future based on the Company's subjective judgement, any changes in economic condition and strategy of the Company will affect the recoverable amount, please refer to Note 6(10).

As of December 31, 2019, the Company recognised impaired property, plant and equipment of \$13,389,354 and goodwill of \$6,324,659.

## B. Realizability of deferred income tax assets

Deferred income tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences can be utilized. Assessment of the realizability of deferred income tax assets involves critical accounting judgments and estimates of the management, including the assumptions of expected future sales revenue growth rate and profit rate, available tax credits, tax planning, and etc. Any variations in global economic environment, industrial environment, and laws and regulations might cause material adjustments to deferred income tax assets.

As of December 31, 2019, the Company recognized deferred income tax assets amounting to \$3,498,489.

## C. Evaluation of inventories

As inventories are stated at the lower of cost and net realizable value, the Company must determine the net realizable value of inventories on balance sheet date using judgements and estimates. Due to the rapid technology innovation, the Company evaluates the amounts of normal inventory consumption, obsolete inventories or inventories without market selling value on balance sheet date, and writes down the cost of inventories to the net realizable value. Such an evaluation of inventories is principally based on the demand for the products within the specified period in the future. Therefore, there might be material changes to the evaluation.

As of December 31, 2019, the carrying amount of inventories was \$2,066,971.

## D. Financial assets—fair value measurement of unlisted stocks without active market

The fair value of unlisted stocks held by the Company that are not traded in an active market is determined by considering those companies' recent funding raising activities and technical development status, fair value assessment of other companies of the same type, market conditions and other economic indicators existing on balance sheet date. Any changes in these judgements and estimates will impact the fair value measurement of these unlisted stocks. Please refer to Note 12(3) for the financial instruments fair value information.

As of December 31, 2019, the carrying amount of unlisted stocks was \$1,438,622.

## 6. DETAILS OF SIGNIFICANT ACCOUNTS

### (1) Cash and cash equivalents

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Cash on hand and revolving funds	\$ 11	\$ 14
Checking accounts and demand deposits	1,207,317	549,672
Time deposits	922,935	1,453,000
Bonds sold under repurchase agreement	182,002	1,010,022
	<u>\$ 2,312,265</u>	<u>\$ 3,012,708</u>

The Company transacts with a variety of financial institutions all with high credit quality to disperse credit risk, so it expects that the probability of counterparty default is remote.



(2) Financial assets at fair value through profit or loss

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Current items		
Financial assets mandatorily measured at fair value through profit or loss		
Listed stocks	\$ 193,778	\$ 39,715
Valuation adjustment	<u>56,122</u>	<u>1,208</u>
	<u>249,900</u>	<u>40,923</u>
Non-current items:		
Financial assets mandatorily measured at fair value through profit or loss		
Unlisted stocks	130,172	121,722
Valuation adjustment	<u>27,590</u>	<u>(121,722)</u>
	<u>157,762</u>	<u>-</u>
	<u>\$ 407,662</u>	<u>\$ 40,923</u>

A. The net gain recognized by the Company amounted to \$193,066 and \$4,504, respectively for the years ended December 31, 2019 and 2018.

B. Information on credit risk of financial assets at fair value through profit or loss is provided in Notes 12(2) and (3).

(3) Financial assets at fair value through other comprehensive income

<u>Items</u>	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Non-current items:		
Equity instruments		
Listed stocks	\$ 429,217	\$ 429,217
Emerging stocks	-	25,218
Unlisted stocks	<u>1,323,459</u>	<u>1,298,241</u>
	1,752,676	1,752,676
Valuation adjustment	<u>(286,839)</u>	<u>(654,759)</u>
	<u>\$ 1,465,837</u>	<u>\$ 1,097,917</u>

A. Amounts recognized in profit or loss and other comprehensive income in relation to the financial assets at fair value through other comprehensive income are listed below:

	<u>Years ended December 31</u>	
	<u>2019</u>	<u>2018</u>
<u>Equity instruments at fair value through other comprehensive income</u>		
Fair value change recognised in other comprehensive income	<u>\$ 367,920</u>	<u>(\$ 468,008)</u>
Cumulative losses reclassified to retained earnings due to derecognition	<u>\$ -</u>	<u>\$ -</u>
Held at end of year	<u>\$ 13,789</u>	<u>\$ 12,910</u>

B. As at December 31 2019 and 2018, without taking into account any collateral held or other credit enhancements, the maximum exposure to credit risk in respect of the amount that best represents

the financial assets at fair value through other comprehensive income held by the Company was \$1,465,837 and \$1,097,917, respectively.

C. Information relating to credit risk of financial assets at fair value through other comprehensive income is provided in Notes 12(2) and (3).

(4) Notes and accounts receivable

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Notes receivable	\$ 813,367	\$ 521,031
Less: Allowance for uncollectible accounts	-	-
	<u>\$ 813,367</u>	<u>\$ 521,031</u>
Accounts receivable	\$ 3,896,435	\$ 4,095,798
Less: Allowance for uncollectible accounts	( 333)	( 19,254)
	<u>\$ 3,896,102</u>	<u>\$ 4,076,544</u>

A. The ageing analysis of accounts receivable and notes receivable that were past due but not impaired is as follows:

	<u>December 31, 2019</u>		<u>December 31, 2018</u>	
	<u>Accounts receivable</u>	<u>Notes receivable</u>	<u>Accounts receivable</u>	<u>Notes receivable</u>
Not past due	\$ 3,651,561	\$ 813,367	\$ 3,859,663	\$ 458,619
Up to 30 days	162,104	-	160,074	62,412
31 to 90 days	23,291	-	33,401	-
91 to 180 days	15,389	-	28,713	-
Over 180 days	44,090	-	13,947	-
	<u>\$ 3,896,435</u>	<u>\$ 813,367</u>	<u>\$ 4,095,798</u>	<u>\$ 521,031</u>

The above ageing analysis was based on past due date.

B. The Company holds bank deposits, commercial papers, financial assets as well as machinery and equipment as collateral for accounts receivable. The fair values of the collateral held cannot be reasonably estimated by the Company since it is impracticable to assess the fair values.

C. Information on credit risk of accounts receivable and notes receivable is provided in Note 12(2).

(5) Inventories

	<u>December 31, 2019</u>		
	<u>Cost</u>	<u>Allowance for valuation loss</u>	<u>Book value</u>
Raw materials	\$ 415,435	(\$ 34,673)	\$ 380,762
Work in progress	1,054,976	( 186,239)	868,737
Finished goods	1,119,442	( 301,970)	817,472
	<u>\$ 2,589,853</u>	<u>(\$ 522,882)</u>	<u>\$ 2,066,971</u>
	<u>December 31, 2018</u>		
	<u>Cost</u>	<u>Allowance for valuation loss</u>	<u>Book value</u>
Raw materials	\$ 785,232	(\$ 32,559)	\$ 752,673
Work in progress	1,212,443	( 213,584)	998,859
Finished goods	1,630,100	( 497,097)	1,133,003
	<u>\$ 3,627,775</u>	<u>(\$ 743,240)</u>	<u>\$ 2,884,535</u>

Expense and loss incurred on inventories for the years ended December 31, 2019 and 2018 were as follows:

	Years ended December 31	
	2019	2018
Cost of goods sold	\$ 11,647,651	\$ 13,970,940
Effect of recoverable amounts written off	( 776)	( 280,504)
Scrap loss	237,754	267,636
(Gain on reversal of dscline) loss on decline in market value	( 220,358)	256,566
Loss on idle capacity	913,512	558,718
	<u>\$ 12,577,783</u>	<u>\$ 14,773,356</u>

(6) Investments accounted for using the equity method

	December 31, 2019	December 31, 2018
Subsidiaries:		
Lighting Investment Corp (Note 1)	\$ 2,081,416	\$ 1,928,717
Epistar JV Holding (BVI) Co., Ltd (Note 2)	9,030,452	10,268,739
Yen-Rich Technology Corporation (Note 3)	1,123,339	232,509
Full Star Enterprises Limited	257,907	250,537
Ecoled Venture Co., Limited	-	( 6,858)
SH Optotech Co., Ltd.	3,192	9,810
GaN Ventures Co., Limited	12,919	124,306
iReach Corporation	48,974	37,606
Unikorn Semiconductor Corporation (Note 4)	571,113	933,330
ProLight Opto Technology Corporation(Note 5)	88,278	-
GaN Force Corporation	56,283	-
Add: Non-current credit balance reclassified to other liabilities	-	6,858
	<u>13,273,873</u>	<u>13,785,554</u>
Associates:		
Nan Ya Photonics Incorporation	450,672	387,627
Tekcore Co., Ltd.	37,788	62,978
TE Opto Corporation	45,524	43,557
ProLight Opto Technology Corporation(Note 5)	-	97,043
	<u>533,984</u>	<u>591,205</u>
	<u>\$ 13,807,857</u>	<u>\$ 14,376,759</u>

Note 1: Lighting Investment Corp. proceeded with a simple merger with EPI Crystal Investment Inc. on July 1, 2018. Lighting Investment Corp. was the surviving company while EPI Crystal Investment Inc. was the dissolved company.

Note 2: Epistar JV Holding (BVI) Co., Ltd. proceeded with a simple merger with UEC Investment Ltd., Bee Rich Corporation and HUGA Holding (BVI) Limited on November 1, 2018. Epistar JV Holding (BVI) Co., Ltd was the surviving company while UEC Investment Ltd., Bee Rich Corporation and HUGA Holding (BVI) Limited were the dissolved companies.

Note 3: In September 2018, Zheng-Yi Technolgy Corporation has been renamed as Yen-Rich Technology Corporation.

Note 4: On October 1, 2018, the parent company established the Unikorn Semiconductor Corporation due to the spin-off and transfer of its operation for iii – v semiconductors OEM business.

Note 5 : The company became one of the Company’s subsidiaries starting from April 11, 2019.

A. Subsidiaries

Information on subsidiaries is provided in Note 4(3) of the 2019 consolidated financial statements.

## B. Associates

(a) The basic information of the associates that are material to the Company is as follows:

Company name	Principal place of business	Shareholding ratio		Nature of relationship	Methods of measurement
		December 31, 2019	December 31, 2018		
Nan Ya Photonics Incorporation	Taiwan	40.80%	40.80%	Associates	Equity method
ProLight Opto Technology Corporation	Taiwan	Note	12.71%	Note	Equity method

Note : The company became one of the Company's subsidiaries starting from April 11, 2019.

(b) The summarised financial information of the associates that are material to the Group is as follows:

### Balance sheet

	Nan Ya Photonics Incorporation	
	December 31, 2019	December 31, 2018
Current assets	\$ 1,073,694	\$ 929,990
Non-current assets	160,550	130,111
Current liabilities	( 146,214)	( 128,743)
Non-current liabilities	( 9,481)	( 9,520)
Total net assets	<u>\$ 1,078,549</u>	<u>\$ 921,838</u>
Share in associate's net assets	\$ 429,788	\$ 366,743
Goodwill	20,884	20,884
Carrying amount of the associate	<u>\$ 450,672</u>	<u>\$ 387,627</u>
	Prolight Opto Technology Corporation	
	December 31, 2019	December 31, 2018
Current assets	\$ -	\$ 527,783
Non-current assets	-	521,627
Current liabilities	-	( 185,033)
Non-current liabilities	-	( 105,323)
Total net assets	<u>\$ -</u>	<u>\$ 759,054</u>
Share in associate's net assets	\$ -	\$ 56,070
Goodwill	-	40,973
Carrying amount of the associate	<u>\$ -</u>	<u>\$ 97,043</u>

Statement of comprehensive income

	Nan Ya Photonics Incorporation	
	Years ended December 31	
	2019	2018
Revenue	\$ 715,223	\$ 879,307
Gain for the period from continuing operations	\$ 98,098	\$ 90,519
Other comprehensive income, net of tax	122,470	155,488
Total comprehensive income	<u>\$ 220,568</u>	<u>\$ 246,007</u>
Dividends received from associates	<u>\$ 27,359</u>	<u>\$ -</u>

	Prolight Opto Technology Corporation	
	Years ended December 31	
	2019	2018
Revenue	\$ 134,787	\$ 612,433
Loss for the period from continuing operations	(\$ 5,829)	(\$ 40,088)
Other comprehensive loss, net of tax	-	(170)
Total comprehensive loss	<u>(\$ 5,829)</u>	<u>(\$ 40,258)</u>
Dividends received from associates	<u>\$ -</u>	<u>\$ -</u>

- (c) The carrying amount of the Company's interests in all individually immaterial associates and the Group's share of the operating results are summarised below:

As of December 31, 2019 and 2018, the carrying amount of the Company's individually immaterial associates amounted to \$83,312 and \$106,535, respectively.

	Years ended December 31	
	2019	2018
Loss for the year from continuing operations	(\$ 106,092)	(\$ 9,563)
Other comprehensive loss	(63)	(435)
Total comprehensive loss	<u>(\$ 106,155)</u>	<u>(\$ 9,998)</u>

- C. The investment loss from equity method investees for the years ended December 31, 2019 and 2018 amounted to \$1,047,846 and \$248,225, respectively.
- D. The other comprehensive loss from equity method investees for the years ended December 31, 2019 and 2018 amounted to \$340,215 and \$291,962, respectively.
- E. The Company's investment in Tekcore Co., Ltd. has a quoted market price. The fair value of Tekcore Co., Ltd. as of December 31, 2019 and 2018 was \$100,024 and \$117,437, respectively.
- F. The Group disposed all its shares of Tops Electrical Technology Co., Led. on March 29, 2018 and recognised loss on disposal of investments amounting to \$898.

G. The Group lost significant influence over PlayNitride Inc. as the shares of PlayNitride Inc.

owned by the Group were less than 20% on March 6, 2018, therefore, the Group reclassified it into financial assets at fair value through other comprehensive income and recognised gains on disposal of investments amounting to \$105,276 in accordance with IFRSs.

(7) Property, plant and equipment

	Land	Buildings and structures	Machinery	Transportation equipment	Office equipment	Leasehold improvements	Construction in progress and equipment to be inspected	Total
At January 1, 2019								
Cost	\$ 124,661	\$ 12,379,159	\$ 31,080,964	\$ 3,287	\$ 135,846	\$ 84,143	\$ 1,382,330	\$ 45,190,390
Accumulated depreciation and impairment	-	( 6,443,242)	( 23,218,745)	( 3,287)	( 92,033)	( 47,519)	-	( 29,804,826)
	<u>\$ 124,661</u>	<u>\$ 5,935,917</u>	<u>\$ 7,862,219</u>	<u>\$ -</u>	<u>\$ 43,813</u>	<u>\$ 36,624</u>	<u>\$ 1,382,330</u>	<u>\$ 15,385,564</u>
<u>2019</u>								
Opening net book amount at January 1	\$ 124,661	\$ 5,935,917	\$ 7,862,219	\$ -	\$ 43,813	\$ 36,624	\$ 1,382,330	\$ 15,385,564
Additions	-	10,114	9,292	-	990	130	1,411,958	1,432,484
Transfer	-	672,829	1,477,806	-	9,899	7,753	( 2,168,287)	-
Disposals	-	( 15,230)	( 175,227)	-	( 1,123)	-	-	( 191,580)
Reclassifications	138,524	245,568	( 5,655)	-	( 684)	-	( 96,845)	280,908
Depreciation charge	-	( 780,397)	( 2,537,390)	-	( 14,311)	( 9,201)	-	( 3,341,299)
Impairment loss	-	( 37,799)	( 123,797)	-	-	( 15,126)	-	( 176,722)
Closing net book amount at December 31	<u>\$ 263,185</u>	<u>\$ 6,031,002</u>	<u>\$ 6,507,248</u>	<u>\$ -</u>	<u>\$ 38,584</u>	<u>\$ 20,180</u>	<u>\$ 529,156</u>	<u>\$ 13,389,355</u>
At December 31, 2019								
Cost	\$ 263,185	\$ 12,792,662	\$ 29,175,858	\$ 3,287	\$ 108,082	\$ 91,051	\$ 529,156	\$ 42,963,281
Accumulated depreciation and impairment	-	( 6,761,660)	( 22,668,610)	( 3,287)	( 69,498)	( 70,871)	-	( 29,573,926)
	<u>\$ 263,185</u>	<u>\$ 6,031,002</u>	<u>\$ 6,507,248</u>	<u>\$ -</u>	<u>\$ 38,584</u>	<u>\$ 20,180</u>	<u>\$ 529,156</u>	<u>\$ 13,389,355</u>

	Land	Buildings and structures	Machinery	Transportation equipment	Office equipment	Leasehold improvements	Construction in progress and equipment to be inspected	Total
At January 1, 2018								
Cost	\$ 124,661	\$ 11,748,150	\$ 30,072,874	\$ 3,287	\$ 140,327	\$ 85,438	\$ 1,835,073	\$ 44,009,810
Accumulated depreciation and impairment	-	( 5,752,302)	( 21,101,494)	( 2,993)	( 102,145)	( 40,870)	-	( 26,999,804)
	<u>\$ 124,661</u>	<u>\$ 5,995,848</u>	<u>\$ 8,971,380</u>	<u>\$ 294</u>	<u>\$ 38,182</u>	<u>\$ 44,568</u>	<u>\$ 1,835,073</u>	<u>\$ 17,010,006</u>
<u>2018</u>								
Opening net book amount at January 1	\$ 124,661	\$ 5,995,848	\$ 8,971,380	\$ 294	\$ 38,182	\$ 44,568	\$ 1,835,073	\$ 17,010,006
Spinoff and assignments transition	-	6,094	227,784	-	2,235	-	2,907,939	3,144,052
Additions	-	( 48,349)	( 180,431)	-	-	-	-	( 228,780)
Transfer	-	-	( 99,733)	-	-	-	-	( 99,733)
Disposals	-	( 408)	136,057	-	-	-	21,033	156,682
Reclassified to non-current assets held for sale	-	807,485	2,201,248	-	17,827	1,517	( 3,028,077)	-
Reclassifications	-	-	( 285,427)	-	-	( 763)	( 353,638)	( 639,828)
Depreciation charge	-	( 707,425)	( 2,768,336)	( 294)	( 14,431)	( 8,698)	-	( 3,499,184)
Impairment loss	-	( 117,327)	( 340,323)	-	-	-	-	( 457,650)
Closing net book amount at December	<u>\$ 124,661</u>	<u>\$ 5,935,918</u>	<u>\$ 7,862,219</u>	<u>\$ -</u>	<u>\$ 43,813</u>	<u>\$ 36,624</u>	<u>\$ 1,382,330</u>	<u>\$ 15,385,565</u>
At December 31, 2018								
Cost	\$ 124,661	\$ 12,379,159	\$ 31,080,964	\$ 3,287	\$ 135,846	\$ 84,143	\$ 1,382,330	\$ 45,190,390
Accumulated depreciation and impairment	-	( 6,443,241)	( 23,218,745)	( 3,287)	( 92,033)	( 47,519)	-	( 29,804,825)
	<u>\$ 124,661</u>	<u>\$ 5,935,918</u>	<u>\$ 7,862,219</u>	<u>\$ -</u>	<u>\$ 43,813</u>	<u>\$ 36,624</u>	<u>\$ 1,382,330</u>	<u>\$ 15,385,565</u>

(8) Leasing arrangements – lessee

Effective 2019

- A. The Group leases various assets including land, buildings, machinery, transportation equipment and office equipment. Rental contracts are typically made for periods of 2 to 50 years. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose covenants, but leased assets may not be used as security for borrowing purposes.
- B. Short-term leases with a lease term of 12 months or less comprise buildings, transportation equipment and office equipment. Low-value assets comprise office equipment.



C. The carrying amount of right-of-use assets and the depreciation charge are as follows:

	Year ended December	
	December 31, 2019	31, 2019
	Carrying amount	Depreciation charge
Land	\$ 1,202,185	\$ 45,241
Buildings	32,095	9,427
Machinery and equipment	3,255	13,378
Transportation equipment	4,754	5,360
Office equipment	27,646	9,520
	<u>\$ 1,269,935</u>	<u>\$ 82,926</u>

D. For the year ended December 31, 2019, the additions to right-of-use assets was \$17,422.

E. The information on profit and loss accounts relating to lease contracts is as follows:

	Year ended December	
	31, 2019	
<u>Items affecting profit or loss</u>		
Interest expense on lease liabilities	\$	25,501
Expense on short-term lease contracts		10,060
Expense on leases of low-value assets		3,157

F. For the year ended December 31, 2019, the Group's total cash outflow for leases was \$102,921.

(9) Intangible assets

	Patents	Acquired special technology	Software	Goodwill	Others	Total
At January 1, 2019						
Cost	\$ 2,214,280	\$ 64,652	\$ 309,302	\$ 6,324,659	\$ 30,442	\$ 8,943,335
Accumulated amortisation and impairment	( 1,108,970)	( 63,403)	( 189,657)	-	( 24,592)	( 1,386,622)
	<u>\$ 1,105,310</u>	<u>\$ 1,249</u>	<u>\$ 119,645</u>	<u>\$ 6,324,659</u>	<u>\$ 5,850</u>	<u>\$ 7,556,713</u>
<u>2019</u>						
Opening net book amount as at January 1	\$ 1,105,310	\$ 1,249	\$ 119,645	\$ 6,324,659	\$ 5,850	\$ 7,556,713
Additions – acquired separately	6,293	-	37,927	-	1,438	45,658
Disposals	( 4,189)	-	( 1,682)	-	-	( 5,871)
Reclassifications	8,483	-	2,953	-	2,400	13,836
Amortisation charge	( 186,653)	( 254)	( 57,075)	-	( 2,966)	( 246,948)
Closing net book amount as at December 31	<u>\$ 929,244</u>	<u>\$ 995</u>	<u>\$ 101,768</u>	<u>\$ 6,324,659</u>	<u>\$ 6,722</u>	<u>\$ 7,363,388</u>
At December 31, 2019						
Cost	\$ 2,223,811	\$ 64,651	\$ 348,035	\$ 6,324,659	\$ 34,279	\$ 8,995,435
Accumulated amortisation and impairment	( 1,294,567)	( 63,656)	( 246,267)	-	( 27,557)	( 1,632,047)
	<u>\$ 929,244</u>	<u>\$ 995</u>	<u>\$ 101,768</u>	<u>\$ 6,324,659</u>	<u>\$ 6,722</u>	<u>\$ 7,363,388</u>

	<u>Patents</u>	<u>Acquired special technology</u>	<u>Software</u>	<u>Goodwill</u>	<u>Others</u>	<u>Total</u>
At January 1, 2018						
Cost	\$ 2,148,660	\$ 63,381	\$ 251,363	\$ 6,324,659	\$ 29,010	\$ 8,817,073
Accumulated amortisation and impairment	( 907,224)	( 63,381)	( 140,555)	-	( 21,756)	( 1,132,916)
	<u>\$ 1,241,436</u>	<u>\$ -</u>	<u>\$ 110,808</u>	<u>\$ 6,324,659</u>	<u>\$ 7,254</u>	<u>\$ 7,684,157</u>
<u>2018</u>						
Opening net book amount as at January 1	\$ 1,241,436	\$ -	\$ 110,808	\$ 6,324,659	\$ 7,254	\$ 7,684,157
Additions – acquired separately	59,133	1,270	57,939	-	1,432	119,774
Reclassifications	6,487	-	-	-	-	6,487
Amortisation charge	( 201,746)	( 21)	( 49,102)	-	( 2,836)	( 253,705)
Closing net book amount as at December 31	<u>\$ 1,105,310</u>	<u>\$ 1,249</u>	<u>\$ 119,645</u>	<u>\$ 6,324,659</u>	<u>\$ 5,850</u>	<u>\$ 7,556,713</u>
At December 31, 2018						
Cost	\$ 2,214,280	\$ 64,652	\$ 309,302	\$ 6,324,659	\$ 30,442	\$ 8,943,335
Accumulated amortisation and impairment	( 1,108,970)	( 63,403)	( 189,657)	-	( 24,592)	( 1,386,622)
	<u>\$ 1,105,310</u>	<u>\$ 1,249</u>	<u>\$ 119,645</u>	<u>\$ 6,324,659</u>	<u>\$ 5,850</u>	<u>\$ 7,556,713</u>

Details of amortisation on intangible assets are as follows:

	<u>Years ended December 31</u>	
	<u>2019</u>	<u>2018</u>
Operating costs	\$ 114,803	\$ 110,588
Selling expenses	4,576	7,283
Administrative expenses	45,916	44,789
Research and development expenses	81,653	91,045
	<u>\$ 246,948</u>	<u>\$ 253,705</u>

(10) Impairment of non-financial assets

A. During the years ended December 31, 2019 and 2018, the reallocation of production lines resulted in the impairment of the Company's property, plant and equipment and non-current assets classified as held for sale. The Company adjusted recoverable amounts of property, plant and equipment as well as non-current assets classified as held for sale and recognised impairment losses amounting to \$178,603 and \$615,949, respectively. The recoverable amounts are the fair values less costs of disposal, the fair values were classified to level 3 and the impairment losses are detailed below:

	Years ended December 31	
	2019	2018
	Recognised in profit or loss	Recognised in profit or loss
Impairment loss - buildings and structures	\$ 37,799	\$ 117,327
Impairment loss - machinery	123,797	340,323
Impairment loss - office equipment	15,126	-
Impairment loss - non-current assets held for sale	1,881	158,299
	<u>\$ 178,603</u>	<u>\$ 615,949</u>

B. Goodwill is allocated to the Company's cash-generating units identified according to operating segment. The recoverable amount of all cash-generating units has been determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on financial budgets approved by the management covering a five-year period. Cash flows beyond the five-year period are extrapolated using the estimated growth rates stated below.

The recoverable amount of all cash-generating units calculated using the value-in-use exceeded their carrying amount, therefore goodwill was not impaired. The key assumptions used for value-in-use calculations are as follows:

	Year ended December 31, 2019			Year ended December 31, 2018		
	1st year	2~5 years	After 6th year	1st year	2~5 years	After 6th year
Revenue growth rate	33.55%	6.82%~ 14.7%	0.00%	26.63%	9.87%~ 30.11%	0.00%
Gross margin rate	17.59%	28.4%~ 34.9%	34.80%	15.56%	23.0%~ 26.8%	26.80%
Discount rate	11.39%	11.39%	11.39%	14.20%	14.20%	14.20%

(a) Revenue growth rate: Estimation refers to relevant market information and relevant operating and sales plan.

(b) Gross margin rate: Estimation refers to historical data and relevant operating and sales plan.

(c) Discount rate: The rate before tax and reflecting specific risk of relevant operating segment.

(11) Non-current assets held for sale

Assets of disposal group classified as held for sale:

	December 31, 2019	December 31, 2018
Property, plant and equipment	<u>\$ 827</u>	<u>\$ 388,500</u>

(12) Short-term borrowings

December 31, 2019 : None.

Type of borrowings	December 31, 2018	Interest rate range	Collaterals
Unsecured bank borrowings	<u>\$ 449,295</u>	0.90%~3.10%	None

(13) Other payables

Items	December 31, 2019	December 31, 2018
Payables on wages, salaries and bonus	\$ 337,196	\$ 475,216
Compensation due to employees, directors and supervisors	69,516	69,516
Payables on personnel expense	37,040	57,460
Payable on machinery and equipment	389,902	953,241
Payables on consumable goods and equipment repair expense	231,126	531,381
Payables on processing fees	179,244	97,381
Payables on reticle expense	17,575	26,478
Payables on gas expense	67,166	74,007
Payables on insurance expense	3,425	7,248
Payable on intangible assets	47,159	47,159
Others	363,991	513,127
	\$ 1,743,340	\$ 2,852,214

(14) Long-term borrowings

Type of borrowings	Borrowing period and repayment term	December 31, 2019
Secured borrowings	Before October 29, 2022	\$ 99,808
Unsecured borrowings	November 2, 2021 Repay fully at maturity	500,000
Unsecured borrowings	Before November 5, 2024	390,000
		989,808
Less: Current portion		( 78,561)
		\$ 911,247
Interest rate range		1.20%~1.26%

Type of borrowings	Borrowing period and repayment term	December 31, 2018
Secured borrowings	Before October 29, 2022	\$ 137,971
Unsecured borrowings	Before December 30, 2019	127,143
Unsecured borrowings	November 2, 2021 Repay fully at maturity	10,000
Unsecured borrowings	January 31, 2020 Repay fully at maturity	300,000
		575,114
Less: Current portion		( 165,306)
		\$ 409,808
Interest rate range		1.00%~1.39%

The Company, Formosa Inc. and Jiangsu Canyang Optoelectronics Ltd have signed a syndicated contract with 7 financial institutions including Land Bank of Taiwan. The lead bank is Land Bank of Taiwan. The credit granting period is 3 years from the first drawing date, May 30, 2016. Before the maturity, the granting period can be extended for 2 years upon application. The loan has been paid off in advance and the credit line has been cancelled on May 30, 2018.

A. Credit lines are as follows:

- (a) Tranche (A): Credit line is \$4,000,000. Details of Tranche A are as follows:
- i Tranche (A-1): To redeem the 2nd overseas convertible bond and the former facility of Tranche (B) of Formosa Inc., the credit line is \$1,500,000 which can be drawn separately but cannot be redrawn.
  - ii Tranche (A-2): Funds for fulfilling the Company's mid-term operational needs. Credit line is \$2,500,000 and can be redrawn.
- (b) Tranche (B): Credit line is \$1,600,000. Details of Tranche B are as follows:
- i Tranche (B-1): To repay former financial debt of Formosa Inc., the credit line is \$600,000 and cannot be redrawn.
  - ii Tranche (B-2): To fulfil midterm operating capital, the credit line is \$1,000,000 and can be redrawn.
- (c) The balance of Tranche (A) and Tranche (B) cannot exceed the total credit line.
- (d) Tranche (C): Credit line is US\$19,000 thousand. Details of Tranche C are as follows:
- Tranche (C-1): To repay financial debt of Jiangsu Canyang Optoelectronics Ltd., the credit line is USD 19,000 thousand and can be drawn at lump sum but cannot be redrawn.
- B. The Company has promised to maintain the following financial ratios and conditions that are based on the audited consolidated financial statements within the credit granting period (if violating following financial rates, annual rates of 0.125% should be added in accordance with contract):
- (a) Current ratio more than or equal to 100%;
  - (b) Debt ratio less or equal to 100%;
  - (c) Times interest earned ratio no less than 400%;
  - (d) Tangible net worth (shareholders' equity - intangible assets) not less than \$45,000,000 (inclusive).
- C. Due to the business combination of the Company and Formosa Inc. on September 29, 2016, the aforementioned Tranche (B), Tranche (B-1) and Tranche (B-2) are not applicable to the contract.
- D. The Company's financial commitments to borrowing from Taipei Fubon Commercial Bank Co., Ltd:
- Financial commitments (after the first drawn, following financial ratios shall maintain in the duration):
- i. Current ratio shall exceed (including) 100%.
  - ii. Interest coverage ratio shall exceed (including) 4.
  - iii. Debt ratio shall below (including) 100%.
  - iv. Tangible net assets: shall exceed NTD 45 billion.
- Aforementioned ratios of financial commitment were calculated based on the audited annual consolidated financial statements which will be reviewed once a year. If the financial ratios were violated the restriction, the interest rate plus 0.15%. If the financial ratio were not improved in the continuous 2 periods, the facility shall be examined.

(15) Pensions

A. (a) The Company has a defined benefit pension plans in accordance with the Labor Standards Law, covering all regular employees for services provided prior to July 1, 2005, and employees who choose to remain in the defined benefit pension plan subsequent to the enforcement of the Labor Pension Act on July 1, 2005. Under the defined benefit pension plan, employees are entitled to two base points for every year of service for the first 15 years and one base point for each additional year thereafter, up to a maximum of 45 base points. The pension payment to employees is computed based on years of service and average salaries or wages of the last six months prior to approved retirement. The Company contributes an amount equal to 2% of salaries and wages paid each month to a pension fund. The pension fund is administered by a pension fund monitoring committee (the “Committee”) and deposited under the Committee’s name in the Bank of Taiwan.

Also, the Company would assess the balance in the aforementioned labor pension reserve account by the end of December 31, every year. If the account balance is insufficient to pay the pension calculated by the aforementioned method, to the employees expected to be qualified for retirement next year, the Company will make contributions to cover the deficit by next March.

(b) The amounts recognized in the balance sheet are determined as follows:

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Present value of defined benefit obligations (\$	360,068)	(\$ 357,293)
Fair value of plan assets	<u>280,240</u>	<u>257,354</u>
Net defined benefit liability	<u>(\$ 79,828)</u>	<u>(\$ 99,939)</u>

(c) Movements in net defined benefit liabilities are as follows:

	2019		
	Present value of defined benefit obligations	Fair value of plan assets	Net defined benefit liability
At January 1	(\$ 357,293)	\$ 257,354	(\$ 99,939)
Current service cost	( 1,424)	-	( 1,424)
Interest (expense) income	( 3,566)	2,628	( 938)
Past service cost	5,159	-	5,159
Benefits paid	566	( 566)	-
	<u>( 356,558)</u>	<u>259,416</u>	<u>( 97,142)</u>
Remeasurements:			
Return on plan assets (excluding amounts included in interest income or expense)	-	8,883	8,883
Change in demographic assumptions	( 3,304)	-	( 3,304)
Change in financial assumptions	( 12,511)	-	( 12,511)
Experience adjustments	12,305	-	12,305
Pension fund contribution	( 3,510)	8,883	5,373
Paid pension	-	11,941	11,941
At December 31	<u>(\$ 360,068)</u>	<u>\$ 280,240</u>	<u>(\$ 79,828)</u>
	2018		
	Present value of defined benefit obligations	Fair value of plan assets	Net defined benefit liability
At January 1	(\$ 380,000)	\$ 239,145	(\$ 140,855)
Current service cost	( 1,750)	-	( 1,750)
Interest (expense) income	( 4,738)	3,064	( 1,674)
Benefits paid	3,783	( 3,783)	-
	<u>( 382,705)</u>	<u>238,426</u>	<u>( 144,279)</u>
Remeasurements:			
Return on plan assets (excluding amounts included in interest income or expense)	-	6,411	6,411
Change in demographic assumptions	( 105)	-	( 105)
Change in financial assumptions	( 13,014)	-	( 13,014)
Experience adjustments	38,531	-	38,531
Pension fund contribution	25,412	6,411	31,823
Paid pension	-	12,517	12,517
At December 31	<u>(\$ 357,293)</u>	<u>\$ 257,354</u>	<u>(\$ 99,939)</u>

- (d) The Bank of Taiwan was commissioned to manage the Fund of the Company's and domestic subsidiaries' defined benefit pension plan in accordance with the Fund's annual investment and utilisation plan and the "Regulations for Revenues, Expenditures, Safeguard and Utilisation of the Labor Retirement Fund" (Article 6: The scope of utilisation for the Fund includes deposit in domestic or foreign financial institutions, investment in domestic or foreign listed, over-the-counter, or private placement equity securities, investment in domestic or foreign real estate securitization products, etc.). With regard to the utilisation of the Fund, its minimum earnings in the annual distributions on the final financial statements shall be no less than the earnings attainable from the amounts accrued from two-year time deposits with the interest rates offered by local banks. If the earnings is less than aforementioned rates, government shall make payment for the deficit after being authorized by the Regulator. The Company has no right to participate in managing and operating that fund and hence the Company is unable to disclose the classification of plan asset fair value in accordance with IAS 19 paragraph 142. The composition of fair value of plan assets as of December 31, 2019 and 2018 is given in the Annual Labor Retirement Fund Utilisation Report announced by the government.
- (e) The principal actuarial assumptions used were as follows:

	Years ended December 31	
	2019	2018
Discount rate	0.75%	1.00%
Future salary increases	2.00%	2.00%

Future mortality rate was estimated separately based on the 5th Taiwan Standard Ordinary Experience Mortality Table.

Because the main actuarial assumption changed, the present value of defined benefit obligation is affected. The analysis was as follows:

	Discount rate		Future salary increases	
	Increase 25%	Decrease 25%	Increase 25%	Decrease 25%
December 31, 2019				
Effect on present value of defined benefit obligation	(\$ 12,483)	\$ 13,079	\$ 12,883	(\$ 12,363)
December 31, 2018				
Effect on present value of defined benefit obligation	(\$ 13,020)	\$ 13,663	\$ 13,492	(\$ 12,926)

The sensitivity analysis above is based on other conditions that are unchanged but only one assumption is changed. In practice, more than one assumption may change all at once. The method of analysing sensitivity and the method of calculating net pension liability in the balance sheet are the same.

The method and assumptions used for the preparation of sensitivity analysis during 2019 and during 2018 are the same.



(f) Expected contributions to the defined benefit pension plans of the Company for the next year ending December 31, 2020 amounts to \$11,619.

(g) As of December 31, 2019, the weighted average duration of that retirement plan is 14 years.

B. (a) Effective July 1, 2005, the Company has established a defined contribution pension plan (the “New Plan”) under the Labor Pension Act (the “Act”), covering all regular employees with R.O.C. nationality. Under the New Plan, the Company contribute monthly an amount based on 6% of the employees’ monthly salaries and wages to the employees’ individual pension accounts at the Bureau of Labor Insurance. The benefits accrued are paid monthly or in lump sum upon termination of employment.

(b) The pension costs under the defined contribution pension plans of the Company for the years ended December 31, 2019 and 2018 were \$119,928 and \$130,589, respectively.

(16) Share-based payment

A. For the years ended December 31, 2019 and 2018, the Company’s share-based payment arrangements were as follows:

<u>Type of arrangement</u>	<u>Grant date</u>	<u>Quantity granted (thousand shares)</u>	<u>Contract period</u>	<u>Vesting conditions</u>
Treasury stock transferred to employees	2017.09.26	20,000	2 years	Note

Note : The Board of Directors adopted a resolution to transfer 20,000 thousand treasury stocks to employees with a subscription price of NT\$26.9 and without transfer restriction during the meeting on September 26, 2017. If employees resign during the vesting period, they are obliged to compensate for the difference between closing market price and the subscription price on the date of security delivery which is under the discretion of the Chairperson.

(17) Long-term deferred revenue (shown under “Other non-current liabilities”)

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Government grants revenue	\$ 13,765	\$ 5,358
Deferred technical services revenue	12,307	16,266
	<u>\$ 26,072</u>	<u>\$ 21,624</u>

A. The Company obtained government grants for acquisitions of equipment and technology investments and recognized such grants as revenue over the economic lives of those assets. Government grants revenue recognized for the years ended December 31, 2019 and 2018 were \$45,523 and \$7,381 (shown under ‘Other revenue’), respectively.

B. In 2009 and 2018, the Company signed a technical and patent permissions contract with Lite field Corporation (Dalian) LTD. and QL Light Source, and recognises technical services and royalty revenue over the contract periods. The service revenue recognised for the years ended December 31, 2019 and 2018 were \$12,307 and \$16,266, respectively.

(18) Share capital

A. As of December 31, 2019, the Company's authorized capital was \$13,000,000, consisting of 1,300,000 thousand shares of ordinary stock (including 35,000 thousand shares reserved for employee stock options), and the paid-in capital was \$10,887,014 with a par value of \$10 (in dollars) per share. All proceeds from shares issued have been collected.

Movements of the Company's outstanding ordinary shares are as follows (expressed in thousands of shares):

	<u>2019</u>	<u>2018</u>
At January 1	1,083,051	1,075,836
Repurchase of treasury stocks	( 4,715)	( 3,085)
Treasury stocks transferred to employees	-	10,300
At December 31	<u>1,078,336</u>	<u>1,083,051</u>

B. Pursuant to the issuance of global depositary receipts (GDRs), the Company issued 135 million shares of common stocks for \$1,350,000 thousand dollars. On September 22, 2009, the issuance of GDRs was completed and the GDRs are traded on the Luxembourg Stock Exchange. The total GDRs issued were 27,000,000 units, each represented 5 common shares and US \$13 (in dollars) per unit, amounting to US \$351 million. As of December 31, 2019, the Company's outstanding units of GDRs amounted to 6,023 units.

C. On October 1, 2018, the total operating assets and liabilities of iii-v semiconductors OEM business for Spin-off and assignments to Unikorn Semiconductor Corporation were \$1,000,000 and \$0, respectively. Unikorn Semiconductor Corporation issued 100 million shares, at a price of \$10 per share (par value of \$5), to exchange the abovementioned assets and liabilities. The details are as follows:

<u>Assets</u>	<u>October 1, 2018</u>
Bank deposits	\$ 360,172
Property, plant and equipment	639,828
	<u>\$ 1,000,000</u>

D. Treasury shares

- (a) Reason for share reacquisition and movements in the number of the Company's treasury shares are as follows:

Reason for reacquisition	Thousand shares/Thousand				
	Year ended December 31, 2019				
	Beginning balance	Increase	Decrease	Ending balance	Book value
Held by subsidiaries	2,565	-	-	2,565	\$ 135,163
Held by the Company	3,085	4715	-	7,800	190,327

Reason for reacquisition	Year ended December 31, 2018				
	Beginning balance	Increase	Decrease	Ending balance	Book value
Held by subsidiaries	2,565	-	-	2,565	\$ 135,163
Held by the Company	-	3,085	-	3,085	75,845
To be reissued to employees	10,300	-	(10,300)	-	-

- (b) Pursuant to the R.O.C. Securities and Exchange Act, the number of shares bought back as treasury share should not exceed 10% of the number of the Company's issued and outstanding shares and the amount bought back should not exceed the sum of retained earnings, paid-in capital in excess of par value and realised capital surplus.
- (c) Pursuant to the R.O.C. Securities and Exchange Act, treasury shares should not be pledged as collateral and is not entitled to dividends before it is reissued.
- (d) Pursuant to the R.O.C. Securities and Exchange Act, treasury shares should be reissued to the employees within three years from the reacquisition date and shares not reissued within the three-year period are to be retired. Treasury shares to enhance the Company's credit rating and the stockholders' equity should be retired within six months of acquisition.

E. Information of the Company's shares held by subsidiaries – Lighting Investment Corporation is as follows:

	December 31, 2019	December 31, 2018
Shares	<u>2,565 thousand shares</u>	<u>2,565 thousand shares</u>
Book value	\$ 135,163	\$ 135,163
Fair value	\$ 82,970	\$ 65,658

(19) Capital surplus

A. Pursuant to the Company Act, capital surplus, including additional paid-in capital in excess of par and donation, shall be exclusively used to cover accumulated deficit or to issue new stock or cash to shareholders in proportion to their ownership when the Company has no accumulated deficit. However, pursuant to the R.O.C. Securities and Exchange Act, capital surplus arising from paid-in capital in excess of par value on issuance of common stock and donations can be capitalized once a year, provided that the Company has no accumulated deficit and the amount to be capitalized does not exceed 10% of the paid-in capital.

B. The shareholders resolved at their meeting on June 21, 2018 to issue cash to shareholders from capital surplus of \$121,765.

C. The shareholders resolved at their meeting on June 20, 2019 to issue cash to shareholders from capital surplus of \$324,270.

	Share premium	Treasury share transactions	Changes in ownership interests in subsidiaries	Difference between consideration and carrying amount of subsidiaries acquired or disposed	Change in net equity of associates and joint ventures accounted for under equity method	
At January 1, 2019	\$ 38,308,747	\$ 195,387	\$ 840,155	\$ 105,198	\$ 66,192	
Cash from capital surplus	( 324,270)	-	-	-	-	
Treasury stocks transferred to employees	-	-	-	-	7,304	
Net change in the equity of associates	-	-	14,059	-	-	
At December 31, 2019	<u>\$ 37,984,477</u>	<u>\$ 195,387</u>	<u>\$ 854,214</u>	<u>\$ 105,198</u>	<u>\$ 73,496</u>	

	Share premium	Treasury share transactions	Changes in ownership interests in subsidiaries	Difference between consideration and carrying amount of subsidiaries acquired or disposed	Change in net equity of associates and joint ventures accounted for under equity method	Employee restricted shares
At January 1, 2018	\$ 38,430,512	\$ 47,649	\$ 834,683	\$ 105,930	\$ 524,287	\$ 27,906
Cash from capital surplus	( 121,765)	-	-	-	-	-
Treasury stocks Transferred to employees	-	145,686	-	-	-	( 27,906)
Net change in the equity of associates	-	-	-	-	( 458,095)	-
Difference between consideration and carrying amount of subsidiaries acquired or disposed	-	-	-	( 732)	-	-
Changes in ownership interest in subsidiaries accounted for using equity method	-	-	5,472	-	-	-
Capital surplus adjustment due to dividend paid to subsidiaries	-	2,052	-	-	-	-
At December 31, 2018	<u>\$ 38,308,747</u>	<u>\$ 195,387</u>	<u>\$ 840,155</u>	<u>\$ 105,198</u>	<u>\$ 66,192</u>	<u>\$ -</u>

(20) Unappropriated retained earnings (accumulated deficit)

	<u>2019</u>	<u>2018</u>
At January 1	\$ 479,888	\$ 1,614,226
Effect of retrospective application and retrospective restatement	-	46,946
Profit (loss) for the year	( 3,753,797)	( 456,146)
Proceeds from disposal of financial assets at fair value through other comprehensive income	-	( 1,071)
Remeasurement of defined benefit obligations	4,287	25,129
Capital surplus used to offset accumulated deficits	-	-
Appropriation of earnings	-	( 749,196)
At December 31	<u>(\$ 3,269,622)</u>	<u>\$ 479,888</u>

A. In accordance with the Company's Articles of Incorporation, 10% of current year's earnings, after paying all taxes and dues and covering prior years' losses, shall be appropriated as legal reserve until the total equals the issued share capital. Special reserve shall be appropriated or reversed when needed. The remaining earnings along with the prior years' accumulated unappropriated earnings are considered as distributable earnings, and shall be retained and appropriated in proportion to the number of shares held by each shareholder accordingly.

B. The Company appropriates earnings based on the factors such as current and future investment environment, capital needs, domestic and overseas competition and capital budget, along with the consideration of shareholders' interest and capital adequacy. The appropriation of cash dividends shall not be lower than 10% of the total dividend appropriated to shareholders.

C. Except for covering accumulated deficit or issuing new stocks or cash to shareholders in proportion to their share ownership, the legal reserve shall not be used for any other purpose. The use of legal reserve for the issuance of stocks or cash to shareholders in proportion to their share ownership is permitted, provided that the distribution of the reserve is limited to the portion in excess of 25% of the Company's paid-in capital.

D. In accordance with the regulations, the Company shall set aside special reserve from the debit balance on other equity items at the balance sheet date before distributing earnings. When debit balance on other equity items is reversed subsequently, the special reserve is reversed accordingly and could be included in the distributable earnings.

E. The earnings appropriation as resolved by the Board of Directors on June 21, 2018 is as follows:

	<u>Year ended December 31, 2017</u>	
	<u>Amount</u>	<u>Dividends per share (in dollars)</u>
Legal reserve	\$ 161,423	\$ -
Reversal of special reserve	703,607	-
Cash dividends	749,196	0.688156
	<u>\$ 1,614,226</u>	

F. The appropriations of 2018 deficit had been resolved at the shareholders' meeting on June 20, 2019 that offset the deficits by special reserve amounting to \$385,142.

G. For the information relating to employees' compensation (bonuses) and directors' and supervisors' remuneration, please refer to Note 6(28).

(21) Other equity items

	Currency translation differences	Unrealized gain or loss on available-for-sale financial assets	Total
At January 1, 2019	(\$ 818,175)	(\$ 499,815)	(\$ 1,317,990)
Revaluation - gross	388,784	-	388,784
Revaluation - tax	( 70,757)	-	( 70,757)
Disposal of investments accounted for using equity method	-	3,332	3,332
Currency translation			
–Group	-	( 354,694)	( 354,694)
–Tax on Group	-	70,939	70,939
–Associates	-	( 6,374)	( 6,374)
–Tax on associates	-	1,275	1,275
At December 31, 2019	<u>(\$ 500,148)</u>	<u>(\$ 785,337)</u>	<u>(\$ 1,285,485)</u>

	Currency translation differences	Unrealized gain or loss on available-for-sale financial assets	Total
At January 1, 2018	(\$ 268,293)	(\$ 415,950)	(\$ 684,243)
Effect of retrospective application and retrospective restatement	( 52,055)	3,595	( 48,460)
Revaluation - gross	( 616,461)	-	( 616,461)
Revaluation - tax	117,563	-	117,563
Revaluation transferred to retained earnings - gross	1,071	-	1,071
Disposal of investments accounted for using equity method	-	5,439	5,439
Currency translation			
–Group	-	( 208,330)	( 208,330)
–Tax on Group	-	63,311	63,311
–Associates	-	65,150	65,150
–Tax on associates	-	( 13,030)	( 13,030)
At December 31, 2018	<u>(\$ 818,175)</u>	<u>(\$ 499,815)</u>	<u>(\$ 1,317,990)</u>

(22) Operating revenue

	Years ended December 31	
	2019	2018
Revenue from contracts with customers:		
Sales revenue	\$ 12,401,150	\$ 17,143,453
Services revenue	20,449	43,115
Other operating revenue	3,635	3,204
	<u>\$ 12,425,234</u>	<u>\$ 17,189,772</u>

(23) Other income and expenses– net

	Years ended December 31	
	2019	2018
Other income		
Royalty and technical income	\$ 76,091	\$ 118,742
Government grants revenue	45,523	7,381
	<u>\$ 121,614</u>	<u>\$ 126,123</u>

(24) Other income

	Years ended December 31	
	2019	2018
Interest income:		
Interest income from bank deposits	\$ 14,404	\$ 17,467
Net currency exchange gains	5,279	58,940
Other interest income	13,842	14,213
Total interest income	<u>33,525</u>	<u>90,620</u>
Rental revenue	146,951	56,027
Dividend income	13,789	12,910
Miscellaneous income	119,739	179,781
Total	<u>\$ 314,004</u>	<u>\$ 339,338</u>

(25) Other gains and losses

	Years ended December 31	
	2019	2018
Net gains on financial assets at fair value through profit or loss	\$ 193,066	\$ 4,504
Impairment loss on non-financial assets	( 178,603)	( 615,949)
Losses on disposal of property, plant and equipment	89,361	( 126,690)
Gains on disposal of intangible assets	5,698	-
Gains on disposal of investments	( 20,001)	100,804
Bargain purchase gains	23,541	-
Net currency exchange (losses) gains	( 110,219)	7,827
Miscellaneous losses	( 119,089)	( 60,214)
	<u>(\$ 116,246)</u>	<u>(\$ 689,718)</u>

(26) Finance costs

	Years ended December 31	
	2019	2018
Interest expense:		
Bank borrowings	\$ 9,255	\$ 16,927
Net currency exchange gains	545	( 256)
Other interest expense	26,964	12,106
	36,764	28,777
Less: capitalisation of qualifying assets	-	( 755)
	<u>\$ 36,764</u>	<u>\$ 28,022</u>

(27) Expenses by nature

	Years ended December 31	
	2019	2018
Employee benefit expenses	<u>\$ 3,092,720</u>	<u>\$ 3,495,523</u>
Depreciation charges on property, plant and equipment (Note)	<u>\$ 3,424,225</u>	<u>\$ 3,499,184</u>
Amortisation charges on intangible assets	<u>\$ 246,948</u>	<u>\$ 253,705</u>

Note: Depreciation amounting to \$124,572 and \$35,887 were recognized as a deduction of rental revenue for the years ended December 31, 2019 and 2018, respectively.

(28) Employee benefit expenses

	December 31, 2019	December 31, 2018
Wages and salaries	\$ 2,615,131	\$ 2,976,529
Labor and health insurance expenses	231,931	241,004
Pension costs	120,131	134,013
Other personnel expenses	125,527	143,977
	<u>\$ 3,092,720</u>	<u>\$ 3,495,523</u>

A. According to the Articles of Incorporation of the Company, the Company shall distribute employees' compensation and directors' remuneration based on 10%~20% and 2% of the distributable profit of the current year, respectively. If the Company has accumulated deficit, earnings should be reserved to cover losses.

The abovementioned distributable profit of the current year refers to the current year's income before tax (excluding put option, call option, conversion right and reacquisition of corporate bonds on overseas convertible bond that are recorded in other gains and losses) less the profit prior to the appropriation of employees' compensation and directors' remuneration.

B. The aforementioned amounts were recognised in salary expenses. For the year ended December 31, 2018, the Company incurred loss and thus did not accrue employees' compensation and directors' and supervisors' remuneration.



Information about employees' compensation and directors' and supervisors' remuneration of the Company as resolved by the Board of Directors will be posted in the "Market Observation Post System" at the website of the Taiwan Stock Exchange.

(29) Income tax

A. Income tax expense (benefit)

(a) Components of income tax expense (benefit):

	Years ended December 31	
	2019	2018
Current tax:		
Current tax on profits for the year	(\$ 6,395)	\$ 9,734
Tax of foreign source income withheld at source	( 37,049)	27,100
Total current tax	( 43,444)	36,834
Deferred tax:		
Origination and reversal of temporary differences	175,520	( 403,591)
Total deferred tax	175,520	( 403,591)
Income tax expense (benefit)	\$ 132,076	(\$ 366,757)

(b) The income tax (charge)/credit relating to components of other comprehensive income is as follows:

	Years ended December 31	
	2019	2018
Changes in fair value of financial assets at fair value through other comprehensive income	\$ 70,757	(\$ 117,563)
Currency translation differences	( 72,214)	( 50,281)
Remeasurement of defined benefit obligations	1,074	6,365
	(\$ 383)	(\$ 161,479)

B. Reconciliation between income tax (benefit) expense and accounting profit:

	Years ended December 31	
	2019	2018
Tax calculated based on profit (losses) before tax and statutory tax rate	(\$ 724,344)	(\$ 154,846)
Expenses disallowed and tax exempted income by tax regulation	( 3,452)	( 90)
Temporary differences not recognised as deferred tax assets	-	( 189,842)
Taxable loss not recognised as deferred tax assets	795,186	226,033
Investment tax not recognised as deferred tax assets	101,735	-
Prior year income tax (over) underestimation	( 37,049)	27,100
Effect from changes in tax regulation	-	( 275,112)
Income tax expense (benefit)	<u>\$ 132,076</u>	<u>(\$ 366,757)</u>

C. Amounts of deferred tax assets or liabilities as a result of temporary differences, tax losses and investment tax credit are as follows:

	2019			
	January 1	Recognized in profit or loss	Recognized in other comprehensive income	December 31
Deferred tax assets:				
— Temporary differences:				
Unrealized loss on inventory	\$ -	\$ 47,767	\$ -	\$ 47,767
Unrealized exchange loss	-	20,345	-	20,345
Unrealized sales returns and discounts	38,338	( 21,432)	-	16,906
Investment loss under equity method	561,842	233,344	-	795,186
Impairment loss for non-financial assets	43,101	-	-	43,101
Loss on valuation of financial assets	254,828	-	( 137,908)	116,920
Impairment loss for financial assets	47	-	-	47
Deferred revenue	540	2,181	-	2,721
Currency translation differences	628,485	-	221,819	850,304
Unrealized pension	27,034	( 1,832)	( 1,074)	24,128
Others	183,559	( 56,729)	-	126,830
Tax losses	1,907,130	( 171,151)	-	1,735,979
Investment tax credit	119,990	( 101,735)	-	18,255
Subtotal	<u>\$ 3,764,894</u>	<u>(\$ 49,242)</u>	<u>\$ 82,837</u>	<u>\$ 3,798,489</u>

	2019			
	January 1	Recognized in profit or loss	Recognized in other comprehensive income	December 31
– Deferred tax liabilities:				
Unrealized				
exchange gain	(\$ 47)	\$ 47	\$ -	\$ -
Unrealized loss from sales	( 17,157)	14,047	-	( 3,110)
Bargain purchase gain	( 22,670)	15,295	-	( 7,375)
Investment gain under equity method	( 532,707)	( 31,356)	-	( 564,063)
Gain on valuation of financial assets	( 119,297)	-	60,515	( 58,782)
Currency translation differences	( 477,196)	-	( 127,960)	( 605,156)
Others	( 214,557)	( 124,311)	-	( 338,868)
Subtotal	(\$ 1,383,631)	(\$ 126,278)	(\$ 67,445)	(\$ 1,577,354)
Total	<u>\$ 2,381,263</u>	<u>(\$ 175,520)</u>	<u>\$ 15,392</u>	<u>\$ 2,221,135</u>

	2018			
	January 1	Recognized in profit or loss	Recognized in other comprehensive income	December 31
Deferred tax assets:				
– Temporary differences:				
Unrealized exchange loss	\$ 277	(\$ 277)	\$ -	\$ -
Unrealized sales returns and discounts	9,794	28,544	-	38,338
Unrealized loss from sales	4,949	( 4,949)	-	-
Investment loss under equity method	501,414	60,428	-	561,842
Impairment loss for non-financial assets	102,221	( 59,120)	-	43,101
Loss on valuation of financial assets	111,380	-	143,448	254,828
Impairment loss for financial assets	3,484	( 3,437)	-	47
Deferred revenue	1,156	( 616)	-	540
Currency translation differences	515,708	-	112,777	628,485
Unrealized pension	20,206	463	6,365	27,034
Others	8,884	174,675	-	183,559
Tax losses	1,474,101	433,029	-	1,907,130
Investment tax credit	119,990	-	-	119,990
Subtotal	<u>\$ 2,873,564</u>	<u>\$ 628,740</u>	<u>\$ 262,590</u>	<u>\$ 3,764,894</u>

	2018			
	January 1	Recognized in		December 31
		profit or loss	other comprehensive income	
—Deferred tax liabilities:				
Unrealized				
exchange gain	\$ -	(\$ 47)	\$ -	(\$ 47)
Unrealized loss from sales	-	( 17,157)	-	( 17,157)
Bargain purchase gain	( 36,272)	13,602	-	( 22,670)
Investment gain under equity method	( 504,009)	( 28,698)	-	( 532,707)
Gain on valuation of financial assets	( 104,743)	-	( 14,554)	( 119,297)
Currency translation differences	( 393,055)	-	( 84,141)	( 477,196)
Others	( 27,235)	( 187,322)	-	( 214,557)
Subtotal	(\$ 1,065,314)	(\$ 219,622)	(\$ 98,695)	(\$ 1,383,631)
Total	<u>\$ 1,808,250</u>	<u>\$ 409,118</u>	<u>\$ 163,895</u>	<u>\$ 2,381,263</u>

D. Details of the amount the Company is entitled as investment tax credit and unrecognized deferred tax assets are as follows:

December 31, 2019			
Qualifying items	Unused tax credits	Unrecognised deferred tax assets	Expiry year
Investment credit for stockholder	\$ 499,950	\$ 499,950	2020
Investment credit for stockholder	100,000	8,725	2021
Investment tax credits for industrial innovation	967,447	967,447	2020
December 31, 2018			
Qualifying items	Unused tax credits	Unrecognised deferred tax assets	Expiry year
Investment credit for stockholder	\$ 499,950	\$ -	2020
Investment credit for stockholder	100,000	-	2021
Investment tax credits for industrial innovation	793,193	793,193	2019
Investment tax credits for industrial innovation	967,447	967,447	2020

E. Expiration dates of unused tax losses and amounts of unrecognized deferred tax assets are as follows:

December 31, 2019				
<u>Year incurred</u>	<u>Amount filed / assessed</u>	<u>Unused amount</u>	<u>Unrecognised deferred tax assets</u>	<u>Expiry year</u>
2014	Assessed	\$ 3,948,345	\$ 3,948,345	2024
2015	Assessed	1,048,267	4,990	2025
2016	Assessed	3,408,870	-	2026
2018	Amount filed	852,051	-	2028
2019	Amount filed	3,375,698	-	2029

December 31, 2018				
<u>Year incurred</u>	<u>Amount filed / assessed</u>	<u>Unused amount</u>	<u>Unrecognised deferred tax assets</u>	<u>Expiry year</u>
2014	Assessed	\$ 3,948,345	\$ -	2024
2015	Assessed	1,048,267	-	2025
2016	Assessed	3,408,870	-	2026
2018	Amount filed	852,051	-	2028

F. The amounts of deductible temporary difference that are not recognized as deferred tax assets are as follows: None.

G. The Company's products qualify for "Regulations for Encouraging Manufacturing Enterprises and Technical Service Enterprises in the Newly Emerging, Important and Strategic Industries" and the Company is entitled to the income tax exemption for five consecutive years. The duration has been set to start from January 1, 2017.

H. The Company's income tax returns through 2016 have been assessed and approved by the Tax Authority.

I. Under the amendments to the Income Tax Act which was promulgated by the President of the Republic of China on February 7, 2018, the Company's applicable income tax rate was raised from 17% to 20% effective from January 1, 2018. The Company has assessed the impact of the change in income tax rate.

(30) Losses per share

	Year ended December 31, 2019		
	<u>Amount after tax</u>	<u>Weighted average number of outstanding ordinary shares (share in thousands)</u>	<u>Losses per share (in dollars)</u>
<u>Basic losses per share</u>			
Losses attributable to the parent	(\$ 3,753,797)	1,078,425	(\$ 3.48)

	Year ended December 31, 2018		
	Amount after tax	Weighted average number of outstanding ordinary shares (share in thousands)	Losses per share (in dollars)
<u>Basic losses per share</u>			
Losses attributable to the parent	(\$ 456,146)	1,084,686	(\$ 0.42)

(31) Supplemental cash flow information

A. Investing activities with partial cash payments

	December 31, 2019	December 31, 2018
Purchase of property, plant and equipment	\$ 1,432,484	\$ 3,144,052
Add: Opening balance of payable on equipment	953,241	727,604
Add: Ending balance of prepayment for equipment	27,034	157,663
Less: Ending balance of payable on equipment	( 389,902)	( 953,241)
Less: Opening balance of prepayment for equipment	( 157,663)	( 330,245)
Cash paid during the year	<u>\$ 1,865,194</u>	<u>\$ 2,745,833</u>

Intangible assets:

	December 31, 2019	December 31, 2018
Purchase of intangible assets	\$ 45,658	\$ 119,774
Add: Opening balance of payables	142,218	177,597
Less: Ending balance of payables	( 94,525)	( 142,218)
Cash paid during the year	<u>\$ 93,351</u>	<u>\$ 155,153</u>

B. Partial cash investing activities

	December 31, 2019	December 31, 2018
Sale of property, plant and equipment	\$ 282,639	\$ 114,542
Add: Opening balance of receivables	46,327	30,140
Less: Ending balance of receivables	( 169,499)	( 46,327)
Cash collected during the year	<u>\$ 159,467</u>	<u>\$ 98,355</u>

C. Cash received from disposal of ownership interests in subsidiaries

	Years ended December 31	
	2019	2018
Disposal proceeds	\$ -	\$ 391,400
Less: Ending balance of receivables	-	( 104,503)
Net cash provided by disposal of subsidiaries	<u>\$ -</u>	<u>\$ 286,897</u>

### (32) Changes in liabilities from financing activities

	<u>Short-term borrowings</u>	<u>Long-term borrowings</u>	<u>Lease liabilities</u>	<u>Guarantee deposits received</u>	<u>Liabilities from financing activities-gross</u>
At January 1, 2019	\$ 449,295	\$ 575,114	\$ 1,402,458	\$ 5,347	\$ 2,432,214
Changes in cash flow from financing activities	( 450,400)	414,694	( 89,704)	( 1,782)	( 127,192)
Effect of exchange rate changes in borrowings	1,105	-	-	-	1,105
Effect of interest	-	-	25,501	-	25,501
Disposals	-	-	( 29,002)	-	( 29,002)
At December 31, 2019	<u>\$ -</u>	<u>\$ 989,808</u>	<u>\$ 1,309,253</u>	<u>\$ 3,565</u>	<u>\$ 2,302,626</u>
	<u>Short-term borrowings</u>	<u>Long-term borrowings</u>	<u>Guarantee deposits received</u>	<u>Liabilities from financing activities-gross</u>	
At January 1, 2018	\$ 700,000	\$ 2,645,833	\$ 6,129	\$ 3,351,962	
Changes in cash flow from financing activities	( 249,600)	( 2,079,823)	( 782)	( 2,330,205)	
Effect of exchange rate changes in borrowings	( 1,105)	-	-	( 1,105)	
Amortisation of borrowings cost	-	9,104	-	9,104	
At December 31, 2018	<u>\$ 449,295</u>	<u>\$ 575,114</u>	<u>\$ 5,347</u>	<u>\$ 1,029,756</u>	

## 7. RELATED PARTY TRANSACTIONS

### (1) Names of related parties and relationship

<u>Names of related parties</u>	<u>Relationship with the Group</u>
Lighting Investment Corp.	Subsidiary of the Company(Note 1)
Epistar JV Holding (BVI) Co.,Ltd.	Subsidiary of the Company (Note 8)
Full Star Enterprises Limited	Subsidiary of the Company
GaN Ventures Co., Limited	Subsidiary of the Company
SH Optotech Co., Ltd.	Subsidiary of the Company
iReach Corporation	Subsidiary of the Company
Unikorn Semiconductor Corporation	Subsidiary of the Company
Gan Force Corp.	Subsidiary of the Company
EPI Crystal Investment Inc.	Subsidiary of the Company (Note 1)
Yen-Rich Technology Corporation	Subsidiary of the Company (Note 3)
ProLight Opto Technology Corp.	Subsidiary of the Company (Note 4)
UEC Investment Ltd.	Subsidiary of the Company (Note 2)
Bee Rich Corporation	Subsidiary of the Company (Note 2)
HUGA Holding (BVI) Limited	Subsidiary of the Company (Note 2)
Ecoled Venture Co., Limited	Subsidiary of the Company(Note 14)
AllureLux Corporation	The Company's indirectly owned subsidiary
Lighting Investment Ltd.	The Company's indirectly owned subsidiary(Note 2)

Names of related parties	Relationship with the Group
Epistar (Hong Kong) Limited	The Company's indirectly owned subsidiary
LiteStar JV Holding (BVI) Co.,Ltd.	The Company's indirectly owned subsidiary
Episky Corp.(Xiamen) Ltd.	The Company's indirectly owned subsidiary
Episky (Hong Kong) Ltd.	The Company's indirectly owned subsidiary
United LED Corporation (Hong Kong) Limited	The Company's indirectly owned subsidiary
United LED Corporation (Shandong) Limited	The Company's indirectly owned subsidiary
Epicrystal (Changzhou) Co., Ltd.	The Company's indirectly owned subsidiary
Epicrystal (Hong Kong) Co. Ltd.	The Company's indirectly owned subsidiary
Crystal Light Enterprises Group Limited	The Company's indirectly owned subsidiary
Ningbo Formosa Epitaxy Incorporation	The Company's indirectly owned subsidiary
Jiangsu Canyang Optoelectronics Ltd	The Company's indirectly owned subsidiary
Can Yang Investments Limited	The Company's indirectly owned subsidiary
GV Semiconductor Inc.	The Company's indirectly owned subsidiary
HUGA Holding (SAMOA) Limited	The Company's indirectly owned subsidiary
Yen-Rich Opto (Hong Kong) Limited	The Company's indirectly owned subsidiary
Crystaluxx SARL	The Company's indirectly owned subsidiary
Luxlite (Shenzhen) Corporation Limited	The Company's indirectly owned subsidiary
Luxlite (HK) Corporation Limited	The Company's indirectly owned subsidiary
ProLight Opto Holding Corp.	The Company's indirectly owned subsidiary(Note 4)
ProLight Opto Technology Corp.	The Company's indirectly owned subsidiary(Note 4)
Shanghai Welight Electronic Co., LTD	The Company's indirectly owned subsidiary(Note 4)
Interlight Optotech Corp.	The Company's indirectly owned subsidiary (Note 5)
AllureLux Inc.	The Company's indirectly owned subsidiary(Note 6)
EPIRICH (Guangzhou) Co.,Ltd	The Company's indirectly owned subsidiary(Note 7)
EPISKY Corporation (Changzhou) LTD	The Company's indirectly owned subsidiary(Note 8)
Seoul Semiconductor Co. ,Ltd.	
Everlight Electronics Co., Ltd. and its subsidiaries	Other related party Other related party (Note 9)
LEDAZ Co., Ltd	Associate
Nan Ya Photonics Incorporation	Associate
Te K core Co., Ltd.	Associate
TE Opto Corporation	Associate
KAISTAR Lighting (Xiamen) Co., Ltd.	Associate (Note 10)
Very Optoelectronics(HUI ZHOU) Co., Ltd	Associate (Note 11)
Interlight Optotech (HK)Corp.	Associate
PlayNitride Inc.	Associate (Note 12)
Tops Electrical Technology Co., Ltd.	Associate (Note 13)

Note 1: Lighting Investment Corp. proceeded with a simple merger with EPI Crystal Investment Inc. on July 1, 2018. Lighting Investment Corp. was the surviving company while EPI Crystal Investment Inc. was the dissolved company.

Note 2: Epistar JV Holding (BVI) Co., Ltd. proceeded with a simple merger with UEC Investment Ltd., Bee Rich Corporation and HUGA Holding (BVI) Limited on November 1, 2018.



Epistar JV Holding (BVI) Co., Ltd was the surviving company while UEC Investment Ltd., Bee Rich Corporation and HUGA Holding (BVI) Limited were the dissolved companies.

Note 3: Zheng-Yi Technology Corporation has been renamed as Yen-Rich Technology Corporation on August 13, 2018.

Note 4: Lighting Investment Corp participated in ProLight Opto Technology Corp.'s private placement. The Group's shareholding ratio to ProLight Opto Technology Corp. was increased to 52.6% and the Group has control over ProLight Opto Technology Corp. starting from April 11, 2019, whereby ProLight Opto Technology Corp. became one of the Group's subsidiaries.

Note 5: The liquidation was completed on May 31, 2018 as the company will not continue its operation.

Note 6: The liquidation was completed on February 2019 as the company will not continue its operation.

Note 7: The liquidation was completed on April 2019 as the company will not continue its operation.

Note 8: The liquidation was completed on December, 2019 as the company will not continue its operation.

Note 9: No longer an associate of the Company since June 20, 2018.

Note 10: No longer an associate of the Company since April 26, 2018.

Note 11: No longer an associate of the Company since March 14, 2018.

Note 12: No longer an associate of the Company since March 6, 2018.

Note 13: No longer an associate of the Company since March 29, 2018.

Note 14: The liquidation was completed on December, 2019 as the company will not continue its operation.

(2) Significant related party transactions and balances

A. Operating revenue:

	Years ended December 31	
	2019	2018
Other related parties		
Everlight Electronics Co., Ltd and its subsidiaries	\$ 632,479	\$ 1,713,222
Others	790	32,341
	<u>633,269</u>	<u>1,745,563</u>
Associates	<u>242,038</u>	<u>921,551</u>
Subsidiaries		
Luxlite (Shenzhen) Corporation Limited	768,584	1,084,713
Episky Corp.(Xiamen) Ltd.	1,425,371	1,951,734
Others	1,037,872	1,360,243
	<u>3,231,827</u>	<u>4,396,690</u>
	<u>\$ 4,107,134</u>	<u>\$ 7,063,804</u>

The sales price and collection terms to related parties are generally comparable to those of third parties which is 150 days after month-end closing. Additionally, the sales price offered to certain related parties is not comparable to third parties since there is no such transaction with third parties. All other sales prices to related parties are the same as those to third parties.

B. Purchases:

	Years ended December 31	
	2019	2018
Associates	\$ 93	\$ 47,298
Subsidiaries		
EPISKY Corporation (Changzhou) LTD	3	1,413,330
Epicrystal (Changzhou) Co., Ltd.	1,230,596	423,001
Others	665,719	733,732
	<u>1,896,318</u>	<u>2,570,063</u>
	<u>\$ 1,896,411</u>	<u>\$ 2,617,361</u>

Due to the product variety, the purchase price from the above related parties was not comparable to other suppliers while other products have no difference with market price.

C. Receivables from related parties:

	December 31, 2019	December 31, 2018
Other related parties		
Everlight Electronics Co., Ltd. and its subsidiaries	\$ -	\$ 924,489
Others	237	11,359
	<u>237</u>	<u>935,848</u>
Associates	<u>93,201</u>	<u>312,002</u>
Subsidiaries		
Luxlite (Shenzhen) Corporation Limited	775,081	532,415
Episky Corp.(Xiamen) Ltd.	335,715	951,281
Others	296,452	369,314
	<u>1,407,248</u>	<u>1,853,010</u>
	<u>\$ 1,500,686</u>	<u>\$ 3,100,860</u>

The receivables from related parties arise mainly from sale transactions. The receivables are unsecured in nature and bear no interest.

D. Other receivables from related parties:

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Associates	\$ 203	\$ 305
Subsidiaries		
Jiangsu Canyang Optoelectronics Ltd.	144,077	46,684
Unikorn Semiconductor Corporation	106,577	25,161
Episky Corp.(Xiamen) Ltd.	34,368	42,428
Ecoled Venture Co., Limited	-	26,215
Others	62,878	51,713
	<u>347,900</u>	<u>192,201</u>
	<u>\$ 348,103</u>	<u>\$ 192,506</u>

The other receivables from related parties arise mainly from sales of machinery and equipment and patent licensing transactions.

E. Payables from related parties:

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Associates	\$ 148,448	\$ 250,262
Subsidiaries	586,380	287,986
	<u>\$ 734,828</u>	<u>\$ 538,248</u>

The payable to related parties arise mainly purchase transactions. The payable bear no interest.

F. Property transactions:

(a) Purchase of machinery and equipment

	Years ended December 31			
	<u>2019</u>		<u>2018</u>	
	<u>Purchase price</u>	<u>Payables</u>	<u>Purchase price</u>	<u>Payables</u>
Other related parties	\$ 111	\$ -	\$ -	\$ -
Associates	22,093	-	390	-
Subsidiaries	33,547	15,912	361,876	4,638
	<u>\$ 55,751</u>	<u>\$ 15,912</u>	<u>\$ 362,266</u>	<u>\$ 4,638</u>

(b) Disposal of property, plant and equipment

	Years ended December 31			
	2019		2018	
Sales of equipment:				
Associates	\$ 132	\$ 132	\$ 1,803	(\$ 131)
Subsidiaries				
Jiangsu Canyang				
Optoelectronics Ltd	132,258	86,898	22,647	1,011
Others	67,552	3,787	38,692	(1,250)
	<u>199,810</u>	<u>90,685</u>	<u>61,339</u>	<u>(239)</u>
	<u>\$ 199,942</u>	<u>\$ 90,817</u>	<u>\$ 63,142</u>	<u>(\$ 370)</u>

G. Processing fees

	Years ended December 31			
	2019		2018	
	Processing fees	Payables	Processing fees	Payables
Subsidiaries	<u>\$ 2,051</u>	<u>\$ 863</u>	<u>\$ 3,855</u>	<u>\$ 1,675</u>

The Company directly committed Episky Corp. (Xiamen) Ltd. for processing on order. Sales revenue and cost of sales, arising from the Company selling the semi-finished goods to Episky Corp. (Xiamen) Ltd., are reversed at the end of every month, which will be recognised as processing fees in the financial statements when those semi-finished goods are manufactured and sold back by Episky Corp. (Xiamen) Ltd. In addition, accounts payable and accounts receivable are presented in the financial statements as net amounts.

H. Loans to /from related parties:

(a) Balance at December 31, 2019 (shown as other receivables)

	December 31, 2019	December 31, 2018
Subsidiaries	<u>\$ 87,061</u>	<u>\$ 134,070</u>

(b) Interest income

	December 31, 2019	December 31, 2018
Subsidiaries	<u>\$ 5,868</u>	<u>\$ 8,855</u>

The loan interest were 1.25%~5.53% and 2.57%~5.53% per annum for the years ended December 31, 2019 and 2018, respectively.

I. Endorsements and guarantees provided to related parties:

The balances of guarantees provided to related parties for credit line of bank borrowings is as follows:

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Subsidiaries		
Episky Corp. (Xiamen) Ltd.	\$ 2,518,320	\$ 2,871,329
Jiangsu Canyang Optoelectronics Ltd	389,740	399,295
Unikorn Semiconductor Corporation	699,900	-
Yen-Rich Technology Corporation	149,900	-
	<u>\$ 3,757,860</u>	<u>\$ 3,270,624</u>

J. Other

(a) Royalty and technical income

	<u>Years ended December 31</u>	
	<u>2019</u>	<u>2018</u>
Associates	\$ 1,517	\$ 2,701
Subsidiaries	55,708	79,577
	<u>\$ 57,225</u>	<u>\$ 82,278</u>

(b) Fee income

	<u>Years ended December 31</u>	
	<u>2019</u>	<u>2018</u>
Subsidiaries	\$ 6,690	\$ 3,667

(c) Other income

	<u>Years ended December 31</u>	
	<u>2019</u>	<u>2018</u>
Associates	\$ 786	\$ 2,646
Subsidiaries	35,654	89,351
	<u>\$ 36,440</u>	<u>\$ 91,997</u>

(d) Rental revenue

	<u>Years ended December 31</u>	
	<u>2019</u>	<u>2018</u>
Subsidiaries	\$ 57,762	\$ 8,468

(3) Key management compensation

	<u>Years ended December 31</u>	
	<u>2019</u>	<u>2018</u>
Salaries and other short-term employee benefits	\$ 94,328	\$ 99,114
Post-employment benefits	1,962	1,900
	<u>\$ 96,290</u>	<u>\$ 101,014</u>

## 8. PLEDGED ASSETS

The Company's assets pledged as collateral are as follows:

<u>Pledged asset</u>	<u>Book value</u>		<u>Purpose</u>
	<u>December 31, 2019</u>	<u>December 31, 2018</u>	
Bank deposits (Shown in "Other assets- other")	\$ 101,986	\$ 97,546	Lease deposit, Collateral deposits for provisional seizure
Buildings and structures	516,622	577,376	Long-term borrowings
	<u>\$ 618,608</u>	<u>\$ 674,922</u>	

## 9. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED CONTRACT COMMITMENTS

(1) Capital expenditure contracted for at the balance sheet date but not yet incurred is as follows:

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Property, plant and equipment	<u>\$ 319,101</u>	<u>\$ 926,215</u>

(2) Operating lease commitments

The Company's operating lease contracts for land, factories, dorms and automobiles are irrevocable and most of them can be renewed at market price at the end of the lease term.

The future aggregate minimum lease payments under non-cancellable operating leases are as follows:

	<u>December 31, 2018</u>
Not later than one year	\$ 51,111
Later than one year but not later than five years	168,060
Later than five years	411,126
Total	<u>\$ 630,297</u>

On October 12, 2012, the Trustees of Boston University filed a lawsuit against the Company, alleging patent infringement. In November 2015, the verdict of a Massachusetts federal jury for the first instance stated that the Company shall pay compensation of US\$ 9.3 million. However, the Company won the verdict from the United States Court of Appeals for the Federal Circuit that stated in the second instance that the alleging patent infringement is invalid on July 25, 2018.

## 10. SIGNIFICANT DISASTER LOSS

None.

## 11. SIGNIFICANT EVENTS AFTER THE BALANCE SHEET DATE

None.

## 12. OTHERS

### (1) Capital risk management

The Company's capital management policy is established taking into account the industry characteristics, the Company's future development and changes in external environments. The Company plans the working capital, capital expenditures, investments and dividends required for the future based on the capital management policy, makes financial analysis, and examines its capital

structure periodically and makes appropriate adjustments to ensure that every entity within the Company may grow and operate indefinitely.

(2) Financial instruments

A. Financial instruments by category

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
<u>Financial assets</u>		
Financial assets at fair value through profit or loss		
Financial assets mandatorily measured at fair value through profit or loss	\$ 407,662	\$ 40,923
Financial assets at fair value through other comprehensive income	1,465,837	1,097,917
Designation of equity instrument	-	-
Financial assets at amortised cost		
Cash and cash equivalents	2,312,265	3,012,708
Notes receivable	813,367	521,031
Accounts receivable	3,896,102	4,076,544
Accounts receivable due from related parties	1,500,686	3,100,860
Other receivables	98,448	191,748
Other receivables due from related parties	435,164	326,576
Guarantee deposits paid	7,071	6,545
Other financial assets	101,992	97,552
	<u>\$ 11,038,594</u>	<u>\$ 12,472,404</u>
<u>Financial liabilities</u>		
Financial liabilities at amortised cost		
Short-term borrowings	\$ -	\$ 449,295
Notes payable	4,122	9,421
Accounts payable	1,058,122	1,565,828
Accounts payable to related parties	734,828	538,248
Other payables	1,743,340	2,852,214
Lease liabilities(including current portion)	1,309,253	-
Long-term borrowings (including current portion)	989,808	575,114
Long-term accounts payable	47,365	95,059
Guarantee deposits received	3,565	5,347
	<u>\$ 5,890,403</u>	<u>\$ 6,090,526</u>

B. Financial risk management policies

- (a) The Company's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, interest rate risk and price risk), credit risk and liquidity risk. The purpose of risk management is to minimise potential adverse effects arising from uncertainty on the Company's financial performance.

- (b) Risk management is carried out by treasury and finance departments of the Company under policies approved by the Board of Directors. Treasury and finance departments of the Company identifies, evaluates and hedges financial risks in close co-operation with the Company's operating units. The Board provides written principles for overall risk management, as well as written policies covering specific areas and matters, such as foreign exchange risk, interest rate risk, credit risk, use of derivative financial instruments and non-derivative financial instruments, and investment of excess liquidity.

C. Significant financial risks and degrees of financial risks

(a) Market risk

Foreign exchange risk

- i. The Company operates internationally and is exposed to exchange rate risk arising from the transactions of the Company and its subsidiaries used in various functional currency, primarily with respect to the USD, JPY and RMB. Exchange rate risk arises from future commercial transactions and recognised assets and liabilities.
- ii. Management has set up a policy to require the Company to manage their foreign exchange risk against their functional currency. The companies are required to hedge their entire foreign exchange risk exposure with the Company treasury.
- iii. The Company's businesses involve some non-functional currency operations (the functional currency of the Company and certain subsidiaries is NTD while that of other subsidiaries are USD and RMB). The information on assets and liabilities denominated in foreign currencies whose values would be materially affected by the exchange rate fluctuations is as follows:

	December 31, 2019		
	Foreign currency amount (in Thousands)	Exchange rate	Book value (in Thousands of NTD)
(Foreign currency: functional currency)			
<u>Financial assets</u>			
<u>Monetary items</u>			
USD:NTD	\$ 137,878	29.980	\$ 4,133,592
RMB:NTD	442,775	4.3050	1,906,148
<u>Non-monetary items</u>			
USD:NTD	349,952	29.980	10,491,556
<u>Financial liabilities</u>			
<u>Monetary items</u>			
USD:NTD	33,090	29.980	992,044
RMB:NTD	232,899	4.3050	1,002,632
JPY:NTD	103,668	0.2760	28,612



December 31, 2018

	Foreign currency amount		Book value	
	(in Thousands)	Exchange rate	(in Thousands of NTD)	
(Foreign currency: functional currency)				
<u>Financial assets</u>				
<u>Monetary items</u>				
USD:NTD	\$ 164,561	30.715	\$	5,054,485
RMB:NTD	457,620	4.4720		2,046,476
<u>Non-monetary items</u>				
USD:NTD	386,006	30.715		11,856,183
<u>Financial liabilities</u>				
<u>Monetary items</u>				
USD:NTD	80,169	30.715		2,462,384
RMB:NTD	134,010	4.4720		599,294
JPY:NTD	270,761	0.2782		75,326

- iv. Please refer to the following table for the details of unrealized exchange gain (loss) arising from significant foreign exchange variation on the monetary items held by the Company.

	Year ended December 31, 2019		Unrealized exchange gain (loss)	
	Foreign currency amount	Exchange rate	Book value	
	(in Thousands)	Exchange rate	(in Thousands of NTD)	
(Foreign currency: functional currency)				
<u>Financial assets</u>				
<u>Monetary items</u>				
USD:NTD	\$ -	29.980	(\$	106,196)
RMB:NTD	-	4.3050	(	33,977)
<u>Financial liabilities</u>				
<u>Monetary items</u>				
USD:NTD	-	29.980		26,300
RMB:NTD	-	4.3050		12,006
JPY:NTD	-	0.2760		424

Year ended December 31, 2018			
Unrealized exchange gain (loss)			
(Foreign currency: functional currency)	Foreign currency		Book value
	amount (in Thousands)	Exchange rate	(in Thousands of NTD)
<u>Financial assets</u>			
<u>Monetary items</u>			
USD:NTD	\$ -	30.715	(\$ 2,608)
RMB:NTD	-	4.472	( 4,648)
<u>Financial liabilities</u>			
<u>Monetary items</u>			
USD:NTD	-	30.715	7,243
RMB:NTD	-	4.4720	447
JPY:NTD	-	0.2782	( 1,126)

- v. Analysis of foreign currency market risk arising from significant foreign exchange variation:

Year ended December 31, 2019				
Sensitivity analysis				
(Foreign currency: functional currency)	Extent of variation	Effect on profit or		Effect on equity
		loss		
<u>Financial assets</u>				
<u>Monetary items</u>				
USD:NTD	1%	\$ 41,336	\$ -	-
RMB:NTD	1%	19,061		-
<u>Non-monetary item</u>				
USD:NTD	1%	-		104,916
<u>Financial liabilities</u>				
<u>Monetary items</u>				
USD:NTD	1%	9,920		-
RMB:NTD	1%	10,026		-
JPY:NTD	1%	286		-

Year ended December 31, 2018				
Sensitivity analysis				
	<u>Extent of variation</u>	<u>Effect on profit or</u>		<u>Effect on equity</u>
		<u>loss</u>		
(Foreign currency: functional currency)				
<u>Financial assets</u>				
<u>Monetary items</u>				
USD:NTD	1%	\$	50,545	\$ -
RMB:NTD	1%		20,465	-
<u>Non-monetary item</u>				
USD:NTD	1%		-	118,562
<u>Financial liabilities</u>				
<u>Monetary items</u>				
USD:NTD	1%		24,624	-
RMB:NTD	1%		5,993	-
JPY:NTD	1%		753	-

#### Price risk

- i. The Company's equity securities, which are exposed to price risk, are the held financial assets at fair value through profit or loss, financial assets at fair value through other comprehensive income. To manage its price risk arising from investments in equity securities, the Company diversifies its portfolio. Diversification of the portfolio is done in accordance with the limits set by the Company.
- ii. The Company's investments in equity securities comprise shares and open-end funds issued by the domestic companies. The prices of equity securities would change due to the change of the future value of investee companies. If the prices of these equity securities had increased/decreased by 10% with all other variables held constant, post-tax profit for the years ended December 31, 2019 and 2018 would have increased/decreased by \$40,766 and \$4,092, respectively, as a result of gains/losses on equity securities classified as at fair value through profit or loss. Other components of equity would have increased/decreased by \$146,584 and \$109,792, respectively, as a result of other comprehensive income classified as equity investment at fair value through other comprehensive income.

#### Cash flow and fair value interest rate risk

- i. The Company's interest rate risk arises from bank deposits and long-term borrowings. Borrowings issued at variable rates expose the Company to cash flow interest rate risk which is partially offset by cash and cash equivalents held at variable rates. Borrowings issued at fixed rates expose the Company to fair value interest rate risk. The Company's borrowings at variable rate were denominated in the USD and NTD.

- ii. Based on the simulations performed on sensitivity analysis for interest rate risk, the maximum impact on post-tax profit of a 0.1% shift would be increased/decreased of \$481 and \$301 for the years ended December 31, 2019 and 2018, respectively. The simulation is done on a quarterly basis to ensure that the potential maximum loss is within the limit set by the management.
- (b) Credit risk
- i. Credit risk refers to the risk of financial loss to the Company arising from default by the clients or counterparties of financial instruments on the contract obligations. The main factor is that counterparties could not repay in full the accounts receivable based on the agreed terms, and the contract cash flows of debt instruments stated at amortised cost, at fair value through profit or loss and at fair value through other comprehensive income.
  - ii. The Company adopts the assumptions under IFRS 9, the default occurs when the contract payments are past due over 90 days.
  - iii. The Company adopts following assumptions under IFRS 9 to assess whether there has been a significant increase in credit risk on that instrument since initial recognition:  
If the contract payments were past due over 30 days based on the terms, there has been a significant increase in credit risk on that instrument since initial recognition.
  - iv. The following indicators are used to determine whether the credit impairment of debt instruments has occurred:
    - (i) It becomes probable that the issuer will enter bankruptcy or other financial reorganization due to their financial difficulties;
    - (ii) The disappearance of an active market for that financial asset because of financial difficulties;
    - (iii) Default or delinquency in interest or principal repayments;
    - (iv) Adverse changes in national or regional economic conditions that are expected to cause a default.
  - v. The Company classifies customers' accounts receivable, contract assets and rents receivable in accordance with credit rating of customer. The Company applies the simplified approach using provision matrix, loss rate methodology to estimate expected credit loss under the provision matrix basis.
  - vi. The Company wrote-off the financial assets, which cannot be reasonably expected to be recovered, after initiating recourse procedures. However, the Company will continue executing the recourse procedures to secure their rights. As of December 31, 2019 and 2018, the Company's written-off financial assets that are still under recourse procedures amounted to \$16,753 and \$16,753, respectively.

- vii. The Company used the forecast ability of Taiwan Institute of Economic Research boom observation report to adjust historical and timely information to assess the default possibility of accounts receivable and other receivables. As of December 31, 2019 and 2018, the provision matrix, loss rate methodology is as follows:

	Not past due	Up to 30 days past due	31~90 days past due	91~180 days past due	Over 180 days past due	Total
<u>December 31, 2019</u>						
Expected loss rate	0.01%	0.01%~0.16%	0.01%~55.66%	0.01%~100%	0.01%~100%	
Total book value	\$ 6,273,093	\$ 192,162	\$ 189,178	\$ 29,413	\$ 67,307	\$ 6,751,153
Loss allowance	\$ 229	\$ 104	\$ -	\$ -	\$ 7,054	\$ 7,387
		Up to 30 days past due	31~90 days past due	91~180 days past due	Over 180 days past due	
<u>December 31, 2018</u>						
Expected loss rate	0.01%~0.07%	0.01%~1.08%	0.01%~18.71%	0.01%~100%	0.01%~100%	
Total book value	\$ 7,267,342	\$ 244,466	\$ 59,578	\$ 59,340	\$ 46,935	\$ 7,677,661
Loss allowance	\$ 1,748	\$ 850	\$ 238	\$ 2,471	\$ 13,947	\$ 19,254

	Individual provision	Group provision	Total
<u>December 31, 2019</u>			
Expected loss rate	100%	0.01%~100%	
Total book value	\$ 7,283	\$ 6,743,870	\$ 6,751,153
Loss allowance	\$ 7,283	\$ 104	\$ 7,387
	Individual provision	Group provision	Total
<u>December 31, 2018</u>			
Expected loss rate	100%	0%~100%	
Total book value	\$ 14,083	\$ 8,221,930	\$ 8,236,013
Loss allowance	\$ 14,083	\$ 5,171	\$ 19,254

- viii. Movements in relation to the Company applying the simplified approach to provide loss allowance for accounts receivable, and other receivables are as follows:

	Year ended December 31, 2019	
	Accounts receivable	Other receivables
At January 1	\$ 19,254	\$ -
Provision for impairment	20,690	37,265
Reversal of impairment	( 29,360)	( 30,211)
Write-offs	( 10,251)	-
At December 31	\$ 333	\$ 7,054

	Year ended December 31, 2018	
	Accounts receivable	Other receivables
At January 1_IAS 39	\$ 31,421	\$ 4,200
Adjustment for retrospective application	2,318	-
At January 1_IFRS 9	33,739	4,200
Provision for impairment	3,684	79
Reversal of impairment	( 926)	( 4,200)
Write-offs	( 17,243)	( 79)
At December 31	<u>\$ 19,254</u>	<u>\$ -</u>

(c) Liquidity risk

- i. Cash flow forecasting is performed in the operating entities of the Company and aggregated by Company treasury. Company treasury monitors rolling forecasts of the Company's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining sufficient headroom on its undrawn committed borrowing facilities at all times so that the Company does not breach borrowing limits or covenants on any of its borrowing facilities. Such forecasting takes into consideration the Company's debt financing plans, covenant compliance, compliance with internal balance sheet ratio targets and external regulatory or legal requirements.
- ii. Surplus cash are invested in interest bearing current accounts, time deposits, money market deposits and marketable securities, with appropriate maturities or sufficient liquidity to provide sufficient headroom and meet the above-mentioned forecasts. As of December 31, 2019 and 2018, the Company held money market position of \$2,719,927 and \$3,053,631, respectively, and those are expected to readily generate cash inflows for managing liquidity risk.
- iii. The table below shows analysis of the Company's non-derivative financial liabilities and net-settled or gross-settled derivative financial liabilities into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date for non-derivative financial liabilities and to the expected maturity date for derivative financial liabilities. The amounts disclosed in the table are the contractual undiscounted cash flows.

Non-derivative financial liabilities:

December 31, 2019	<u>Less than 1 year</u>	<u>Between 1 and 5 years</u>	<u>Between 5 and 7 years</u>	<u>Over 7 years</u>
Notes payable	\$ 4,122	\$ -	\$ -	\$ -
Accounts payable	1,792,950	-	-	-
Other payables	1,743,340	-	-	-
Lease liabilities	82,260	269,277	108,875	1,200,827
Long-term borrowings (including current portion)	79,252	937,822	-	-
Long-term accounts payable (including current portion)	-	47,365	-	-
Other financial liabilities	3,032	-	533	-

December 31, 2018	Less than 1 year	Between 1 and 5 years	Between 5 and 7 years	Over 7 years
Short-term borrowings	\$ 449,295	\$ -	\$ -	\$ -
Notes payable	9,421	-	-	-
Accounts payable	2,104,076	-	-	-
Other payables	2,852,214	-	-	-
Long-term borrowings (including current portion)	171,144	414,535	-	-
Long-term accounts payable (including current portion)	-	95,059	-	-
Other financial liabilities	4,502	762	-	533

iv. The Company does not expect the timing of the estimated cash outflows through the maturity date analysis will be significantly earlier, nor expect the actual cash flow amount will be significantly different.

### (3) Fair value information

A. The different levels that the inputs to valuation techniques are used to measure fair value of financial and non-financial instruments have been defined as follows:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date. A market is regarded as active where a market in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis. The fair value of the Company's investment in listed stocks and beneficiary certificates is included in Level 1.

Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. The fair value of the Company's investment in convertible bonds and most derivative instruments is included in Level 2.

Level 3: Unobservable inputs for the asset or liability. The fair value of the Company's investment in equity investment without active market is included in Level 3.

B. Financial instruments not measured at fair value

(a) Except for those listed in the table below, the carrying amounts of cash and cash equivalents, notes receivable, accounts receivable, other receivables, refundable deposits, other financial assets, short-term borrowings, short-term notes and bills payable, notes payable, accounts payable, other payables, long-term accounts payable and guarantee deposits received are approximate to their fair values.

	December 31, 2019			
	Book value	Fair value		
		Level 1	Level 2	Level 3
Financial liabilities:				
Long-term borrowings (including current portion)	\$ 989,808	\$ -	\$ 1,002,905	\$ -

	December 31, 2018			
	Book value	Fair value		
		Level 1	Level 2	Level 3
Financial liabilities:				
Long-term borrowings (including current portion)	\$ 575,114	\$ -	\$ 577,226	\$ -

(b) The methods and assumptions of fair value estimation are as follows:

Long-term borrowings: They are measured at present value, which is calculated based on the cash flow expected to be paid and discounted using a market rate prevailing at balance sheet date.

C. The related information of financial and non-financial instruments measured at fair value by level on the basis of the nature, characteristics and risks of the assets and liabilities is as follows:

(a) The related information of natures of the assets and liabilities is as follows:

December 31, 2019	Level 1	Level 2	Level 3	Total
Assets				
<u>Recurring fair value measurements</u>				
Financial assets at fair value through profit or loss				
Equity securities	\$ 249,900	\$ -	\$ 157,762	\$ 407,662
Financial assets at fair value through other comprehensive income				
Equity securities	184,977	-	1,280,860	1,465,837
	<u>\$ 434,877</u>	<u>\$ -</u>	<u>\$ 1,438,622</u>	<u>\$ 1,873,499</u>
December 31, 2018	Level 1	Level 2	Level 3	Total
Assets				
<u>Recurring fair value measurements</u>				
Financial assets at fair value through profit or loss				
Equity securities	\$ 40,923	\$ -	\$ -	\$ 40,923
Financial assets at fair value through other comprehensive income				
Equity securities	189,508	-	908,409	1,097,917
	<u>\$ 230,431</u>	<u>\$ -</u>	<u>\$ 908,409</u>	<u>\$ 1,138,840</u>

(b) The methods and assumptions the Company used to measure fair value are as follows:

i. The instruments the Company used market quoted prices as their fair values (that is, Level 1) are listed below by characteristics:

	Listed shares	Closed-end fund	Open-end fund
Market quoted price	Closing price	Closing price	Net asset value

ii. Except for financial instruments with active markets, the fair value of other financial instruments is measured by using valuation techniques or by reference to counterparty quotes. The fair value of financial instruments measured by using valuation techniques can be referred to current fair value of instruments with similar terms and characteristics in substance, discounted cash flow method or other valuation methods, including calculated



by applying model using market information available at the consolidated balance sheet date.

- iii. When assessing non-standard and low-complexity financial instruments, for example, debt instruments without active market and foreign exchange swap contracts, the Company adopts valuation technique that is widely used by market participants. The inputs used in the valuation method to measure these financial instruments are normally observable in the market.
  - iv. For high-complexity financial instruments, the fair value is measured by using self-developed valuation model based on the valuation method and technique widely used within the same industry. The valuation model is normally applied to derivative financial instruments, debt instruments with embedded derivatives or securitised instruments. Certain inputs used in the valuation model are not observable at market, and the Company must make reasonable estimates based on its assumptions. The effect of unobservable inputs to the valuation of financial instruments is provided in Note 12(3) A.
  - v. The output of valuation model is an estimated value and the valuation technique may not be able to capture all relevant factors of the Company's financial and non-financial instruments. Therefore, the estimated value derived using valuation model is adjusted accordingly with additional inputs, for example, model risk or liquidity risk and etc. In accordance with the Company's management policies and relevant control procedures relating to the valuation models used for fair value measurement, management believes adjustment to valuation is necessary in order to reasonably represent the fair value of financial and non-financial instruments at the consolidated balance sheet. The inputs and pricing information used during valuation are carefully assessed and adjusted based on current market conditions.
- (c) The following chart is the movement of Level 3 for the years ended December 31, 2019 and 2018:

	<u>Equity securities</u>
At January 1, 2019	\$ 908,409
Gain recognised in profit or loss	136,389
Loss recognised in other comprehensive income	372,451
Additions	45,276
Disposals in the year	( 23,903)
At December 31, 2019	<u>\$ 1,438,622</u>

	<u>Equity securities</u>
At January 1, 2018	\$ 941,567
Gain recognised in profit or loss	( 232)
Loss recognised in other comprehensive income	( 441,276)
Disposals in the year	( 12,923)
Transfers into level 3	421,273
At December 31, 2018	<u>\$ 908,409</u>

- D. The Company lost significant influence over PlayNitride Inc. and KAISTR Lighting (Xiamen) Co., Ltd. as their shares owned by the Company were less than 20% as at March 6, 2018 and April 26, 2018, respectively. Therefore, the Company reclassified them into financial assets at fair value through other comprehensive income in accordance with IFRSs. Additionally, the Company transferred the fair values into Level 3 as there is insufficient observable market information.
- E. Treasury department is in charge of valuation procedures for fair value measurements being categorised within Level 3, which is to verify independent fair value of financial instruments. Such assessment is to ensure the valuation results are reasonable by applying independent information to make results close to current market conditions, confirming the resource of information is independent, reliable and in line with other resources and represented as the exercisable price, and frequently calibrating valuation model, performing back-testing, updating inputs used to the valuation model and making any other necessary adjustments to the fair value.

F. The following is the qualitative information of significant unobservable inputs and sensitivity analysis of changes in significant unobservable inputs to valuation model used in Level 3 fair value measurement:

	<u>Fair value at December 31, 2019</u>	<u>Valuation technique</u>	<u>Significant unobservable input</u>	<u>Range (weighted average)</u>	<u>Relationship of inputs to fair value</u>
Non-derivative equity instrument:					
Unlisted shares	\$ 485,611	Market comparable companies	Price to book ratio multiple Discount for lack of marketability	1.17~2.48 20%~30%	The higher the multiple, the higher the fair value. The higher the discount for lack of marketability, the lower the fair value.
Unlisted shares	791,211	Market comparable companies	Price to earnings ratio multiple Discount for lack of marketability	16.83~17.50 20%	The higher the multiple, the higher the fair value. The higher the discount for lack of marketability, the lower the fair value.
Unlisted shares	161,800	Market comparable companies	Enterprise value to operating income ratio Discount for lack of marketability	2.57 20%	The higher the multiple value, the higher the fair value. The higher the discount for lack of marketability, the lower the fair value.

	Fair value at December 31, 2018	Valuation technique	Significant unobservable input	Range (weighted average)	Relationship of inputs to fair value
Non-derivative equity instrument:					
Unlisted shares	\$ 439,240	Market comparable companies	Price to book ratio multiple  Discount for lack of marketability	0.45~1.90  20%~30%	The higher the multiple, the higher the fair value.  The higher the discount for lack of marketability, the lower the fair value.
Unlisted shares	465,131	Market comparable companies	Price to earnings ratio multiple  Discount for lack of marketability	19.30~19.39  20%	The higher the multiple, the higher the fair value.  The higher the discount for lack of marketability, the lower the fair value.
Unlisted shares	4,038	Market comparable companies	Enterprise value to operating income ratio Discount for lack of marketability	26.11  20%	The higher the multiple value, the higher the fair value.  The higher the discount for lack of marketability, the lower the fair value.

G. The Company has carefully assessed the valuation models and assumptions used to measure fair value. However, use of different valuation models or assumptions may result in different measurement. The following is the effect of profit or loss or of other comprehensive income from financial assets and liabilities categorised within Level 3 if the inputs used to valuation models have changed:

		December 31, 2019				
		Recognised in profit or loss		Recognised in other comprehensive income		
	Input	Change	Favourable change	Unfavourable change	Favourable change	Unfavourable change
Financial assets						
Equity instrument	Multiple	±1%	\$ 1,578	(\$ 1,578)	\$ 12,809	(\$ 12,809)
		December 31, 2018				
		Recognised in profit or loss		Recognised in other comprehensive income		
	Input	Change	Favourable change	Unfavourable change	Favourable change	Unfavourable change
Financial assets						
Equity instrument	Multiple	±1%	\$ -	\$ -	\$ 9,084	(\$ 9,084)

### 13. SUPPLEMENTARY DISCLOSURES

#### (1) Significant transactions information

- A. Loans to others: Please refer to table 1.
- B. Provision of endorsements and guarantees to others: Please refer to table 2.
- C. Holding of marketable securities at the end of the period (not including subsidiaries, associates and joint ventures): Please refer to table 3.
- D. Acquisition or sale of the same security with the accumulated cost exceeding \$300 million or 20% of the Company's paid-in capital: Please refer to table 4.
- E. Acquisition of real estate reaching NT\$300 million or 20% of paid-in capital or more: None.
- F. Disposal of real estate reaching NT\$300 million or 20% of paid-in capital or more: None.
- G. Purchases or sales of goods from or to related parties reaching NT\$100 million or 20% of paid-in capital or more: Please refer to table 5.
- H. Receivables from related parties reaching NT\$100 million or 20% of paid-in capital or more: Please refer to table 6.
- I. Trading in derivative instruments undertaken during the reporting periods: None.
- J. Significant inter-company transactions during the reporting periods: Please refer to table 7.

#### (2) Information on investees

Names, locations and other information of investee companies (not including investees in Mainland China): Please refer to table 8.

#### (3) Information on investments in Mainland China

- A. Basic information: Please refer to table 9.
- B. Significant transactions, either directly or indirectly through a third area, with investee companies in the Mainland Area: Please refer to table 10.

### 14. SEGMENT INFORMATION

#### General information:

None.

EPISTAR CORPORATION  
Loans to others  
Year ended December 31, 2019

Expressed in thousands of NTD  
(Except as otherwise indicated)

Table 1

No.	Creditor	Borrower	General ledger account	Is a related party	Maximum outstanding balance during the year ended December 31, 2019	Balance at December 31, 2019	Actual amount drawn down	Interest rate	Nature of loan	Amount of transactions with the borrower	Reason for short-term financing	Allowance for doubtful accounts	Item	Value	Limit on loans granted to a single party	Ceiling on total loans granted	Footnote
0	Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd	Other receivables-related	Y	\$ 879,000	\$ 430,500	\$ 86,100	4.20%	Short-term financing	-	Working capital	\$ -	None	\$ -	4,521,919	\$ 13,565,757	Note 1
0	Epistar Corporation	Episky Corporation (Xiamen) Ltd.	Other receivables-related parties	Y	1,824,000	861,000	-	5.53%	Short-term financing	-	Working capital	-	None	-	4,521,919	13,565,757	Note 1
0	Epistar Corporation	Yen-Rich Technology Corporation.	Other receivables-related parties	Y	300,000	300,000	-	1.25%	Short-term financing	-	Working capital	-	None	-	4,521,919	13,565,757	Note 1
1	Episky Corporation (Xiamen) Ltd.	Jiangsu Canyang Optoelectronics Ltd	Other receivables-related	Y	460,300	-	-	5.00%	Short-term financing	-	Working capital	-	None	-	858,656	1,073,320	Note 2
2	Epicrystal (Changzhou) Co., Ltd.	Jiangsu Canyang Optoelectronics Ltd	Other receivables-related	Y	368,240	344,400	172,200	4.35%	Short-term financing	-	Working capital	-	None	-	875,898	1,313,847	Note 3
3	Yen-Rich Opto (Hong Kong) Limited	Ecoled Venture Co., Limited	Other receivables-related	Y	15,800	-	-	3.02%	Short-term financing	-	Working capital	-	None	-	115,553	115,553	Note 4
3	Yen-Rich Opto (Hong Kong) Limited	Lighting Investment Corporation.	Other receivables-related parties	Y	101,120	95,936	95,936	3.50%	Short-term financing	-	Working capital	-	None	-	115,553	115,553	Note 4

Note 1: In accordance with Epistar Corporation's Procedures for Provision of Loans: the limit on loans granted to a single party is 10% of its net equity, and the ceiling on total loans granted is 30% of its net equity.

Note 2: In accordance with Episky Corporation (Xiamen) Ltd.'s Procedures for Provision of Loans: the limit on loans granted to a single party is 40% of its net equity, and the ceiling on total loans granted is 50% of its net equity.

Note 3: In accordance with Epicrystal (Changzhou) Co., Ltd.'s Procedures for Provision of Loans: the limit on loans granted to a single party is 20% of its net equity, and the ceiling on total loans granted is 30% of its net equity.

Note 4: In accordance with Yen-Rich Opto (Hong Kong) Limited's Procedures for Provision of Loans: the limit on loans granted to a single party is 40% of its net equity, and the ceiling on total loans granted is 40% of its net equity.

**EPISTAR CORPORATION**  
Provision of endorsements and guarantees to others  
Year ended December 31, 2019

Table 2

Expressed in thousands of NTD  
(Except as otherwise indicated)

Number (Note 1)	Endorser/ guarantor	Company name	Relationship with the endorser/ guarantor (Note 2)	Limit on endorsements/ guarantees provided for a single party	Maximum outstanding endorsement/ guarantee amount as of December 31, 2019	Outstanding endorsement/ guarantee amount at December 31, 2019	Actual amount drawn down	Amount of endorsements/ guarantees secured with collateral	Ratio of accumulated endorsement/ guarantee amount to net asset value of the endorser/ guarantor company	Ceiling on total amount of endorsements/ guarantees/ provided (Note 3)	Provision of endorsements/ guarantees by parent company to subsidiary	Provision of endorsements/ guarantees by subsidiary to parent company	Provision of endorsements/ guarantees to the party in Mainland China	Footnote
0	Epistar Corporation	Episky Corp.(Xiamen) Ltd.	3	\$ 4,521,919	\$ 4,551,550	\$ 2,518,320	\$ 953,164	\$ -	5.57	\$ 9,043,838	Y	N	Y	
0	Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd	3	4,521,919	663,600	389,740	206,640	-	0.86	9,043,838	Y	N	Y	
0	Epistar Corporation	Unikom Semiconductor Corporation	3	4,521,919	706,950	699,900	175,658	-	1.55	9,043,838	Y	N	N	
0	Epistar Corporation	Yen-Rich Technology Corporation.	3	4,521,919	158,000	149,900	-	-	0.33	9,043,838	Y	N	N	

Note 1: The numbers filled in for the endorsements/guarantees provided by the Company or subsidiaries are as follows:

(1) The Company is '0'.

(2) The subsidiaries are numbered in order starting from '1'.

Note 2: Relationship between the endorser/guarantor and the party being endorsed/guaranteed is classified into the following six categories; fill in the number of category each case belongs to:

(1) Having business relationship.

(2) The endorser/guarantor parent company owns directly more than 50% voting shares of the endorsed/guaranteed subsidiary.

(3) The endorser/guarantor parent company and its subsidiaries jointly own more than 50% voting shares of the endorsed/guaranteed company.

(4) The endorsed/guaranteed parent company directly or indirectly owns more than 50% voting shares of the endorser/guarantor subsidiary.

(5) Mutual guarantee of the trade as required by the construction contract.

Note 3: In accordance with the Company's Procedures for Provision of Loans: the ceiling on total endorsements/guarantees is 20% of the Company's net assets, and the limit on endorsements/guarantees to a single party is 10% of its net assets.

EPISTAR CORPORATION  
Holding of marketable securities at the end of the period (not including subsidiaries, associates and joint ventures)  
December 31, 2019

Securities held by	Marketable securities	Relationship with the securities issuer	As of December 31, 2019					Footnote
			Number of shares	Book value	Ownership (%)	Fair value	Expressed in thousands of NTD (Except as otherwise indicated)	
Epistar Corporation	E&E Japan Co.Ltd. (Stock)	None	140	\$ 2,143	17.07	\$ 2,143		
Epistar Corporation	NATEC CORPORATION (Stock)	None	120,000	1,748	7.50	1,748		
Epistar Corporation	Esleds Co.,Ltd. (Stock)	None	1,000	148	10.00	148		
Epistar Corporation	Lynk Labs.Inc. (Stock)	None	92,523	4,587	7.45	4,587		
Epistar Corporation	Advanced Photoelectronic Technology Limited (Stock)	None	1,339,235	270,562	12.24	270,562		
Epistar Corporation	Chi Lin Optoelectronics Co., Ltd. (Stock)	None	9,561,340	157,762	12.57	157,762		
Epistar Corporation	Dominant Opto Technologies Sdn. Bhd. (Stock)	None	11,000,000	791,211	10.00	791,211		
Epistar Corporation	POWERLIGHTTEC CO., LTD (Stock)	None	141,730	-	17.53	-		
Epistar Corporation	Crystalwise Technology Inc. (Stock)	None	6,340,628	60,109	3.06	60,109		



As of December 31, 2019

Securities held by	Marketable securities	Relationship with the securities issuer	General ledger account	As of December 31, 2019			Footnote
				Number of shares	Book value	Ownership (%)	
Epistar Corporation	XENIO CORPORATION (stock)	None	Non-current financial assets at fair value through profit or loss	7,878 \$	-	0.06	-
Epistar Corporation	Edison Opto Corp. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	9,424,000	124,868	7.54	\$ 124,868
Epistar Corporation	Pheeda Technology Co., Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	600,000	-	2.11	-
Epistar Corporation	Elit Fine Ceramics Co., Ltd. (Stock)	None	Non-current financial assets at fair value through profit or loss	2,200,000	-	4.68	-
Epistar Corporation	NanoCrystal Technology Inc. (Stock)	None	Non-current financial assets at fair value through profit or loss	6,000,000	-	11.11	-
Epistar Corporation	PlayNitride Inc. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	4,568,669	210,461	12.74	210,461
Epistar Corporation	OSTENDO TECHNOLOGIES, INC. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	67,500	-	4.50	-
Epistar Corporation	Global Communication semiconductors LLC (Stock)	None	Current financial assets at fair value through profit or loss	3,627,000	249,900	3.99	249,900
Epistar JV Holding (BVI) Co., Ltd.	Everlight electronic(Fujian) Co., Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	Cash USD2,500,000	44,223	10.00	44,223
Epistar JV Holding (BVI) Co., Ltd.	KAISTAR Lighting (Xiamen) Co., Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	Cash USD48,000,000	1,428,696	17.65	1,428,696

As of December 31, 2019

Securities held by Epistar JV Holding (BYJ) Co.,Ltd.	Marketable securities		Relationship with the securities issuer	General ledger account Current financial assets at fair value through profit or loss	Number of shares	Book value	Ownership (%)	Fair value	Footnote
	Global Communication semiconductors(Beneficiary certificates)								
Episky Corp.(Xiamen) Ltd.	China Firstar Optoelectronic Materials Co., Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	Cash RMB7,500,000	22,320	151,039	3.03	\$ 151,039	Unlisted company, no comparable market price available
Episky Corp.(Xiamen) Ltd.	APT Electronics Co., Ltd.(Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	4,678,240	50,317		1.14		Unlisted company, no comparable market price available
Episky Corp.(Xiamen) Ltd.	China Crystal Technologies Co.,Ltd.(Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	8,064,516	29,070		4.08		Unlisted company, no comparable market price available
Lighting Investment Corp.	Advanced Photoelectronic Technology Limited (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	562,018	113,543		5.14	113,543	
Lighting Investment Corp.	Oree Advanced Illumination Solutions, Inc. (Stock)	None	Non-current financial assets at fair value through profit or loss	79,407	-		5.00	-	
Lighting Investment Corp.	Lustrous Technology, Ltd. (Stock)	None	Non-current financial assets at fair value through profit or loss	266,892	-		8.99	-	
Lighting Investment Corp.	TERA XTAL TECHNOLOGY CORPORATION (Stock)	None	Non-current financial assets at fair value through profit or loss	795,000	-		0.42	-	
Lighting Investment Corp.	FormoLight Technologies Inc. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	2,038,230	9,728		10.00	9,728	
Lighting Investment Corp.	XENIO CORPORATION (Stock)	None	Non-current financial assets at fair value through profit or loss	16,462	-		0.13	-	

As of December 31, 2019

Securities held by	Marketable securities	Relationship with the securities issuer	General ledger account	Number of shares	Book value	Ownership (%)	Fair value	Footnote
Lighting Investment Corp.	Joint Power eXponent, Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	1,250,000	\$ 5,000	13.89	\$ 5,000	
Lighting Investment Corp.	Edison Opto Corp. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	10,705,000	141,841	8.56	141,841	
Lighting Investment Corp.	Rigidtech Microelectronics Cops. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	1,532,500	5,686	2.14	5,686	
Lighting Investment Corp.	Le Dimond Opto Corporation (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	1,100,000	5,643	16.92	5,643	
Lighting Investment Corp.	LEDLITEK Co., Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	50,000	62,498	6.20	62,498	
Lighting Investment Corp.	De-an Venture Capital Co., Ltd. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	2,000,000	20,127	10.77	20,127	
Lighting Investment Corp.	iReach Corporation. (Stock)	Investee company accounted for under the equity method of the Company	Non-current investments in equity instruments at fair value through other comprehensive income	150,000	759	1.67	759	
Lighting Investment Corp.	Tekcore Co., Ltd. (Stock)	Investee company accounted for under the equity method of the Company	Current financial assets at fair value through profit or loss	2,616,932	12,928	2.72	12,928	
Lighting Investment Corp.	Edison Opto Corp. (Stock)	None	Current financial assets at fair value through profit or loss	5,851,182	77,528	4.68	77,528	
Lighting Investment Corp.	Epistar Corporation (Stock)	Parent company	Current financial assets at fair value through profit or loss	2,564,755	82,970	0.24	82,970	Note

As of December 31, 2019

Securities held by	Marketable securities	Relationship with the securities issuer	General ledger account		Number of shares	Book value	Ownership (%)	Fair value	Footnote
			Current financial assets at fair value through profit or loss	Current financial assets at fair value through profit or loss					
Lighting Investment Corp.	Rigidtech Microelectronics Corp. (Stock)	None	17,753	\$ 66	66	0.02	\$ 66	66	
Lighting Investment Corp.	Global Communication semiconductors LLC (Stock)	None	2,748,000	189,337	189,337	3.03	189,337	189,337	
Lighting Investment Corp.	Taishin 1699 Money Market Fund (Beneficiary certificates)	None	2,588,671	35,165	35,165	N/A	35,165	35,165	
Lighting Investment Ltd.	LEDLITEK Co.,LTD. (Stock)	None	41,500	51,873	51,873	5.15	51,873	51,873	
Lighting Investment Ltd.	Verticle Inc. (Stock)	None	582,983	-	-	3.00	-	-	
Lighting Investment Ltd.	Achrolux Inc. (Stock)	None	987,500	-	-	6.91	-	-	
Lighting Investment Ltd.	PlayNitride Inc. (Stock)	None	778,541	35,864	35,864	2.17	35,864	35,864	
Lighting Investment Ltd.	Advanced Photoelectronic Technology Limited.(Stock)	None	200,000	40,405	40,405	1.83	40,405	40,405	
Full Star Enterprises Limited	Ufeco Technology Inc. (Stock)	None	Cash USD250,000	-	-	10.00	-	-	

As of December 31, 2019

Securities held by	Relationship with the		General ledger account	Number of shares	Book value	Ownership (%)	Fair value	Footnote
	Securities held by	Marketable securities						
Full Star Enterprises Limited	PlayNirride Inc. (Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	600,000	\$ 27,640	1.67	\$ 27,640	
Full Star Enterprises Limited	Global Communication Semiconductors LLC.(Beneficiary certificates)	None	Current financial assets at fair value through profit or loss	2,100,000	115,339	2.31	115,339	
HUGA Holding (SAMOA) Ltd.	China Crystal Technologies Co.,Ltd.(Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	17,741,935	67,526	8.97	67,526	
HUGA Holding (SAMOA) Ltd.	OEPIE SEMICONDUCTORS,INC.(Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	377,358	9,139	7.90	9,139	
Yen-Rich Technology Corporation.	Global Communication seiconductors LLC(Stock)	None	Current financial assets at fair value through profit or loss	4,113,000	283,386	4.53	283,386	
Yen-Rich Opto (Hong Kong) Limited	Global Communication Semiconductors LLC.(Beneficiary certificates)	None	Current financial assets at fair value through profit or loss	1,150,000	63,162	1.27	63,162	
AllureLux Corporation	Franklin Templeton Simsom Money Market Fund(Beneficiary certificates)	None	Current financial assets at fair value through profit or loss	680,537	7,063	N/A	7,063	
AllureLux Corporation	Hua Nan Phoenix Money Market Fund(Beneficiary certificates)	None	Current financial assets at fair value through profit or loss	18,454	301	N/A	301	
ProLight Opto Technology Corporation.	ISON Corporation(Stock)	None	Non-current investments in equity instruments at fair value through other comprehensive income	150,000	1,252	2.50	1,252	

Note : Shown as treasury stocks of Epistar Corporation.

EPISTAR CORPORATION

Acquisition or sale of the same security with the accumulated cost exceeding \$300 million or 20% of the Company's paid-in capital  
Year ended December 31, 2019

Table 4

Expressed in thousands of NTD  
(Except as otherwise indicated)

Investor	Marketable securities	General ledger account	Counterparty	Relationship with the counterparty	Balance as at January 1, 2019 (Note)			Addition			Disposal			Balance as at December 31, 2019 (Note)			
					Number of shares	Amount	\$	Number of shares	Amount	\$	Number of shares	Selling price	Book value	Gain (loss) on disposal	Number of shares	Amount	\$
EPISKY Corporation (Changzhou) LTD	CR Yuanta Money Market Fund B Class(Beneficiary certificates)	Financial assets at fair value through profit or loss	-	NA	-	36,500,000	157,133	\$	36,500,000	\$	157,685	\$	157,133	\$	552	-	\$
EpiCrystal Corporation (Changzhou) Ltd.	CR Yuanta Money Market Fund B Class(Beneficiary certificates)	Financial assets at fair value through profit or loss	-	NA	-	157,800,000	679,329		157,800,000		681,905		679,329		2,576	-	
Epistar Corporation	CTBC Hwa-win Money Market Fund	Financial assets at fair value through profit or loss	-	NA	-	28,567,808	315,000		28,567,808		315,110		315,000		110	-	
Epistar Corporation	Taishin 1699 Money Market Fund	Financial assets at fair value through profit or loss	-	NA	-	30,666,839	415,000		30,666,839		415,244		415,000		244	-	
Epistar Corporation	Jin Sun Mooney Market Fund	Financial assets at fair value through profit or loss	-	NA	-	38,980,503	578,000		38,980,503		578,448		578,000		448	-	
Epistar Corporation	Prudential Financial Money Market Fund	Financial assets at fair value through profit or loss	-	NA	-	22,803,397	361,000		22,803,397		361,269		361,000		269	-	
Epistar Corporation	FSITC Taiwan Money Market Fund	Financial assets at fair value through profit or loss	-	NA	-	19,923,250	305,000		19,923,250		305,187		305,000		187	-	
Yen-Rich Technology Corporation.	Taishin 1699 Money Market Fund	Financial assets at fair value through profit or loss	-	NA	-	22,911,086	310,000		22,911,086		310,265		310,000		265	-	
Yen-Rich Technology Corporation.	FSITC Taiwan Money Market Fund	Financial assets at fair value through profit or loss	-	NA	-	23,517,813	360,000		23,517,813		360,363		360,000		363	-	
Epistar Corporation	Yen-Rich Technology Corporation.	Investments accounted for using equity method	-	Subsidiary	-	-	918,728		-		-		-		-	-	918,728

Note 1: The balance consists gain on valuation of financial assets.

EPISTAR CORPORATION

Purchases or sales of goods from or to related parties reaching NT\$100 million or 20% of paid-in capital or more  
Year ended December 31, 2019

Table 5

Expressed in thousands of NTD  
(Except as otherwise indicated)

Purchaser/seller	Counterparty	Relationship with the counterparty	Purchases (sales)	Transaction			Differences in transaction terms			Notes/accounts receivable (payable)		
				Amount (\$)	Percentage of total purchases (sales)	Unit price	Credit term	Unit price	Credit term	Balance	Percentage of total notes/accounts receivable (payable)	Footnote
Epistar Corporation	Everlight Electronics Co., Ltd and its subsidiaries	Director of the Company	Sales	633,080	5	150 days after month-end closing	N/A	N/A	Normal	\$ -	-	-
Epistar Corporation	LEDAZ Co., Ltd	Investee company accounted for using equity method by the Company's subsidiary	Sales	( 179,599)	1	90 days after month-end closing	N/A	N/A	Normal	71,314	1	1
Epistar Corporation	Yen-Rich Technology Corporation.	Subsidiary of the Company	Sales	( 230,511)	2	120 days after month-end closing	N/A	N/A	Normal	86,508	1	1
Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	The Company's indirectly owned subsidiary	Sales	( 184,669)	1	180 days after next month-end closing	N/A	N/A	Normal	87,845	1	1
Epistar Corporation	Luxlite (Shenzhen) Corporation Limited	The Company's indirectly owned subsidiary	Sales	( 1,425,371)	11	180 days after next month-end closing	N/A	N/A	Normal	775,081	12	12
Epistar Corporation	Episky Corp.(Xiamen) Ltd.	The Company's indirectly owned subsidiary	Sales	( 768,584)	6	180 days after next month-end closing	N/A	N/A	Normal	335,714	5	5
Epistar Corporation	Epicrystal Corporation (Changzhou) Ltd.	The Company's indirectly owned subsidiary	Sales	( 449,614)	4	90 days after month-end closing	N/A	N/A	Normal	83,183	1	1

Transaction		Differences in transaction terms				Notes/accounts receivable (payable)					
Purchaser/seller	Counterparty	Relationship with the counterparty	Purchases (sales)	Amount	Percentage of total purchases (sales)	Credit term	Unit price	Credit term	Balance	Percentage of total notes/accounts receivable (payable)	Footnote
Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	The Company's indirectly owned subsidiary	Purchases	\$ 378,190	5	30 days after month-end closing	N/A	Normal	( \$ 38,419)	2	
Epistar Corporation	Episky Corp.(Xiamen) Ltd.	The Company's indirectly owned subsidiary	Purchases	287,519	4	60 days after next month-end closing	N/A	Normal	( 50,045)	3	
Epistar Corporation	Epicrystal Corporation (Changzhou) Ltd.	The Company's indirectly owned subsidiary	Purchases	1,230,596	17	150 days after month-end closing	N/A	Normal	( 497,916)	28	
Yen-Rich Technology Corporation.	LEDAZ Co., Ltd	Note 1	Sales	( 196,254)	33	90 days after month-end closing	N/A	Normal	78,196	36	
Yen-Rich Technology Corporation.	Epistar Corporation	Subsidiary of the Company	Purchases	230,511	38	120 days after month-end closing	N/A	Normal	( 86,508)	37	
Jiangsu Canyang Optoelectronics Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary	Sales	( 378,190)	39	30 days after month-end closing	N/A	Normal	38,419	6	
Jiangsu Canyang Optoelectronics Ltd.	Episky Corp.(Xiamen) Ltd.	Note 1	Sales	( 419,324)	43	90 days after month-end closing	N/A	Normal	146,164	22	
Jiangsu Canyang Optoelectronics Ltd.	Epicrystal Corporation (Changzhou) Ltd.	Note 1	Sales	( 228,902)	23	90 days after month-end closing	N/A	Normal	17,453	3	
Jiangsu Canyang Optoelectronics Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary	Purchases	184,669	18	180 days after month-end closing	N/A	Normal	( 87,845)	46	



Transaction		Differences in transaction terms				Notes/accounts receivable (payable)					
Purchaser/seller	Counterparty	Relationship with the counterparty	Purchases (sales)	Amount	Percentage of total purchases (sales)	Credit term	Unit price	Credit term	Balance (\$)	Percentage of total notes/accounts receivable (payable)	Footnote
Jiangsu Canyang Optoelectronics Ltd.	Epicrystal Corporation (Changzhou) Ltd.	Note 1	Purchases	201,471	20	90 days after month-end closing	N/A	Normal	76,311	40	
Luxlite (Shenzhen) Corporation Limited	Epistar Corporation	The Company's indirectly owned subsidiary	Purchases	1,425,371	44	180 days after next month-end closing	N/A	Normal	( 775,081)	47	
Luxlite (Shenzhen) Corporation Limited	Episky Corp.(Xiamen) Ltd.	Note 1	Purchases	1,806,330	56	120 days after month-end closing	N/A	Normal	( 856,519)	52	
Episky Corp.(Xiamen) Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary	Sales	( 287,519)	9	60 days after next month-end closing	N/A	Normal	50,045	2	
Episky Corp.(Xiamen) Ltd.	Luxlite (Shenzhen) Corporation Limited	Note 1	Sales	( 1,806,330)	55	120 days after month-end closing	N/A	Normal	856,519	39	
Episky Corp.(Xiamen) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	The Company's indirectly owned subsidiary	Purchases	419,324	15	90 days after month-end closing	N/A	Normal	( 146,164)	11	
Episky Corp.(Xiamen) Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary	Purchases	768,584	28	180 days after next month-end closing	N/A	Normal	( 335,714)	24	
Episky Corp.(Xiamen) Ltd.	Epicrystal Corporation (Changzhou) Ltd.	Note 1	Purchases	1,081,074	40	90 days after month-end closing	N/A	Normal	( 943,635)	68	
Episcrystal Corporation (Changzhou) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	Note 1	Sales	( 201,471)	9	90 days after month-end closing	N/A	Normal	76,311	4	

Transaction		Differences in transaction terms					Notes/accounts receivable (payable)				
Purchaser/seller	Counterparty	Relationship with the counterparty	Purchases (sales)	Amount	Percentage of total purchases (sales)	Credit term	Unit price	Credit term	Balance	Percentage of total notes/accounts receivable (payable)	Footnote
Epicrystal Corporation (Changzhou) Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary	Sales	(\$ 1,230,596)	53	150 days after month-end closing	N/A	Normal	\$ 497,916	24	
Epicrystal Corporation (Changzhou) Ltd.	Episky Corp.(Xiamen) Ltd.	Note 1	Sales	( 1,081,074)	46	90 days after month-end closing	N/A	Normal	943,635	46	
Epicrystal Corporation (Changzhou) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	Note 1	Purchases	228,902	14	90 days after month-end closing	N/A	Normal	( 17,453)	3	
Epicrystal Corporation (Changzhou) Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary	Purchases	449,614	27	90 days after month-end closing	N/A	Normal	( 83,183)	13	
ProLight Opto Technology Corporation	Shanghai Welight Electronic Co., LTD.	Note 1	Sales	( 170,826)	38	120 days after month-end closing	N/A	Normal	167,605	72	
Shanghai Welight Electronic Co., LTD.	ProLight Opto Technology Corporation	Note 1	Purchases	170,826	99	120 days after month-end closing	N/A	Normal	( 167,605)	100	

Note 1: Investee company accounted for under the equity method directly and indirectly.

## EPISTAR CORPORATION

Receivables from related parties reaching NT\$100 million or 20% of paid-in capital or more  
December 31, 2019

Creditor	Counterparty	Relationship with the counterparty	Balance as at December 31, 2019			Overdue receivables			Amount collected subsequent to the balance sheet date	Allowance for doubtful debts
			Accounts receivable	Other receivable	Total	Turnover rate	Amount	Action taken		
		Subsidiary of the Company	\$	\$	\$					
Epistar Corporation	Yen-Rich Technology Corporation.	Company	86,508	37,537	124,045	3.72	1,958	22,144	-	
Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	The Company's indirectly owned subsidiary	87,845	231,137	318,982	0.56	131,255	15,635	-	
Epistar Corporation	Luxlite (Shenzhen) Corporation Limited	The Company's indirectly owned subsidiary	775,081	960	776,041	2.15	14	122,207	-	
Epistar Corporation	Episky Corp.(Xiamen) Ltd.	The Company's indirectly owned subsidiary	335,714	34,368	370,082	1.13	25,049	55,035	-	
Epistar Corporation	Epicrystal Corporation (Changzhou) Ltd.	The Company's indirectly owned subsidiary	83,183	23,060	106,243	4.10	350	24,831	-	
Epistar Corporation	Unikom Semiconductor Corporation	Subsidiary of the Company	6,116	106,577	112,693	1.08	7,351	8,821	-	
Yen-Rich Technology Corporation.	LEDAZ Co., Ltd	Note 2	78,196	-	78,196	5.02	23,170	40,330	-	
Episky Corp.(Xiamen) Ltd.	Luxlite (Shenzhen) Corporation Limited	Note 2	856,519	-	856,519	2.03	267,865	43,050	-	
Epicrystal Corporation (Changzhou) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	Note 2	76,311	174,109	250,420	0.65	312	573	-	
Epicrystal Corporation (Changzhou) Ltd.	Epistar Corporation	The Company's indirectly owned subsidiary	497,916	606	498,522	3.84	92	108,839	-	

Table 6

Expressed in thousands of NTD  
(Except as otherwise indicated)

Creditor	Counterparty	Relationship with the counterparty	Balance as at December 31, 2019			Overdue receivables			Amount collected subsequent to the balance sheet date	Allowance for doubtful debts
			Accounts receivable	Other receivable	Total	Amount	Turnover rate	Action taken		
Epistar Corporation (Changzhou) Ltd.	Episky Corp.(Xiamen) Ltd.	Note 2	\$ 943,635	\$ 1,191	\$ 944,826	619,838	1.86	-	\$ -	
ProLight Opto Technology Corporation	Shanghai Welight Electronic Co., LTD.	Note 2	167,605	-	167,605	-	2.04	-	37,159	

Note 1: The Company endeavored to purpose the overdue amount. Epistar has receive \$1,519、\$1,647、\$14 and \$244 from Yen-Rich、Jiangsu Canyon、Luxlite and Epicrystal, respectively; Yen-Rich has receive \$23,170 from LEDAZ respective; Episky(xiamen) has receive \$43,050 from Luxlite respectively; Epicrystal has receive \$312 and \$92 from Jiangsu Canyon and Epistar respectively.

Note 2: Investee company accounted for under the equity method directly and indirectly.

EPISTAR CORPORATION  
Significant inter-company transactions during the reporting periods  
Year ended December 31, 2019

Expressed in thousands of NTD  
(Except as otherwise indicated)

Number (Note 1)	Company name	Counterparty	Relationship (Note 2)	General ledger account	Amount \$	Transaction terms	Percentage of consolidated total operating revenues or total assets (Note 3)
0	Epistar Corporation	LEDAZ Co., Ltd	1	Sales	179,599	Conducted in the ordinary course of business with terms similar to those with third parties	1.13
0	Epistar Corporation	Yen-Rich Technology Corporation.	1	Sales	230,511	Conducted in the ordinary course of business with terms similar to those with third parties	1.44
0	Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	1	Sales	184,669	Conducted in the ordinary course of business with terms similar to those with third parties	1.16
0	Epistar Corporation	Luxlite (Shenzhen) Corporation Limited	1	Sales	1,425,371	Conducted in the ordinary course of business with terms similar to those with third parties	8.93
0	Epistar Corporation	Episky Corp.(Xiamen) Ltd.	1	Sales	768,584	Conducted in the ordinary course of business with terms similar to those with third parties	4.82
0	Epistar Corporation	Epi-crystal Corporation (Changzhou) Ltd.	1	Sales	449,614	Conducted in the ordinary course of business with terms similar to those with third parties	2.82
0	Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	1	Cost of goods sold	378,190	Conducted in the ordinary course of business with terms similar to those with third parties	2.37
0	Epistar Corporation	Episky Corp.(Xiamen) Ltd.	1	Cost of goods sold	287,519	Conducted in the ordinary course of business with terms similar to those with third parties	1.80

Number (Note 1)	Company name	Counterparty	Relationship (Note 2)	General ledger account	Amount	Transaction terms	Percentage of consolidated total operating revenues or total assets (Note 3)
0	Epistar Corporation	Epicrystal Corporation (Changzhou) Ltd.	1	Cost of goods sold	\$ 1,230,596	Conducted in the ordinary course of business with terms similar to those with third parties	7.71
0	Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	1	Accounts receivable	87,845	Conducted in the ordinary course of business with terms similar to those with third parties	0.15
0	Epistar Corporation	Luxlite (Shenzhen) Corporation Limited	1	Accounts receivable	775,081	Conducted in the ordinary course of business with terms similar to those with third parties	1.32
0	Epistar Corporation	Episky Corp.(Xiamen) Ltd.	1	Accounts receivable	335,714	Conducted in the ordinary course of business with terms similar to those with third parties	0.57
0	Epistar Corporation	LEDAZ Co., Ltd	1	Accounts payable	148,416	Conducted in the ordinary course of business with terms similar to those with third parties	0.25
0	Epistar Corporation	Epicrystal Corporation (Changzhou) Ltd.	1	Accounts payable	497,916	Conducted in the ordinary course of business with terms similar to those with third parties	0.85
0	Epistar Corporation	Jiangsu Canyang Optoelectronics Ltd.	1	Other receivable	231,137	Based on contract terms	0.39
0	Epistar Corporation	Unikorn Semiconductor Corporation	3	Other receivable	106,577	Conducted in the ordinary course of business with terms similar to those with third parties	0.18
1	Episky Corp.(Xiamen) Ltd.	Luxlite (Shenzhen) Corporation Limited	3	Sales	1,806,330	Conducted in the ordinary course of business with terms similar to those with third parties	11.32

Number (Note 1)	Company name	Counterparty	Relationship (Note 2)	General ledger account	Amount \$	Transaction terms	Percentage of consolidated total operating revenues or total assets (Note 3)
1	Episky Corp.(Xiamen) Ltd.	Luxlite (Shenzhen) Corporation Limited	3	Accounts receivable	856,519	Conducted in the ordinary course of business with terms similar to those with third parties	1.46
2	Epicrystal Corporation (Changzhou) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	3	Sales	201,471	Conducted in the ordinary course of business with terms similar to those with third parties	1.26
2	Epicrystal Corporation (Changzhou) Ltd.	Episky Corp.(Xiamen) Ltd.	3	Sales	1,081,074	Conducted in the ordinary course of business with terms similar to those with third parties	6.77
2	Epicrystal Corporation (Changzhou) Ltd.	Episky Corp.(Xiamen) Ltd.	3	Accounts receivable	943,635	Conducted in the ordinary course of business with terms similar to those with third parties	1.61
2	Epicrystal Corporation (Changzhou) Ltd.	Jiangsu Canyang Optoelectronics Ltd.	3	Other receivable	174,109	Based on contract terms	0.30
3	Yen-Rich Technology Corporation.	LEDZAZ Co., Ltd	3	Sales	196,254	Conducted in the ordinary course of business with terms similar to those with third parties	1.23
3	Yen-Rich Technology Corporation.	LEDZAZ Co., Ltd	3	Accounts receivable	78,196	Conducted in the ordinary course of business with terms similar to those with third parties	0.13
4	Jiangsu Canyang Optoelectronics Ltd.	Episky Corp.(Xiamen) Ltd.	3	Sales	419,324	Conducted in the ordinary course of business with terms similar to those with third parties	2.63
4	Jiangsu Canyang Optoelectronics Ltd.	Epicrystal Corporation (Changzhou) Ltd.	3	Sales	228,902	Conducted in the ordinary course of business with terms similar to those with third parties	1.43

Number (Note 1)	Company name	Counterparty	Relationship (Note 2)	General ledger account	Amount	Transaction terms	Percentage of consolidated total operating revenues or total assets (Note 3)
4	Jiangsu Canyang Optoelectronics Ltd.	Epicrystal Corporation (Changzhou) Ltd.	3	Accounts receivable	\$ 17,453	Conducted in the ordinary course of business with terms similar to those with third parties	0.03
4	Jiangsu Canyang Optoelectronics Ltd.	Epicrystal Corporation (Changzhou) Ltd.	3	Processing Fees	416	Conducted in the ordinary course of business with terms similar to those with third parties	0.00
5	ProLight Opto Technology Corporation	Shanghai Weilight Electomic Co., LTD.	3	Sales	170,826	Conducted in the ordinary course of business with terms similar to those with third parties	1.07
5	ProLight Opto Technology Corporation	Shanghai Weilight Electomic Co., LTD.	3	Accounts receivable	167,605	Conducted in the ordinary course of business with terms similar to those with third parties	0.29

Note 1: Parent company is '0'. The subsidiaries are numbered in order starting from '1'.

Note 2: Relationship between transaction company and counterparty is classified into the following three categories; fill in the number of category each case belongs to (If transactions between parent company and subsidiaries or between subsidiaries refer to the same transaction, it is not required to disclose twice.

For example, if the parent company has already disclosed its transaction with a subsidiary, then the subsidiary is not required to disclose the transaction; for transactions between two subsidiaries, if one of the subsidiaries has disclosed the transaction, then the other is not required to disclose the transaction.);

(1) Parent company to subsidiary.

(2) Subsidiary to parent company.

(3) Subsidiary to subsidiary.

Note 3: Regarding percentage of transaction amount to consolidated total operating revenues or total assets, it is computed based on period-end balance of transaction to consolidated total assets for balance sheet accounts and based on accumulated transaction amount for the period to consolidated total operating revenues for income statement accounts.

Note 4: Disclosure of the transactions over 100 million New Taiwan dollars only and the related party transactions for counterparty are not disclosed.



EPISTAR CORPORATION  
Information on investees  
Year ended December 31, 2019

Expressed in thousands of NTD  
(Except as otherwise indicated)

Table 8

Investor	Investee	Location	Main business activities	Initial investment amount		Shares held as at December 31, 2019			Net profit (loss) of the investee for the year ended December 31, 2019	Investment income (loss) recognised by the Company for the year ended December 31, 2019	Footnote
				Balance as at December 31, 2019	Balance as at December 31, 2018	Number of shares (Note)	Ownership (%)	Book value			
Epistar Corporation	iReach Corporation	Taiwan	Packaging, module design, manufacturing and sales of LED	\$ 70,000	\$ 70,000	7,000,000	100.00	\$ 48,974	\$ 11,469	\$ 11,469	
Epistar Corporation	Ecoled Venture Co., Limited	Hong Kong	Sales of LED lighting facilities	-	82,348	-	0.00	-	19,736	10,261	Note 1
Epistar Corporation	Epistar JV Holding (BVI) Co., Ltd.	British Virgin Islands	Professional investment	14,960,129	14,960,129	48,278	100.00	9,030,452	( 666,350)	( 766,532)	
Epistar Corporation	Full Star Enterprises Limited	Hong Kong	Professional investment	166,785	166,785	Cash USD8,660,000	100.00	257,907	7,599	7,599	
Epistar Corporation	GaN Ventures Co., Limited	Hong Kong	Investment holding, sales of electronic components	212,667	275,117	13,886,743	59.02	12,919	( 90,478)	( 53,400)	
Epistar Corporation	Yen-Rich Technology Corporation.	Taiwan	Manufacturing and sales of electronic components	600,000	600,000	60,000,000	100.00	1,123,339	( 28,223)	( 28,223)	
Epistar Corporation	Lighting Investment Corp.	Taiwan	Professional investment	2,161,814	2,161,814	251,478,518	100.00	2,081,416	135,696	140,662	
Epistar Corporation	Nan Ya Photonics Incorporation	Taiwan	LED light application, manufacturing and sales	840,381	840,381	18,806,694	40.80	450,672	98,067	40,012	

Investor	Investee	Location	Main business activities	Initial investment amount		Shares held as at December 31, 2019			Book value	Net profit (loss) of the investee for the year ended December 31, 2019	Investment income (loss) recognised by the Company for the year ended December 31, 2019	Footnote
				Balance as at December 31, 2019	Balance as at December 31, 2018	Number of shares (Note)	Ownership (%)					
Epistar Corporation	Tekcore Co., Ltd.	Taiwan	Manufacturing and sales of LED chips and LED lighting facilities	\$ 1,169,412	\$ 1,169,412	20,247,828	21.05	\$ 37,788	\$ 120,081	\$ 25,279		
Epistar Corporation	Unikom Semiconductor Corporation	Taiwan	Development, manufacturing and sales of LED chips and LED lighting facilities	1,000,000	1,000,000	100,000,000	85.91	571,113	( 436,932)	( 377,906)		
Epistar Corporation	ProLight Opto Technology Corporation	Taiwan	Packaging, manufacturing and sales of LED	101,500	130,375	5,800,000	8.52	88,278	( 55,888)	( 4,849)		
Epistar Corporation	SH Optotech Co., Ltd.	Taiwan	Sales of LED chips and LED lighting facilities	31,792	31,792	3,179,176	49.00	3,192	1,076	527		
Epistar Corporation	TE Opto Corporation	Taiwan	Sales of LED chips and LED lighting facilities	9,200	9,200	920,000	40.00	45,524	13,075	5,230		
Epistar Corporation	GaN Force Corporation	Taiwan	Design, manufacturing and sales of LED	63,800	-	1,063,000	64.31	56,283	( 11,533)	( 7,417)		
Crystaluxx SARL	LEDOLUX Sp.Zo.O.	Poland	Assembling and sales of LED bulbs	133,455	133,455	156,994	60.00	14,051	( 798)	( 479)		
Epistar JV Holding (BVI) Co.,Ltd.	Country Lighting (BVI) Co.,Ltd.	British Virgin Islands	Professional investment	89,843	89,843	3,060,000	36.43	91,723	( 65)	( 24)		
Epistar JV Holding (BVI) Co.,Ltd.	Crystal Light Enterprise Group Ltd.	British Virgin Islands	Professional investment	6,754	6,754	Cash USD200,000	100.00	26,093	( 311)	( 311)		

Investor	Investee	Location	Main business activities	Initial investment amount		Shares held as at December 31, 2019			Net profit (loss) of the investee for the year ended December 31, 2019	Investment income (loss) recognised by the Company for the year ended December 31, 2019	Footnote
				Balance as at December 31, 2019	Balance as at December 31, 2018	Number of shares (Note)	Ownership (%)	Book value			
Epistar JV Holding (BVI) Co.,Ltd.	HUGA Holding (SAMOA) Limited	SAMOA	Professional investment	\$ 334,967	\$ 331,951	12,551,035	100.00	\$ 79,880	\$ 51,872	\$ 51,872	
Epistar JV Holding (BVI) Co.,Ltd.	LineStar JV Holding (BVI) Co.,Ltd.	British Virgin Islands	Professional investment	3,408,835	3,408,835	10,882	82.41	3,341,085	( 119,528)	( 98,503)	
Epistar JV Holding (BVI) Co.,Ltd.	United LED Corporation (Hong Kong) Limited	Hong Kong	Professional investment	2,029,760	2,029,760	67,000,165	74.86	342,534	( 165,085)	( 123,583)	
Epistar JV Holding (BVI) Co.,Ltd.	Episky (Hong Kong) Ltd.	Hong Kong	Professional investment	2,124,096	2,124,096	Cash USD68,000,000	100.00	2,083,512	( 284,375)	( 284,375)	
Epistar JV Holding (BVI) Co.,Ltd.	Can Yang Investments Limited	Hong Kong	Professional investment	4,291,894	4,291,894	Cash USD141,272,700	80.10	1,415,308	( 275,527)	( 168,451)	
GaN Ventures Co., Limited	GV Semiconductor Inc.	USA	R&D and sales of electronic components	177,602	91,225	-	0.00	-	( 76,243)	( 76,243)	
GaN Force Corporation	GV Semiconductor Inc.	USA	R&D and sales of electronic components	44,466	-	Cash USD6,680,000	100.00	32,668	( 11,449)	( 11,449)	
HUGA Holding (SAMOA) Limited	Ecoled Venture Co., Limited	Hong Kong	Sales of LED lighting facilities	-	24,655	-	0.00	-	19,736	9,475	
Lighting Investment Ltd.	GaN Ventures Co., Limited	Hong Kong	Investment holding, sales of electronic components	64	64	1,500,000	4.92	1,077	( 90,478)	( 4,452)	

Investor	Investee	Location	Main business activities	Initial investment amount		Shares held as at December 31, 2019		Book value	Net profit (loss) of the investee for the year ended December 31, 2019	Investment income (loss) recognised by the Company for the year ended December 31, 2019	Footnote
				December 31, 2019	Balance as at December 31, 2018	Number of shares (Note)	Ownership (%)				
Lighting Investment Ltd.	LEDAZ CO., Ltd.	Korea	Engineering service of LED	\$ 48,166	\$ 48,166	88,460	28.13	\$ 34,117	\$ 46,707	\$ 27,071	
Lighting Investment Ltd.	Interlight OProtech (HK) Co., Limited	Hong Kong	Packaging, manufacturing and sales of LED	12,806	12,806	429,000	30.00	12,705	( 1,232)	( 397)	
Lighting Investment Ltd.	Epistar (Hong Kong) Limited	Hong Kong	Professional investment	2,556	2,556	82,850	100.00	2,080	( 32)	( 32)	
Lighting Investment Ltd.	Luxlite (HK) Corporation Limited	Hong Kong	Professional investment	91,286	91,286	2,850,000	75.00	321,159	120,918	90,689	
LiteStar JV Holding (BVI) Co., Ltd.	Epicrystal (Hong Kong) Co. Ltd.	Hong Kong	Professional investment	4,403,034	4,403,034	146,600,000	100.00	4,053,019	( 119,460)	( 119,460)	
Lighting Investment Corp.	Crystaluxx S.A.R.L.	Luxembourg	Professional investment	131,659	131,659	33,200	100.00	12,734	( 1,844)	( 1,844)	
Lighting Investment Corp.	LEDAZ CO., Ltd.	Korea	Engineering service of LED	23,993	23,993	44,065	14.01	21,228	( 46,707)	( 13,447)	
Lighting Investment Corp.	Lighting Investment Ltd.	British Virgin Islands	Professional investment	152,701	152,701	45,642	100.00	592,768	52,468	52,468	
Lighting Investment Corp.	Yen-Rich Opto (Hong Kong) Limited	Hong Kong	Sales of LED light components	250,731	250,731	8,010,000	100.00	295,781	7,113	7,113	

Investor	Investee	Location	Main business activities	Initial investment amount			Shares held as at December 31, 2019			Book value	Net profit (loss) of the investee for the year ended December 31, 2019	Investment income (loss) recognised by the Company for the year ended December 31, 2019	Footnote
				Balance as at December 31, 2019	Balance as at December 31, 2018	Number of shares (Note)	Ownership (%)	Number of shares (Note)					
Lighting Investment Corp.	Nan Ya Photonics Incorporation	Taiwan	LED light application	\$ 50,561	\$ 50,561	1,135,430	2.46	\$ 35,862	\$ 98,085	\$ 2,416			
Lighting Investment Corp.	ProLight Opto Technology Corporation	Taiwan	Packaging and sales of LED chips and LED lighting facilities	318,929	214,329	27,539,234	40.46	420,117	( 55,888)	( 22,023)			
Lighting Investment Corp.	Can Yang Investments Limited	Hong Kong	Professional investment	72,436	72,436	5,218,605	6.87	121,388	( 275,527)	( 18,929)			
Lighting Investment Corp.	allureLux Corporation	Taiwan	Development and design services of LED lamps	30,000	30,000	3,000,000	100.00	7,638	( 4,423)	( 4,423)			
Yen-Rieh Technology Corporation.	ProLight Opto Technology Corporation	Taiwan	Packaging, manufacturing and sales of LED	29,372	-	2,462,000	3.62	37,537	( 51,586)	( 1,868)			
Epistar (Hong Kong) Limited	ES-LEDRU LLC.	Russia	Sales of LED products	2,474	2,474	4,036,069	49.00	2,231	-	-			
Episky Corp.(Xiamen) Ltd.	Epicrystal Corporation (Changzhou) Ltd.	China-Changzhou	Assembling and sales of LED bulbs	147,472	147,472	Cash USD5,200,000	3.31	143,666	( 127,901)	( 4,234)			
Episky Corp.(Xiamen) Ltd.	Episky Corporation (Changzhou) Ltd.	China-Changzhou	Manufacturing and sales of LED chips and LED lighting facilities	-	99,056	-	0.00	-	( 9,237)	( 9,237)	Note 1		
Episky Corp.(Xiamen) Ltd.	EPHRIICH (Guangzhou)Co.,Ltd	China-Guangzhou	Development and sales of LED products	-	40,382	-	0.00	-	( 69)	( 69)	Note 3		

Investor	Investee	Location	Main business activities	Initial investment amount		Shares held as at December 31, 2019		Ownership (%)	Book value	Net profit (loss) of the investee for the year ended December 31, 2019	Investment income (loss) recognised by the Company for the year ended December 31, 2019	Footnote
				Balance as at December 31, 2019	Balance as at December 31, 2018	Number of shares (Note)						
allureLux Corporation	AllureLux Inc.	USA	Design and sales of LED lighting	\$ -	\$ 16,795	-	0.00	\$ -	(\$ 2,977)	\$ 2,977	Note 2	
ProLight Opto Technology Corporation	ProLight Opto Holding Corporation	Seychelles	Professional investment	4,402	4,402	150,000	100.00	( 1,211)	2,364	4,443		
ProLight Opto Holding Corporation	ProLight Opto Technology Corporation	Seychelles	Professional investment	4,403	4,403	150,000	100.00	( 1,184)	2,364	4,443		

Note 1: The liquidation was completed on December, 2019 as the company will not continue its operation.

Note 2: The liquidation was completed on February, 2019 as the company will not continue its operation.

Note 3: The liquidation was completed on April, 2019 as the company will not continue its operation.

EPSTAR CORPORATION  
Information on investments in Mainland China  
Year ended December 31, 2019

Expressed in thousands of NTD  
(Except as otherwise indicated)

Table 9

Investee in Mainland China	Main business activities	Paid-in capital	Investment method (Note 1)	Amount remitted from Taiwan to			Ownership held by the Company (direct or indirect)	Investment income (loss) recognised by the Company for the year ended December 31, 2019 (Note 2)	Book value of investments in Mainland China as of December 31, 2019	Accumulated amount of investment income remitted back to Taiwan as of December 31, 2019	Footnote
				Accumulated amount of remittance from Taiwan to Mainland China as of January 1, 2019	Amount remitted back to Taiwan for the year ended December 31, 2019	Accumulated amount of remittance from Taiwan to Mainland China as of December 31, 2019					
		\$ 2,038,640		\$ 2,038,640	\$ -	\$ 2,038,640	100.00	\$ 284,408	\$ 2,083,505	\$ -	2(3)
Episky Corporation (Xiamen) Ltd.	Manufacturing and sales of LED chips and LED lighting facilities		2								
		2,518,320		1,911,225	-	1,911,225	74.86	(123,882)	341,252	-	2(3)
United LED Shandong Corporation	Manufacturing and sales of LED chips and LED lighting facilities		2								
		4,706,860		3,585,608	-	3,585,608	76.95	(98,426)	3,340,092	-	2(1)
Epicrystal Corporation (Changzhou) Ltd.	Manufacturing and sales of LED chips and LED lighting facilities		2								
		89,940		22,511	-	22,511	75.00	94,046	238,126	57,861	2(1)
Luxlite (Shenzhen) Corporation Limited	Sales of LED lighting facilities		2								

Investee in Mainland China	Main business activities	Paid-in capital	Investment method (Note 1)	Amount remitted from Taiwan to			Ownership held by the Company (direct or indirect)	Investment income (loss) recognised by the Company for the year ended December 31, 2019 (Note 2)	Book value of investments in Mainland China as of December 31, 2019	Accumulated amount of investment income remitted back to Taiwan as of December 31, 2019	Footnote
				Accumulated amount of remittance from Taiwan to Mainland China as of January 1, 2019	Amount remitted back to Taiwan for the year ended December 31, 2019	Accumulated amount of remittance from Taiwan to Mainland China as of December 31, 2019					
		\$ 8,154,525		\$ 1,530,779	\$ -	\$ 1,530,779	\$ 18.77	\$ -	\$ 1,428,696	\$ -	2(3)
KAISTAR Lighting (Xiamen) Co., Ltd.	Manufacturing and sales of LED chips and LED lighting facilities		2								7
		749,500		74,950	-	74,950	10.00	-	44,223	-	2(3)
Everlight Electronics (Fujian) Co., Ltd	Manufacturing and sales of LED backlight and related parts		2								
		1,771,488		218,751	36,898	255,649	11.81	-	-	-	2(3)
APT Electronics Co., Ltd.	Developing, manufacture and sale of LED extension and chip, module and light instrument		3								
		851,380		100,632	-	100,632	8.97	(9,582)	67,526	-	2(3)
China Crystal Technologies Co., Ltd.	Developing, manufacture and sale of gallium arsenide unit crystal and chips		2								
		\$ 74,950		\$ 7,808	\$ -	\$ 7,808	10.00	\$ -	\$ -	\$ -	2(3)
Ufeco Technology Inc.	Developing and manufacturing LED application and sales of self-product		2								



Investee in Mainland China	Main business activities	Paid-in capital	Investment method (Note 1)	Amount remitted from Taiwan to			Ownership held by the Company (direct or indirect)	Investment income (loss) recognised by the Company for the year ended December 31, 2019 (Note 2)	Book value of investments in Mainland China as of December 31, 2019	Accumulated amount of investment income remitted back to Taiwan as of December 31, 2019	Footnote
				Accumulated amount of remittance from Taiwan to Mainland China as of January 1, 2019	Amount remitted back to Taiwan for the year ended December 31, 2019	Accumulated amount of remittance from Taiwan to Mainland China as of December 31, 2019					
		430,500		219,457	-	219,457	0.00	-	-	2(3)	
	Research and development, manufacturing and sale of LED packaging; research and development, manufacturing and sale of backlight module, lighting modules and accessories		2								
Very Optoelectronics (HUIZHOU) Co., Ltd.				50,463	-	50,463	100.00	311	26,093	2(3)	
Ningbo Formosa Epitaxy Incorporation	Manufacturing and sales of LED chips and LED lighting facilities	5,996	2								
		5,756,160		2,387,089	-	2,387,089	86.97	239,626	1,536,695	2(3)	
Jiangsu Canyang Optoelectronics Ltd.	Manufacturing and sales of LED chips and LED lighting facilities		2								
		\$ 4,497		\$ 4,497	-	4,497	52.60	\$ 4,443	\$ 1,157	2(2)	
Shanghai Welight Electronic Co., LTD.	Wholesale and export and import of LED and related electronic products		2								

Company name	Accumulated amount of remittance from Taiwan to Mainland China as of December 31, 2019	Investment amount approved by the Investment Commission of the Ministry of Economic Affairs (MOEA)	Ceiling on investments in Mainland China imposed by the Investment Commission of MOEA
Epistar Corporation	\$ 12,241,483	\$ 13,277,209	\$ 28,317,215

Note 1: The investments are classified in three types; they are numbered as follows:

1. Direct investment in Mainland China companies;
2. Through investing in an existing company in the third area, which then invested in the investee in Mainland China.
3. Other ways.

Note 2: Investment income or loss in this period:

The bases for recognition of investment income or loss are classified into four types; they are numbered as follows:

1. The financial statements that are audited by the international accounting firm which has a cooperative relationship with the R.O.C. accounting firm;
2. The financial statements that are audited by the R.O.C. parent company's independent accountants;
3. Others: The financial statements that are not audited by the independent accountants

Note 3: The amount disclosed was based on Investment Commission, MOEA Regulation No. 09704604680 announced on August 29, 2008.

Note 4: The numbers in the table shall be expressed in NTD. Foreign currencies shall be translated into NTD at the exchange rate prevailing on the financial reporting date.

Note 5: The 'amounts' are expressed in thousands of New Taiwan dollars.

Note 6: The shares of Very Optoelectronics (HUI ZHOU) Co., Ltd. and Cosmoleo Lighting Limited were all disposed on March 14, 2018 and June 25, 2018.

Note 7: The Group lost significant influence over KAISTAR Lighting (Xiamen) Co., Ltd. as the shares of it owned by the Group were less than 20% on April 26, 2018.

Therefore, the Group reclassified them into financial assets at fair value through other comprehensive income in accordance with IFRSs.

EPISTAR CORPORATION

Significant transactions conducted with investees in Mainland China directly or indirectly through other companies in the third areas  
Year ended December 31, 2019

Expressed in thousands of NTD  
(Except as otherwise indicated)

Table 10

Investee in Mainland China	Sale (purchase)		Property transaction		Accounts receivable (payable)		Provision of endorsements/guarantees or collaterals		Financing		Interest during the year ended December 31, 2019	Others
	Amount	%	Amount	%	Balance at December 31, 2019	%	Balance at December 31, 2019	Maximum balance during the year ended December 31, 2019	Balance at December 31, 2019	Interest rate		
Shanghai Welight Electronic Co., LTD.	\$ 170,826	1	\$ -	-	\$ 167,605	-	\$ -	\$ -	\$ -	-	\$ -	-
Jiangsu Canyang Optoelectronics Ltd.	184,669	1	132,258	15	87,845	-	389,740	879,000	430,500	4.2%	5,868	-
Jiangsu Canyang Optoelectronics Ltd.	( 378,190)	2)	( 11,851)	-	( 38,419)	-	-	-	-	-	-	-
Luxlite (Shenzhen) Corporation Limited	1,425,371	9	-	-	775,081	1	-	-	-	-	-	-
Episky Corporation (Xiamen) Ltd.	768,584	5	29,708	3	335,714	1	2,518,320	1,824,000	861,000	5.53%	-	-
Episky Corporation (Xiamen) Ltd.	( 287,519)	2)	-	-	( 50,045)	-	-	-	-	-	-	-
Epicrystal Corporation (Changzhou) Ltd	449,614	3	16,405	2	83,183	-	-	-	-	-	-	-
Epicrystal Corporation (Changzhou) Ltd	( 1,230,596)	8)	( 11,839)	-	( 497,916)	( 1)	-	-	-	-	-	-

**EPISTAR CORPORATION**



**Chairman**

**Biing-Jye Lee**

