



Investor Conference

May 9th, 2018

Disclaimer

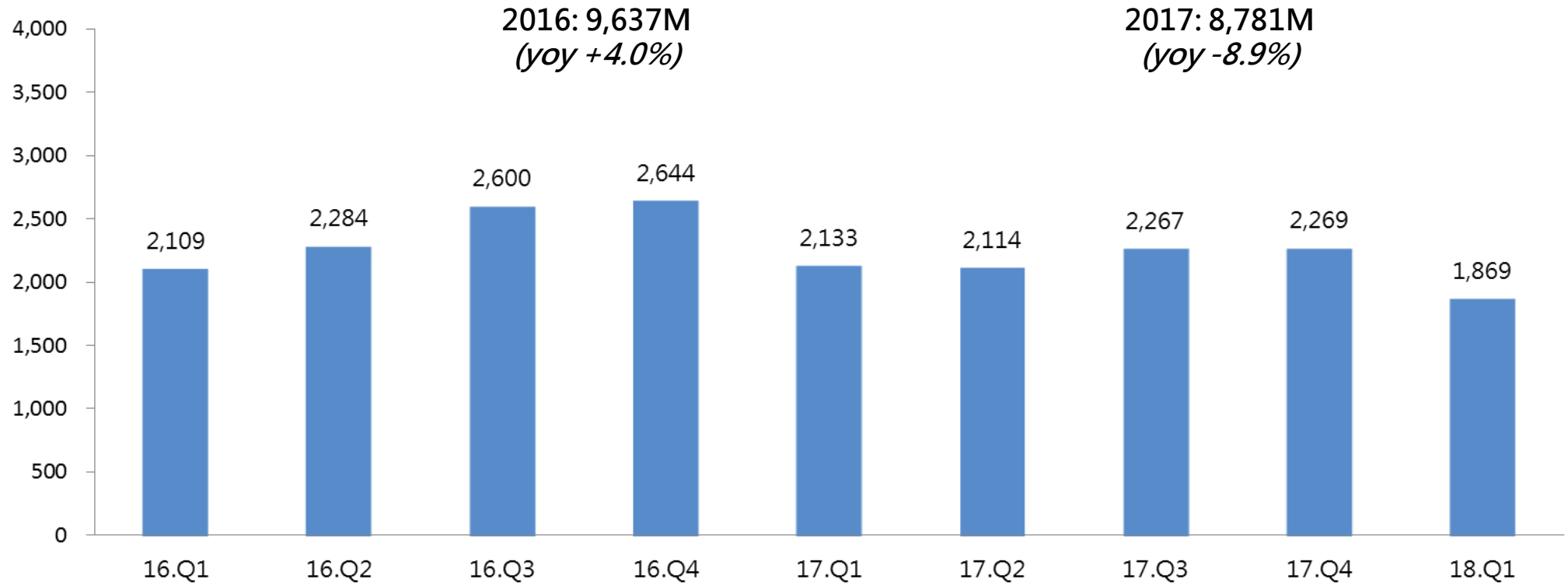
- Except for statements in respect of historical matters, the statements in this release are forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual performance, financial condition or results of operations 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.

Financial Performance

P&L, EPS, DPS, CAPEX

Quarterly Performance

Unit: \$NT in Million

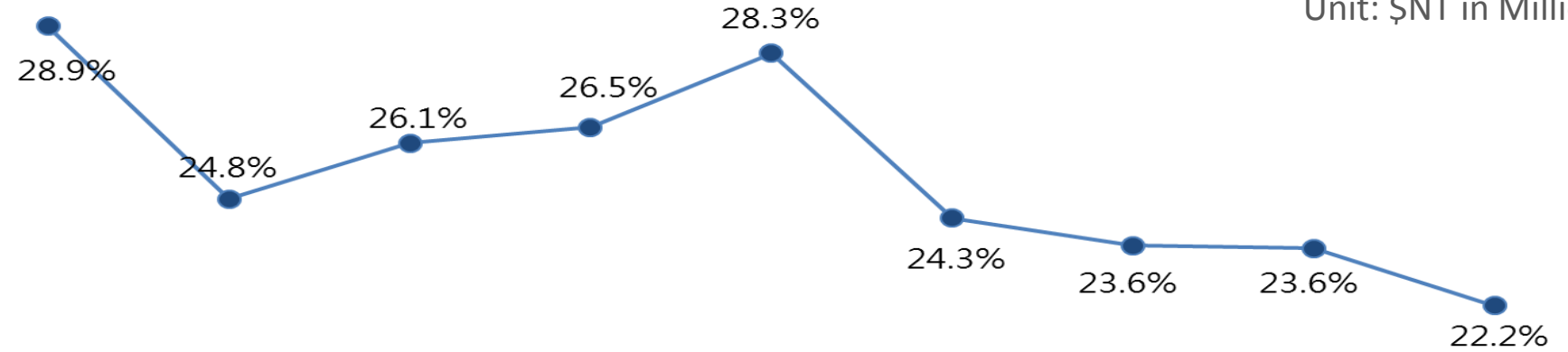


	16.Q1	16.Q2	16.Q3	16.Q4	17.Q1	17.Q2	17.Q3	17.Q4	18.Q1
Revenue (QoQ)	-15.4%	8.3%	13.9%	1.7%	-19.3%	-0.9%	7.2%	0.1%	-17.6%
Revenue (YoY)	-1.2%	2.9%	7.6%	6.0%	1.1%	-7.5%	-12.8%	-14.2%	-12.4%

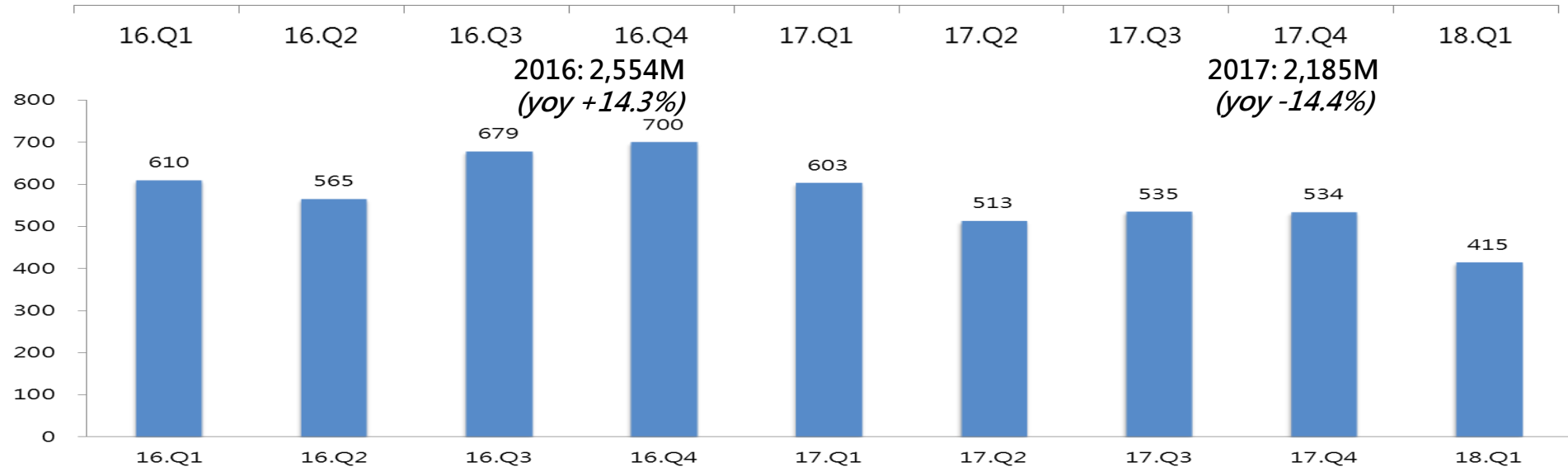
Quarterly Performance

Unit: \$NT in Million

Gross Margin(%)



Gross Profit

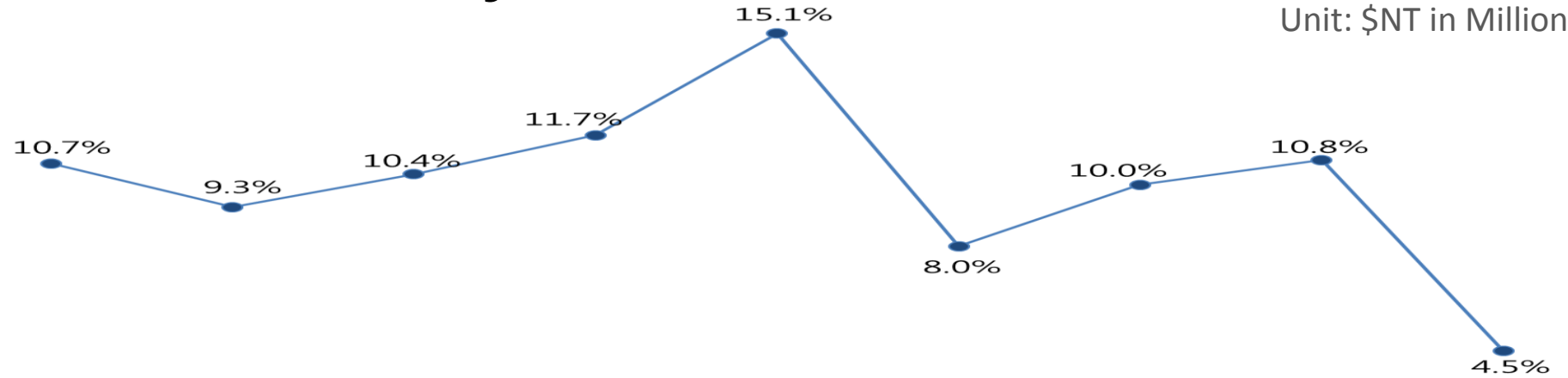


	16.Q1	16.Q2	16.Q3	16.Q4	17.Q1	17.Q2	17.Q3	17.Q4	18.Q1
Gross Profit (QoQ)	-3.3%	-7.3%	20.0%	3.2%	-13.9%	-14.9%	4.3%	-0.2%	-22.4%
Gross Profit (YoY)	14.4%	15.2%	16.8%	11.0%	-1.1%	-9.2%	-21.1%	-23.7%	-31.3%

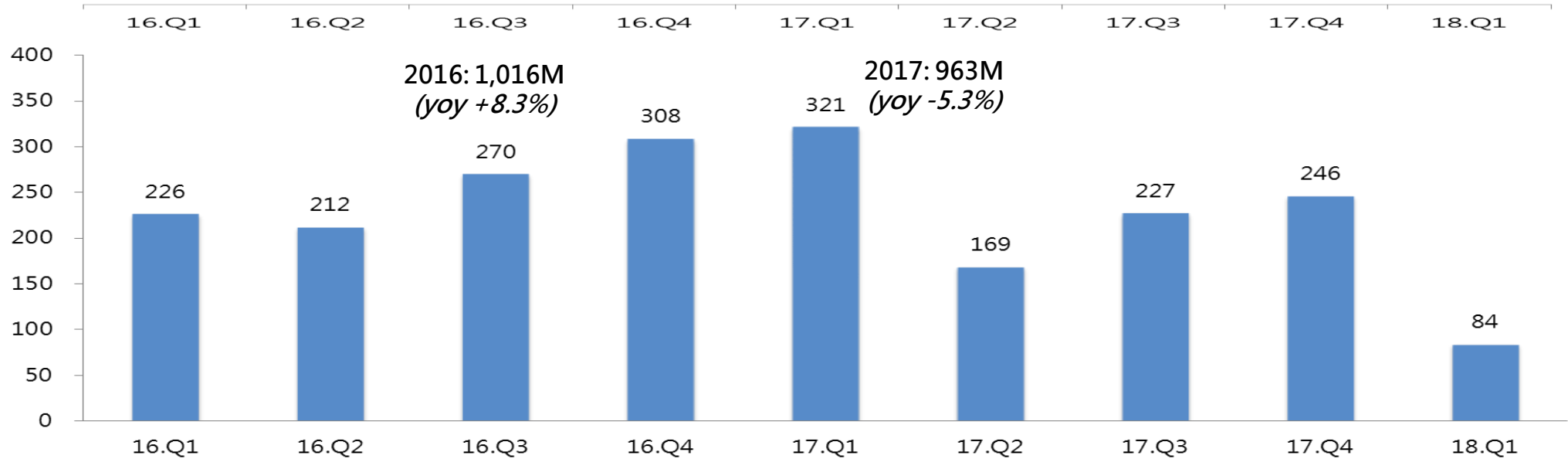
Quarterly Performance

Unit: \$NT in Million

Net Margin%



Net Profit



Net Profit (QoQ)

Net Profit (YoY)

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

Income Statement

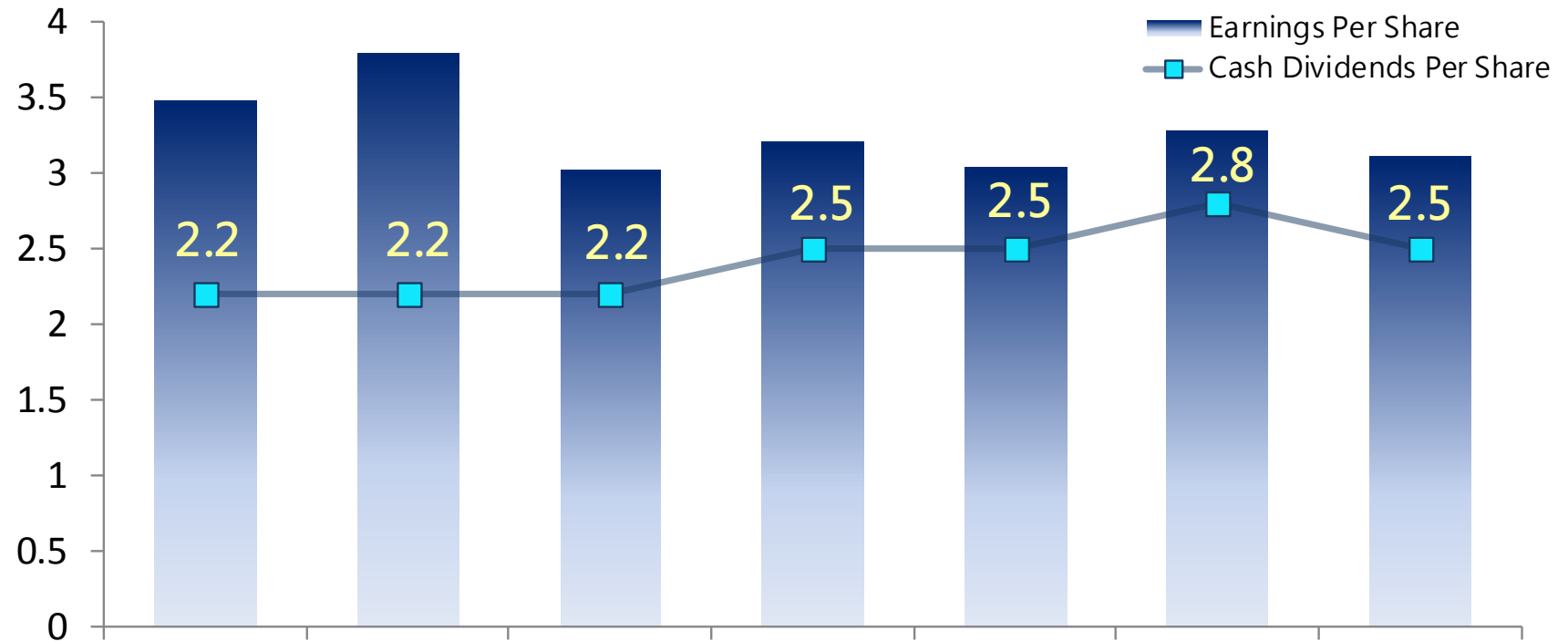
Unit : \$NT in thousand	2016	2017	YoY	Q1 2017	Q1 2018	YoY
Net Revenue	9,637,101	8,781,552	-8.9%	2,132,930	1,869,295	-12.4%
Gross Profit	2,554,069	2,186,077	-14.4%	603,099	414,508	-31.3%
Operating Profit	1,114,394	802,056	-28.0%	263,674	134,426	-49.0%
Non-Operating Items	77,878	272,877	250.4%	104,205	- 32,701	-131.4%
Net Income to Shareholders of the Parent Company	1,016,164	962,655	-5.3%	321,133	84,002	-73.8%
Gross Margin(%)	26.5%	24.9%		28.3%	22.2%	
Operating Margin(%)	11.6%	9.1%		12.4%	7.2%	
OPEX(%)	14.9%	15.8%		15.9%	15.0%	
Net Profit Margin(%)	10.5%	11.0%		15.1%	4.5%	
Basic EPS (NT\$)	3.28	3.11		1.04	0.27	

Balance Sheet

Unit : \$NT in thousand	2016	2017	Q1 2017	Q1 2018
Current Assets	8,818,130	7,983,192	8,337,901	7,422,555
PP&E	4,277,905	4,369,810	4,266,155	4,232,971
Total Assets	14,841,968	13,402,799	14,026,798	12,885,610
Current Liabilities	3,156,105	2,276,802	3,411,428	1,998,883
Non-curent Liabilities	1,912,681	1,961,406	1,053,723	1,643,045
Total Liabilities	5,068,786	4,238,208	4,465,151	3,641,928
Total Shareholders' Equity	9,773,182	9,164,591	9,561,647	9,243,682
A/R Turnover Days	114	119	119	121
Inventory Turnover Days	79	84	95	99
Current Ratio(%)	279.4%	350.6%	244.4%	371.3%
Debt Ratio(%)	34.2%	31.6%	31.8%	28.3%
Book Value Per Share(\$NT)	31.38	29.45	30.71	29.80

EPS and DPS

Unit: \$NT



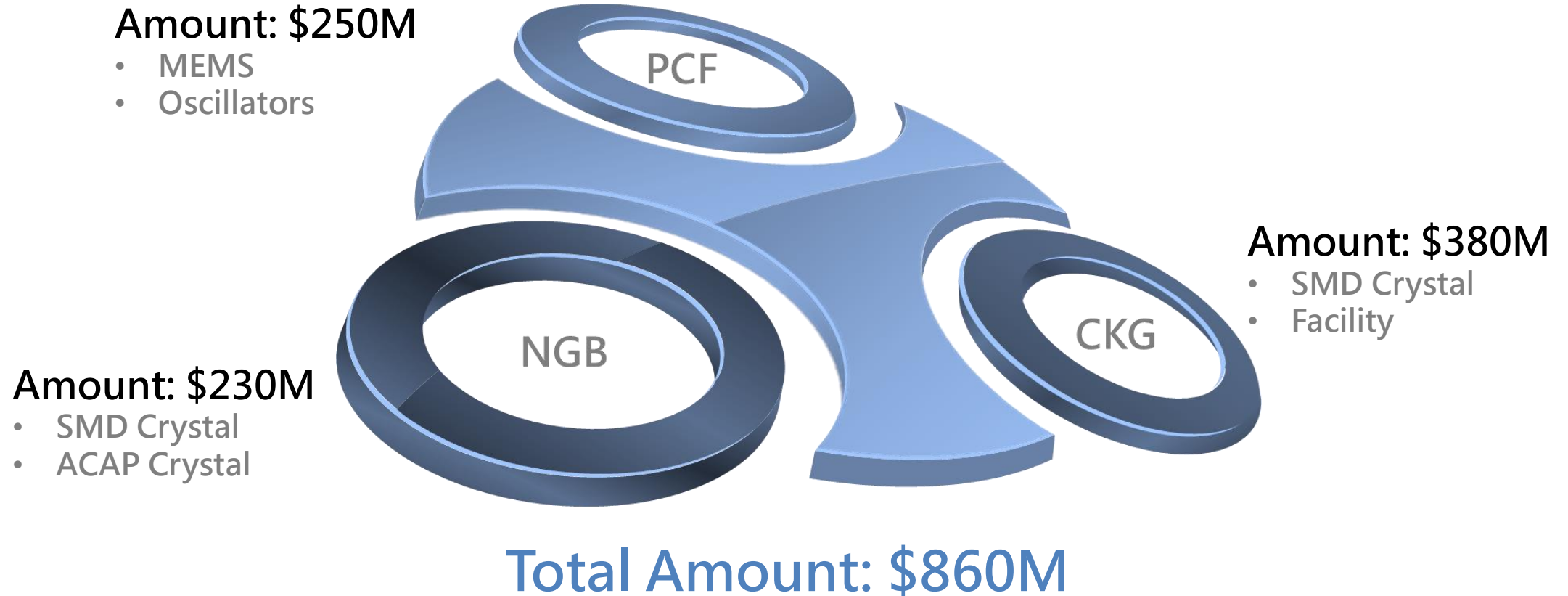
	2011	2012	2013	2014	2015	2016	2017
Earnings Per Share	3.48	3.79	3.02	3.21	3.03	3.28	3.11
Cash Dividends Per Share	2.2	2.2	2.2	2.5	2.5	2.8	2.5
Stock Price (Apr. end)	43.6	46.0	43.6	39.9	41.1	44.5	39.0
Payout Ratio(%)	63.2	58.0	72.8	77.9	82.5	85.4	80.4
Yields(%)	5.1	4.8	5.1	6.3	6.1	6.3	6.4

Capital Expenditure

Expand the Economy of Scale

Capacity expansion for new products, and to satisfy market demands

Unit: \$NT M

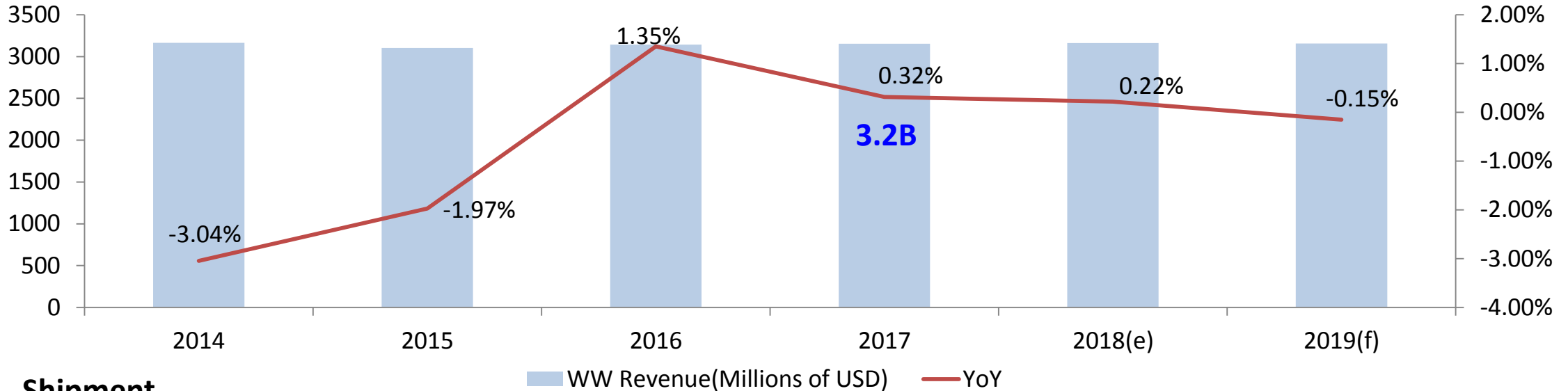


Market Outlook

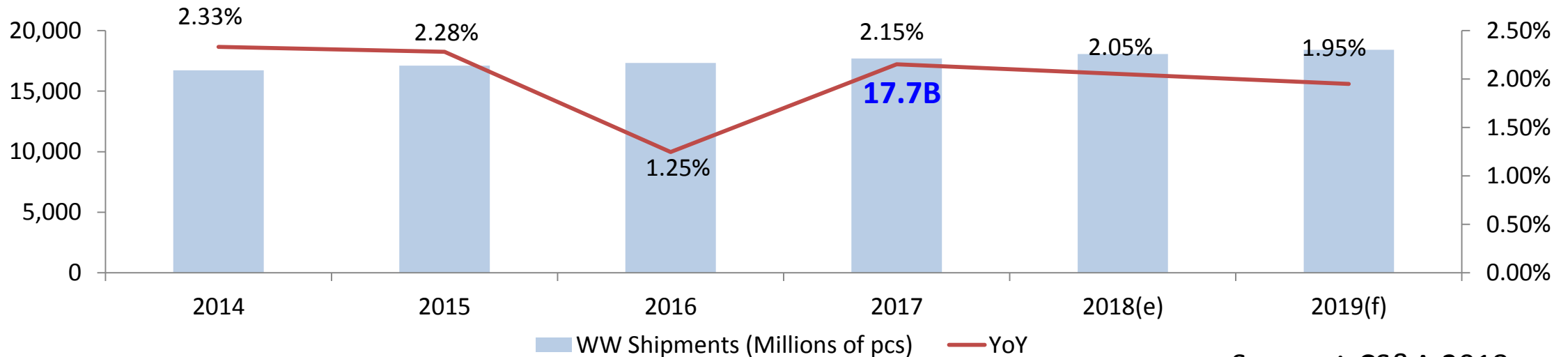
TAM, Ranking, Sales segment breakdown

Worldwide X'tal & Oscillator Market

Revenue



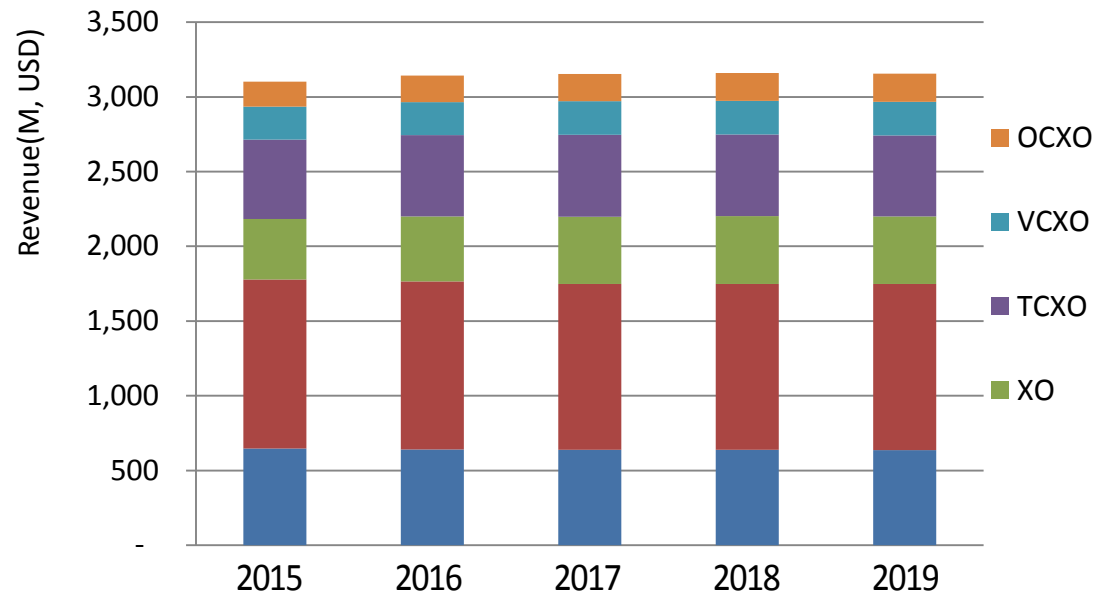
Shipment



Source : CS&A, 2018

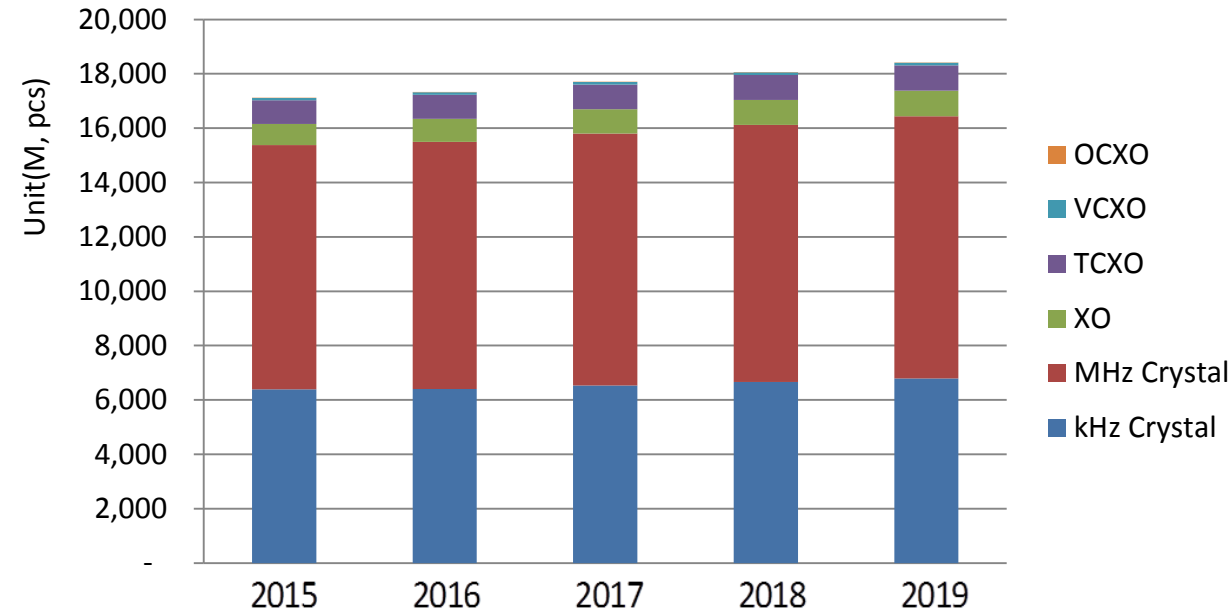
Worldwide X'tal & Oscillator Market

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

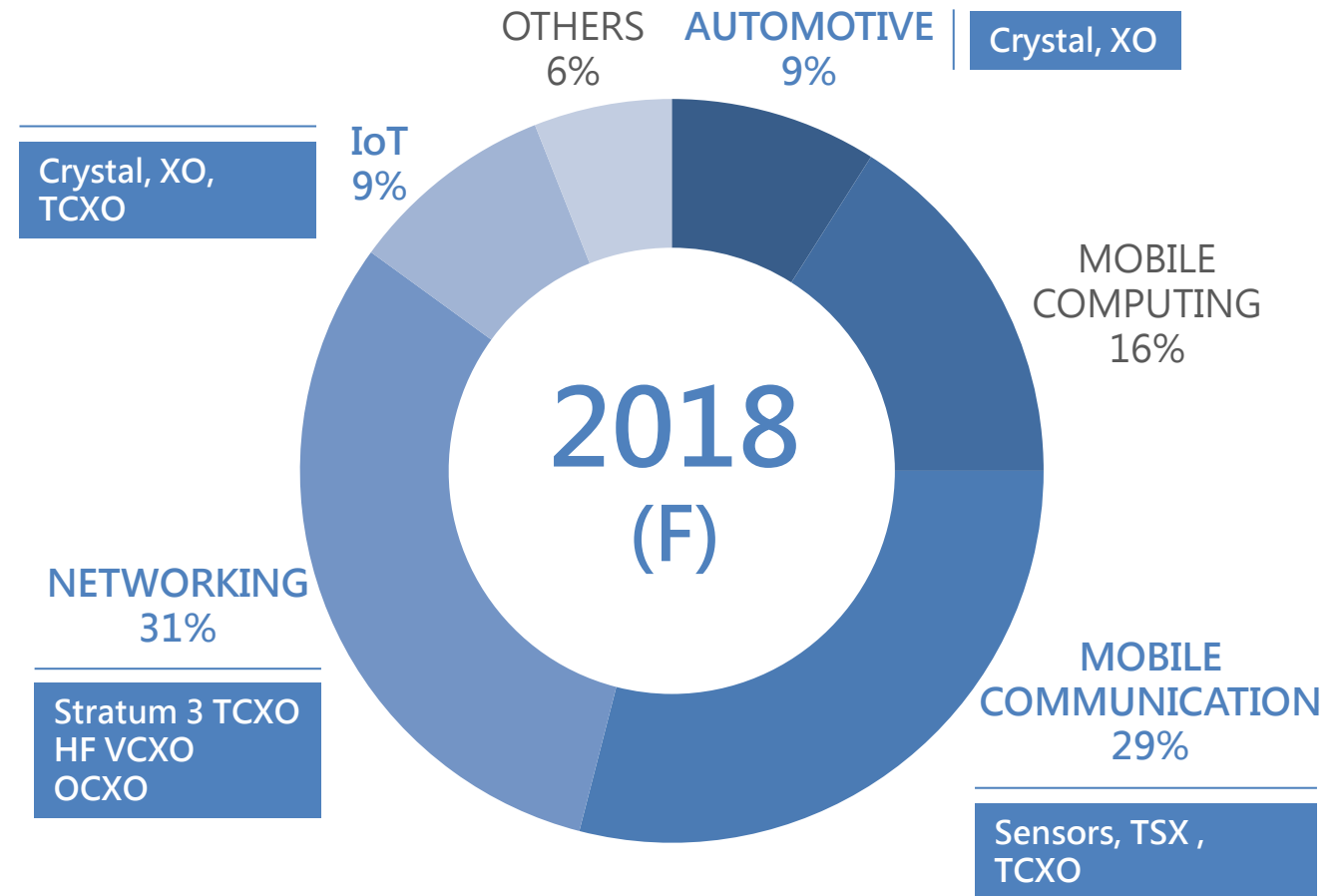
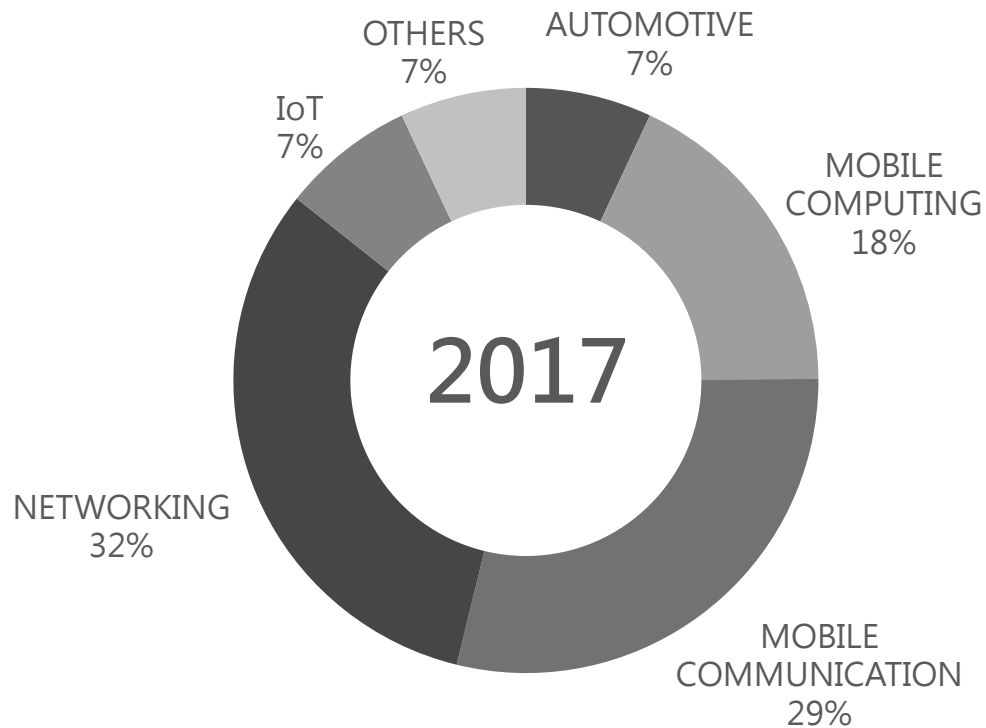
Source : CS&A,2018

2017 Worldwide Ranking

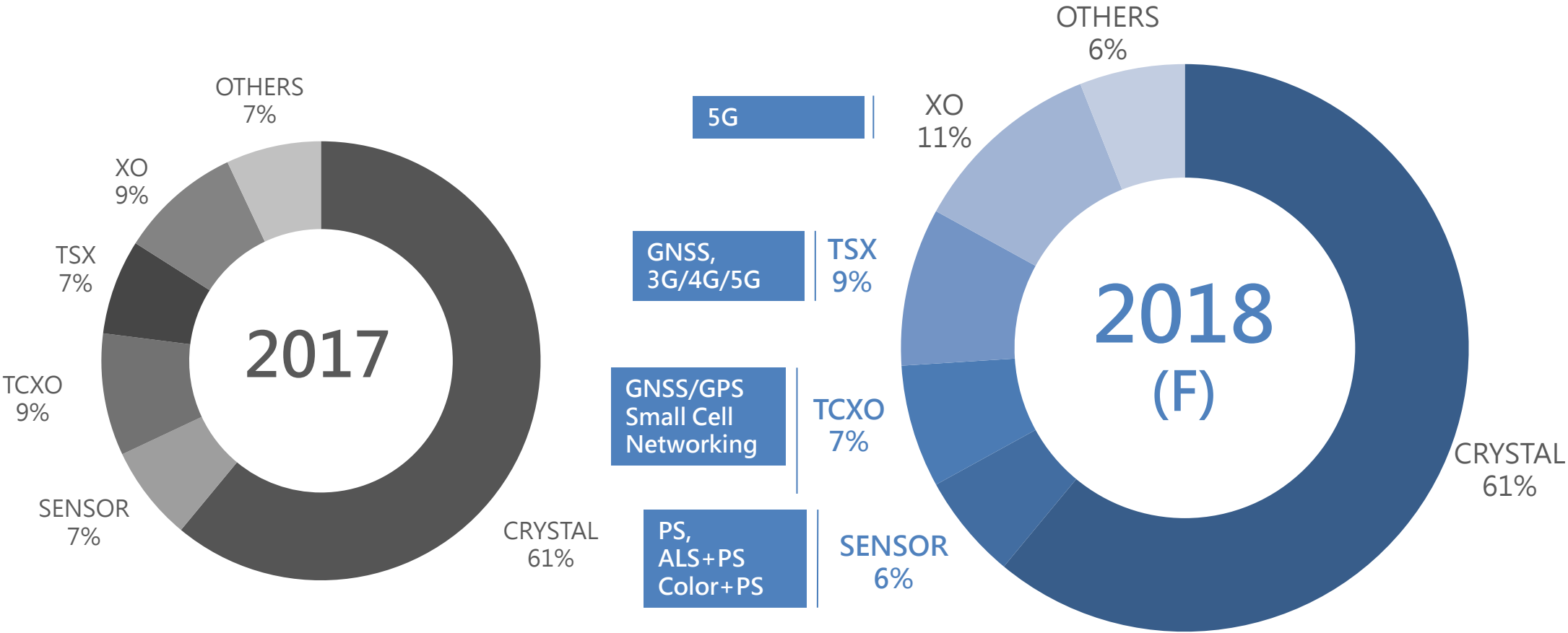
2016 Rank	2017 Rank	Company Name	Revenue (M)			Market Share (%)	
			2016	2017	Percent Change	2016	2017
1	1	Seiko Epson	\$409	\$382	-6.6%	12.9%	11.7%
2	2	NDK	\$357	\$354	-0.8%	11.3%	10.8%
4	3	KCD	\$287	\$344	20.0%	9.1%	10.5%
3	4	TXC	\$310	\$294	-5.2%	9.8%	9.0%
5	5	KDS	\$212	\$205	-3.2%	6.7%	6.3%
6	6	Microsemi (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

Revenue by Market Segments



Revenue by Product Types



Growth Potential

- The development of new product lines

Rising demand between now and future

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

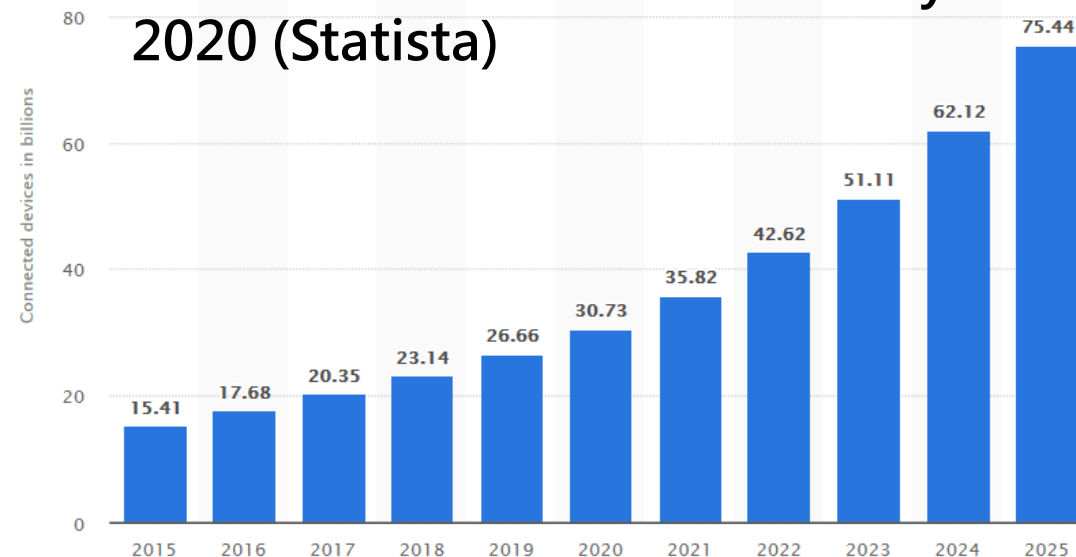
Worldwide
Crystals and
Oscillators
CAGR 1.4%
(2016 to 2020)

**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

Development of new product lines

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

Intelligent Connected Things

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

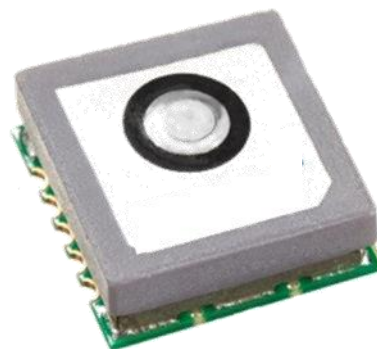
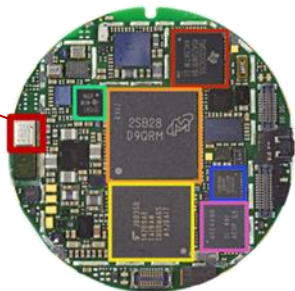
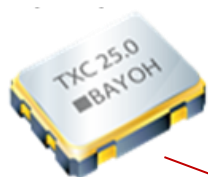
Light Sensor

Thermal IR Sensor (Thermopile)

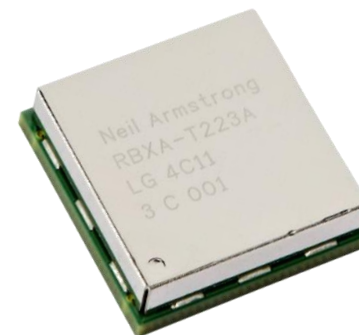
Thermal IR Image Sensor (uBolometer)

Miniature & Low Profile Crystal & Oscillator

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



GNSS/GPS
Module

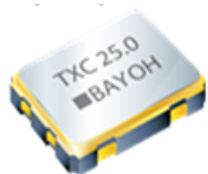


WiFi, BT/BLE, ZigBee
Module

Source: ublox, OriginGPS

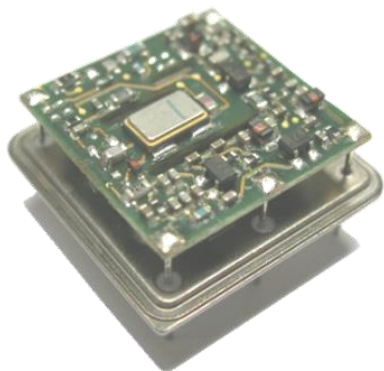
Internet of
Things
(IoT)

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

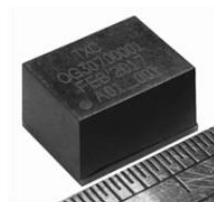


Ultra Stability SMD 9775 SC-Cut OCXO

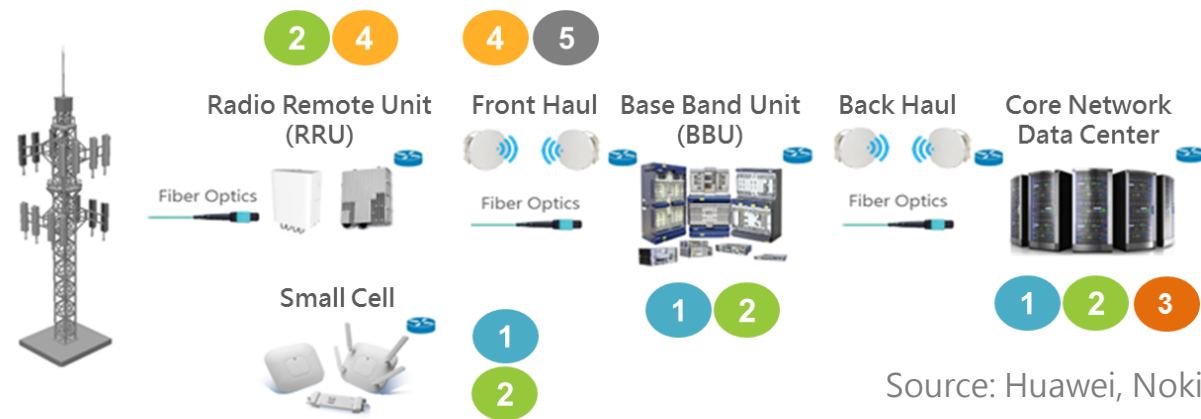
Convention OCXO (20x20mm)
100~110 pcs components



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

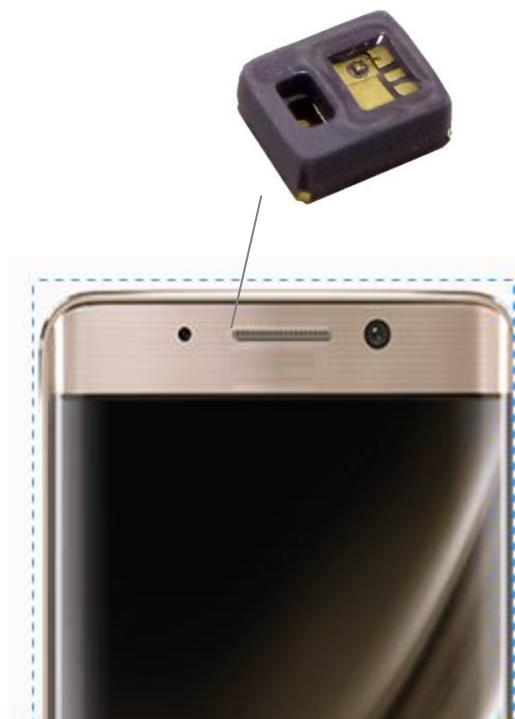
4 Ultra Low Phase Noise VCXO (3225);
Close-in phase noise -80dBc/Hz

5 High Frequency Crystal (MESA 3225); 200MHz

IEEE 1588 and Sync.E Compliant

Miniature & Slim Color Sensor

Single Aperture
2.5x2.0mm



Slim Bezel
3.4x1.2mm



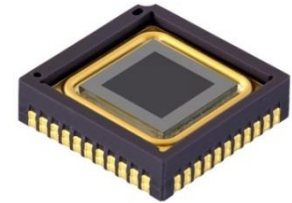
Miniature
2.0x1.6mm



Automotive ADAS Imaging Solutions



- Thermal Imaging (uBolometer)
- Active EMI OSC Module



Source: Yole

Active EMI Oscillator Module

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

High Resolution uBolometer Sensor

Automotive Night Vision by Thermal Image (uBolometer Solution)

Source: FLIR



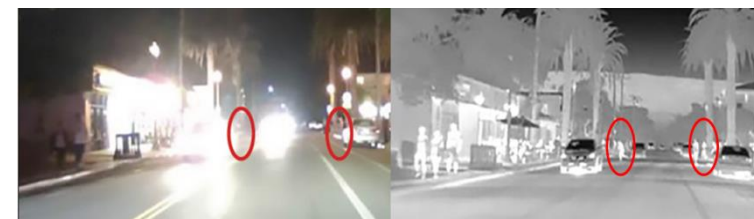
Visual image



Dust, smog, and heavy smoke



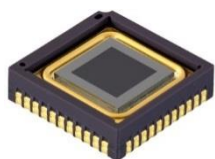
Sun glare or low sun angles



Oncoming headlights



Thermal image



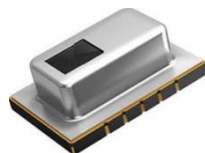
320x240 QVGA
uBolometer Sensor



High Accuracy Thermopile IR Sensor



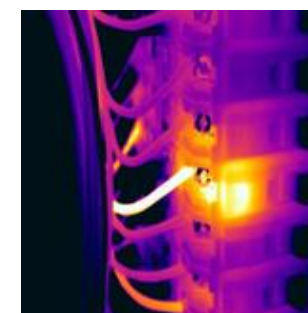
Non-contact temperature measurement solutions – by TO5 package



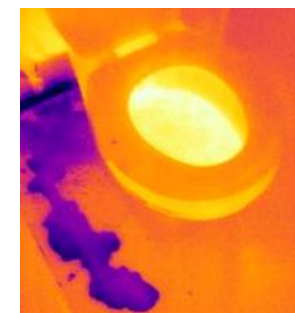
Non-contact temperature measurement solutions – by ceramic package



Source: Panasonic, Heiman



Overload Detection



Leakage Detection

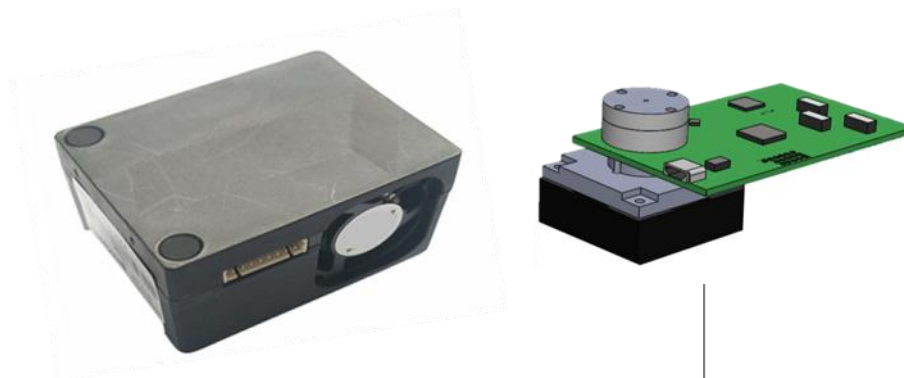


Search, Rescue & Security



Fever Detection

High Accuracy PM2.5 Detection



PM2.5 Sensor Module

- High Sensitivity
- High Accuracy
- Real-time Monitor

Source: Honeywell, Sharp

Professional Air Quality Detector



Air Filter



Air Quality Monitor Embedded System



Automotive Air Quality Monitor



Optimizes air quality inside the car

Minimizes exposure to fine particles

Informs about the air quality inside and outside the car

Summary

- Market competition is always at intense
- Supply surplus demand; market prices fall faster
- Product specifications getting rigorous
- Exchange rate fluctuations in the dollar, Yen, CNY
- **Risk and impact of US protectionism**
 - **Slowing down global productivity and trends – would likely to hit Asia, and China in particular**

- Speed up the development of new revenue-generating product lines for Automotive, 5G, IoT, Sensor
- Accelerate business strategy on product diversification and strategic alliance
- Continue to review vendors to lower the cost of goods sold and localized
- Continue to drive lean management in all aspects to maintain healthy business and increase competitiveness

Q & A