

EPISTAR

2448



Actualize III-V Semiconductor Potential



..... Co-activation Service Model

..... Full Spectrum LED Chips Portfolio

..... Chip Solution for Various Applications

2018.09.05 update

Safe Harbor Notice

These presentation materials include forward-looking statements that are subject to significant risks and uncertainties and actual results may differ materially from those contained in the forward-looking statements.

The factors that could cause actual results including, but not limited to current uncertainty in global market conditions, our development in new technologies and products, our ability to lower costs, the complexity of our manufacturing processes, the availability of raw materials, and the difficulties of estimating future market demand.

Our industry and business are constantly evolving and we undertake no obligation to update any forward-looking statements, whether as a result of new information, future events, or otherwise.

Quick Glance at Epistar

Founded : September 1996

Chairman : Dr. B. J. Lee

President : Mr. Patrick Fan

Paid-in Capital : NTD 10.9 Billions (~ US\$ 373 M)

Products :

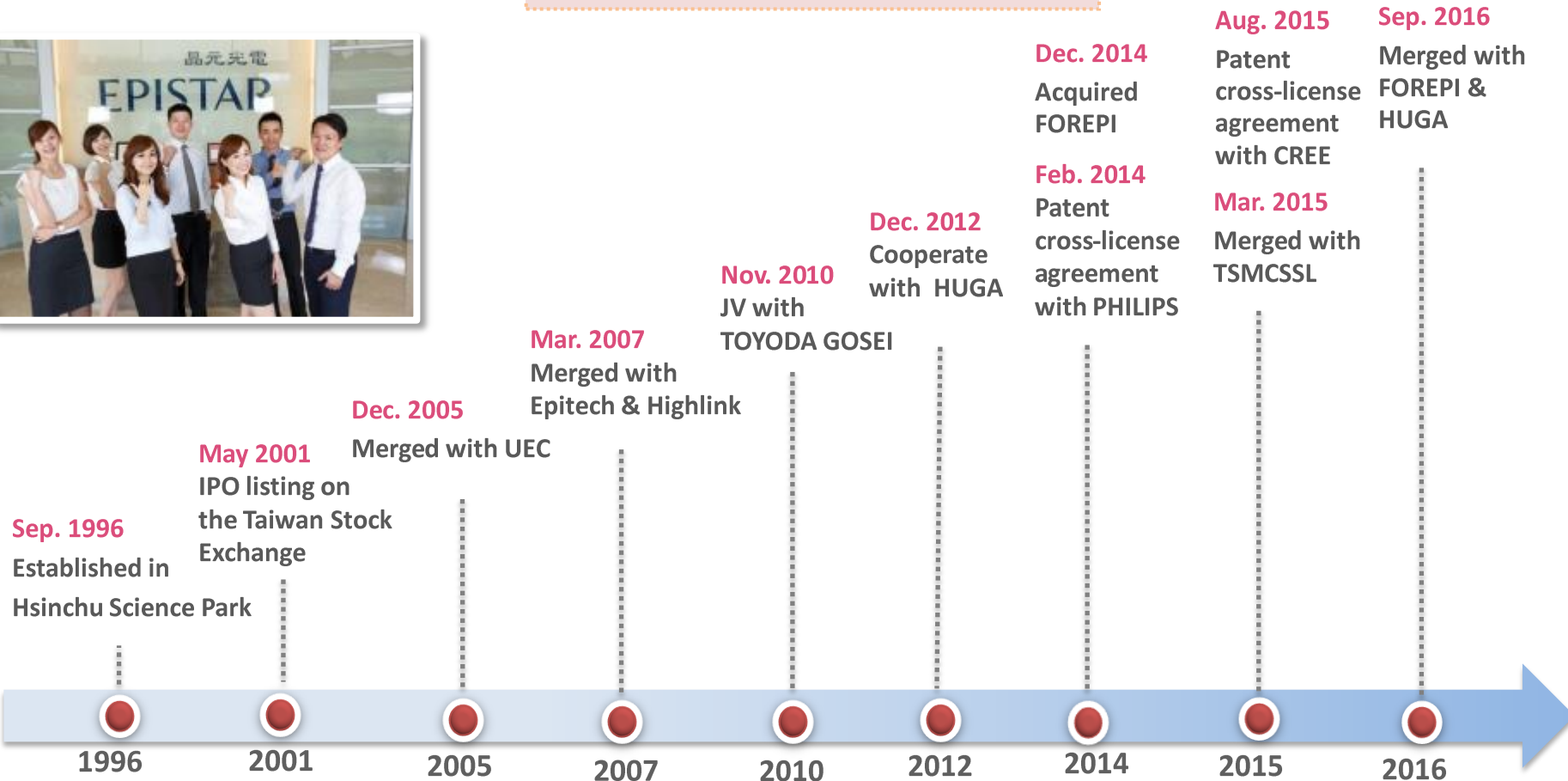
- AlGaInP LED EPI-wafers and chips
- InGaN LED EPI-wafers and chips
- UV / Infrared LED chips
- VCSEL Foundry Services
- III-V solar cells

Employee : 3,871 staff (update: Jul, 2018)



History & Milestones

Corporate Achievement



Market Overview and Outlook

- Oversupply due to recent China expansion
- 2nd quarter is soft due to weak BLU and lighting demand
- Expect to rebound for 3rd quarter after pipeline inventory is consumed
- Auto, IR, horticulture and colored LED continue to be strong
- Mini-LED starts to take off in the 2nd half

Growth Engines for LED & Epistar's Strategy

➤ Lighting

- Filament (IP), Tube (high performance), CSP (commercial & outdoor lighting), and horticulture (WPE)

➤ Automotive

- Exterior (R&Y) & interior (RGB), DRL, Headlamp (design in) and IR (sensing)

➤ Signage (Display)

- Ultra-fine pitch display, RGB (high brightness & uniformity)

➤ Mini & Micro-LED

Epistar's Competitiveness in Mini- & Micro-LED

- Efficiency: Best red performance, excellent green brightness
- Uniformity: std dev. for 4" & 6" wafer less than 1 nm
- Unique chip structure for optimized BLU design
- Capable of different design (lateral, vertical & flip chip) for customized applications
- Strong connection to end customers

Actualize LED Potential



Actualize III-V Semiconductor Potential

Application field for III-V Semiconductors

LED

Illumination
Signals
Automotive
Mobile Application

Laser Diodes

Optical Storage
Projector
Image Sensor

Power

PFC/Power Supply
PV Inverter
Motor Control
EV/HEV
UPS
Wind Mills
Rail Transport.

RF Electronic

5G, Wireless charger

Acoustic wave

BAW Device
Mobile phone

Mendelevium																		
Key isotopes		258Md, 260Md																
Electron configuration		[Rn] 5f ¹³ 7s ²																
Density (g cm ⁻³)		Unknown																
1 st ionisation energy		634.870 kJ mol ⁻¹																
Md	B	C	N	O	F	Ne												He
101 [258]	5	6	7	8	9	10												2
	Al	Si	P	S	Cl	Ar												
	13	14	15	16	17	18												
	Ga	Ge	As	Se	Br	Kr												
	31	32	33	34	35	36												
	In	Sn	Sb	Te	I	Xe												
	49	50	51	52	53	54												
	Tl	Pb	Bi	Po	At	Rn												
	81	82	83	84	85	86												
	Nh	Fl	Mc	Lv	Ts	Og												
	113	114	115	116	117	118												
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu					
58	59	60	61	62	63	64	65	66	67	68	69	70	71					
Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr					
90	91	92	93	94	95	96	97	98	99	100	101	102	103					

New Growth Engines

- Future Display (Mini-LED/Micro-LED)
- New Generation Smart Car – GaN Power/LiDAR
- IoT –/Sensor/Power Module
- 5G World – Solar Cell/BAW....
- 3D Sensing, VR/AR – VCSEL
- AI & Deep Learning
-

Balance Sheets

(In NT billions excepted otherwise noted)	2018.06.30		2018.03.31		2017.06.30	
Cash & Marketable Securities	6.1	9.2%	5.5	8.3%	5.2	7.9%
Accounts Receivable	12	18.0%	11.4	17.2%	11.5	17.4%
Inventory	5.4	8.1%	5.4	8.1%	4.6	7.0%
Long-Term Investment	1.1	1.7%	2.6	3.9%	2.8	4.2%
Net PP&E	23.6	35.4%	24.0	36.2%	25.5	38.6%
Total Assets	66.6	100.0%	66.3	100.0%	66.0	100.0%
Current Liabilities	11.3	17.0%	9.4	14.2%	8.6	13.0%
Long-Term Interest-bearing Debt	0.2	0.3%	0.7	1.1%	3.8	5.8%
Total Liabilities	13.8	20.7%	12.4	18.7%	14.6	22.1%
Total Shareholders' Equity	52.8	79.3%	53.9	81.3%	51.4	77.9%

2018 2Q Income QoQ Comparison

(In NT millions except otherwise noted)	2Q18		1Q18		QoQ	
Sales revenue	5,295	100.0%	5,148	100.0%	147	2.9%
Gross profit	941	17.8%	886	17.2%	55	6.2%
Operating expenses	(938)	(17.7%)	(812)	(15.8%)	126	15.5%
Net other income and expenses	50	0.9%	53	1.0%	(3)	(5.7%)
Operating Profit	53	1.0%	127	2.5%	(74)	(58.3%)
Net currency exchange (loss)gains	192	3.6%	(44)	(0.9%)	236	536.4%
Interest expense	(44)	(0.8%)	(41)	(0.8%)	3	7.0%
Other net non-operating income and expenses	16	0.3%	65	1.3%	(49)	(75.4%)
Profit (loss) before income tax	217	4.1%	107	2.1%	110	102.8%
Profit (loss) for the period	111	2.1%	378	7.3%	(267)	(70.6%)
EPS(NT\$)	0.11		0.37		(0.26)	(70.3%)

2018 Income YoY Comparison

(In NT millions except otherwise noted)	2018H1		2017H1		YoY	
Sales revenue	10,443	100.0%	12,375	100.0%	(1,932)	(15.6%)
Gross profit	1,827	17.5%	2,519	20.4%	(692)	(27.5%)
Operating expenses	(1,750)	(16.8%)	(1,583)	(12.8%)	167	10.5%
Net other income and expenses	103	1.0%	102	0.8%	1	1.0%
Operating profit (loss)	180	1.7%	1,038	8.4%	(858)	(82.7%)
Net currency exchange (loss)gains	148	1.4%	(454)	(3.7%)	602	132.6%
Interest expense	(85)	(0.8%)	(98)	(0.8%)	(13)	(13.3%)
Other net non-operating income and expenses	81	0.8%	226	1.8%	(145)	(64.2%)
Profit (loss) before income tax	324	3.1%	712	5.8%	(388)	(54.5%)
Profit (loss) for the period	489	4.7%	511	4.1%	(22)	(4.3%)
EPS(NT\$)	0.48		0.42		0.06	13.8%