



法人說明會

108年03月

Disclaimer

- Except for statements in respect of historical matters, the statements in this release are forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual performance, financial condition or results of operations of TXC to be materially different from what may be implied by such forward-looking statements.
- The financial forecasts and forward-looking statements in the release reflect the current belief of TXC as of the date of this release and TXC undertakes no obligation to update these forecasts and forward-looking statements for events or circumstances that occur subsequent to such date.
- The statements in respect of historical matters may contain unaudited information, which may have certain deficiency or weakness so as not to fairly present financial condition or the results of operations of TXC.

公司簡介

- 成立時間: 1983 (台灣)
- 註冊資本額: NT\$3,098 百萬元 (股票代號: 3042)
- 2000年股票於台灣證券交易所上市
- ✓ 全球頻率元件世界排名第四(2017; CS&A)
- ✓ 切入感測元件市場 – Smallest Ambient Light Sensor (ALS) integrated with Proximity Sensor (PS) in Ceramic Package (2013)

公司使命

To achieve a Win-Win-Win partnership in the Supplier-TXC-Customer relationship

生產基地

1991

Automotive IATF 16949



Taiwan, Ping Cheng (PCF)

- MHz Crystal
- TSX
- OSC
- TCXO
- VCXO
- OCXO
- RTC
- Sensors

1999

Automotive IATF 16949



China, Ningbo (NGB)

- kHz/MHz Crystal
- TSX
- OSC

2013

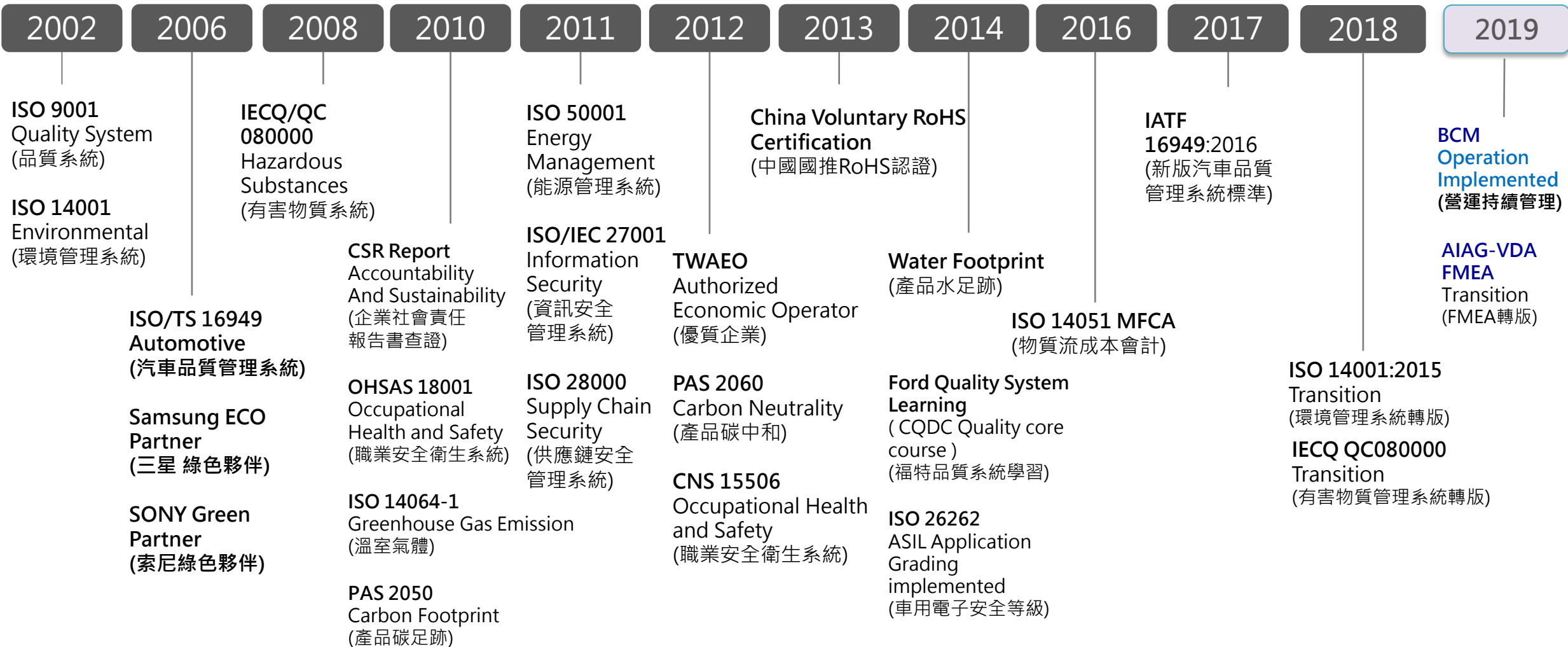


China, Chongqing (CKG)

- MHz Crystal

- **3** manufacturing facilities
- **200+** automated production lines
- **320M+** monthly capacity
- **2** R&D centers (PCF, NGB)
- **400+** engineers

品質管理系統



產品組合

Timing (Crystals and Oscillators)

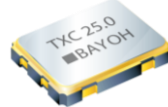
Metal Can



Glass Seal



Crystal Oscillators
(XO)



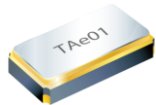
SAW Oscillators
(SO)



Seam Seal



Tuning Fork



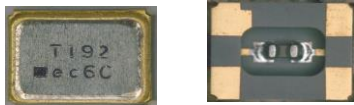
Voltage Controlled
Oscillators
(VCXO)



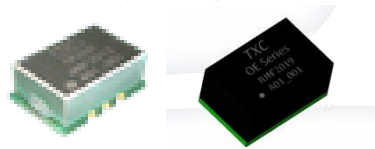
Temperature
Compensated
Oscillators
(TCXO/S3TCXO)



Temperature Sensor Crystal
(TSX)

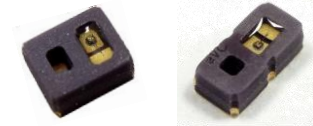


Oven Controlled Oscillators
(OCXO)



Sensing

Sensor
Proximity Sensor



Sensor
Color (RGB) and Proximity Sensor



Sensor
PM 2.5 Sensor Module
Coming in 2019 2H

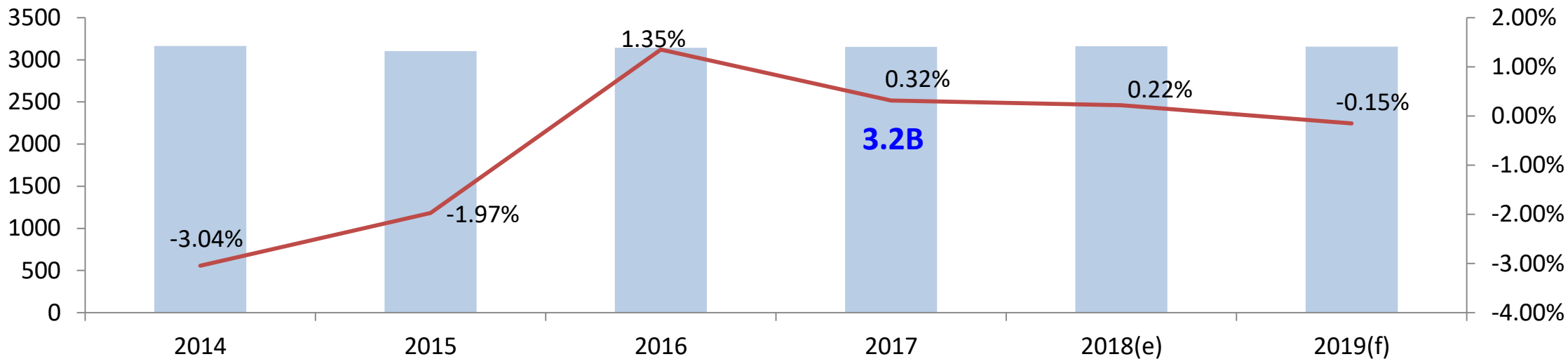


市場展望

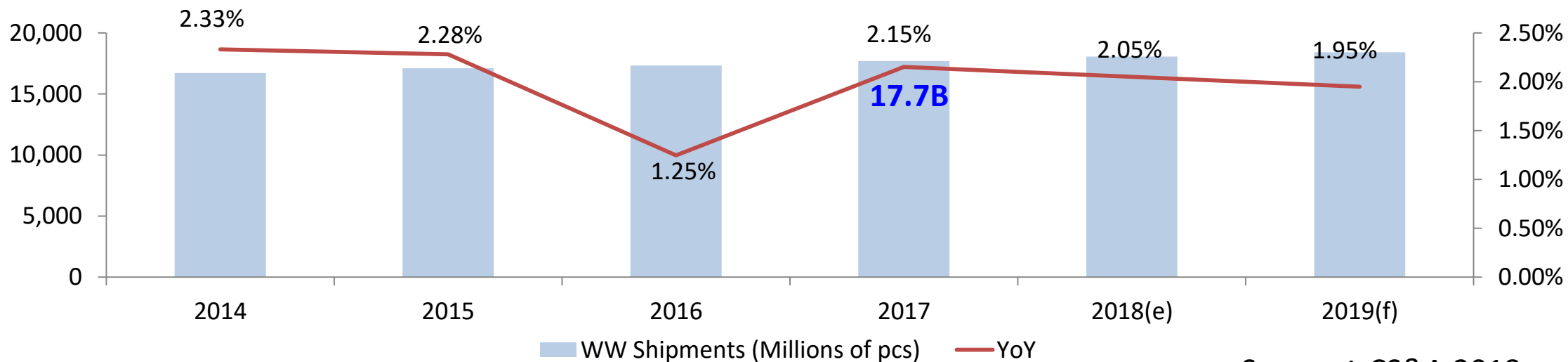
產值, 排名, 產品應用

石英元件產值

Revenue



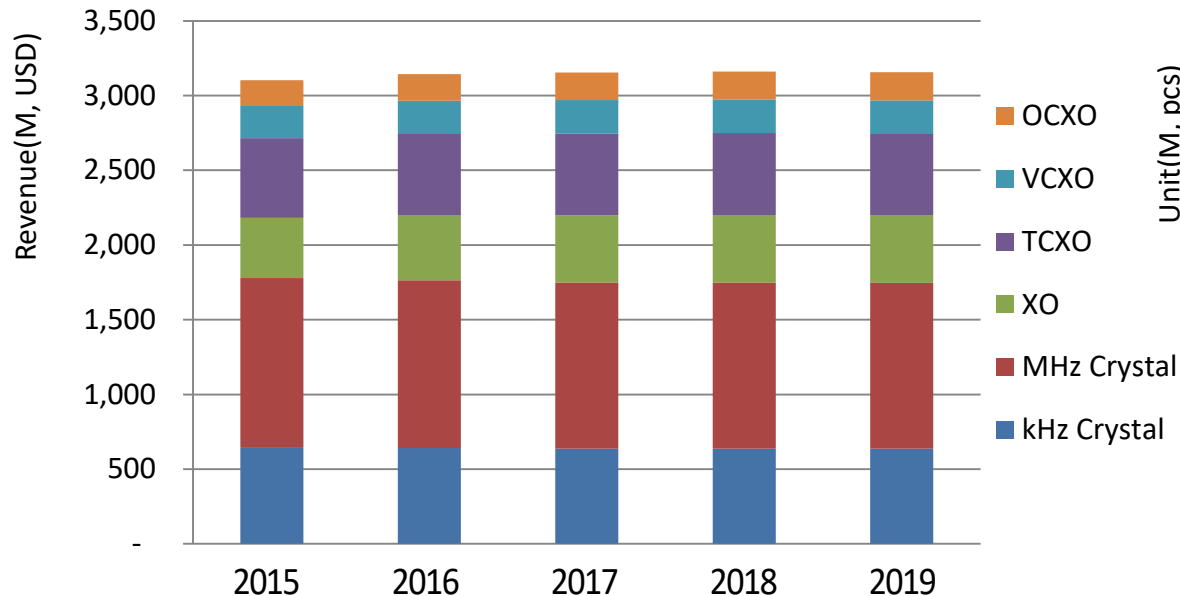
Shipment



Source : CS&A,2018

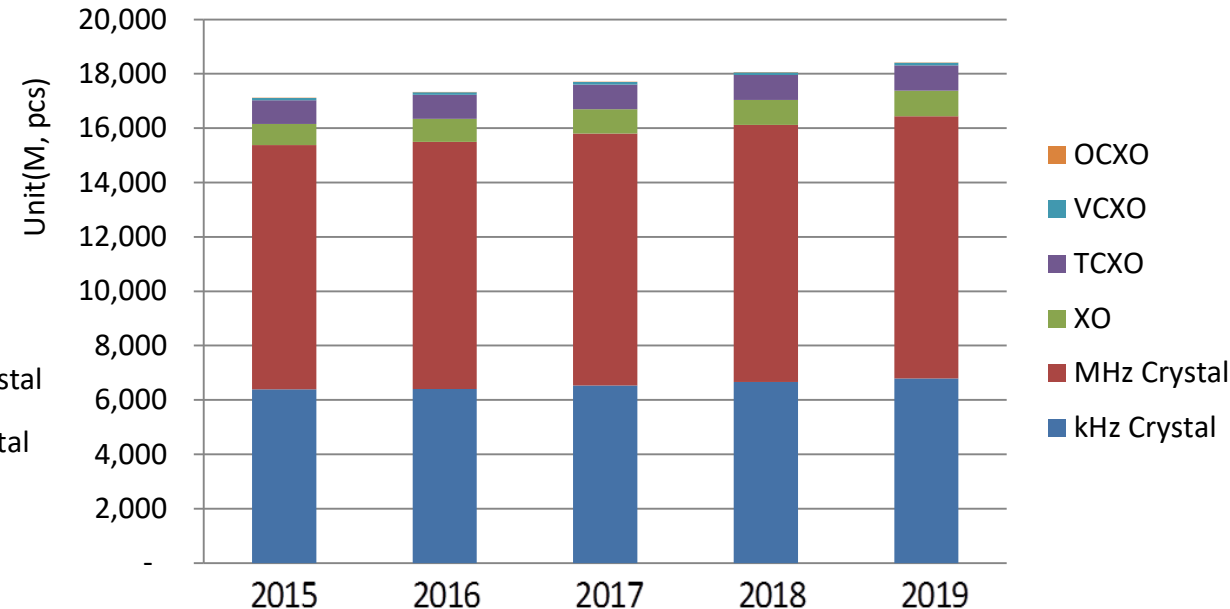
石英元件產值

Total revenues is reached USD 3.1B-3.3B (CAGR 0.1%)



	2015	2016	2017	2018	2019
kHz Crystal	20.9%	20.4%	20.2%	20.2%	20.2%
MHz Crystal	36.5%	35.7%	35.2%	35.1%	35.2%
XO	13.0%	13.9%	14.3%	14.4%	14.4%
TCXO	17.2%	17.3%	17.4%	17.3%	17.2%
VCXO	7.1%	7.1%	7.1%	7.1%	7.1%
OCXO	5.4%	5.7%	5.8%	5.9%	6.0%

Total shipment is estimated to 17.5B-18.5B units(CAGR 2.1%)



	2015	2016	2017	2018	2019
kHz Crystal	6,394	6,404	6,532	6,663	6,796
MHz Crystal	8,986	9,092	9,274	9,460	9,649
XO	776	850	893	919	938
TCXO	867	886	904	922	931
VCXO	87	90	92	94	96
OCXO	3.09	3.35	3.49	3.59	3.67

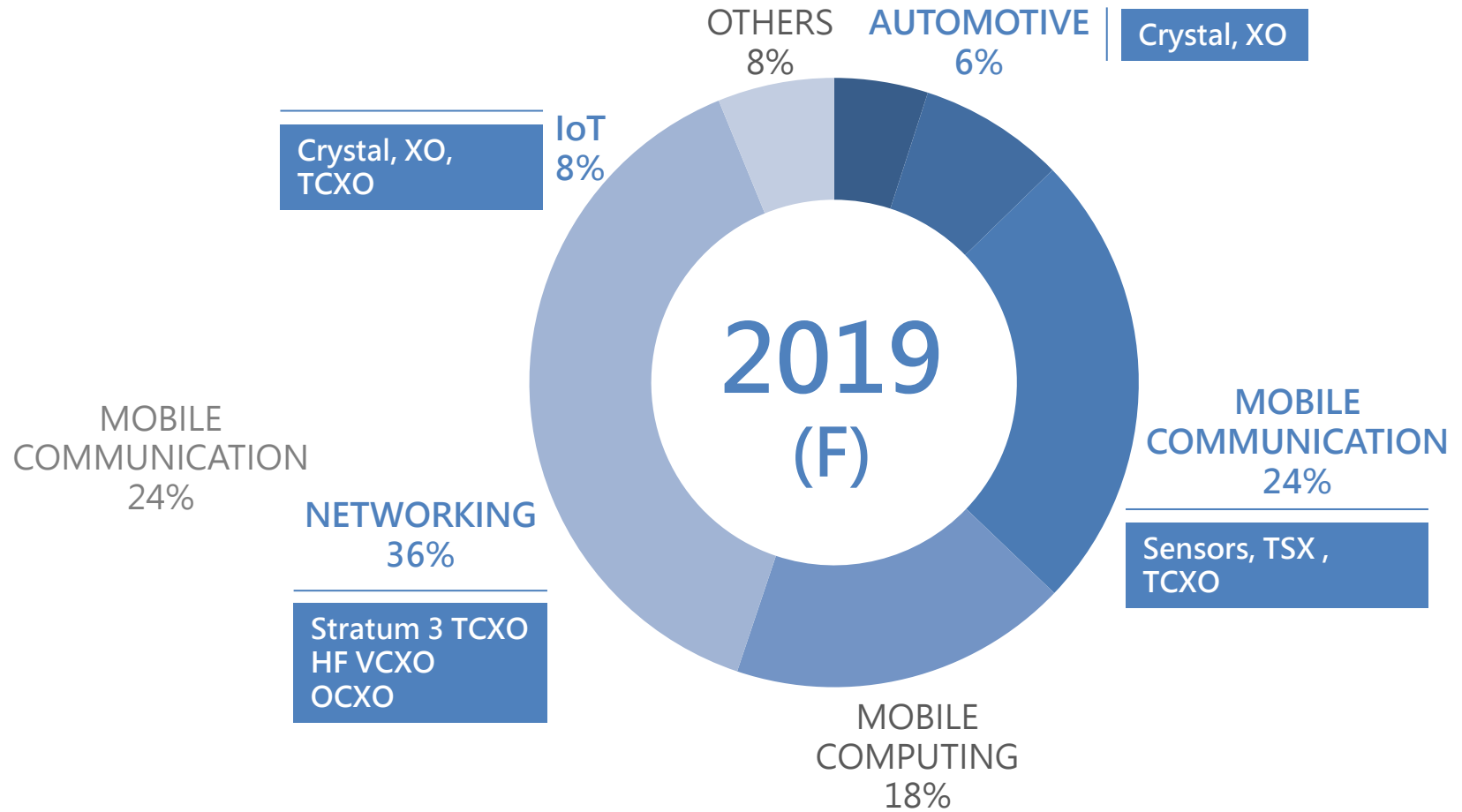
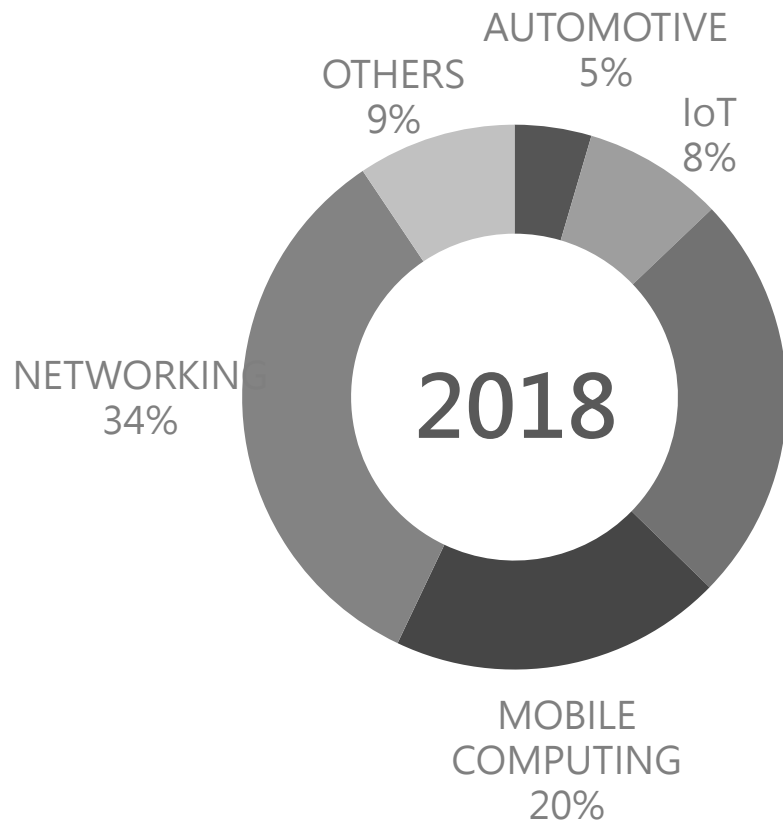
Source : CS&A,2018

市場排名

2016 Rank	2017 Rank	Company Name	Revenue (M)			Market Share (%)	
			2016	2017	Percent Change	2016	2017
1	1	Seiko Epson	\$409	\$382	-6.6%	12.9%	11.7%
2	2	NDK	\$357	\$354	-0.8%	11.3%	10.8%
4	3	KCD	\$287	\$344	20.0%	9.1%	10.5%
3	4	TXC	\$310	\$294	-5.2%	9.8%	9.0%
5	5	KDS	\$212	\$205	-3.2%	6.7%	6.3%
6	6	Microsemi (Vectron)	\$160	\$168	5.0%	5.1%	5.1%
7	7	SIWARD	\$103	\$104	1.5%	3.2%	3.2%
10	8	MegaChips (SiTime)	\$73	\$103	41.1%	2.3%	3.1%
9	9	Hosonic	\$95	\$98	3.0%	3.0%	3.0%
8	10	Harmony	\$72	\$98	35.8%	2.3%	3.0%
		Others	\$1,088	\$1,120	3.0%	34.4%	34.2%
		Total Revenue	\$3,165	\$3,271	3.3%		

Source : CS&A,2018

產業別銷售比重



成長潛力

- 新產品開發

市場成長動力

Intelligent

Worldwide
Sensors
CAGR 11.3%
(2016 to 2021)

Forecasted
U\$241B
by 2021 (AMR)

Growing usage of all sorts
of sensors and AI

Connected

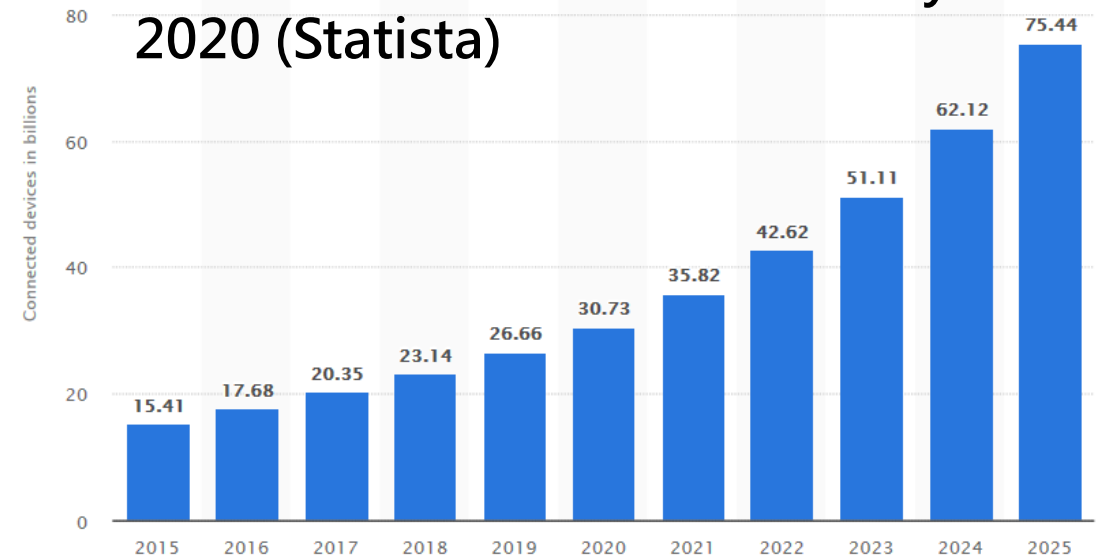
Worldwide
Crystals and
Oscillators
CAGR 1.4%
(2016 to 2020)

Forecasted
U\$3.5B
by 2020 (CS&A)

Increasing usage,
decreasing in price

Things

30 Billion Connected Devices by
2020 (Statista)



Massive number of devices are being
embedded with sensors and connectivity

新產品開發

Intelligent

Miniature and Slim
Color Sensor

High Accuracy
Thermal Sensor

High Resolution
uBolometer Sensor

Industry 1st

Connected

Active EMI Integrated
Oscillator Module

Ultra Stability
SMD OCXO

High Freq, Miniature
Crystal and Oscillator

Industry 1st

Things



5G



IoT



ACAP



Sensor

Target Markets

智慧聯網

Crystal

- Miniaturization
- High Freq
- High Drive Level
- Wide OTR

Oscillator

- High Freq
- Ultra Stability
- Ultra Low Noise
- Wide OTR

EMI Oscillator Module

- EMI IC Integration

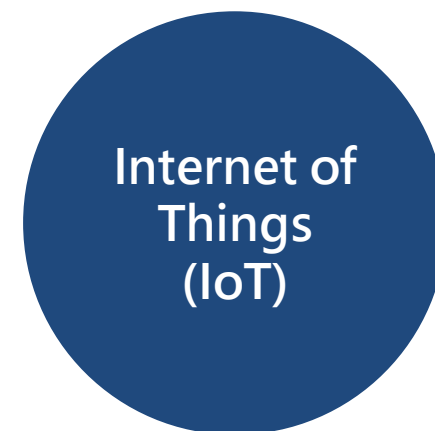
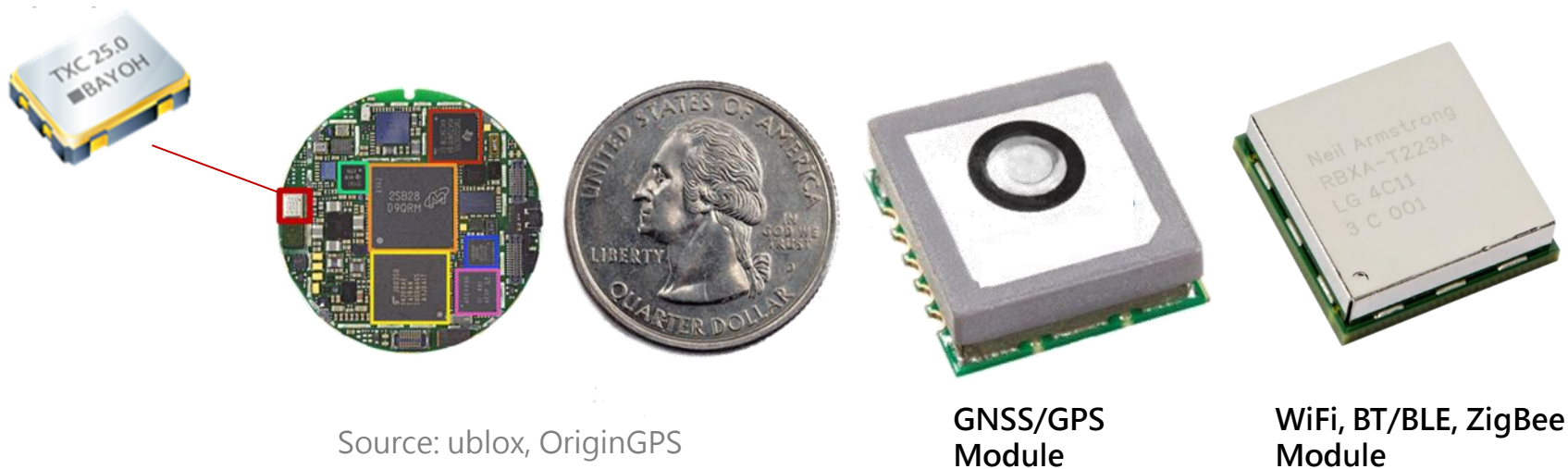
Light Sensor

Thermal IR Sensor (Thermopile)

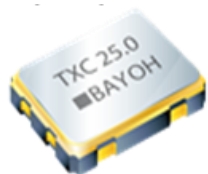
Thermal IR Image Sensor (uBolometer)

小型化、薄型化石英元件

Miniature and low profile 1.2x1.0x0.3mm Crystals for Compact size module applications

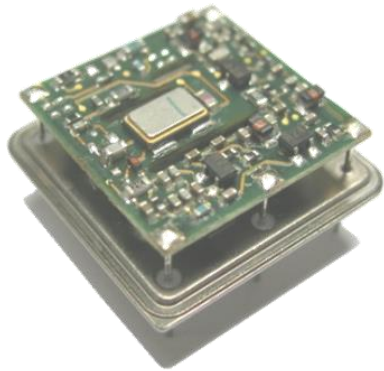


Miniature and low profile 1.6x1.2mmx0.6mm Oscillators

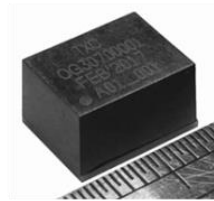


超高穩定度 SMD 9775 SC-Cut OCXO

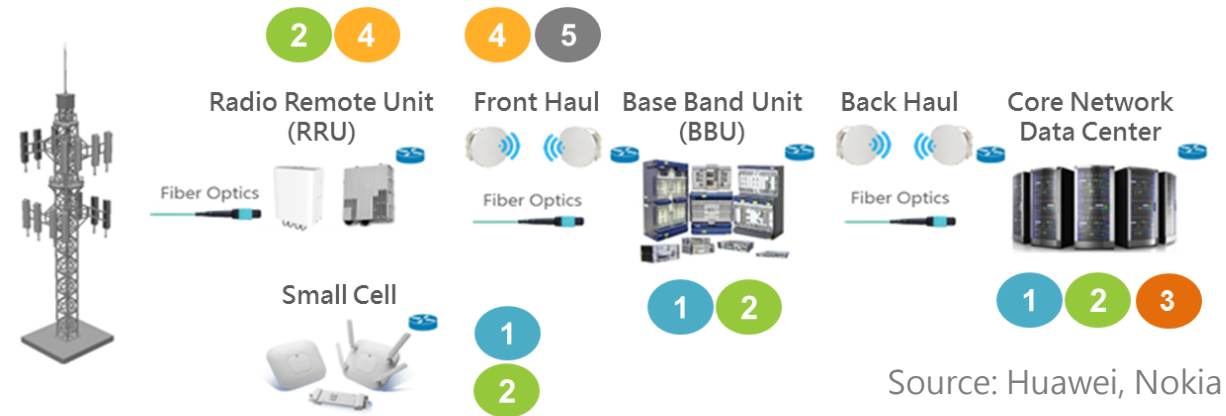
Convention OCXO (20x20mm)
100~110 pcs components



SMD OCXO (9x7mm)
<10pcs components



Telecom and networking infrastructure



Source: Huawei, Nokia

1 Ultra Stability OCXO (9775, 1409); +/-10ppb

2 Ultra Stability S3 TCXO (7050, 5032); +/-100ppb

3 High Frequency, XO/VCXO (7050);
Up to 2.1GHz, ultra low jitter 0.15pS

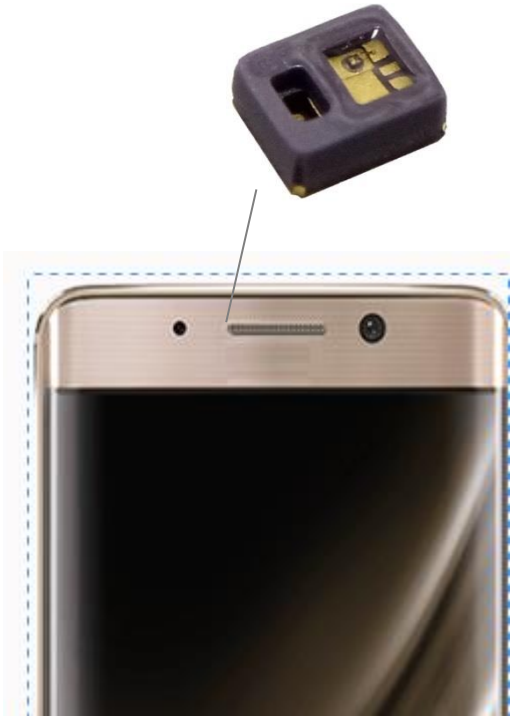
4 Ultra Low Phase Noise VCXO (3225);
Close-in phase noise -80dBc/Hz

5 High Frequency Crystal (MESA 3225); 200MHz

IEEE 1588 and Sync.E Compliant

小型化、窄邊框 感測元件

Single Aperture
2.5x2.0mm



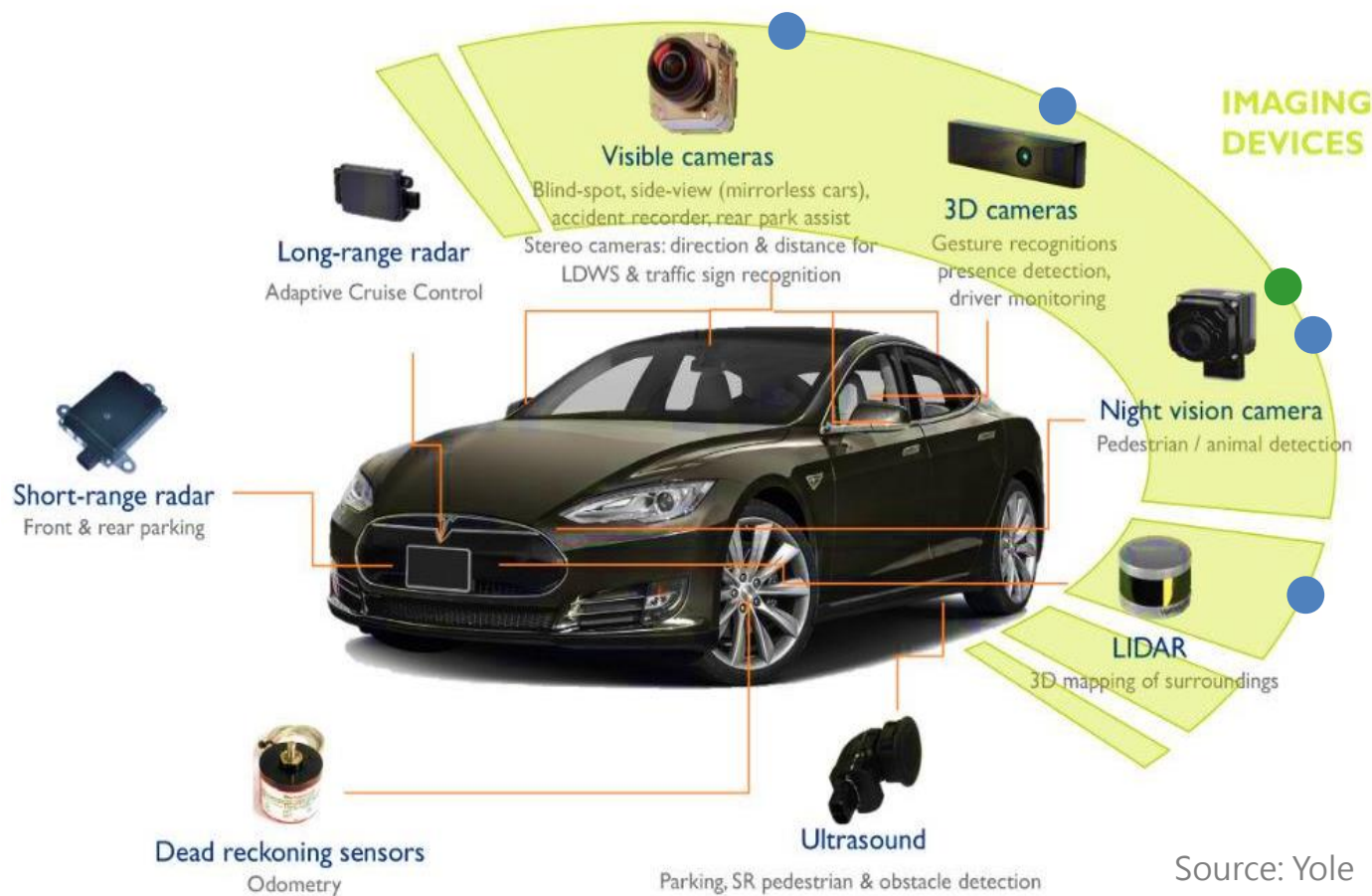
Slim Bezel
3.4x1.2mm



Miniature
2.0x1.6mm

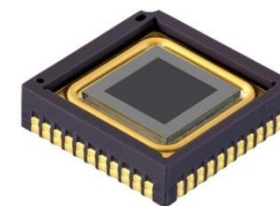


車用輔助系統影像方案



IMAGING DEVICES

- Thermal Imaging (uBolometer)
- Active EMI OSC Module



Active EMI Oscillator 模組

Designed for all Imaging Devices;
Automotive Grade and IoT applications

EMI resolved by Active
EMI Oscillator Module

EMI derived from
Radiative and
Conductive

Active EMI Oscillator Module
2.5x2.0mm/2.0x1.6mm
Ceramic Package



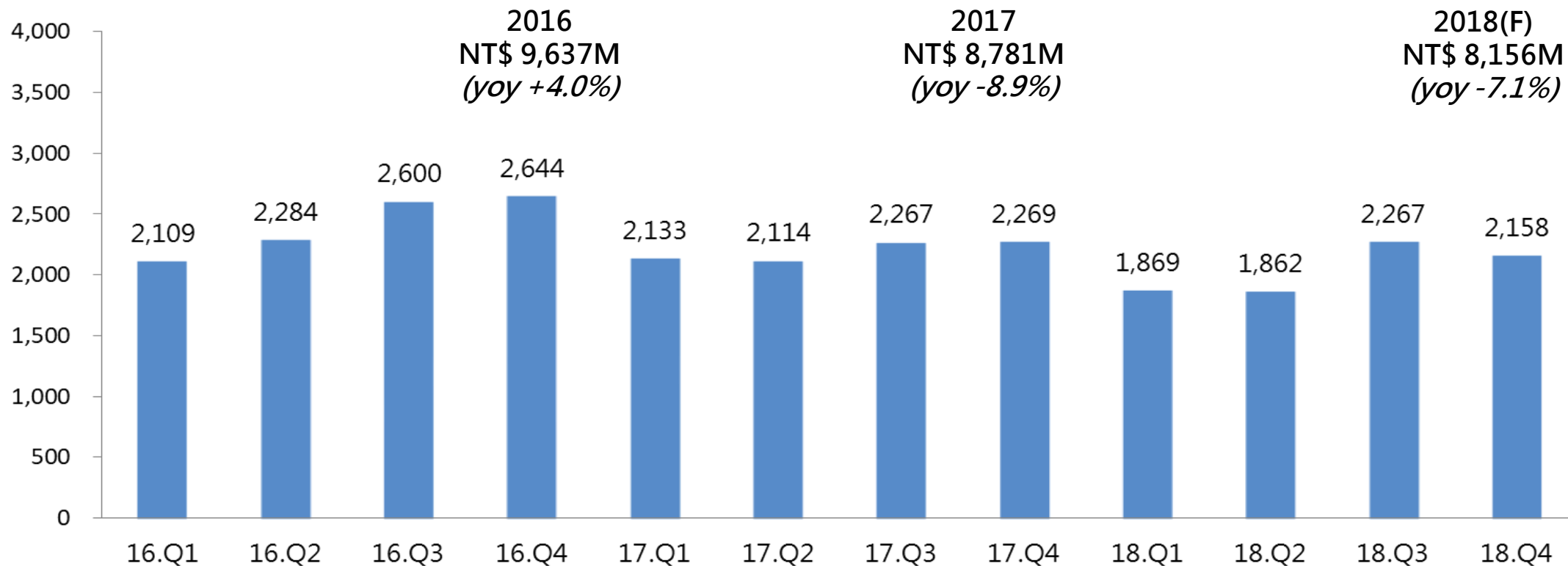
Source: Magna, BYD

財務績效

財務報告, 每股盈餘, 每股股利, 資本支出

每季財務績效

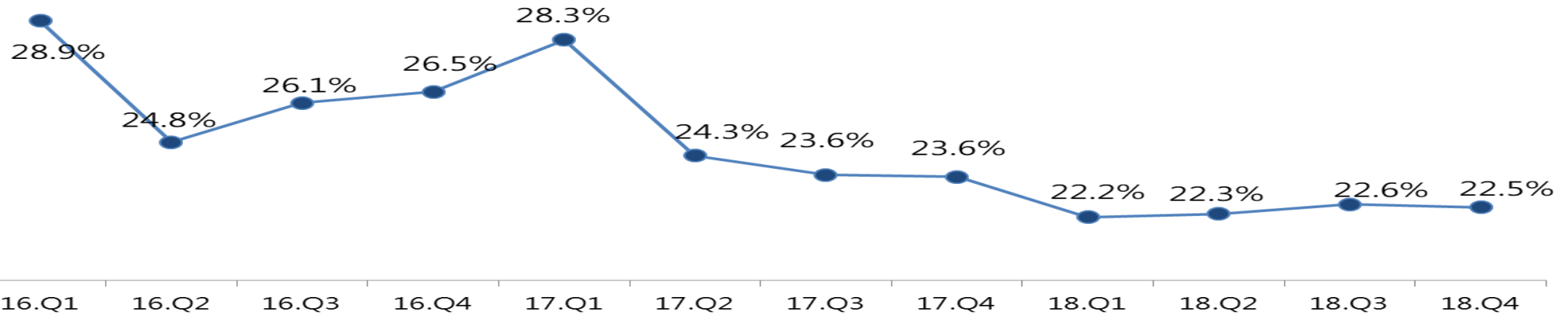
單位: 新台幣百萬元



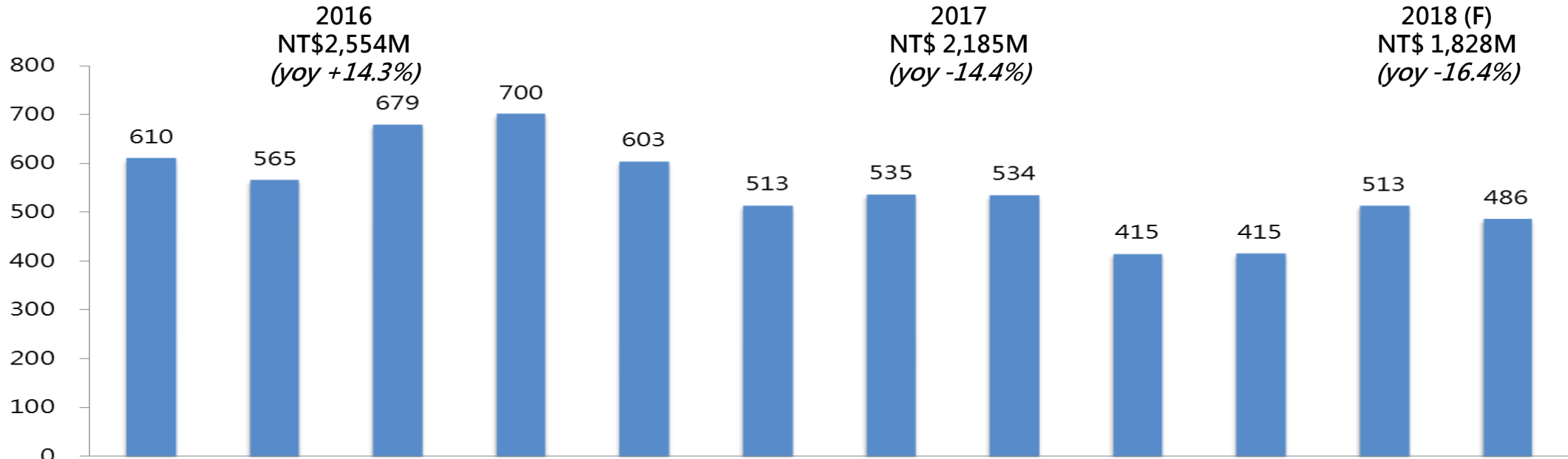
	16.Q1	16.Q2	16.Q3	16.Q4	17.Q1	17.Q2	17.Q3	17.Q4	18.Q1	18.Q2	18.Q3	18.Q4
Revenue (QoQ)	-15.4%	8.3%	13.9%	1.7%	-19.3%	-0.9%	7.2%	0.1%	-17.6%	-0.4%	21.8%	-4.8%
Revenue (YoY)	-1.2%	2.9%	7.6%	6.0%	1.1%	-7.5%	-12.8%	-14.2%	-12.4%	-11.9%	0.0%	-4.9%

每季財務績效

毛利率
(%)



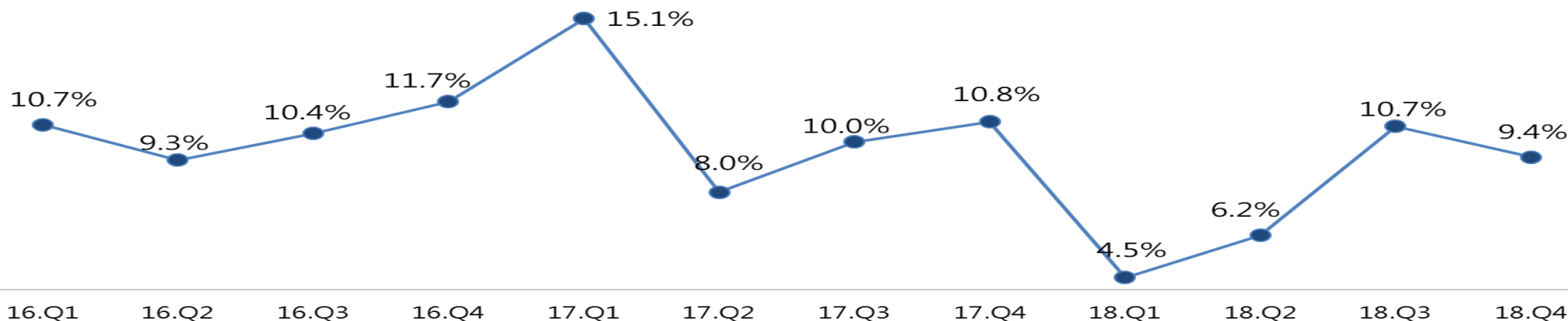
營業毛利
(單位:
新台幣百萬元)



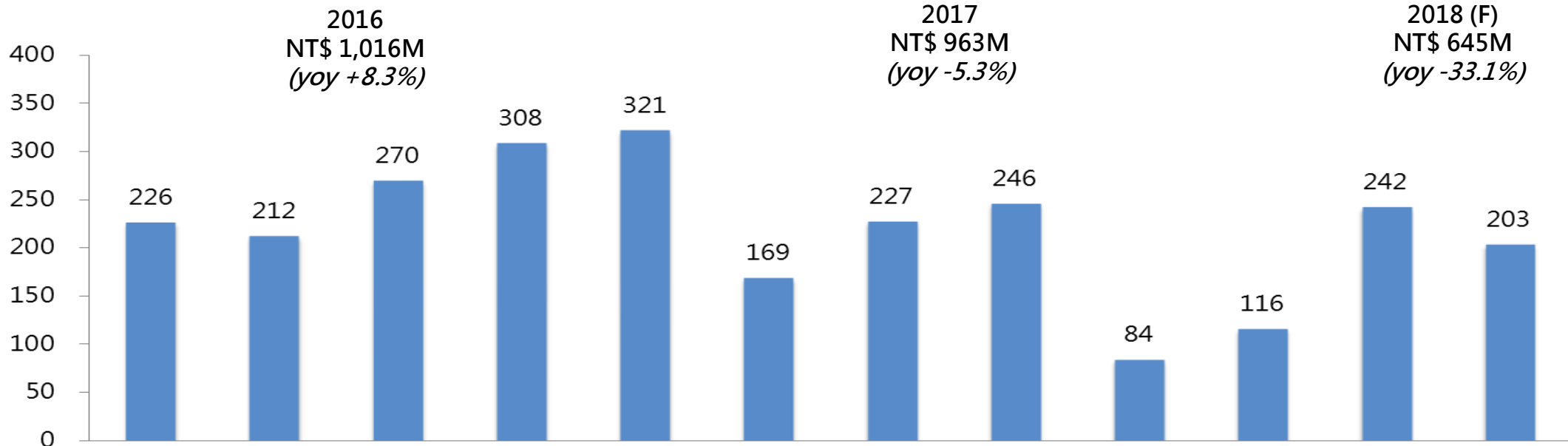
	16.Q1	16.Q2	16.Q3	16.Q4	17.Q1	17.Q2	17.Q3	17.Q4	18.Q1	18.Q2	18.Q3	18.Q4 (F)
Gross Profit (QoQ)	-3.3%	-7.3%	20.0%	3.2%	-13.9%	-14.9%	4.3%	-0.2%	-22.4%	0.1%	23.6%	-5.3%
Gross Profit (YoY)	14.4%	15.2%	16.8%	11.0%	-1.1%	-9.2%	-21.1%	-23.7%	-31.3%	-19.2%	-4.2%	-9.1%

每季財務績效

純益率
(%)



純益率
(單位:
新台幣百萬元)
)



2016
NT\$ 1,016M
(yoy +8.3%)

2017
NT\$ 963M
(yoy -5.3%)

2018 (F)
NT\$ 645M
(yoy -33.1%)

Net Profit (QoQ)

Net Profit (YoY)

	16.Q1	16.Q2	16.Q3	16.Q4	17.Q1	17.Q2	17.Q3	17.Q4	18.Q1	18.Q2	18.Q3	18.Q4 (F)
Net Profit (QoQ)	-11.1%	-6.3%	27.3%	14.3%	4.1%	-47.5%	34.8%	8.3%	-65.8%	37.9%	108.7%	-16.0%
Net Profit (YoY)	2.3%	19.7%	-5.6%	21.3%	42.0%	-20.5%	-15.8%	-20.3%	-73.8%	-31.3%	6.4%	-17.5%



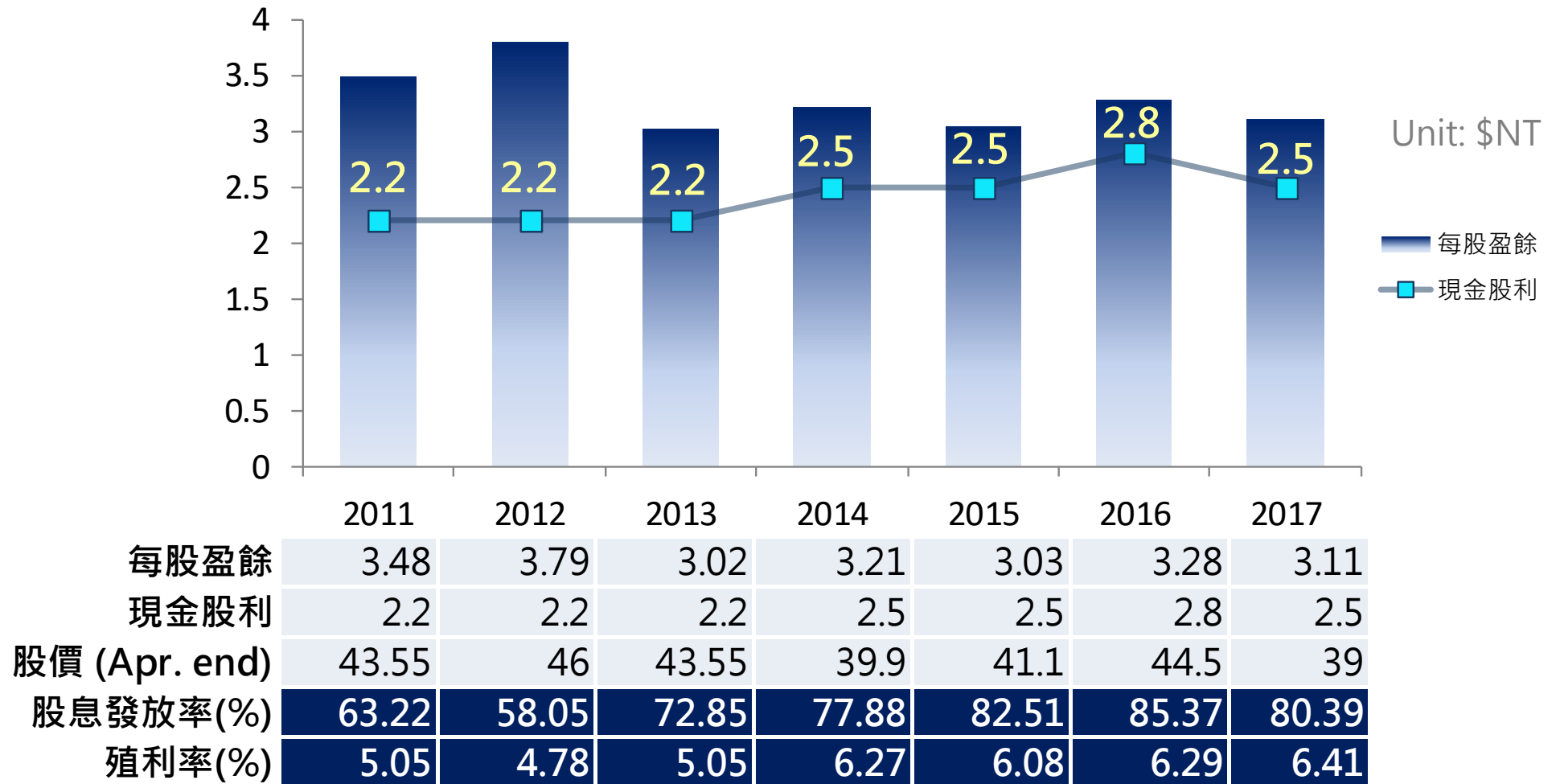
合併損益表

單位：\$NT 仟元	2013	2014	2015	2016	2017	2018(F)
營業收入	9,504	9,526	9,266	9,637	8,782	8,156
營業毛利	2,194	2,331	2,235	2,554	2,186	1,828
營業淨利	951	1,004	908	1,114	802	533
營業外收入及支出	111	142	179	78	273	200
稅前淨利	1,062	1,146	1,088	1,192	1,075	737
稅後淨利	935	995	938	1,016	963	645
(歸屬於母公司業主)						
基本每股盈餘(新台幣元)	3.02	3.21	3.03	3.28	3.11	2.08
營業毛利率(%)	23.1%	24.5%	24.1%	26.5%	24.9%	22.4%
營業淨利率(%)	10.0%	10.5%	9.8%	11.6%	9.1%	6.5%
營業費用率(%)	13.1%	13.9%	14.3%	14.9%	15.8%	15.9%
稅前淨利率(%)	11.2%	12.0%	11.7%	12.4%	12.2%	9.0%
純益率(%)	9.8%	10.4%	10.1%	10.5%	11.0%	7.9%
資產報酬率(%)	7.2%	7.5%	6.4%	6.7%	6.8%	5.0%
股東權益報酬率(%)	11.6%	11.6%	9.6%	9.9%	10.2%	7.2%

資產負債表

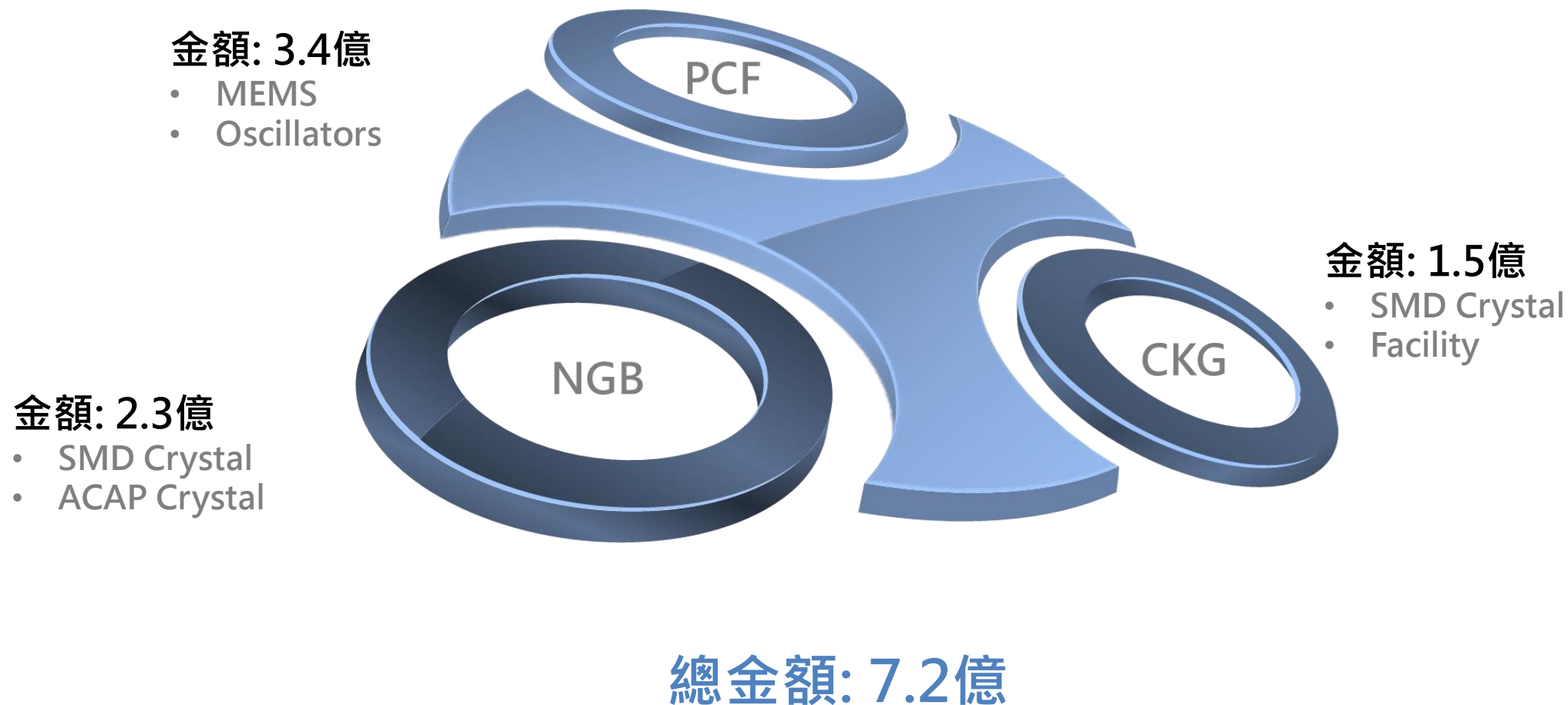
單位：\$NT 仟元	2013	2014	2015	2016	2017	2018(F)
現金及約當現金	1,830	1,768	2,728	2,093	2,331	1,426
應收票據及應收帳款	2,666	2,968	2,924	3,085	2,651	2,726
存貨	1,653	1,657	1,534	1,520	1,504	1,817
流動資產	6,859	7,807	8,574	8,818	7,983	7,117
不動產、廠房及設備	5,508	5,154	4,570	4,278	4,370	4,111
總資產	12,984	13,622	15,580	14,842	13,403	12,562
流動負債	2,812	2,792	3,445	3,156	2,277	2,089
非流動負債	1,847	1,936	1,397	1,913	1,961	1,722
總負債	4,659	4,728	4,841	5,069	4,238	3,811
合併股東權益	8,325	8,895	10,739	9,773	9,165	8,751
平均收現日數	118	108	116	114	119	120
平均銷貨日數	78	84	83	79	84	96
平均付現日數	58	50	57	65	73	74
流動比率(%)	243.9%	279.6%	248.9%	279.4%	350.6%	340.7%
負債比率(%)	35.9%	34.7%	31.1%	34.2%	31.6%	30.3%
每股淨值(元)	26.88	28.71	34.67	31.55	29.59	28.25

每股盈餘與每股股利



2019 資本支出計畫

單位: 新台幣元



Q & A