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*Think of Frequency
Think of*



Investment Conference

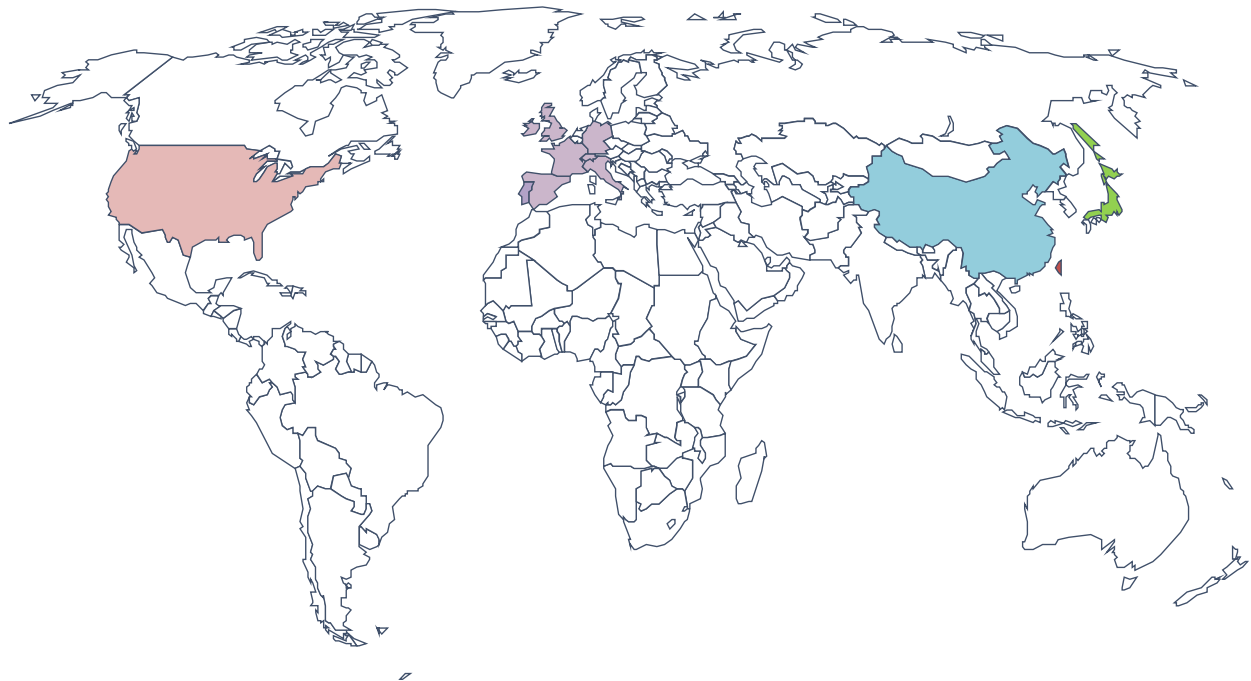
May, 2015



Think of Frequency, Think of TXC

Content

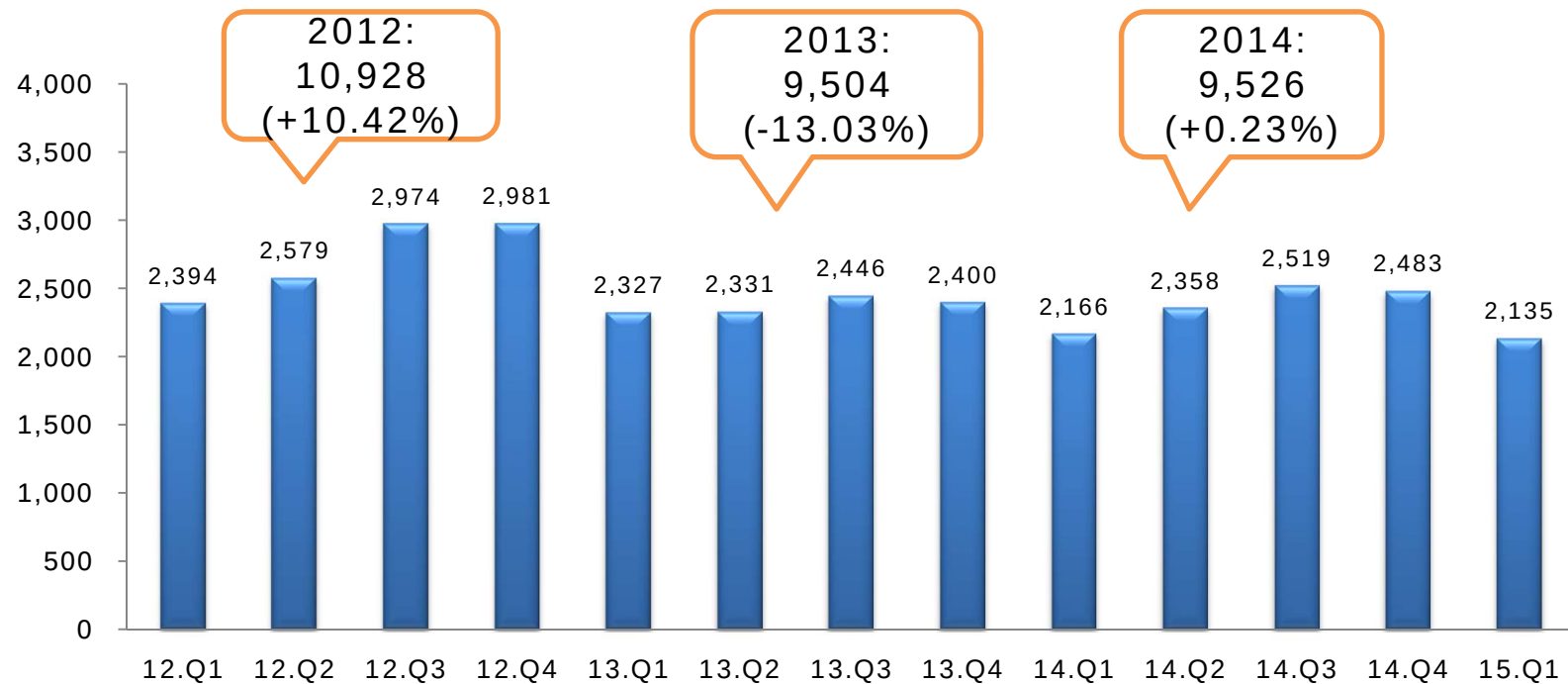
- ***FINANCIAL RESULTS***
- ***SALES & MARKETING***
- ***PRODUCT DEVELOPMENT***
- ***BUSINESS HIGHLIGHT***
- ***Q&A***





Revenue Trend

Unit: \$NT in Million

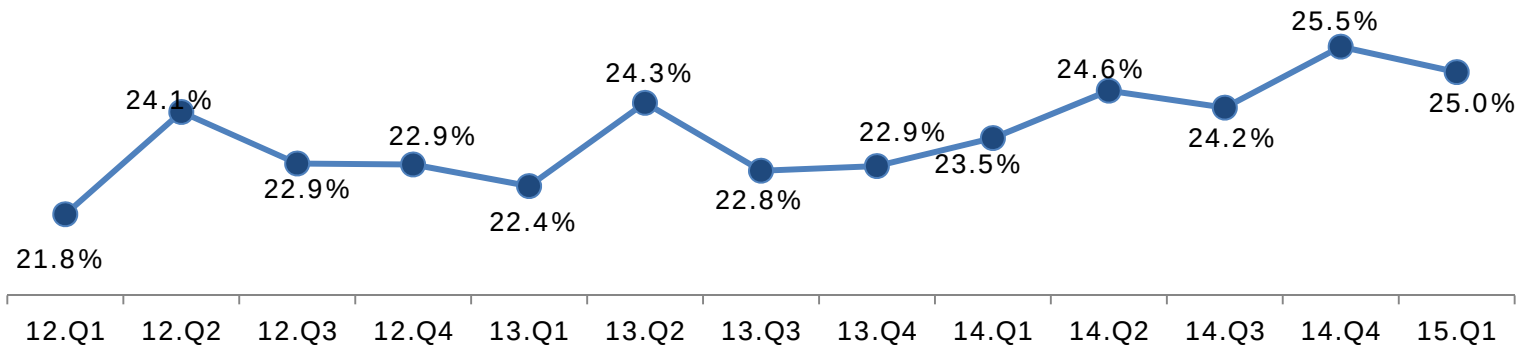


	12.Q1	12.Q2	12.Q3	12.Q4	13.Q1	13.Q2	13.Q3	13.Q4	14.Q1	14.Q2	14.Q3	14.Q4	15.Q1
Revenue (QoQ)	-8.1%	7.7%	15.3%	0.2%	-21.9%	0.2%	4.9%	-1.9%	-9.8%	8.9%	6.8%	-1.4%	-14.0%
Revenue (YoY)	3.1%	4.2%	19.2%	14.4%	-2.8%	-9.6%	-17.8%	-19.5%	-6.9%	1.2%	3.0%	3.5%	-1.4%

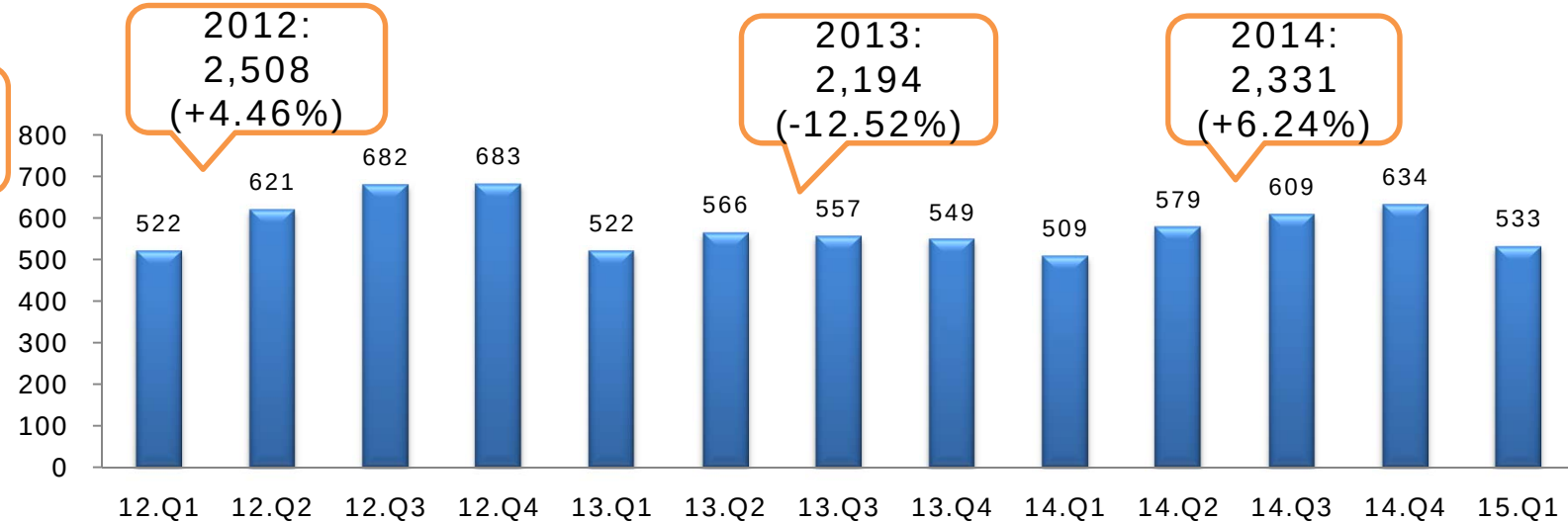
Gross Profit Trend

Unit: \$NT in Million

Gross Margin



Gross Profit

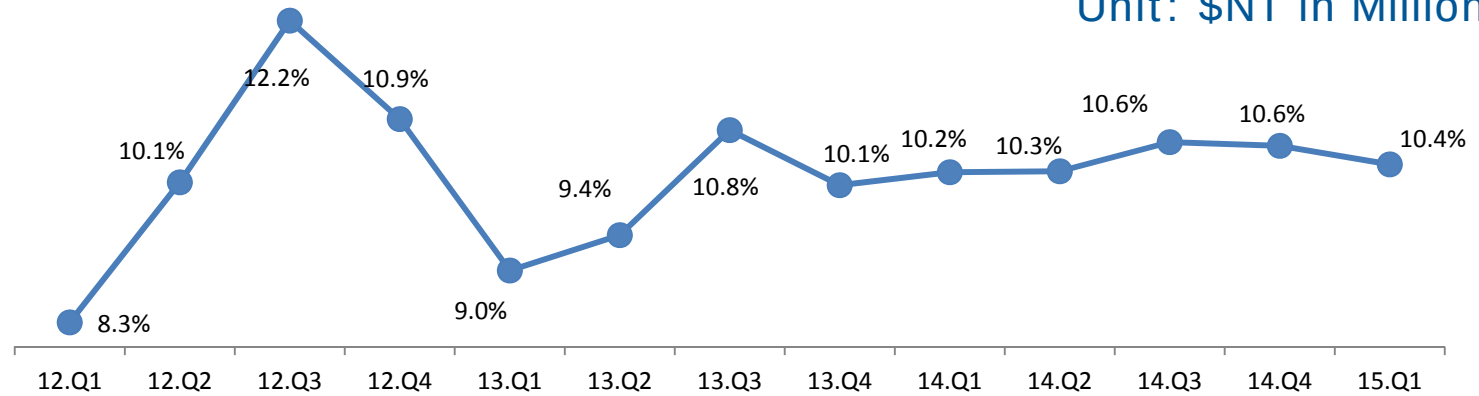


	12.Q1	12.Q2	12.Q3	12.Q4	13.Q1	13.Q2	13.Q3	13.Q4	14.Q1	14.Q2	14.Q3	14.Q4	15.Q1
Gross Profit (QoQ)	-10.9%	19.0%	9.8%	0.1%	-23.6%	8.4%	-1.6%	-1.4%	-7.3%	13.8%	5.2%	4.1%	-15.9%
Gross Profit (YoY)	-9.4%	2.0%	8.3%	16.6%	0.0%	-8.9%	-18.3%	-19.6%	-2.5%	2.3%	9.3%	15.5%	4.7%

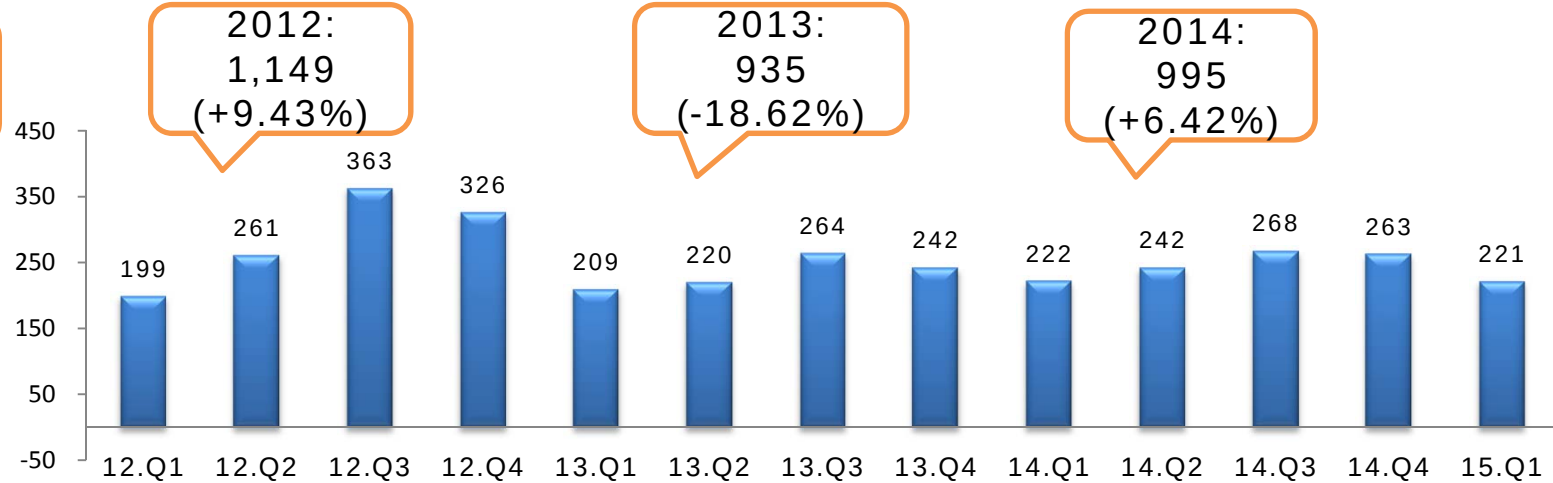
Net Profit Trend

Unit: \$NT in Million

Net Margin



Net Profit



	12.Q1	12.Q2	12.Q3	12.Q4	13.Q1	13.Q2	13.Q3	13.Q4	14.Q1	14.Q2	14.Q3	14.Q4	15.Q1
Net Profit (QoQ)	-23.5%	31.2%	39.1%	-10.2%	-35.9%	5.3%	20.0%	-8.3%	-8.3%	9.0%	10.7%	-1.9%	-16.0%
Net Profit (YoY)	-16.0%	5.2%	19.0%	25.4%	5.0%	-15.7%	-27.3%	-25.8%	6.2%	10.0%	1.5%	8.7%	-0.5%

Income Statement Highlight

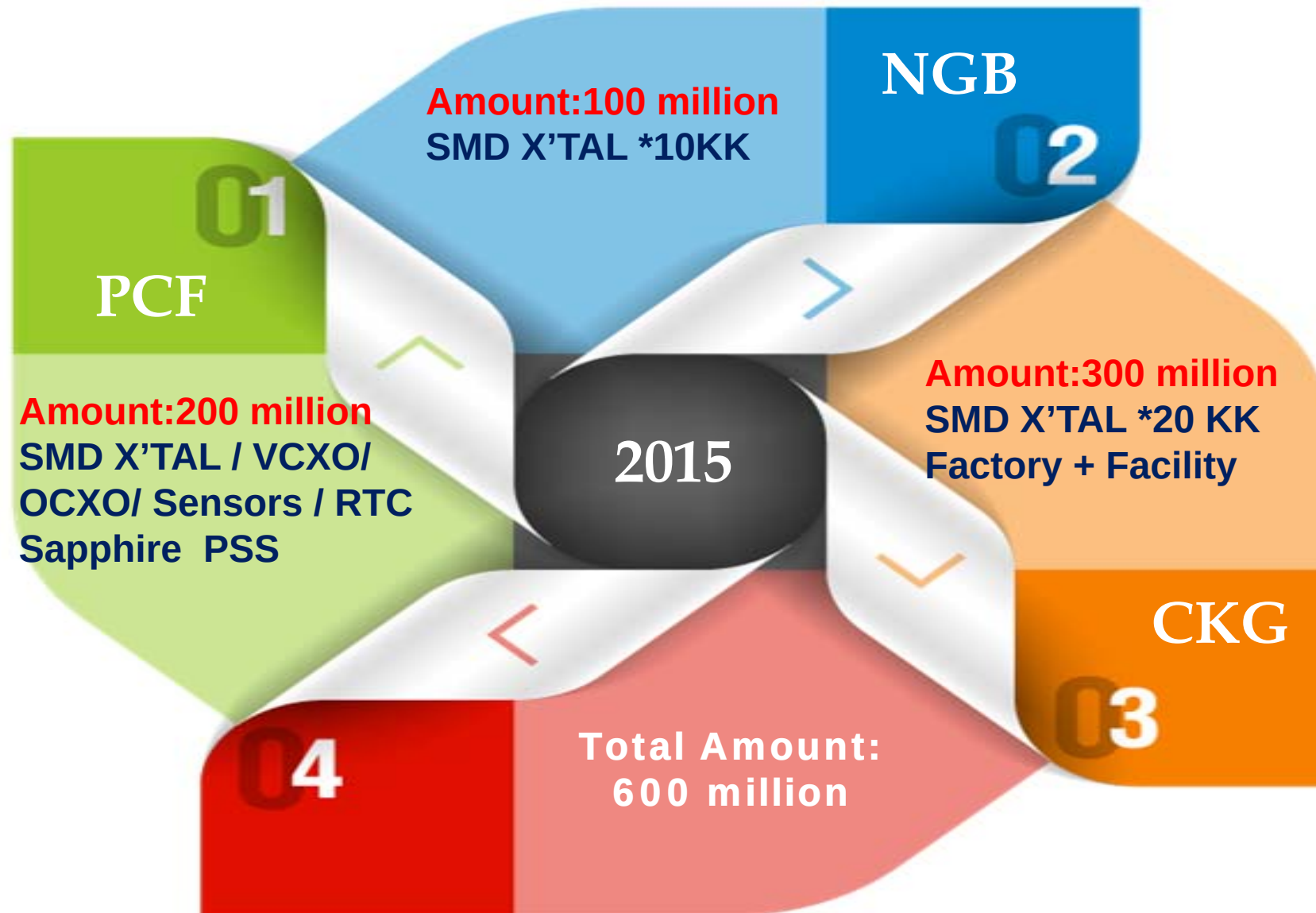
Unit : \$NT in thousand	2013 (T-IFRS)	2014 (T-IFRS)	Growth Rate	Q1 2014 (T-IFRS)	Q1 2015 (T-IFRS)	Growth Rate
Net Revenue	9,503,583	9,526,243	0.2%	2,165,532	2,135,069	-1.4%
Gross Profit	2,194,030	2,331,149	6.2%	509,403	533,220	4.7%
Operating Profit	951,154	1,004,002	5.6%	214,156	216,792	1.2%
Income before tax	1,061,765	1,145,755	7.9%	253,048	243,611	-3.7%
Net Income	935,161	995,174	6.4%	222,112	221,065	-0.5%
Gross Margin	23.1%	24.5%	-	23.5%	25.0%	-
Operating Margin	10.0%	10.5%	-	9.9%	10.2%	-
Net Margin	9.8%	10.4%	-	10.3%	10.4%	-

Balance Sheet Highlight

Unit : \$NT in thousand	2014 (T-IFRS)	Q1 2014 (T-IFRS)	Q1 2015 (T-IFRS)
Current Assets	7,806,568	7,476,459	8,050,907
Fixed assets	5,815,679	5,980,832	5,733,789
Total assets	13,622,247	13,457,291	13,784,696
Current liabilities	2,791,774	3,098,978	3,678,563
Long-term liabilities	1,935,897	1,750,805	1,063,582
Total liabilities	4,727,671	4,849,783	4,742,145
Shareholders' equity	8,894,576	8,607,508	9,042,551
Debt ratio	34.7%	36.0%	34.4%
Current Ratio	279.6%	241.3%	218.9%
Quick Ratio	220.4%	183.6%	170.3%
Net Value Per Share	28.71	27.79	29.19

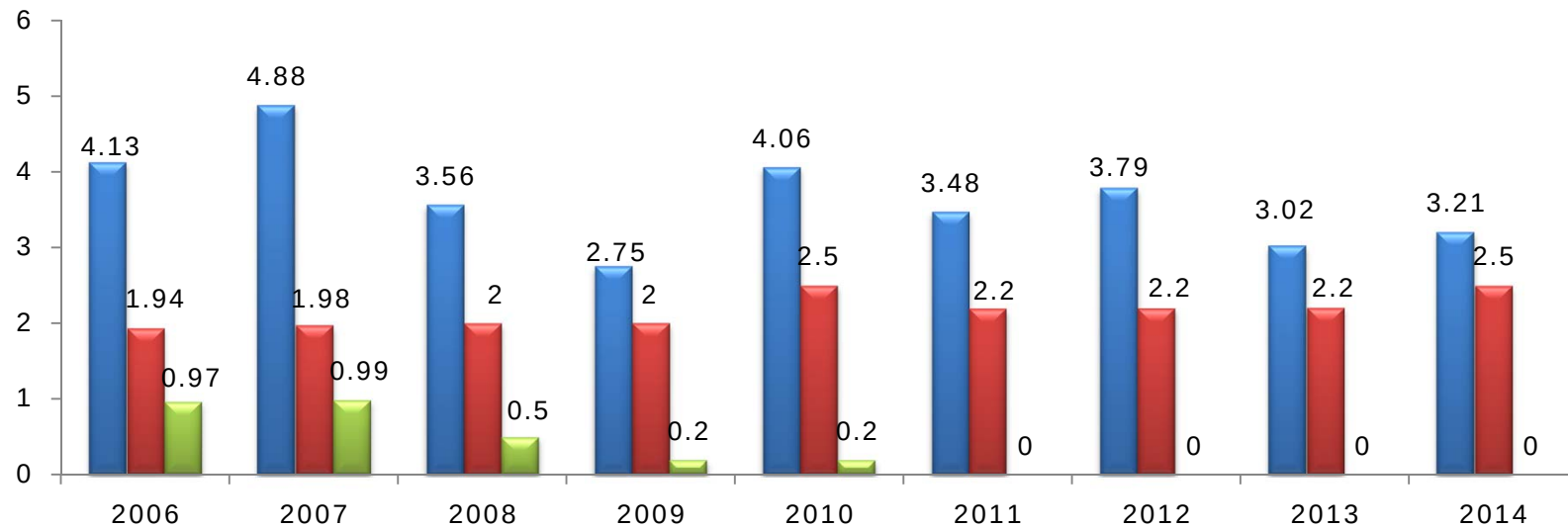
Capital Expenditure of 2015

(Unit: \$NT)



Dividend Policy

(Unit: \$NT)

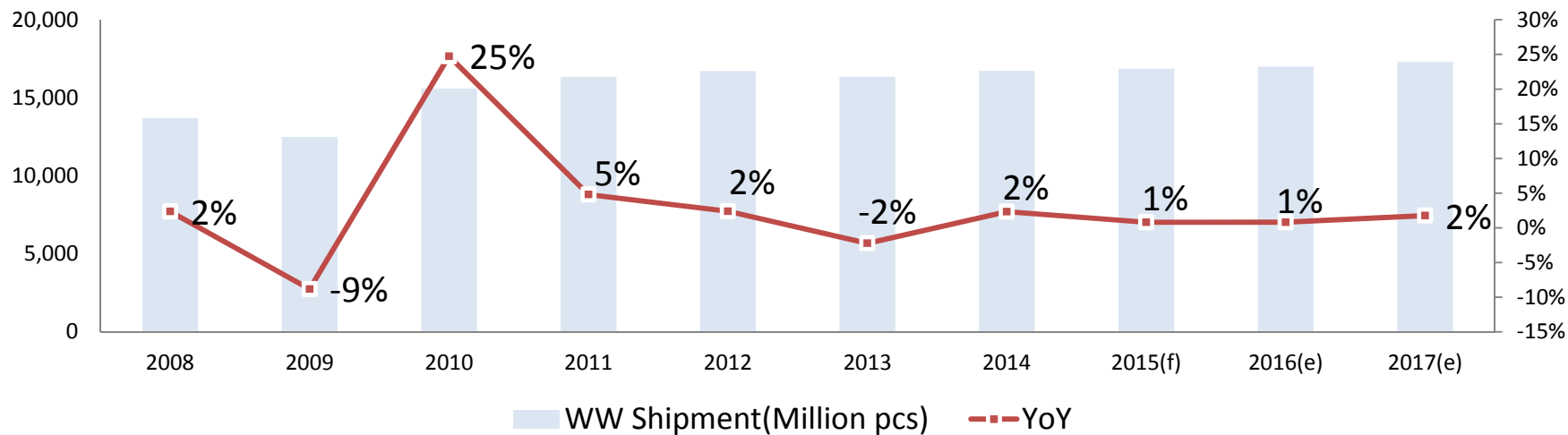


	2006	2007	2008	2009	2010	2011	2012	2013	2014
Earning Per Share	4.13	4.88	3.56	2.75	4.06	3.48	3.79	3.02	3.21
Cash Dividend Per Share	1.94	1.98	2	2	2.5	2.2	2.2	2.2	2.5
Stock Dividend Per Share	0.97	0.99	0.5	0.2	0.2	0	0	0	0
Share Prices(3/31)	60.6	54.6	32	52.1	55.9	43.55	44.85	40.7	40.05
Yield (%)	3.20%	3.63%	6.25%	3.84%	4.47%	5.05%	4.91%	5.41%	6.24%

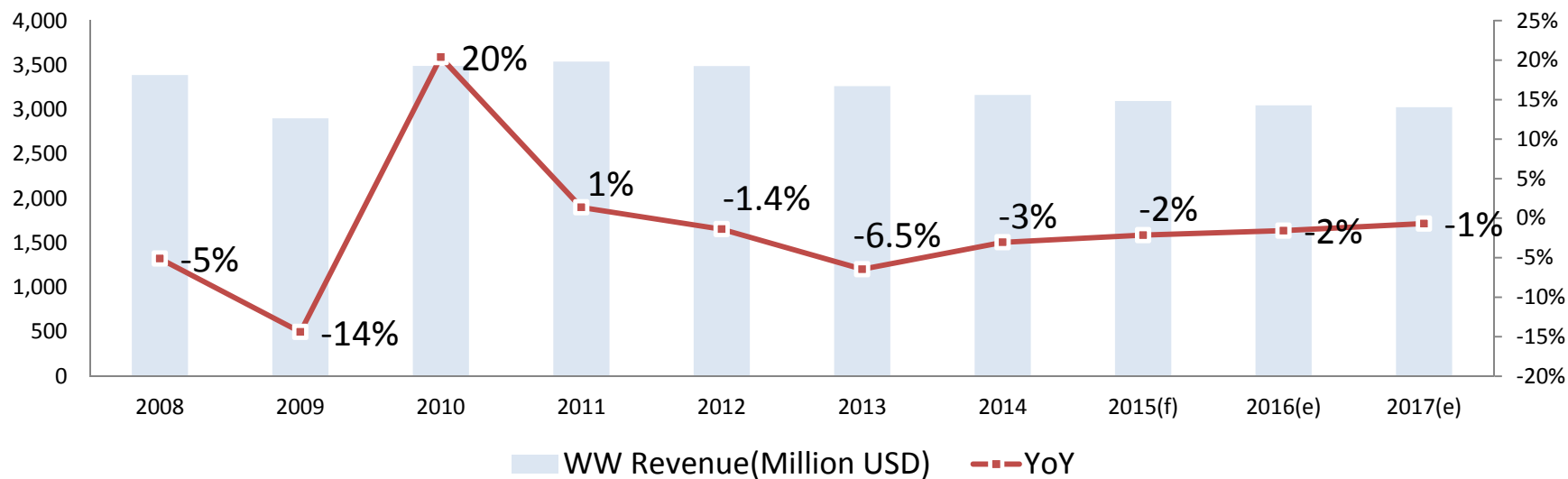


Worldwide X'tal & Oscillator Market Updates

Worldwide X'tal & Oscillator Shipment Y2008~2017



Worldwide X'tal & Oscillator Revenue Y2008~2017



2014 World Ranked No.3

2014 Rank	Company Name	2014 Revenue (M)	Percent of Total
1	Epson Toyocom	\$449	14.1%
2	NDK	\$417	13.1%
3	TXC	\$323	10.1%
4	KCD	\$293	9.2%
5	KDS	\$264	8.3%
6	Vectron	\$176	5.5%
7	SiWard	\$99	3.1%
8	Hosonic	\$95	3.1%
9	Rakon	\$71	2.2%
10	Failong	\$65	2.0%
	Other Companies	\$938	29.3%
	Total Revenue	\$3,190	100.0%

*TXC total revenue included others

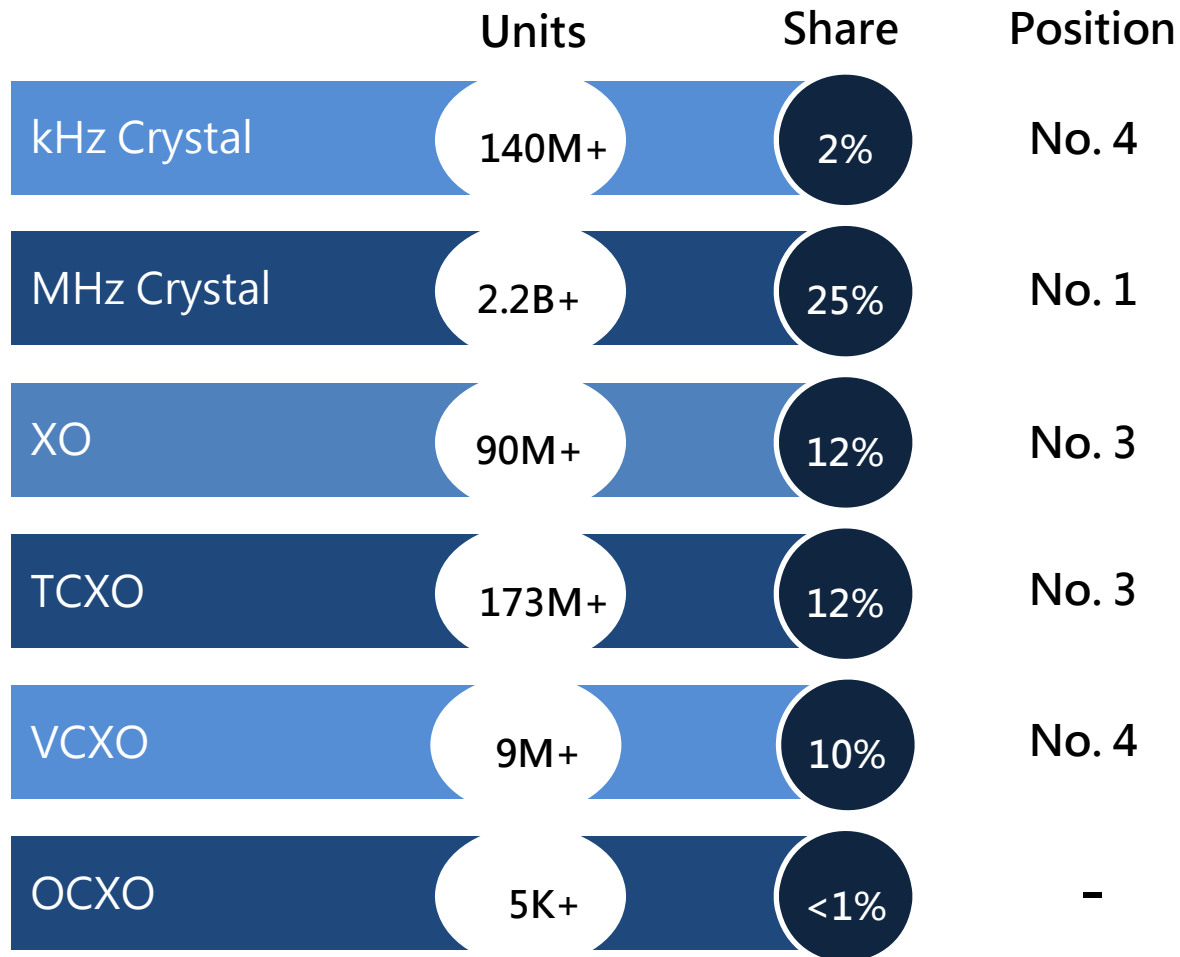
Source: TXC, CS&A 2015



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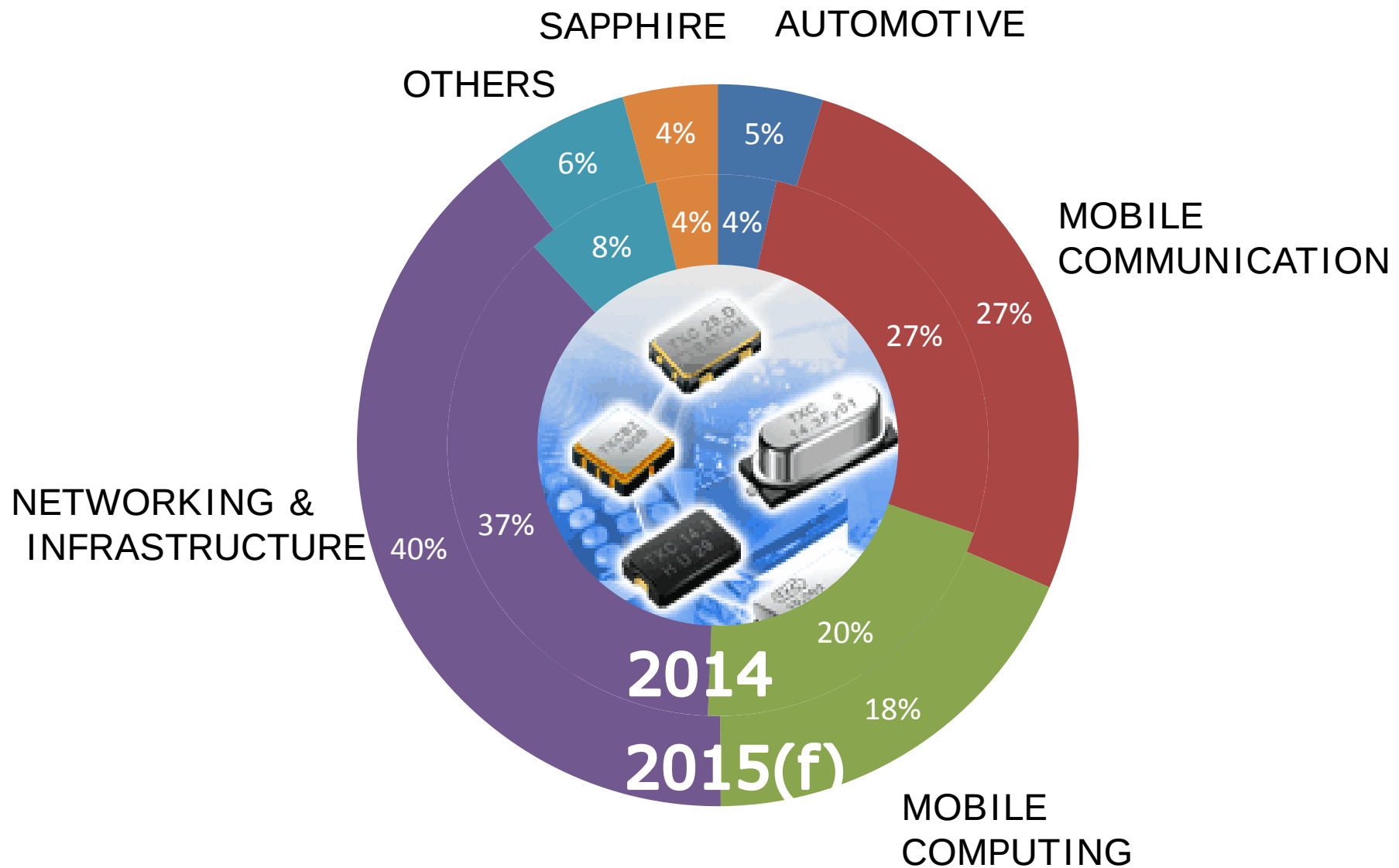
2014 Shipping Record

2014 Crystals & Oscillators Shipping Record

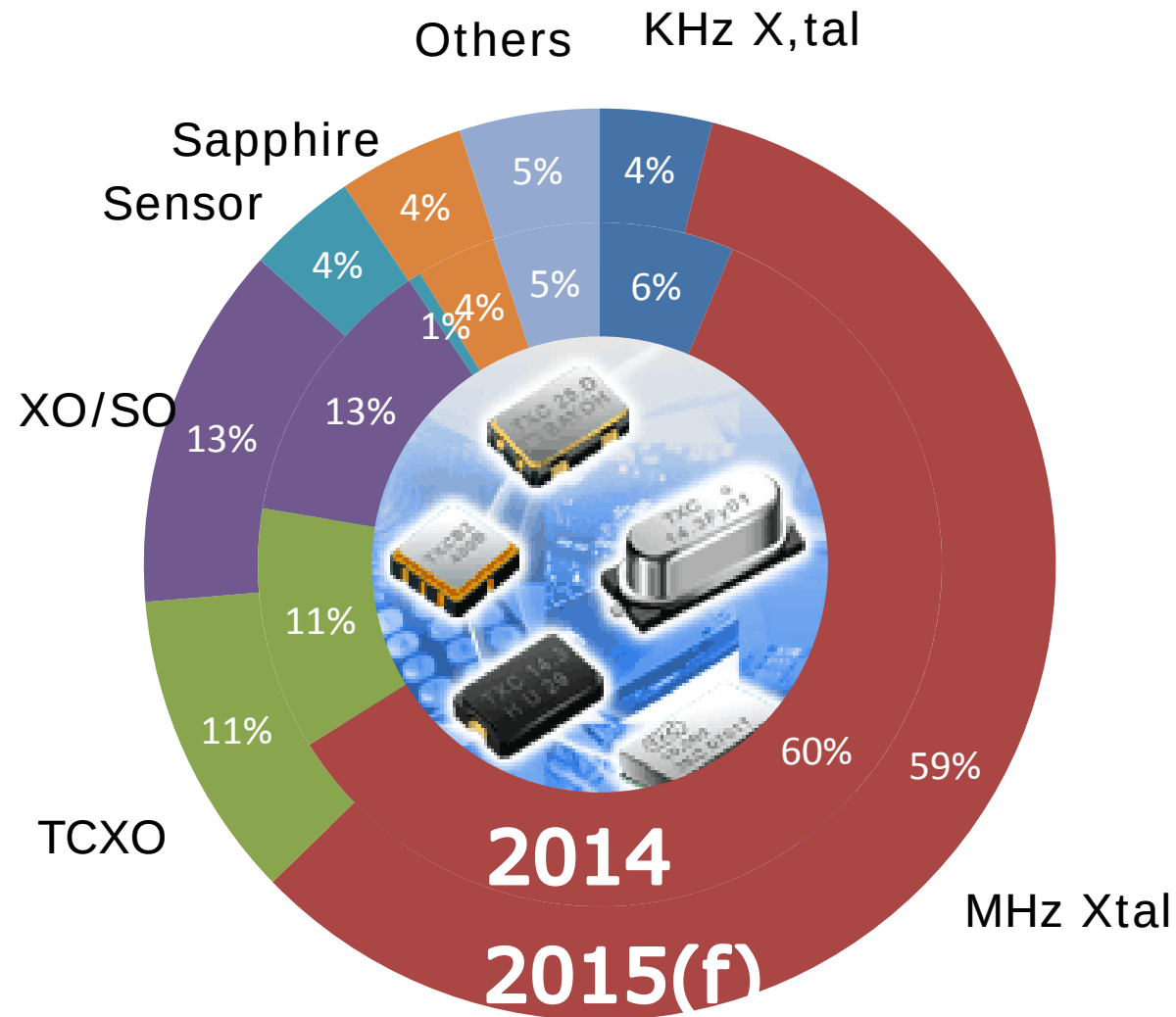


Source: TXC, CS&A 2015

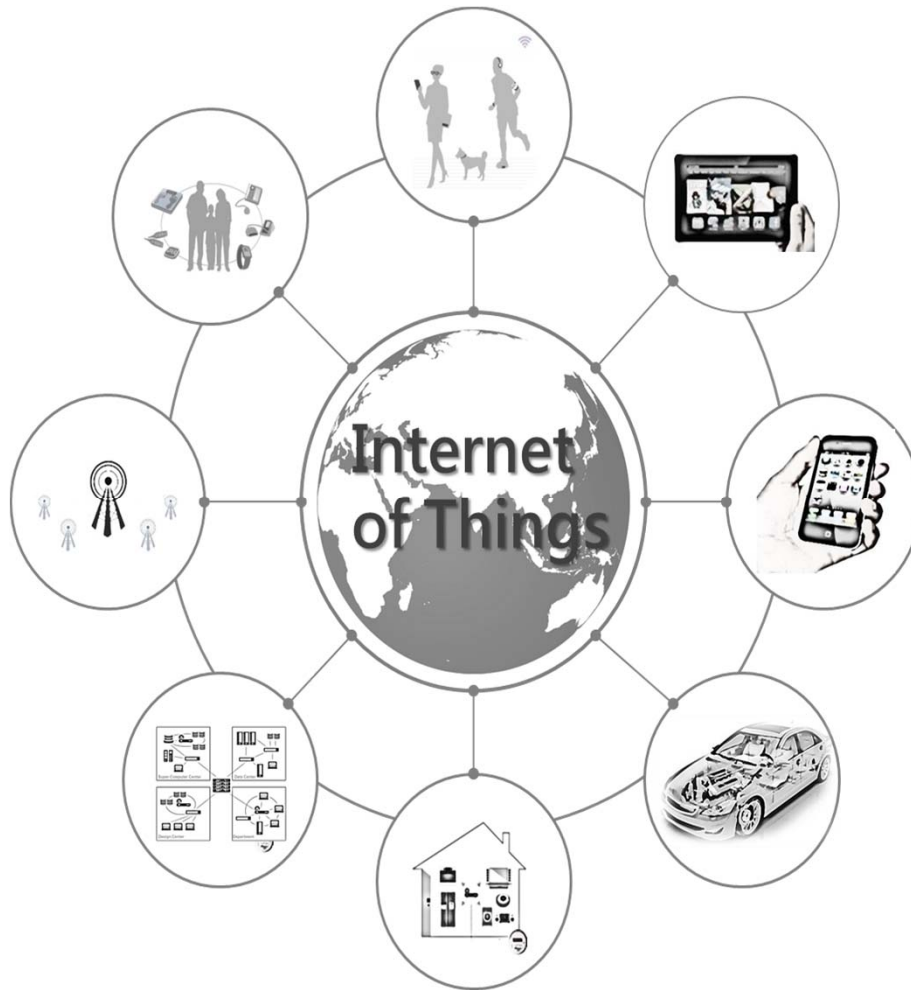
Revenue Breakdown by Market Segments



Revenue Breakdown by Products



Market Outlook – The Internet of Things is already here

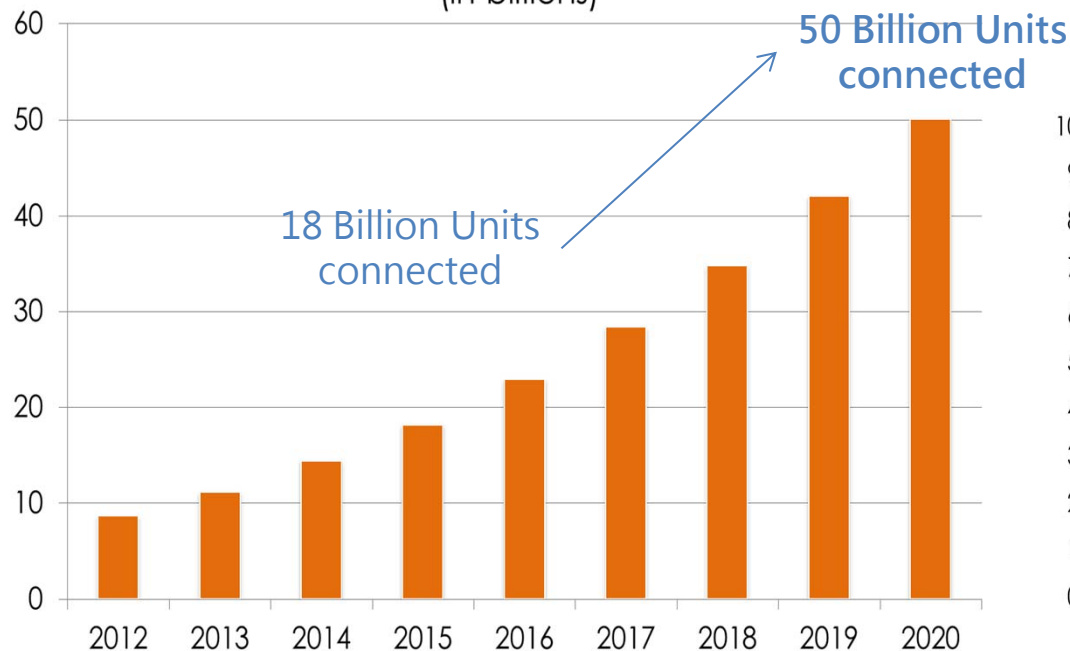


We already have smartphone, smart TVs, cars, homes, industrial equipment and many things connected to the Internet, and they can automate systems, communicate easier, and collect data for us.

These networked and connected things are the Internet of Things (IoT)

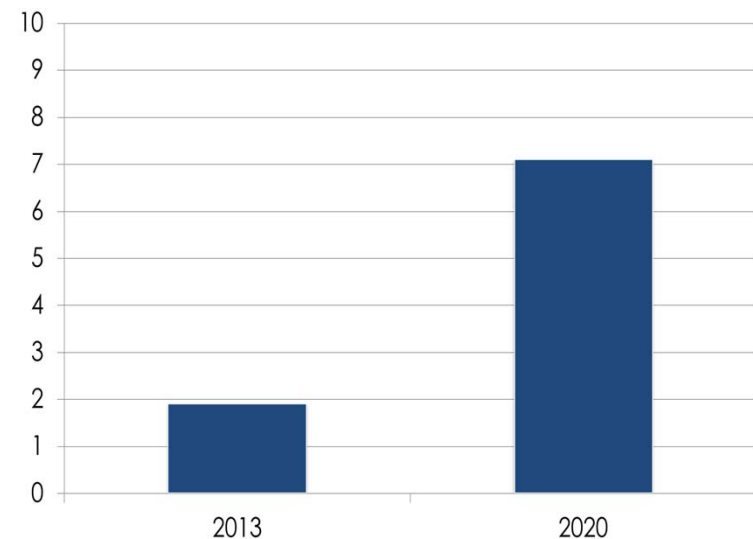
Market Size – Billions of units connected, trillions of dollars opportunities

Total Internet of Things
Connections
(in billions)



7 Trillions of Dollars Business Opportunities

Internet of Things Market Size
(in trillions of dollars)



Source: IDC

Market Trend – The possibilities of IoT are endless

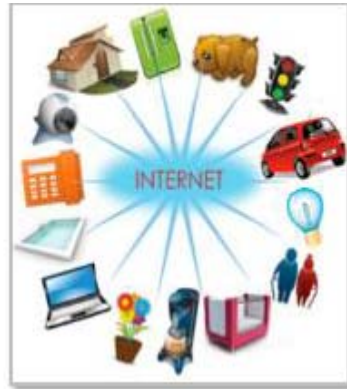
Everything Networked & Connected

M2M (Machine to Machine)



A device captured event, meaningful information, data and transmit it over network to an application

IoT (Internet of Things)



A networked “things” that communicate without human interface using IP connectivity

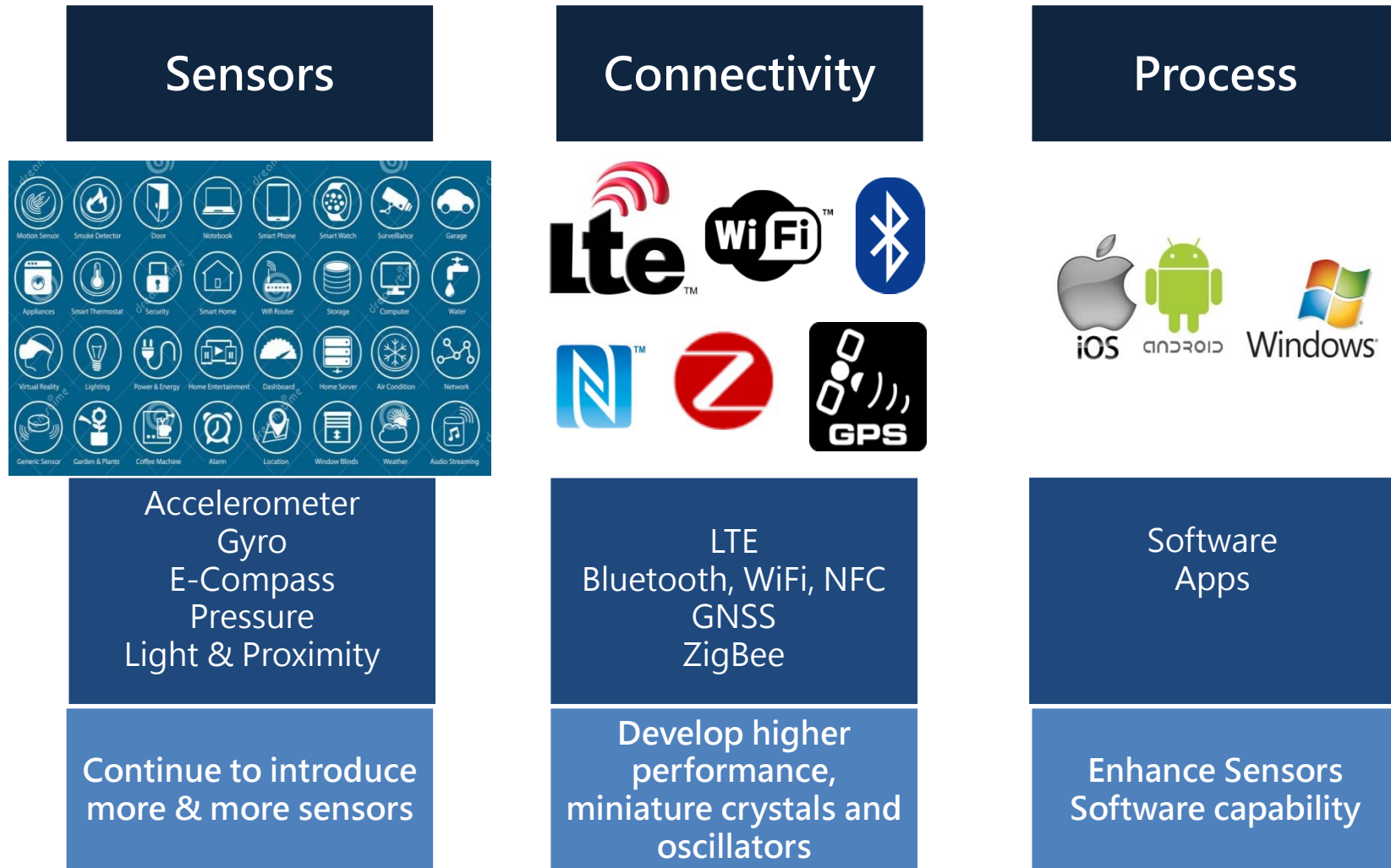
IoE (Internet of Everything)



Bringing together the people, process, data and things to make networked connections more relevant by turning information into actions

Source: IDC

***Market Driver – IoT is driven by a combination of technologies.
TXC already here to provide all possible solutions to IoT***



These are **TXC** focuses
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Source: TXC, IDC

For Smartphone, Tablet, and NB, TXC provides the smallest and thinnest designed package with high performance crystals and oscillators for wireless connectivity needs



Source: BER

- 3G/4G LTE
- WiFi
- BT/BLE
- NFC
- GNSS

Crystal

Smallest and Thinnest
1.2x1.0x0.30mm

TSX

Smallest and Thinnest
1.6x1.2x0.55mm

TCXO/VCTCXO

High stability $\pm 0.5\text{ppm}$
Smallest: 1.6x1.2x0.55mm

QUALCOMM
MEDIATEK

intel

BROADCOM

HISILICON

SPREADTRUM

NXP

TXC

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New HiFi sound features being introduced into Smartphone, Tablet, NB, Headphone, etc. , TXC provides special designed low noise XO with -100dBc/Hz @ 10Hz for DAC chipsets



Source: MEIZU, ESS



- HiFi Audio



New

XO

Phase noise $\leq$ -100dBc/Hz @ 10Hz;
2.5x2.0x0.75mm

More sensors being used in Smartphone, TXC already started to provide sensors solutions, will continue to bring out more sensors solutions



New

Sensors

2013 Q2 launched
Combo Ambient Light + Proximity Sensors (LED/VCSEL)

- Smallest package 2.5x2.0mm
- Slim package 4.5x0.9mm

2015 Q2 launched
Anti-magnetic interference and low power e-Compass Sensors

- 3-Axis e-Compass, 1.6x1.6mm
- 6-Axis e-Compass, 2.5x2.5mm (Magnetometer + Accelerometer)



Wireless connectivity and sensors technologies already being used in wearable, home, and healthcare devices, these are part of TXC growth market segments



Source: Apple, Fitbit, CTimes

New

Sensors

Ambient Light + Proximity
e-Compass

Crystal

Smallest and Thinnest
1.2x1.0x0.30mm

TSX

Smallest and Thinnest
1.6x1.2x0.55mm

TCXO/VCTCXO

High stability $\pm 0.5\text{ppm}$
Smallest: 1.6x1.2x0.55mm

XO

Phase noise $\leq -100\text{dBc/Hz}$
@ 10Hz; 2.5x2.0x0.75mm

Small cell and Base Station, also part of TXC growth market segments

OCXO

Ultra Stability $\pm 3\text{ppb}$
Stratum 3/3E

S3-TCXO

Ultra Stability $\pm 100\text{ppb}$
Stratum 3

VCXO

Ultra Low Jitter $\leq 50\text{fs}$
Frequency up to 700MHz

XO, SO

Ultra Low Jitter $\leq 50\text{fs}$
Frequency up to 800MHz

Crystal

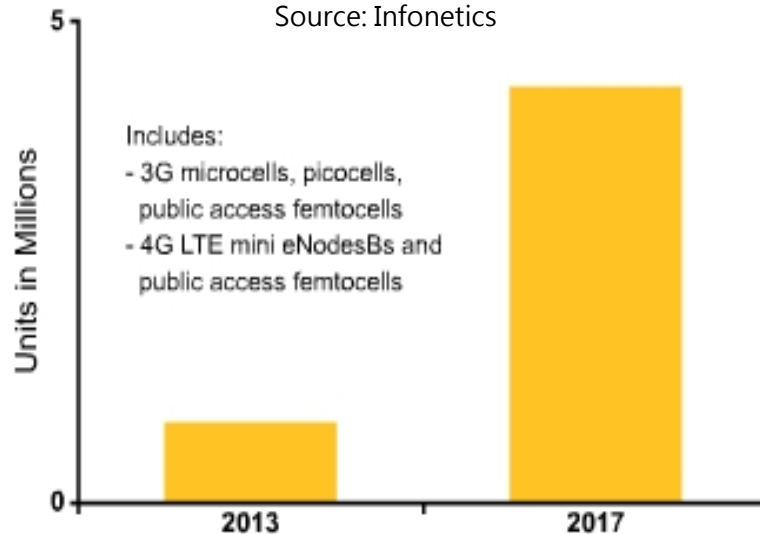
High Stability $\pm 10\text{ppm}$
Frequency up to 400MHz

32kHz RTC

High Stability $\pm 5\text{ppm}$
Temperature Compensated

Unit shipments of small cells are growing
at a 75% compound annual growth rate

Source: Infonetics



ZTE



TXC

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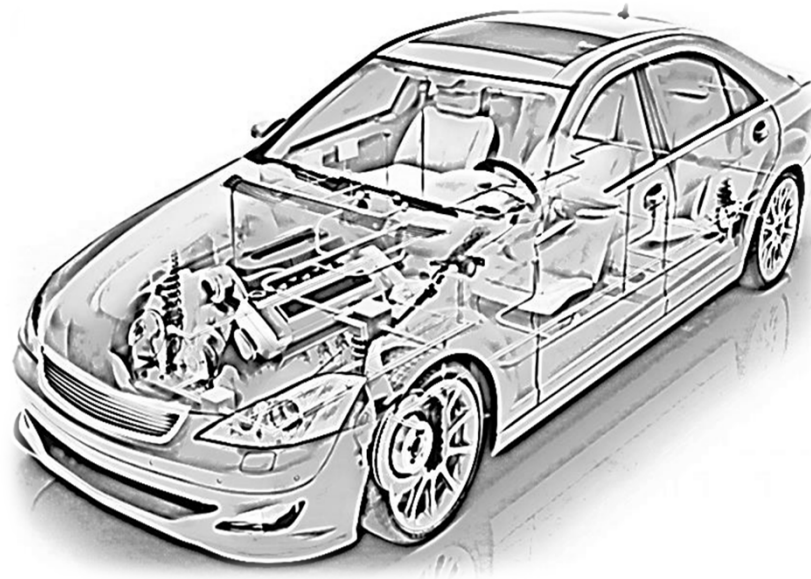
In Automotive, TXC provides high reliability crystals and oscillators solutions comply with AEC-Q100 and 200 standards

Telematics & Infotainment System

Security Electronic System

Safety Electronic System, TPMS

Advanced Driver Assisted System



ISO/TS 16949 Certified

Crystal (AEC Q200)

Metal Can: -40~105°C
Glass: -40~150°C
Seam: -40~125°C

XO (AEC Q100)

Seam: -40~105°C

TCXO (AEC Q100)

Seam: -40~105°C

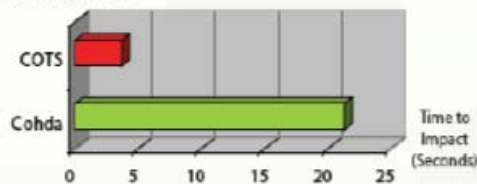
Notes: G3: -40~85°C / G2: -40~105°C / G1: -40~125°C / G0: -40~150°C

Connected car is the trend, such as V2V (Vehicle to Vehicle), ADAS (Advanced Driver Assisted System), TXC provides special designed TCXO at $\pm 0.5\text{ppm}$ stability with wider temperature of $-40\sim 105^{\circ}\text{C}$

- 802.11p

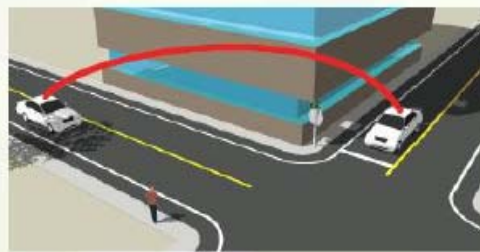
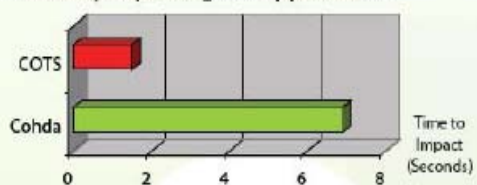
Do Not Pass Warning

Reliable connectivity at extended range in safety-critical scenarios.



Intersection Collision Warning & Movement Assist

Extends connectivity to non-line-of-sight conditions – dramatically improving V2V applications.



New

TCXO/VCTCXO

High stability $\pm 0.5\text{ppm}$
Smallest: $2.5 \times 2.0 \times 0.9\text{mm}$

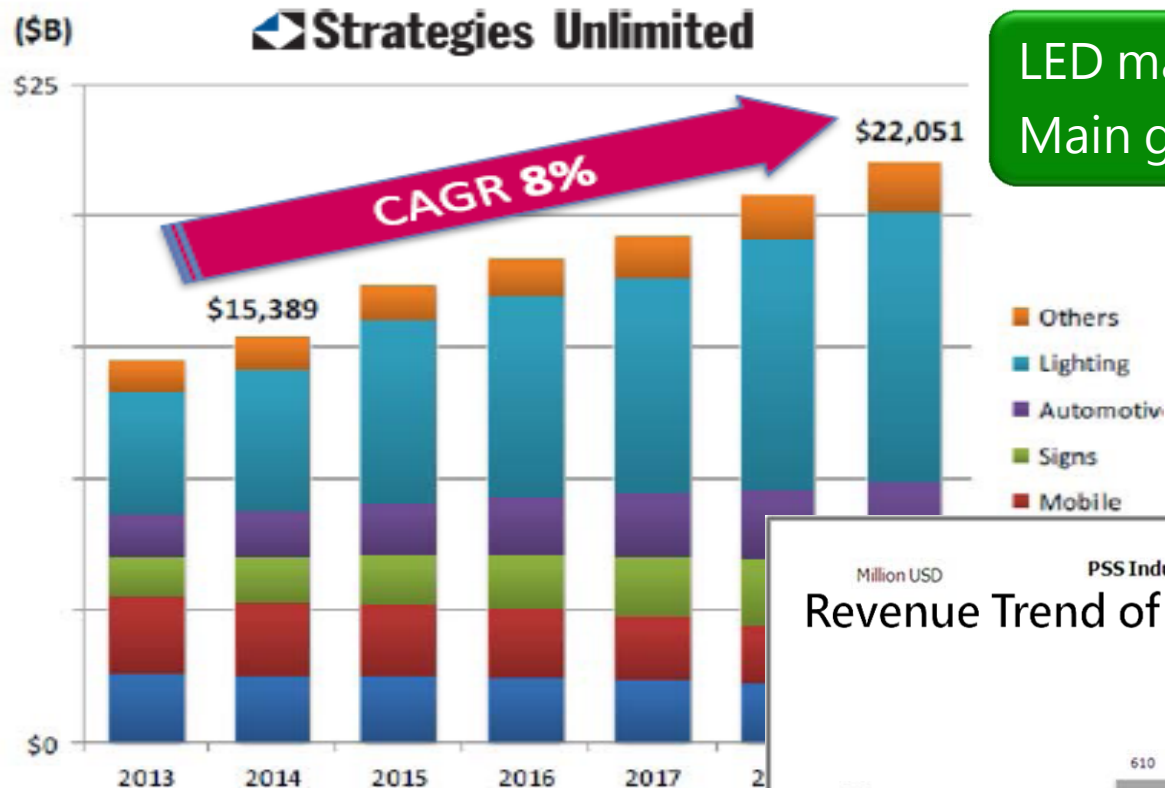
Source: Codha Wireless, NXP



TXC

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LED & PSS Market Trend



LED market keeps growth.
Main growth engine: Lighting!

Ref.: LED Forum, Epistar, Mar 25, 2015

LED & PSS market keeps growth.
And no obvious replace tech. in short term.

Million USD
PSS Industry Market Value Forecast
Revenue Trend of PSS 2010-2016



PSS demand keeps growth.
Wafer size go larger (4" ,6")

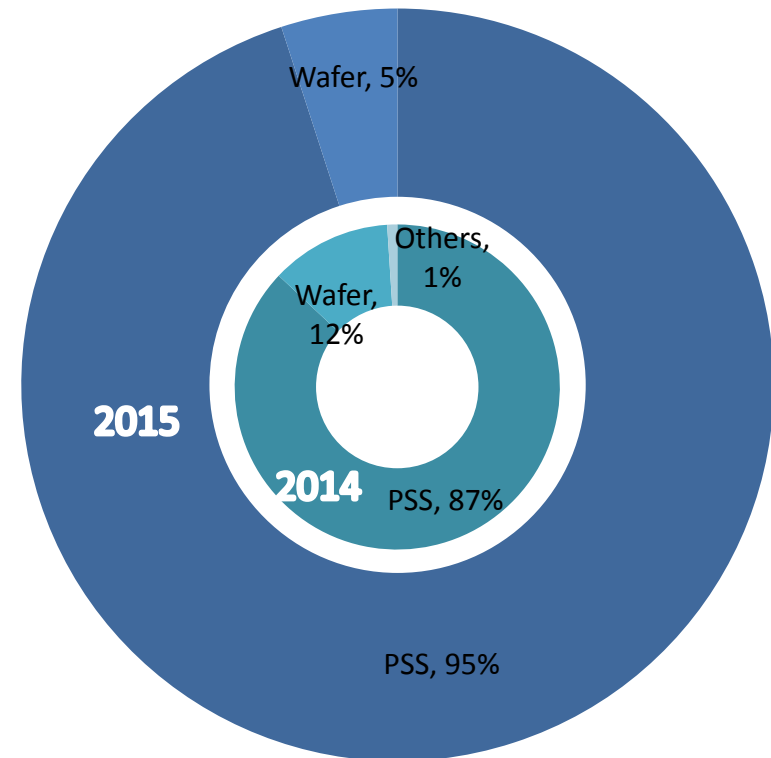
Ref.: LED inside, July, 2014

2015 Business Strategy

◆ 2015 Strategy: Stable growth

- 2015 major product is 4" PSS
- Develop and start 6" wafer and PSS sale
- Focus on Taiwan major customer and develop China market
- Improve product quality, yield and manufacturing efficiency
- Improve cost structure

◆ 2015 4" PSS shipment target is 400k , YoY +100%



**2014-2015 Revenue Breakdown
by products**



Product Size Roadmap

Seam = Seam seal
Glass = Glass Seal

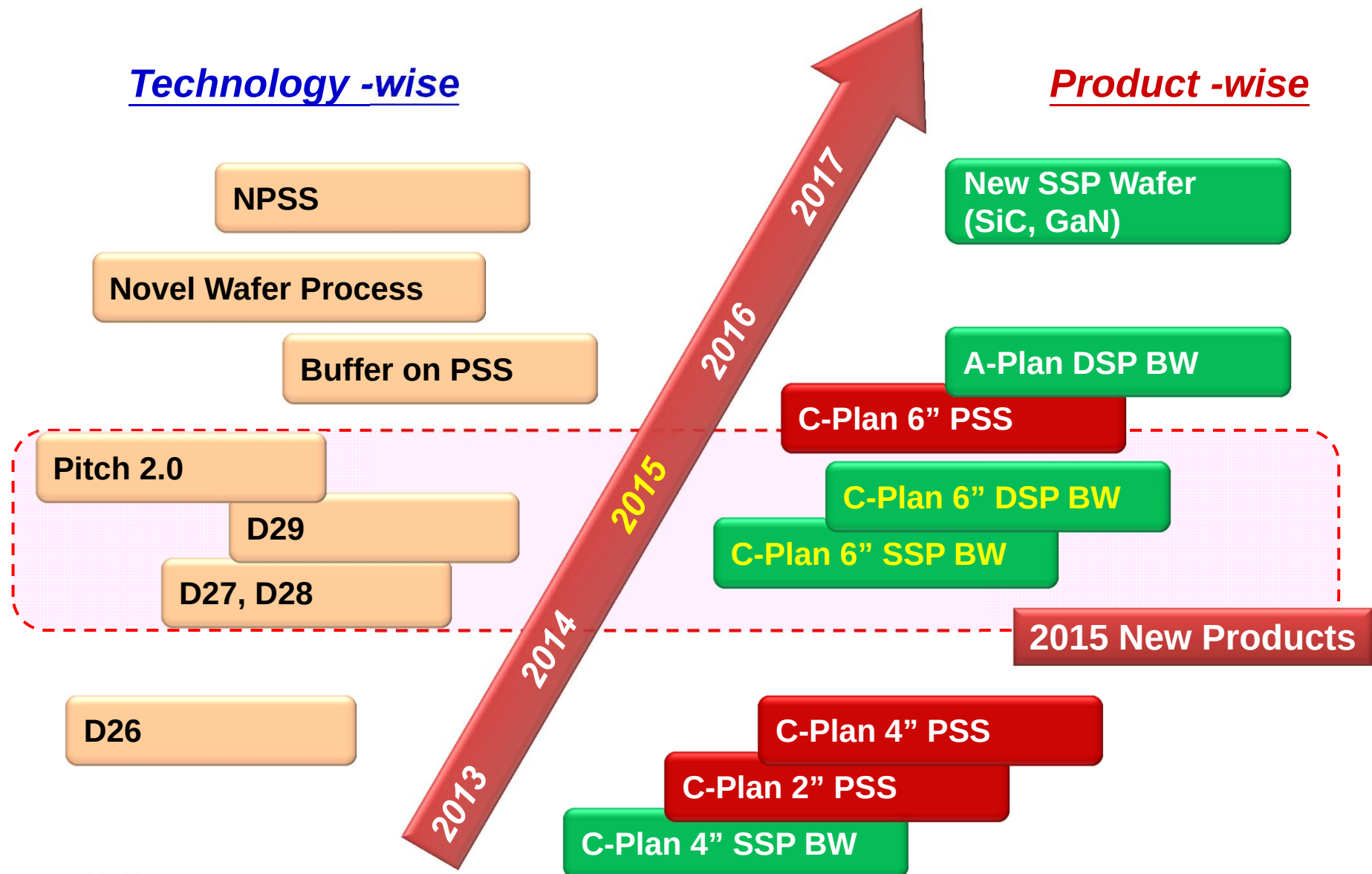
		2015	2016	2017
Product Size	MHz Crystal	♦ 2520 G2 ♦ 1612 Glass ♦ 2016 G2 ■ 1612 (G1)	♦ 1210 (G2) ■ 3225 (G0) ♦ 1210 Seam ♦ 1612 (G1) ■ 2016 (G0)	♦ 2520 G1 ■ 2520 (G0) ■ 1612 (G0) ♦ 1008 Crystal
	MHz Crystal Thermistor	♦ 2016 TSX ♦ 1612 TSX	■ 2016 ACAP TSX	
	KHz Crystal	♦ RTC SOP04 (G2)	♦ RTC 3225	
	XO/MO/SO	♦ 5032 (G2) ♦ 3225 (G3) ♦ 2520 (G3) ♦ 2016 (G3)	♦ 3225 (G1) ♦ 2520 (G1) ♦ 1612 (G2)	♦ 5032 (G1) ♦ 2016 (G1) ♦ 1612 (G1)
	VCXO	♦ 3225 (25~200MHz) ♦ 5032 (25~200MHz) ♦ 7050 (25~200MHz)	♦ 5032 (2 GHz) ♦ 7050 (2 GHz)	♦ 3225 (2 GHz)
	TCXO	♦ 3225 (G2) ♦ 2520(G2) ♦ 2016(G2)	♦ 7050 S-3 (G2) ■ 3225 TCXO ♦ 3225 S-3 (G2) ♦ 1612 (G2)	♦ 3225 (G1) ♦ 2520 (G1) ♦ 2016 (G1)
	OCXO	♦ 3627 SC-Cut ♦ 2525 SC-Cut ♦ 1409 AT-Cut	9775 SC-Cut	♦ 7050 SC-Cut
	Sensor	♦ 2520 PS+ALS(PA22A) ♦ 4509 PS+ALS(PA233) ♦ 1616 3-Axis E-compass ♦ 2425 6-Axis E-compass ♦ 1212 3-Axis E-compass ♦ 2520 PS(PA224)	♦ RGB Sensor ♦ Pressure ♦ 4509 PS+ALS (wide ALS) ♦ 1010 3-Axis E-compass	♦ Pulse Sensor ♦ Gas Sensor ♦ 0808 3-Axis E-compass



Note : ■ Automotive Products

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Sapphire Product Roadmap

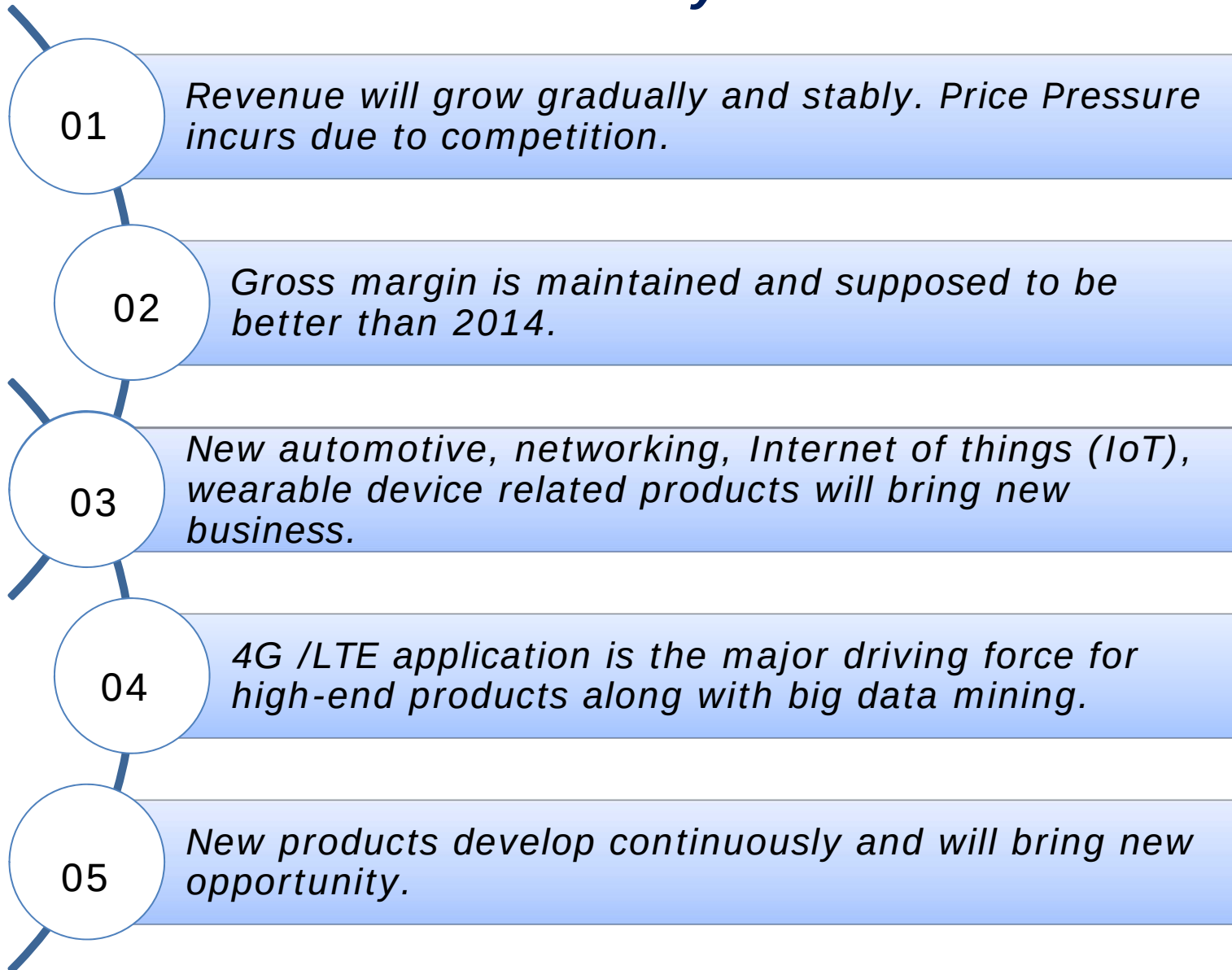


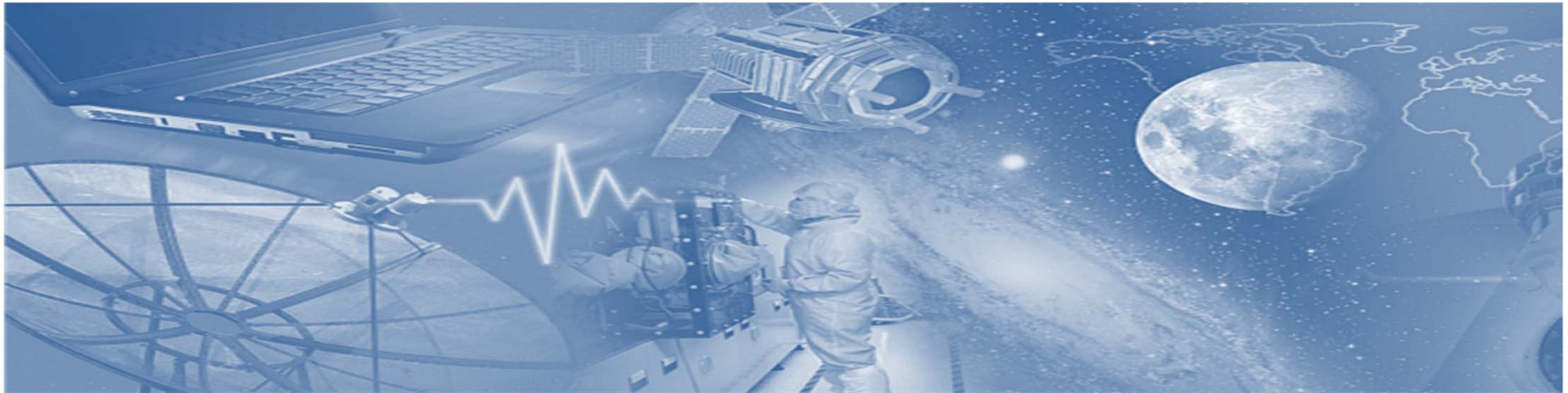


Event Update



Summary





Thank you