



SIWARD GROUP

# Siward Investor Conference

## SIWARD Company Presentation

*Oct. 25<sup>th</sup> 2018*



PATIENCE CONFIDENCE CONCENTRIC

# Agenda

16:00~16:50

Topic	Speaker
Welcome	JM Tseng
Company Presentation	(Video)
Financial Report	Catherine Yu
knowing Siward ... products, capacity, sales trend	Catherine Yu
Business Summary	JM Tseng
Q&A	

- **Financial Report**  
Financial performance, Dividends policy

# Balance Sheet



Unit: NTD'000	H1 2018	2017	H1 2017
Current Assets	2,032,576	2,038,909	2,206,644
Total Assets	4,193,188	4,118,538	4,226,429
Current Liabilities	740,525	637,400	866,836
Total Liabilities	1,267,134	1,200,535	1,427,611
Total Equity	2,926,054	2,918,003	2,798,818
Debt ratio(%)	30%	29%	34%
Current ratio(%)	274%	320%	255%
Quick ratio(%)	201%	243%	196%
Book Value Per Share (NTD)	18.35	18.30	17.56

# Statement of Comprehensive Income

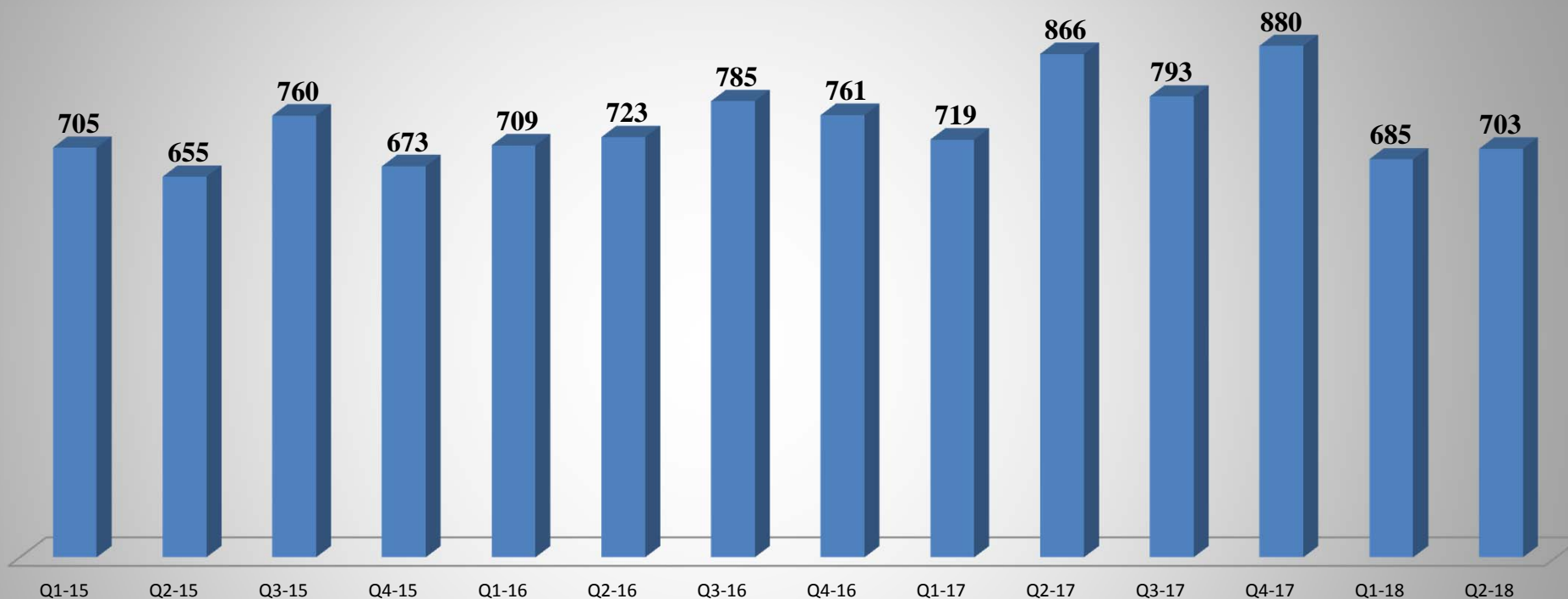


Unit: NTD'000	2017	2016	Growth(%)	H1 2018	H1 2017	Growth(%)
Revenue	3,258,695	2,977,585	9.4%	1,388,166	1,585,074	-12.4%
Gross Profit	544,507	604,990	-10.0%	266,735	258,317	3.3%
Operating Profit	202,783	268,249	-24.4%	95,637	98,993	-3.4%
Income before tax	206,383	288,954	-28.6%	149,837	90,275	66.0%
Net Income	171,685	241,034	-28.8%	128,801	76,435	68.5%
Gross Margin(%)	16.7%	20.3%	-17.8%	19.2%	16.3%	17.9%
Operating Margin(%)	6.2%	9.0%	-30.9%	6.9%	6.2%	10.3%
Net Margin(%)	5.3%	8.1%	-34.9%	9.3%	4.8%	92.4%
ROE(%)	5.9%	8.2%	-28.7%	4.4%	2.5%	76.4%
EPS(NTD)	1.05	1.48	-29.1%	0.81	0.46	76.1%

# Quarterly performance-Revenue

Revenue

Unit: NTD Million



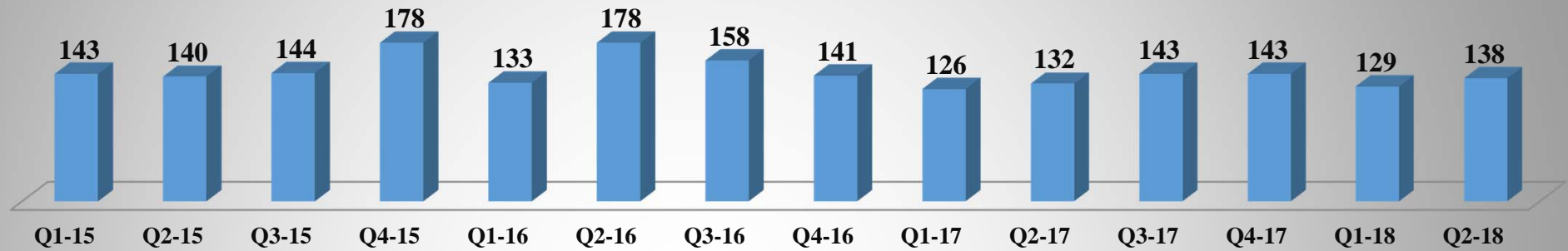
	Q1-15	Q2-15	Q3-15	Q4-15	Q1-16	Q2-16	Q3-16	Q4-16	Q1-17	Q2-17	Q3-17	Q4-17	Q1-18	Q2-18
Revenue(QoQ)	-4.1%	-7.1%	16.0%	-11.4%	5.3%	2.0%	8.6%	-3.1%	-5.5%	20.4%	-8.4%	11.0%	-22.2%	2.6%
Revenue(YoY)	20.9%	3.8%	-2.6%	-8.4%	0.6%	10.4%	3.3%	13.1%	1.4%	19.8%	1.0%	15.6%	-4.7%	-18.8%

# Quarterly Performance-Gross Profit

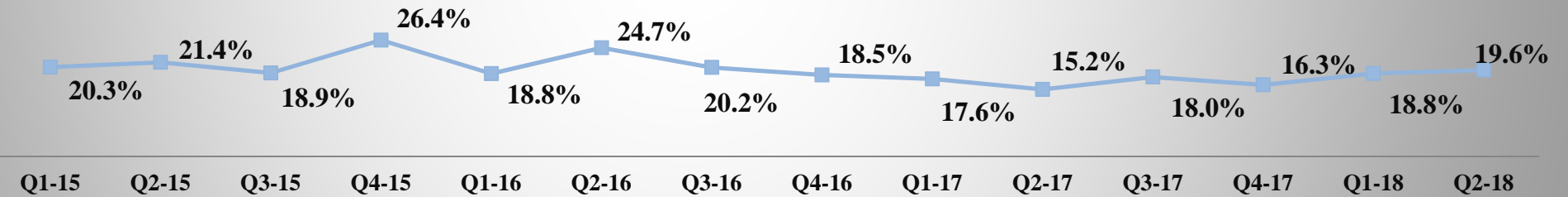


## Gross Profit

Unit: NTD Million



## Gross Profit Rate



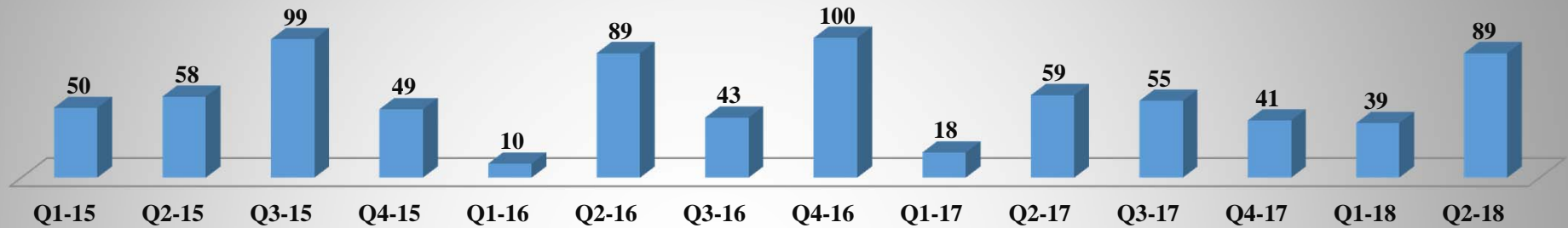
	Q1-15	Q2-15	Q3-15	Q4-15	Q1-16	Q2-16	Q3-16	Q4-16	Q1-17	Q2-17	Q3-17	Q4-17	Q1-18	Q2-18
Gross Profit(QoQ)	-5.9%	-2.1%	2.9%	23.6%	-25.3%	33.8%	-11.2%	-10.8%	-10.6%	4.8%	8.3%	0.0%	-9.8%	7.0%
Gross Profit(YoY)	26.5%	-2.8%	-12.2%	17.1%	-7.0%	27.1%	9.7%	-20.8%	-5.3%	-25.8%	-9.5%	1.4%	2.4%	4.5%

# Quarterly Performance-Net Profit

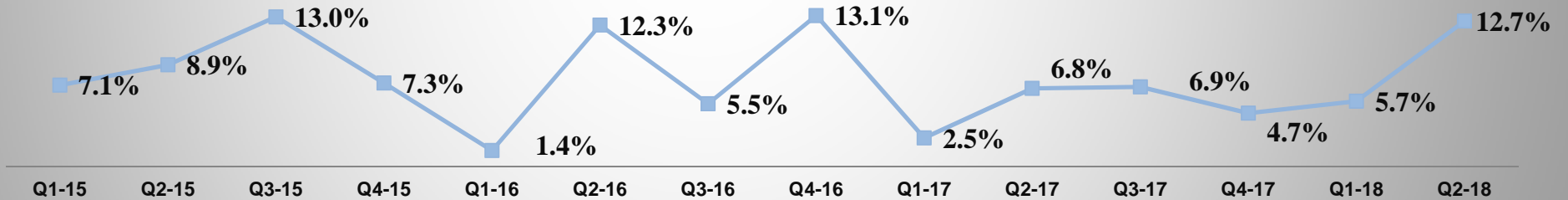


## Net Profit

Unit: NTD Million



## Net Profit Rate



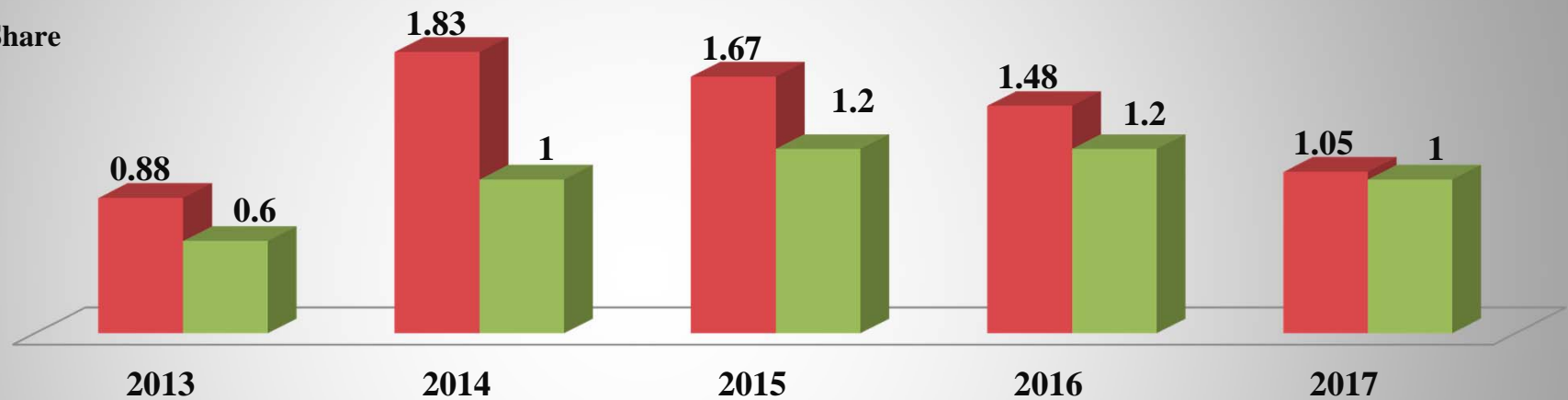
	Q1-15	Q2-15	Q3-15	Q4-15	Q1-16	Q2-16	Q3-16	Q4-16	Q1-17	Q2-17	Q3-17	Q4-17	Q1-18	Q2-18
Net Profit(QoQ)	-49.3%	24.9%	47.1%	-44.1%	-80.6%	772.8%	-55.5%	139.9%	-80.9%	172.1%	1.8%	-32.8%	22.2%	122.4%
Net Profit(YoY)	35.1%	-26.6%	33.8%	-52.4%	-80.0%	53.4%	-56.6%	104.1%	80.0%	-33.7%	27.9%	-59.0%	116.7%	50.8%



# Dividend Policy

## EPS and DPS

- Earnings Per Share
- Cash Dividends Per Share



單位:元	2013	2014	2015	2016	2017
每股盈餘	0.88	1.83	1.67	1.48	1.05
每股股利	0.6	1	1.2	1.2	1
當年度平均收盤價	12.07	19.64	19.85	18.8	20.9
股息發放率(%)	68.18	54.64	71.86	81.08	95.24
殖利率(%)	4.97	5.09	6.05	6.38	4.78

- **Investor Conference**

knowing Siward ...products, capacity, sales trend

# Who We Are

Innovative Timing solutions for things that connect the world



CY2017 revenues **\$104** million

Listed: TWSE

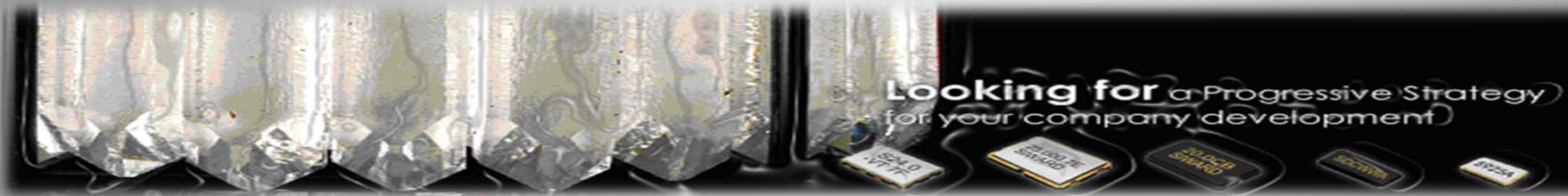
**1000+** employees worldwide

**40+** R&D engineers

**4** manufacturing sites

**7** sales & marketing offices

# Our Products

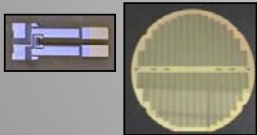


## Synthetic Quartz



## Tuning Fork wafer

3" MEMS Wafer Processing



## Crystal 石英晶振

### Metal Can



### Glass Weld



### Ceramic seam



### Tuning Fork



## Oscillator 振盪器

### Crystal Osc



### Voltage-controlled oscillator (VCXO)



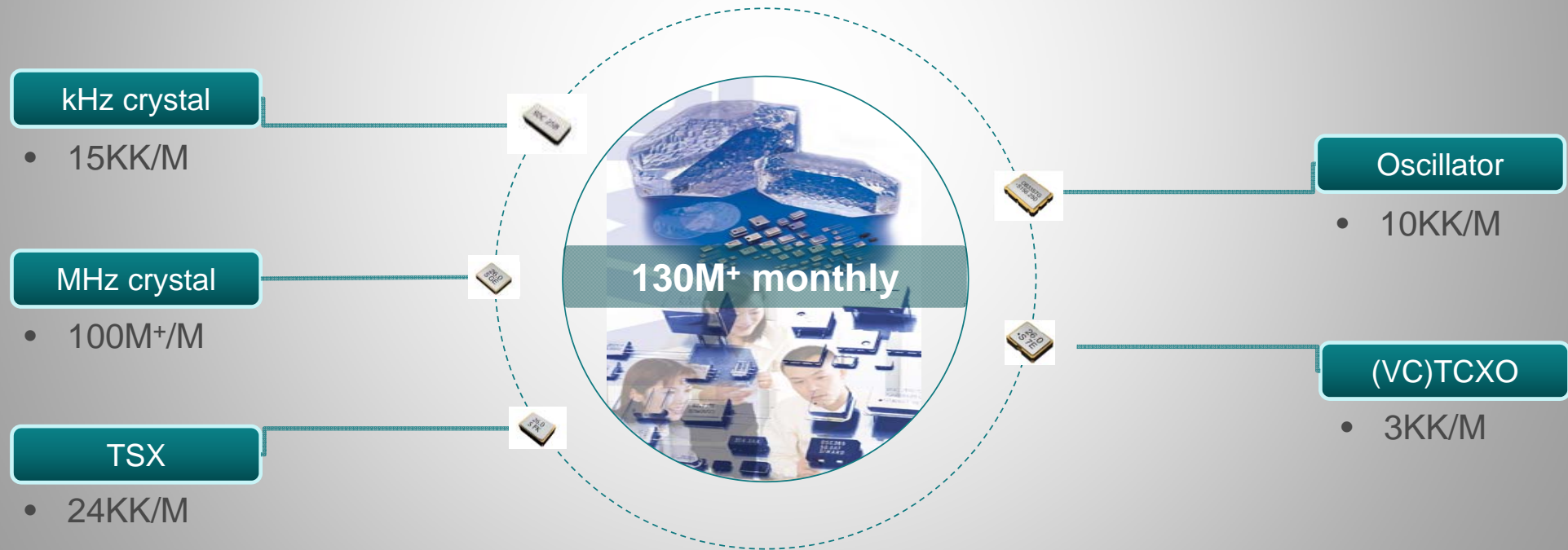
### TCXO



### (VC)TCXO



# Manufacturing sites



# Manufacturing sites

## HQ, Taichung Taiwan



### Manufacturing:

- RD Center
- Manufacture
- Sales Office

● Crystal



● Tuning Fork Xtal



● OSC



● (VC)TCXO

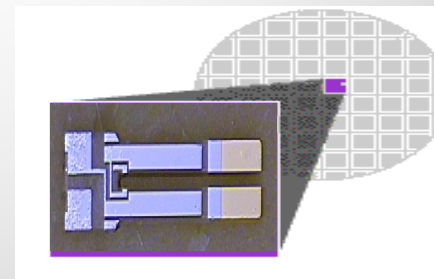


## Zhunan Taiwan

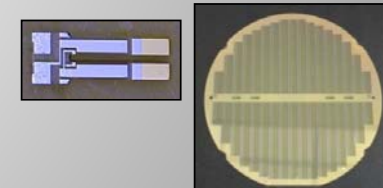


### Manufacturing:

● MEMS wafer



3" MEMS Wafer Processing



# Manufacturing sites

## Tainan Taiwan



Manufacturing:

- Synthetic Quartz Bar



## Suizhou (Taiward) China



Manufacturing:

- Crystal



- Tuning Fork Xtal



# World Ranking

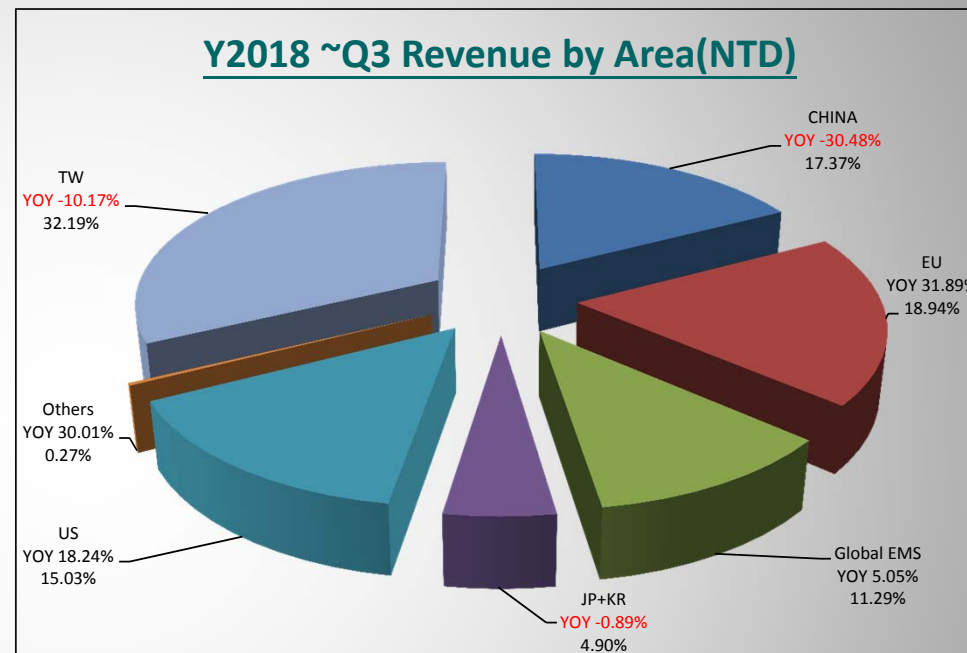
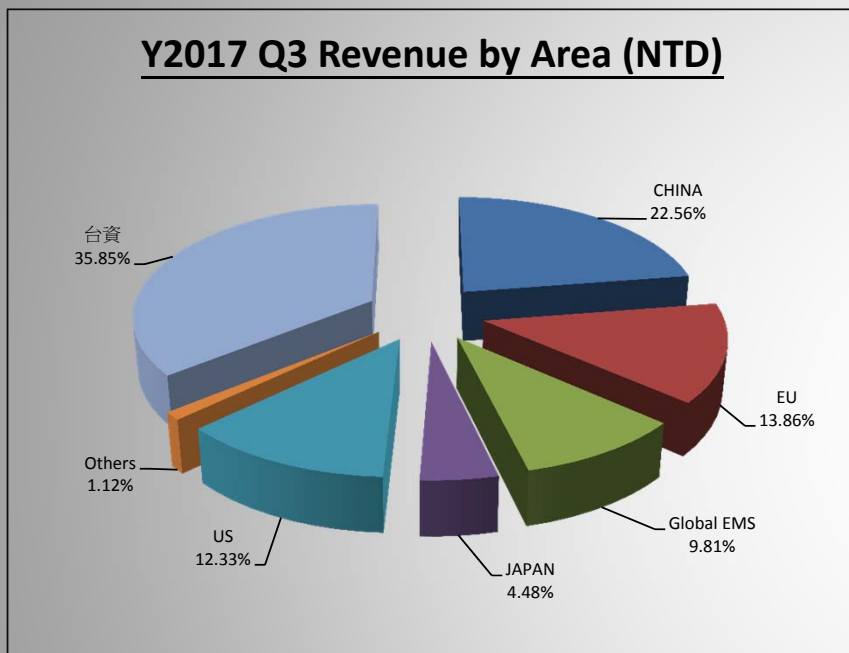


World ranking # 7 , Taiwan ranking # 2 .

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%
7	6	Microsemi	\$80	\$168	110.0%	2.5%	5.1%
<b>6</b>	<b>7</b>	<b>SIWARD</b>	<b>\$103</b>	<b>\$104</b>	<b>1.5%</b>	<b>3.2%</b>	<b>3.2%</b>
10	8	MegaChips	\$73	\$103	41.1%	2.3%	3.1%
9	9	Hosonic	\$95	\$98	3.0%	3.0%	3.0%
8	10	Harmony	\$94	\$98	4.0%	3.0%	3.0%
		Other companies	\$1,146	\$1,120	-2.2%	36.2%	2.1%
		Total Revenue	\$3,165	\$3,271	3.3%		
							(CS&A)

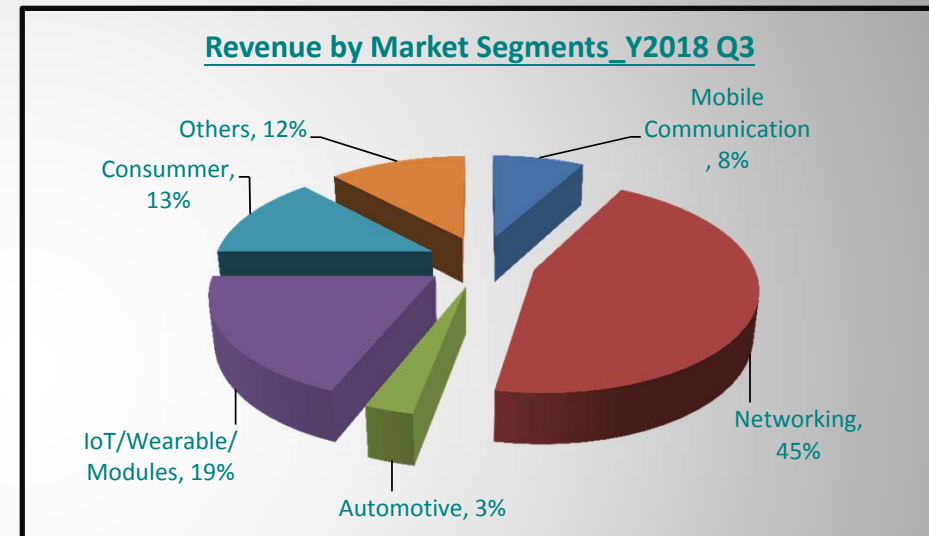
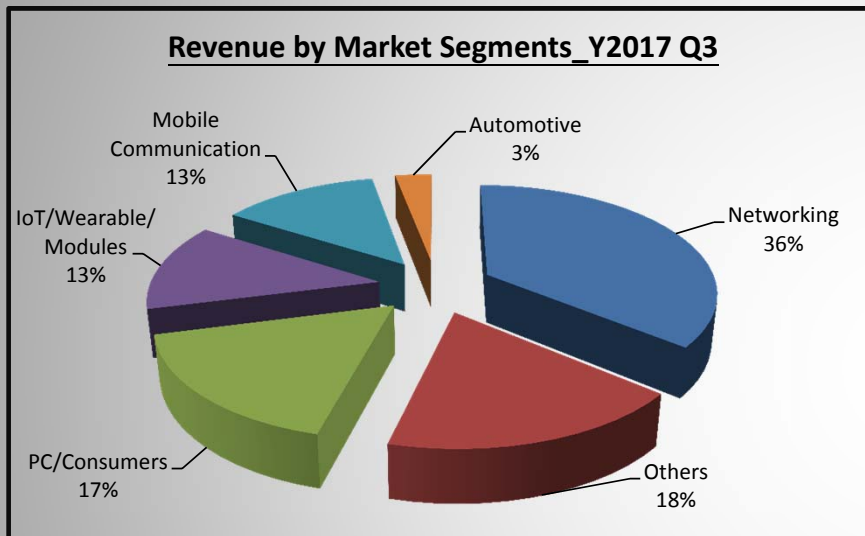


# Revenue by Area



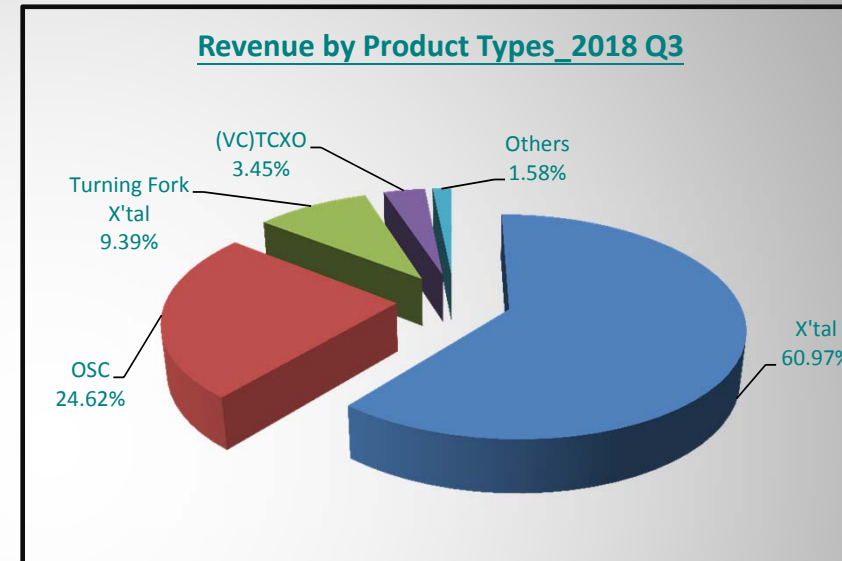
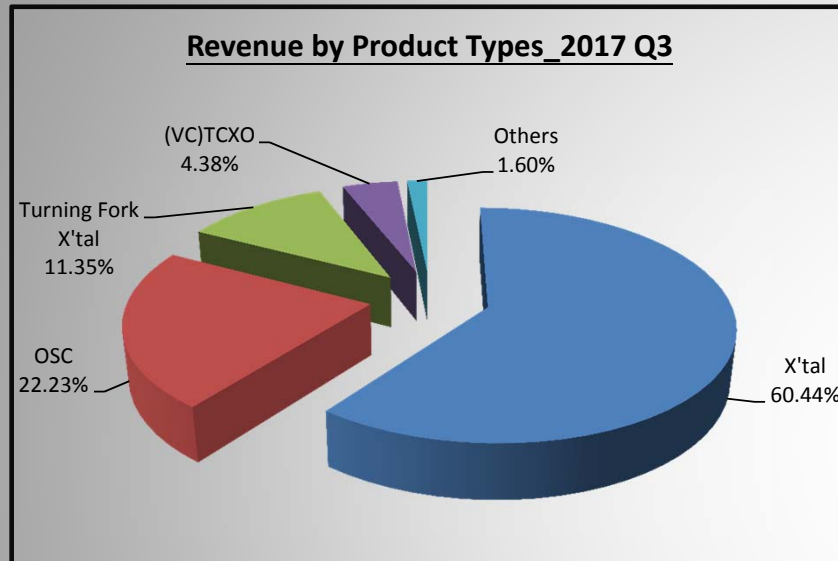
1. Y2018 Q3 BP 17.99 billion, the reach rate is 91.08% ◦
2. Europe, North America, and Global EMS grew but Japan+Korea, Taiwan and Mainland China were in decline

# Revenue by Market Segments



- Focus on networking industry(mobile 、 broad-band cable 、 wireless router 、 gateway 、 STB..etc) continue to growth ◦
- IoT/wearable device/modules application drives for miniature products demands ◦

# Revenue by Product Types



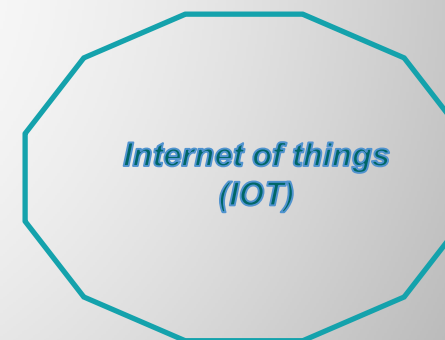
- Crystal are the major products , maintained at 57% of the revenue ◦
- Expect growth of TCXO products in Q4 2017 and 2018 ◦
- High stability TCXO 、 HF XO development and mass production in Q4 2017 ◦

## Development of product lines

— 、 The development of Siward's technology: The quartz crystal is oriented toward miniaturization. At present, the smallest crystal is mass-produced at 1.2x1.0mm. The wafer fabrication is toward the MEMS photolithography process to produce miniaturized wafers.

Miniature and low profile 1.2x1.0x0.3mm Crystals

Market



# Development of product lines

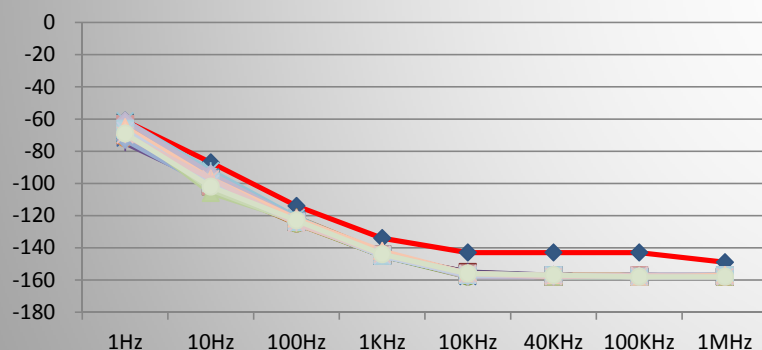
二、 The oscillator parts:

((1) Development of high frequency (100MHz~250MHz), low phase noise, and low jitter XO/VCXO development towards the baseband chip fabricated using MESA technology.

((2) Development of a temperature-compensated oscillator (TCXO) for professional satellite positioning systems and automotive applications.



Low phase noise



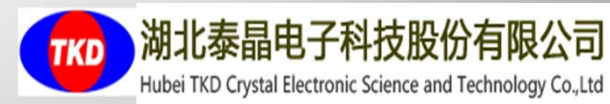
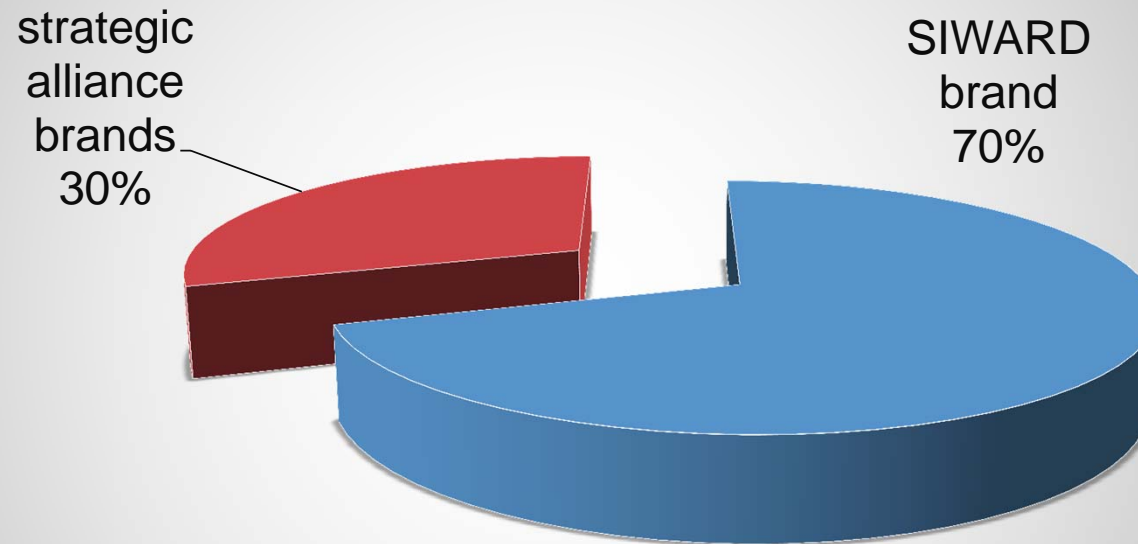
- **Business Summary**  
Investment & Alliance

# Investment & Alliance Strategy



## Brand Strategy

### Brand Strategy

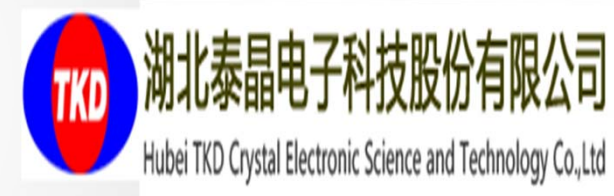


# Investment & Alliance Strategy



## Alliance Strategy

The combination of Rakon's technology and Siward's manufacturing will enable the capability of producing middle & high end products ◦



The alliance of SIWARD and the China largest Tuning Fork manufacturer enhanced the competitiveness of Siward to provide cost sensitive products to the market ◦



# 轉投資策略 Investment & Alliance Strategy



## 5G applications

5G applications are based on base stations, user terminals, and various networking devices (such as the Internet of Things for Vehicles, etc.). In collaboration with Rakon, Siward will develop quartz components (crystals, oscillators, TCXO... etc.) for base station network-related applications.

### SPACE & DEFENCE



### TELECOMMUNICATIONS



### GLOBAL POSITIONING



# Developing

## IVD(in vitro diagnostic) products

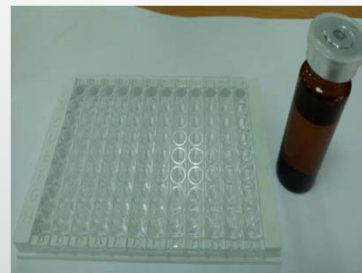
### Patent

Five patents have owned about inorganic nanoparticles/ biosensor chip/ sensing device ...

### Developing

Gold Nanoparticle Produce Line  
Farm animal Screening Assay and Self-management  
Alzheimer' s Disease Diagnosis Based on Blood

### Product List



A. Molecular Adsorbing Superformer (MAS™) B. Highly sensitive ELISA signal Enhanced reagent C. High throughput screening LSPR Kit

- **Q&A**  
Investor Conference

**Thank You**  
for your attention!

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