

Siward Investor Conference

SIWARD Company Presentation

Aug. 18th 2020



Agenda

15:20~16:20

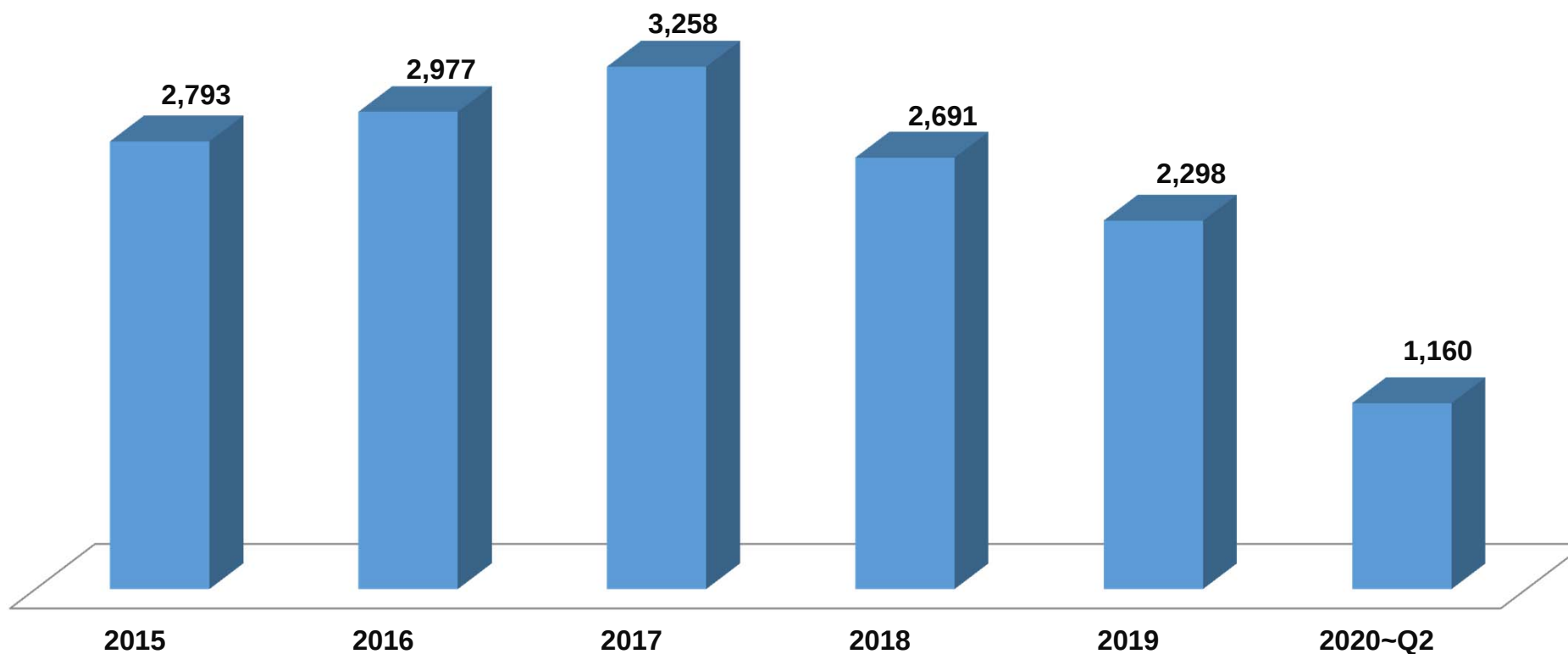
➡	Topic	Speaker
➡	Welcome	JM Tseng
➡	Financial Report	Catherine Yu
➡	Sales Report	Catherine Yu
➡	Market Trend	Jerry Kuo
➡	Developing	Caton Hsu
➡	Summary Q&A	JM Tseng

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

Performance-Revenue

Revenue

Unit: NTD Million



Performance-Gross Profit

Gross Profit Rate



2015

2016

2017

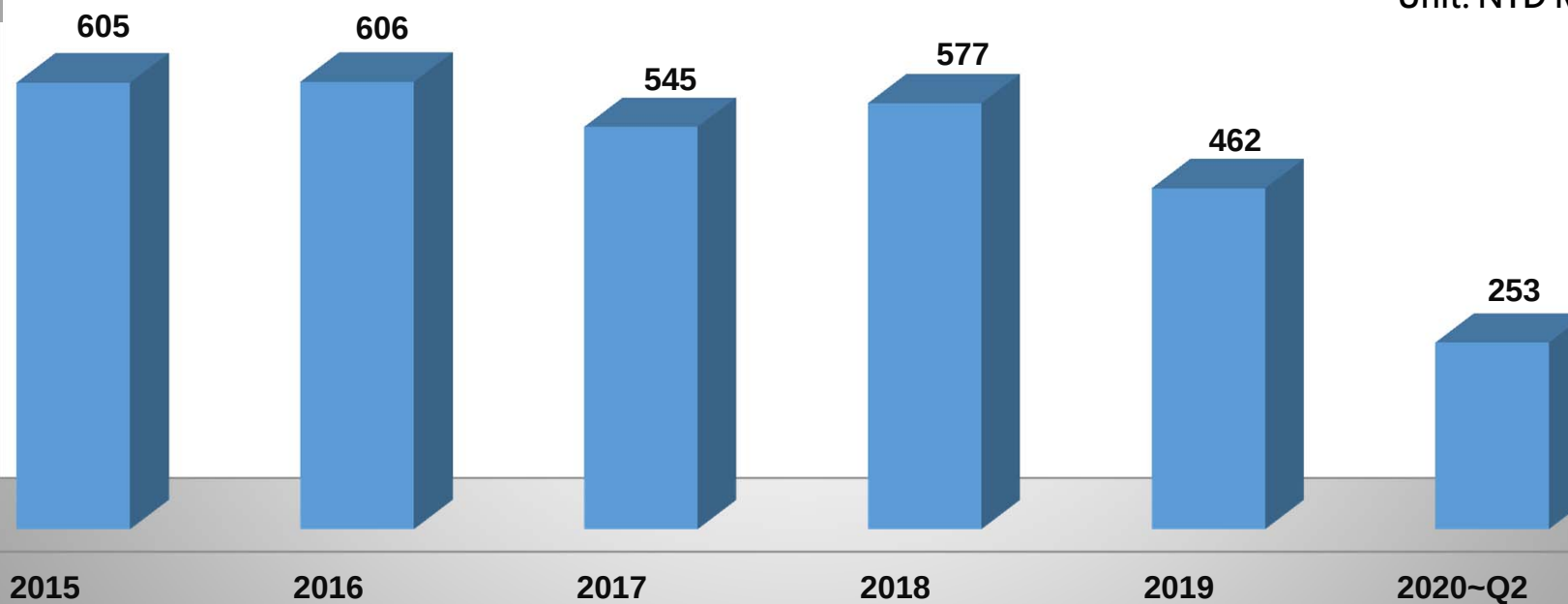
2018

2019

2020-Q2

Gross Profit

Unit: NTD Million



2015

2016

2017

2018

2019

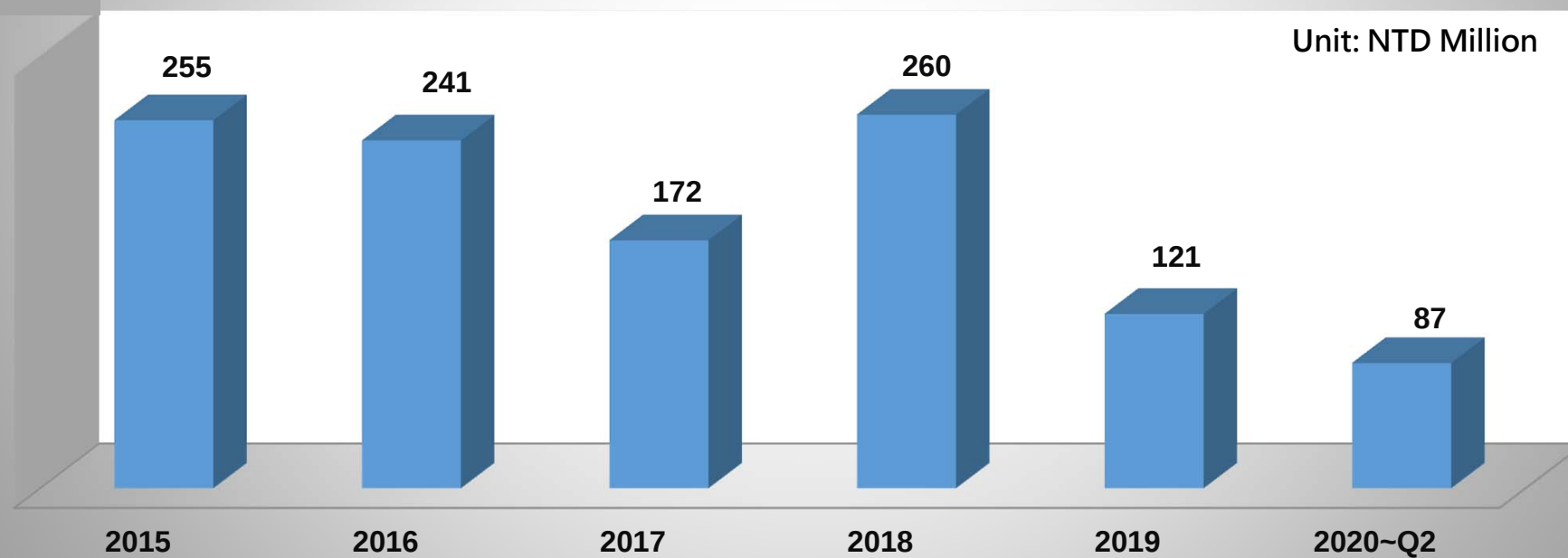
2020-Q2

Performance-Net Profit

Net Profit Rate



Net Profit



Financial performance 1

Unit: NTD' 000	H1 2020	H1 2019	Growth
Revenue	1,160,029	1,105,563	4.9%
Gross Profit	253,522	223,655	13.4%
Operating Profit	97,550	62,492	56.1%
Income before tax	109,751	92,695	18.4%
Net Income	87,717	74,429	17.9%
Gross Margin	21.9%	20.2%	8.0%
Operating Margin	8.4%	5.7%	48.8%
Net Margin	7.6%	6.7%	12.3%
ROE	3.0%	2.5%	21.8%
EPS(NTD)	0.55	0.47	17.0%

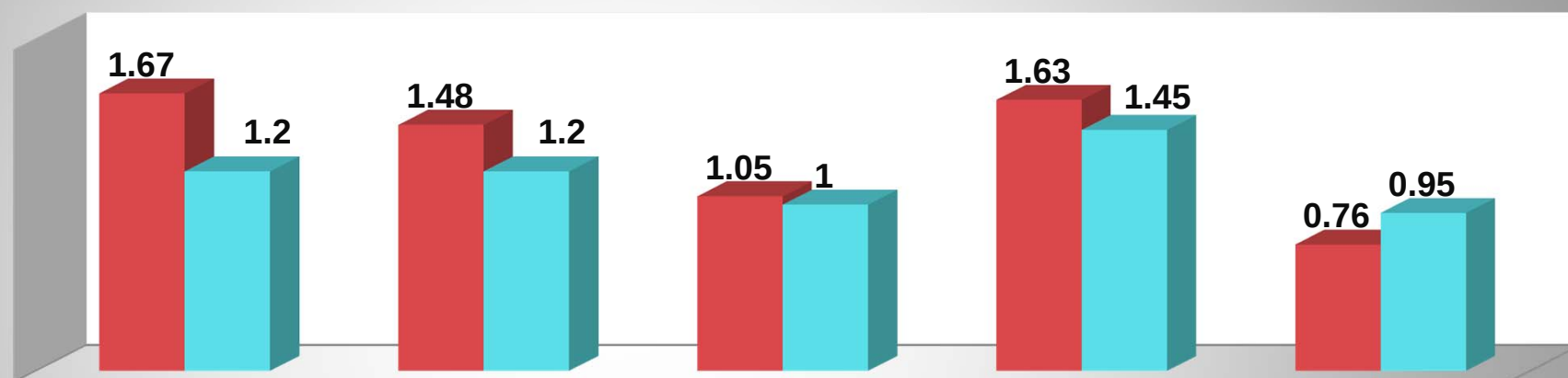
Financial performance 2

Unit: NTD' 000	H1 2020	H1 2019
Current Assets	1,788,753	2,006,285
Total Assets	4,064,231	4,148,906
Current Liabilities	714,433	634,992
Total Liabilities	1,212,341	1,236,414
Total Equity	2,851,890	2,912,492
Debt ratio	30%	30%
Current ratio	250%	316%
Quick ratio	201%	226%
Book Value Per Share (NTD)	17.84	18.22

Dividend Policy

■ Earnings Per Share
 ■ Cash Dividends Per Share

EPS and DPS



Unit : NTD	2015	2016	2017	2018	2019
Earnings Per Share	1.67	1.48	1.05	1.63	0.76
Cash Dividends Per Share	1.2	1.2	1	1.45	0.95
Avg. Stock Price	19.85	18.8	20.9	19.59	20.06
Payout ratio(%)	71.86	81.08	95.24	88.96	125.00
Yields(%)	6.05	6.38	4.78	7.40	4.74

- **Sales Report**
products

Who We Are

Innovative Timing solutions for things that connect the world



Listed: TW

700+ employees worldwide

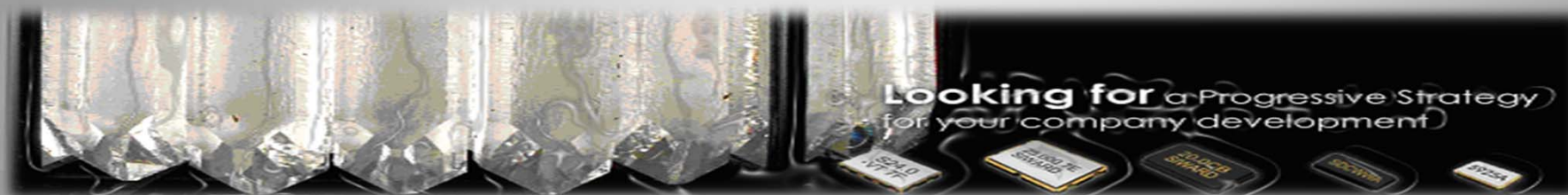
60+ R&D engineers

4 manufacturing sites

7 sales & marketing offices

- Headquarter Taiwan, (3 RD Center + 2 Sales Office + 3 Manufacture)
- RD Center
- Manufacture
- Sales Office

Our Products

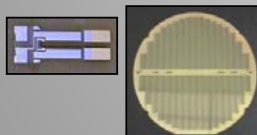


Synthetic Quartz



Tuning Fork wafer

3"~4" MEMS Wafer



Crystal

Metal Can



Glass Weld



Ceramic seam



Tuning Fork



Oscillator

Crystal Osc



TCXO



Voltage-controlled oscillator (VCXO)



(VC)TCXO

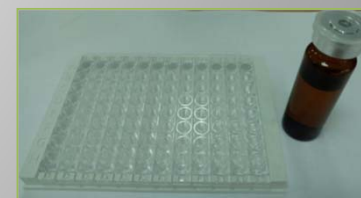


IVD

Molecular Adsorbing Superformer



Highly sensitive ELISA signal Enhanced reagent



Manufacturing sites



HQ, Taichung
Taiwan



Zhunan
Taiwan



Tainan
Taiwan



Suizhou (Taiward)
China



Manufacturing sites

HQ, Taichung Taiwan



Manufacturing:

- RD Center
- Manufacture
- Sales Office

● Crystal



● Tuning Fork Xtal



● OSC



● (VC)TCXO

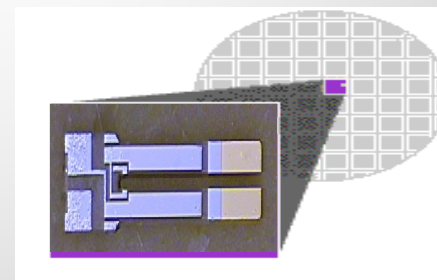


Zhunan Taiwan

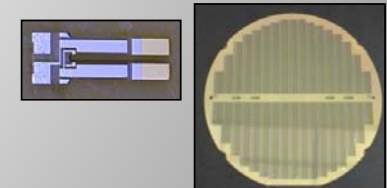


Manufacturing:

● MEMS wafer



3"~4" MEMS Wafer



Manufacturing sites

Tainan Taiwan

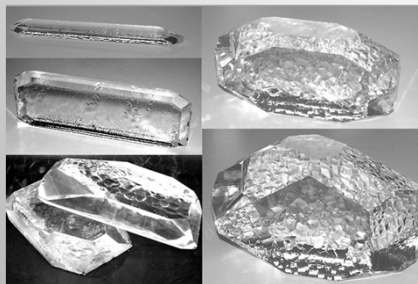


Manufacturing:

- Tuning Fork Xtal



- Synthetic Quartz Bar



Suizhou (Taiward) China



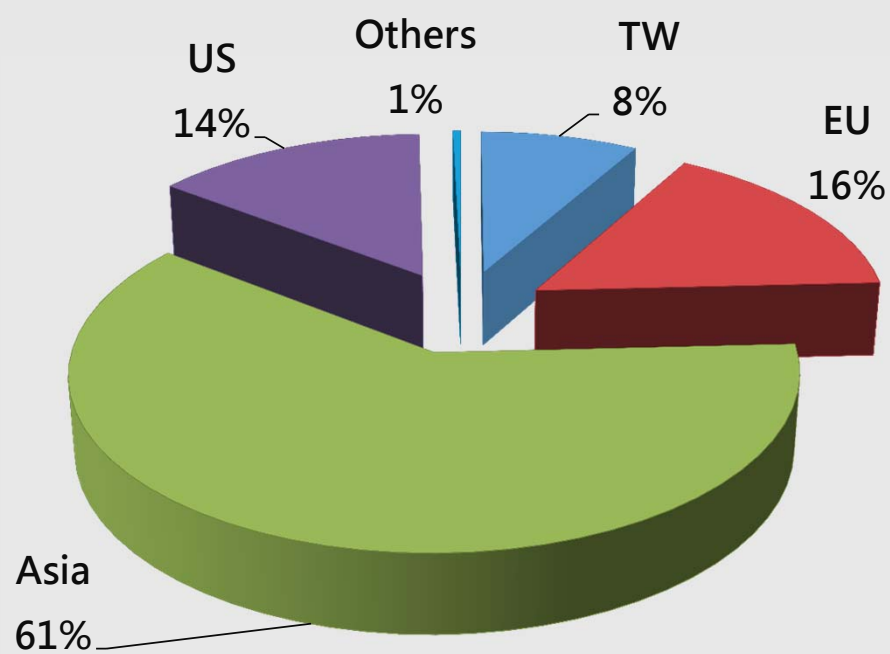
Manufacturing:

- Crystal

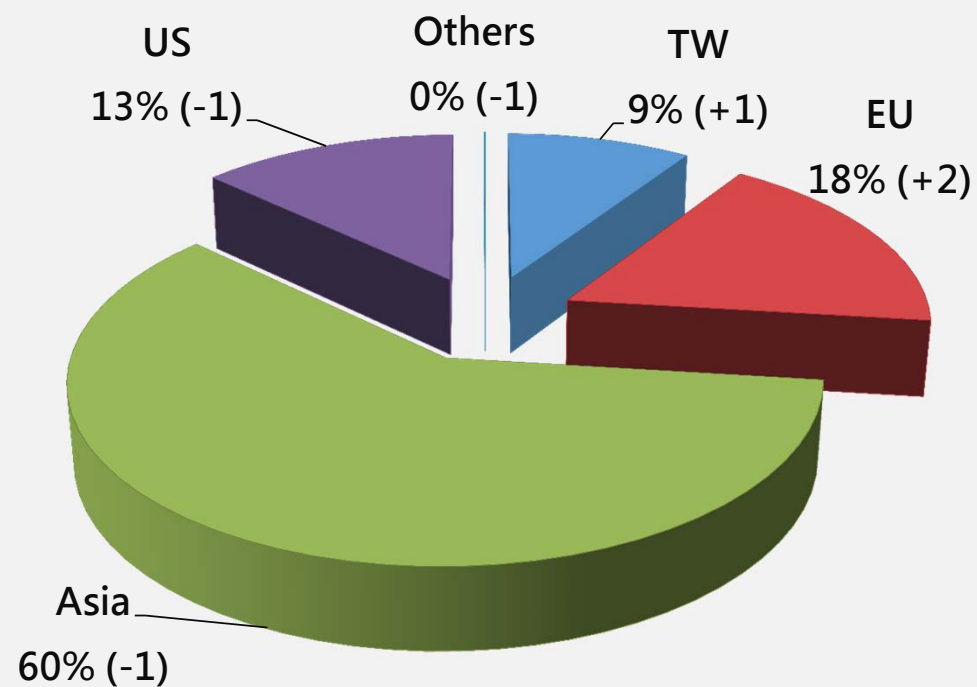


Revenue by Area

2019H1 Revenue by Area

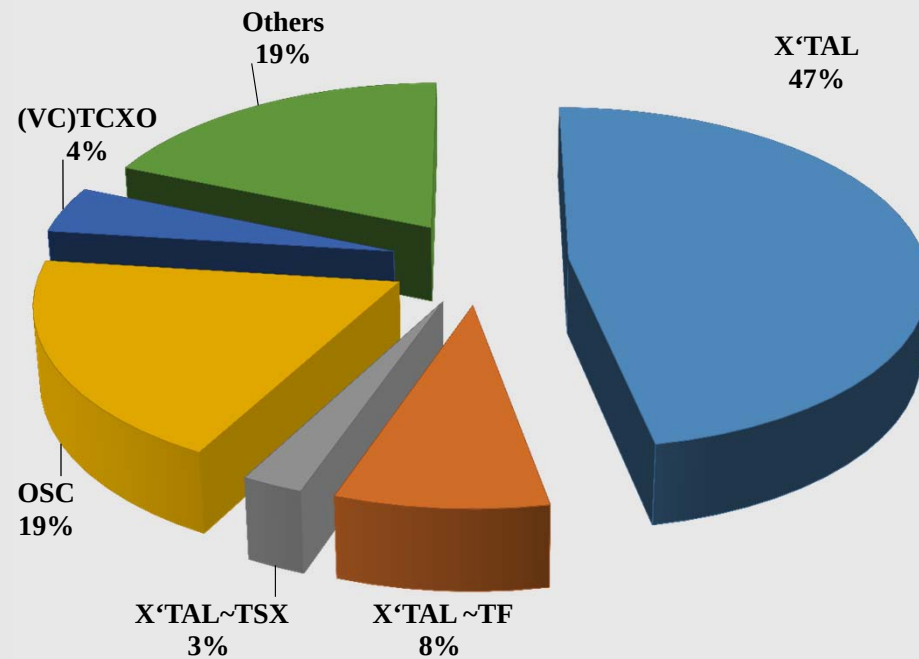


2020H1 Revenue by Area

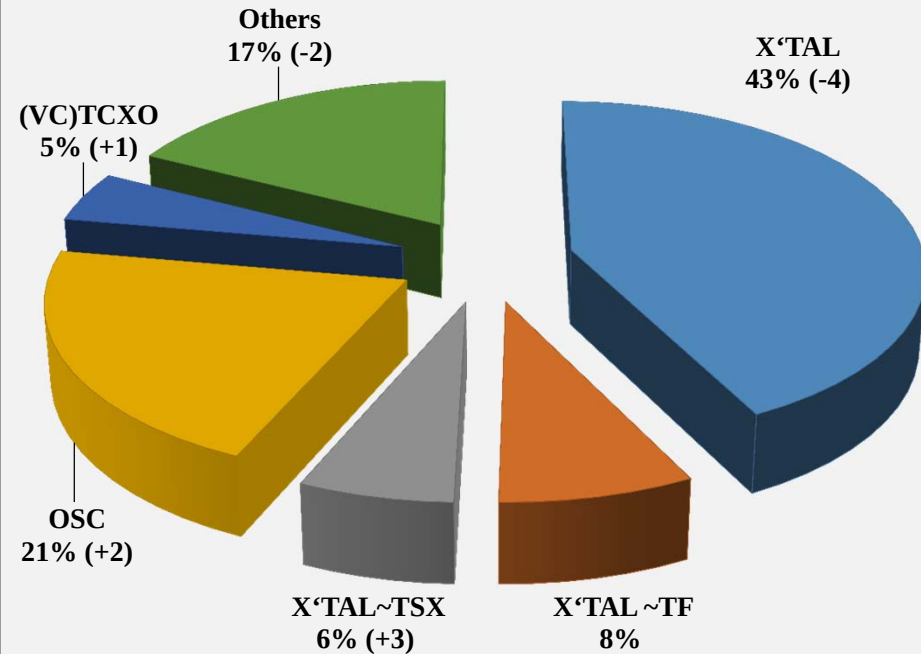


Revenue by Product Types

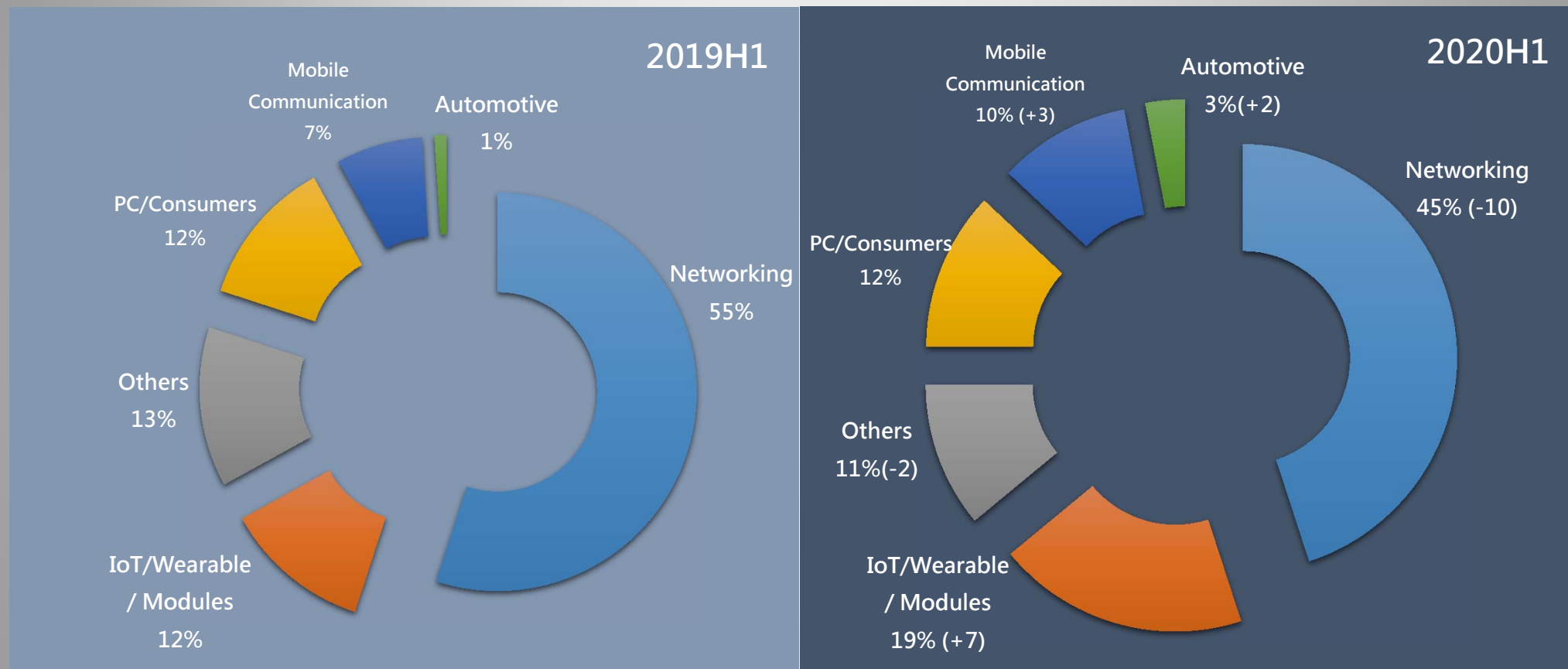
2019H1 Revenue by Product Types



2020H1 Revenue by Product Types



Revenue by Market Segments



- **Market Trend**
X' tal products

5G : A New Era of Communications

- Capacity Enhancement
- Massive Connectivity
- Ultra-high reliability & Low Latency

Sub-GHz
mm Wave



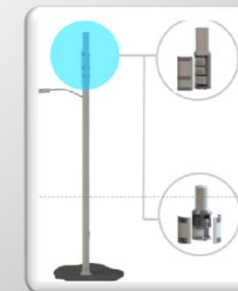
Smart Phone

Patent Confidentiality Guarantee
SIWARD



IoT

V2X



Small Cell

Communication Systems



5G/4G LTE

Small Cell / CPE

GNSS

Wearable Device

LPWAN

Crystal

1.0x0.8x0.30 mm

Thermistor

1.6x1.2x0.65 mm

TCXO/VCTCXO

1.6x1.2x0.55 mm

High stability $\pm 0.1\text{ppm}$

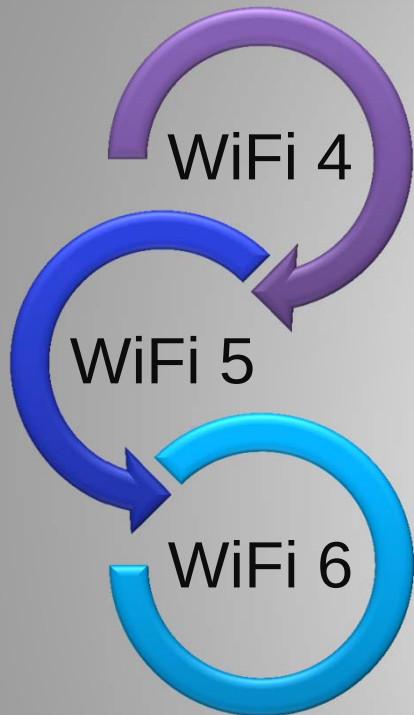
Oscillator

2.5x2.0x0.75 mm

Phase Noise $\leq -90\text{dbc/Hz}@10\text{Hz}$

Communication Systems

Communications WiFi



2.4GHz or 5GHz
Speed 288Mbit/s on 20 MHz
Speed 600Mbit/s on 40MHz



5GHz
Speed 3.47Mbit/s on 160MHz



2.4GHz or 5GHz
Target Wake Time (TWT)
OFDMA



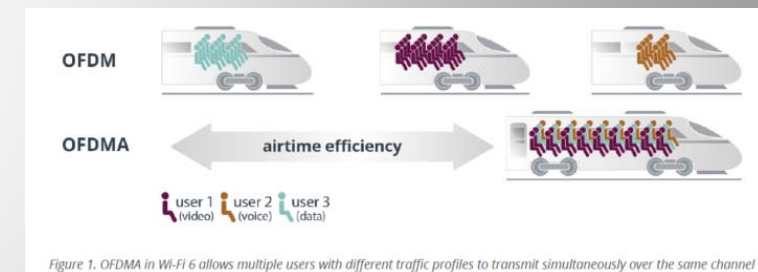
Crystal

1.0x0.8x0.30 mm

Oscillator

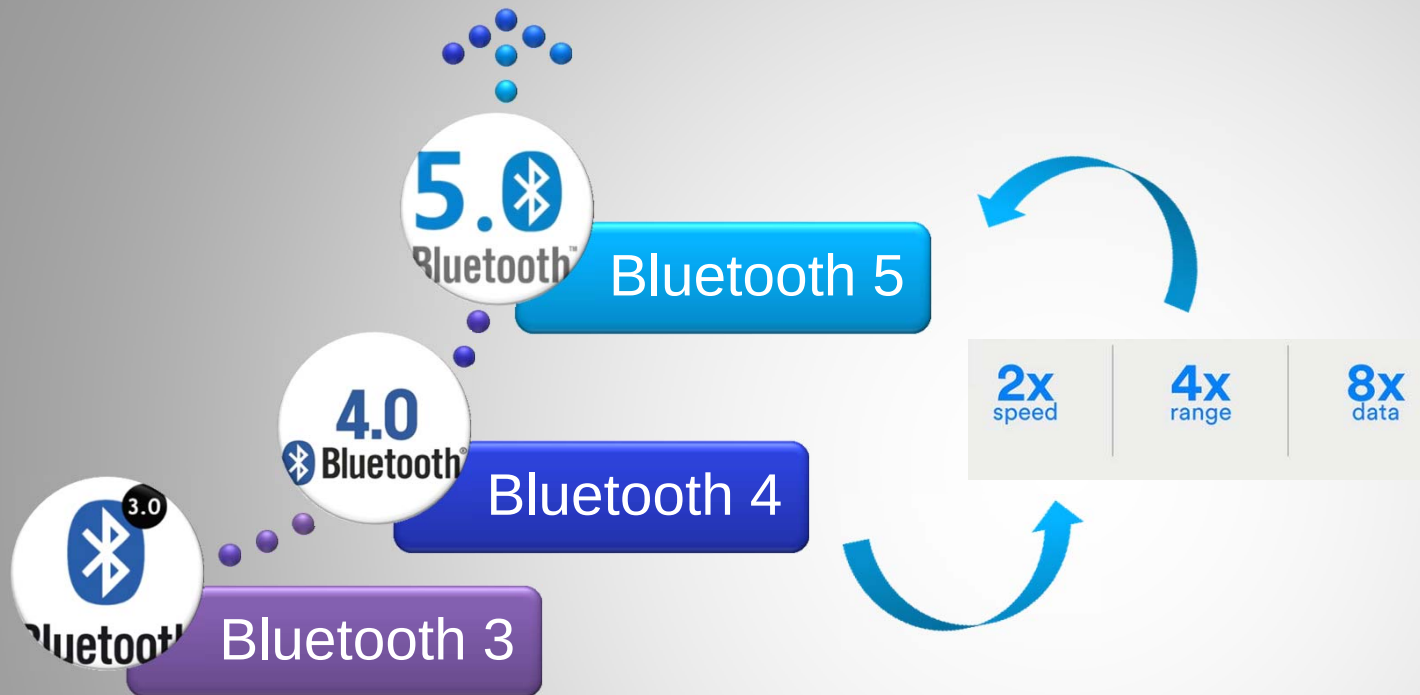
2.5x2.0x0.75 mm

Phase Noise $\leq -90\text{dbc/Hz}@10\text{Hz}$



Communication Systems

Communications Bluetooth



Crystal

1.0x0.8x0.30 mm

Oscillator

2.5x2.0x0.75 mm

Phase Noise $\leq -90\text{dbc/Hz}@10\text{Hz}$

Communication Systems

Smart Home



Smart TV

Smart Appliances

Streaming Devices

Smart Meters

Smart Thermostats... etc.

Crystal

1.0x0.8x0.30 mm

Thermistor

1.6x1.2x0.65 mm

Tuning Fork RTC

3.2x1.5x0.80 mm

High stability $\pm 5\text{ppm}$

Oscillator

2.5x2.0x0.75 mm

Phase Noise $\leq -90\text{dbc/Hz}@10\text{Hz}$

Smart Home;
Smart Control

Automotive (IATF16949)



Infotainment,
Navigation

Anti-glare Rearview
Mirror



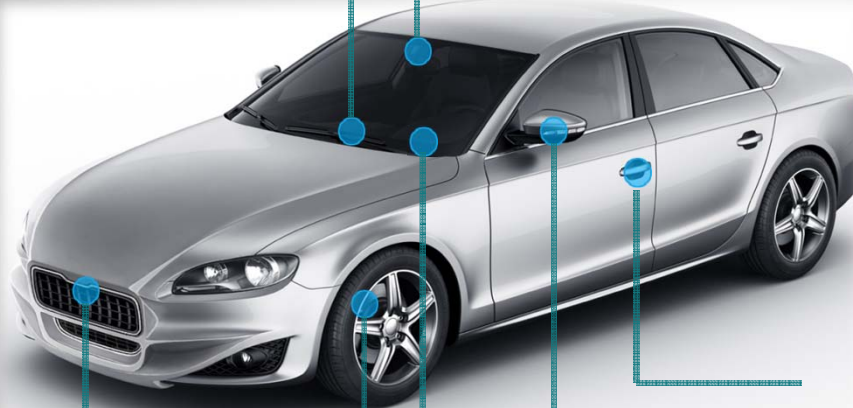
TPMS



Keyless



Radar



Smart Key

Blind Spot Detection

Cluster

Tire Pressure Monitoring
System

Adaptive Cruise
Control

Crystal (AEC Q200)

1.6x1.2x0.50 mm

Tuning Fork (AEC Q200)

2.0x1.2x0.60 mm

TCXO (AEC Q100)

Temperature Range -40~+105°C

High stability $\pm 0.5\text{ppm}$

Oscillator (AEC Q200)

2.5x2.0x0.75 mm

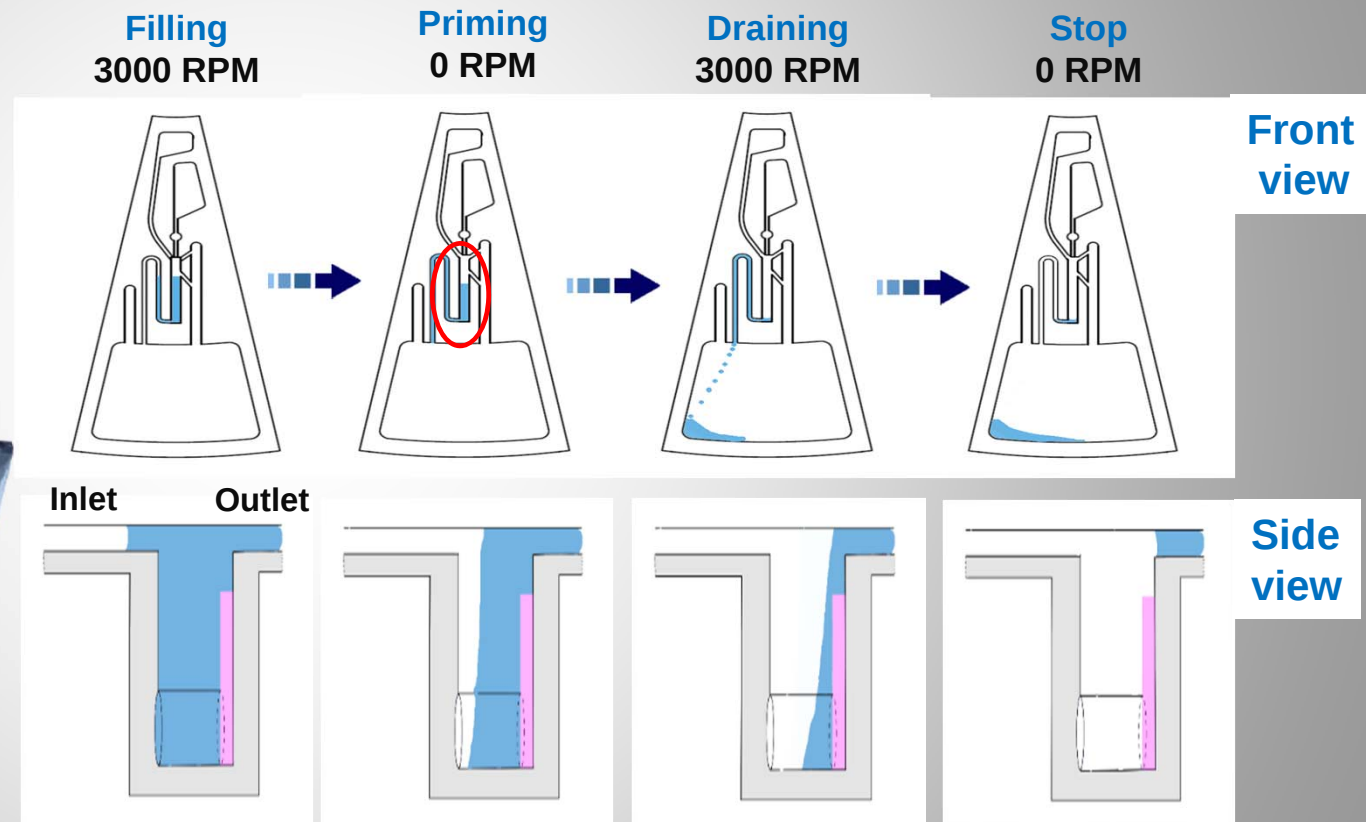
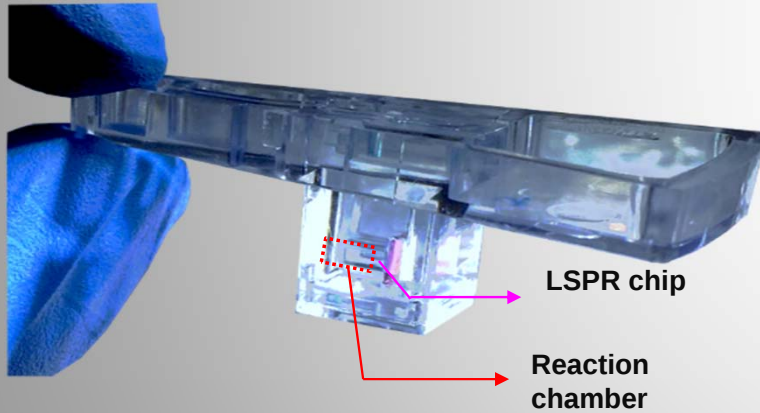
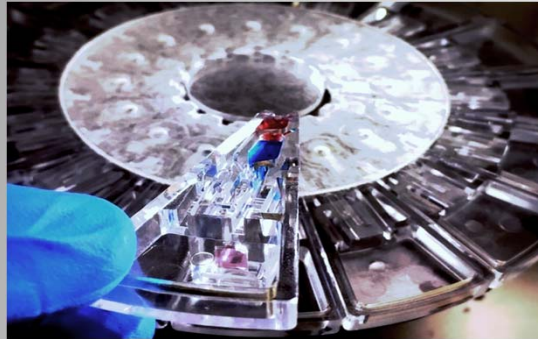
Phase Noise $\leq -90\text{dbc/Hz}@10\text{Hz}$

Automotive

- **Developing**
IVD products

Automated microfluidic fast screening detection technology

16 pieces
/cycle



Automated Centrifugal immunoassay & microfluidic chip

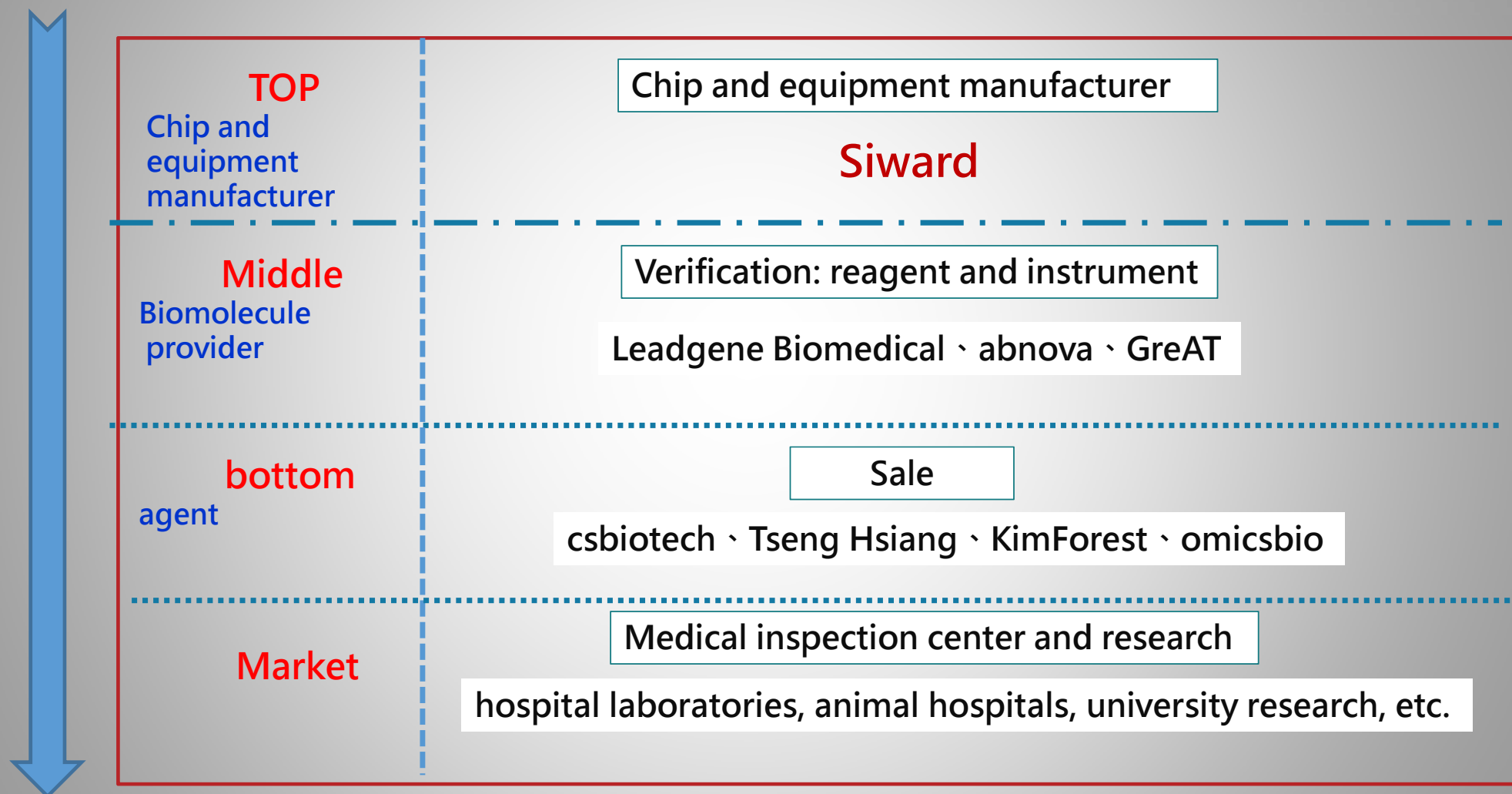


- **Application:**
- Pets: endocrine, **thyroxine T4, rapid quantitative detection.**
- Human : nephrotoxicity (urinary toxin); indoxyl sulfate (IS), rapid quantitative detection.

Technologies for the detection of viral infections (Taiwan companies)

Manufacturers.	SIWARD	Company A	Company B
Detection technology.	Microfluidic fast screening	Microfluidic	lateral flow immunoassay
Target type	Antigen antibodies, small molecule detection.	Antibody antigen testing.	Antibody antigen testing.
Detection time.	30 minutes.	12 minutes.	15 minutes.
efficiency (16 hour.)	512 test .	192 test.	-----
Equipment costs.	Low.	Medium.	No.
Advantages.	Automated and fast, removable.	Automated and fast, removable.	The detection is quick.
Disadvantages.	The price is expensive than LFA.	The detection number is low.	Poor sensitivity.

Chip sales



- **Q&A**
Investor Conference

Thank You
for your attention!

www.siward.com

