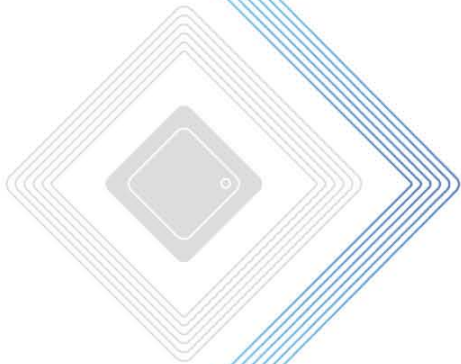




RichWave

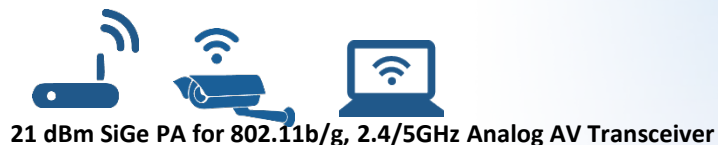
- We make things connected

March 2016

Company Overview

- A leading & innovative wireless RF IC design company
- Founded: January 2004
- Listed in TSE: November 2015
- Capital: NT\$499 millions
- Products Evolution:

2005~2007



21 dBm SiGe PA for 802.11b/g, 2.4/5GHz Analog AV Transceiver

2008~2011



WiFi Switch, GaAs HPA, FEM for 802.11b/g/n, 2.4GHz Digital FM Transceiver, SoC for MP4 Video Codec

2012~2016



WiFi FEM, PA, Switch, LNA for 802.11ac, LTE SW& LNA in Cellular 3G/4G, Femto, Surveillance Transceiver, Digital FM/AM Tuner

Shenzhen

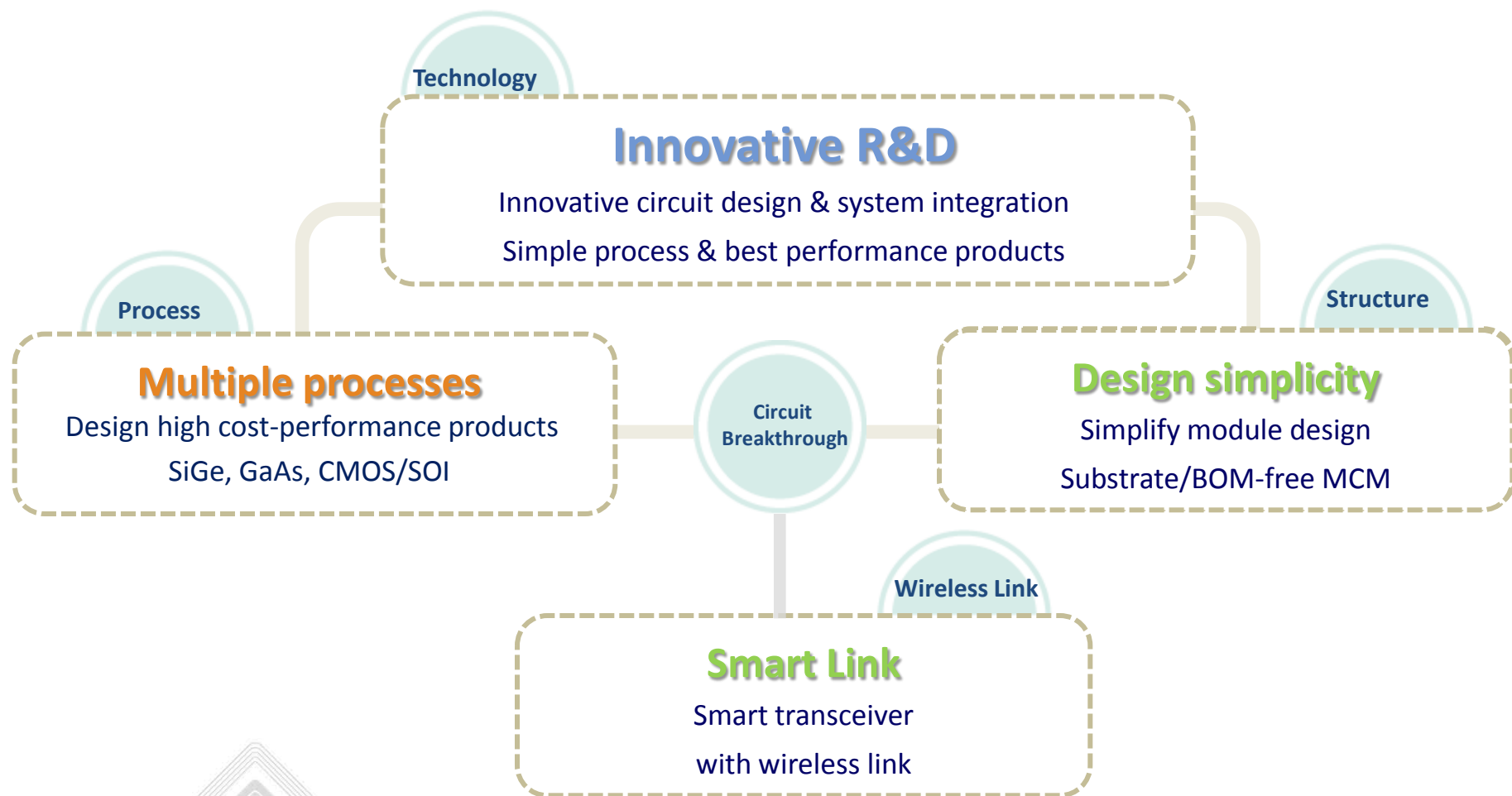
Chupei

Taipei

Shanghai

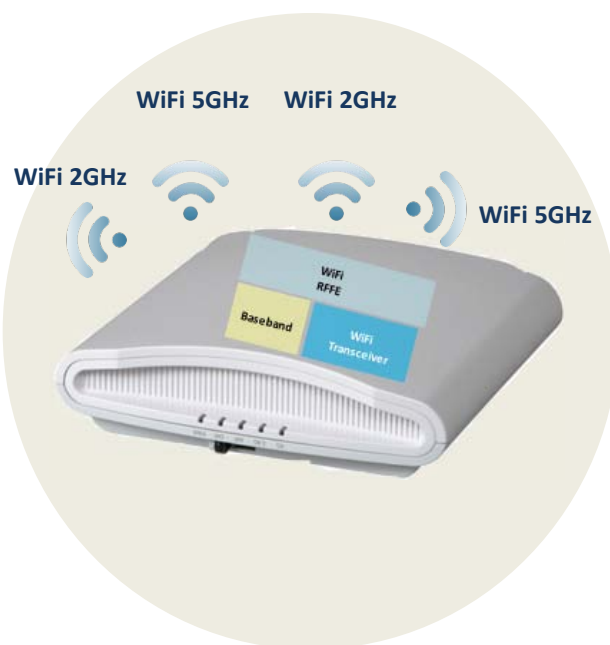
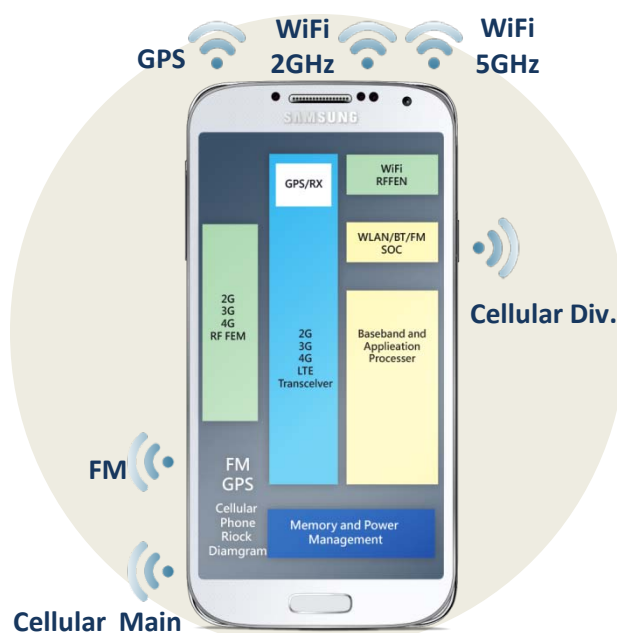
Suwon

Differentiation & Innovation

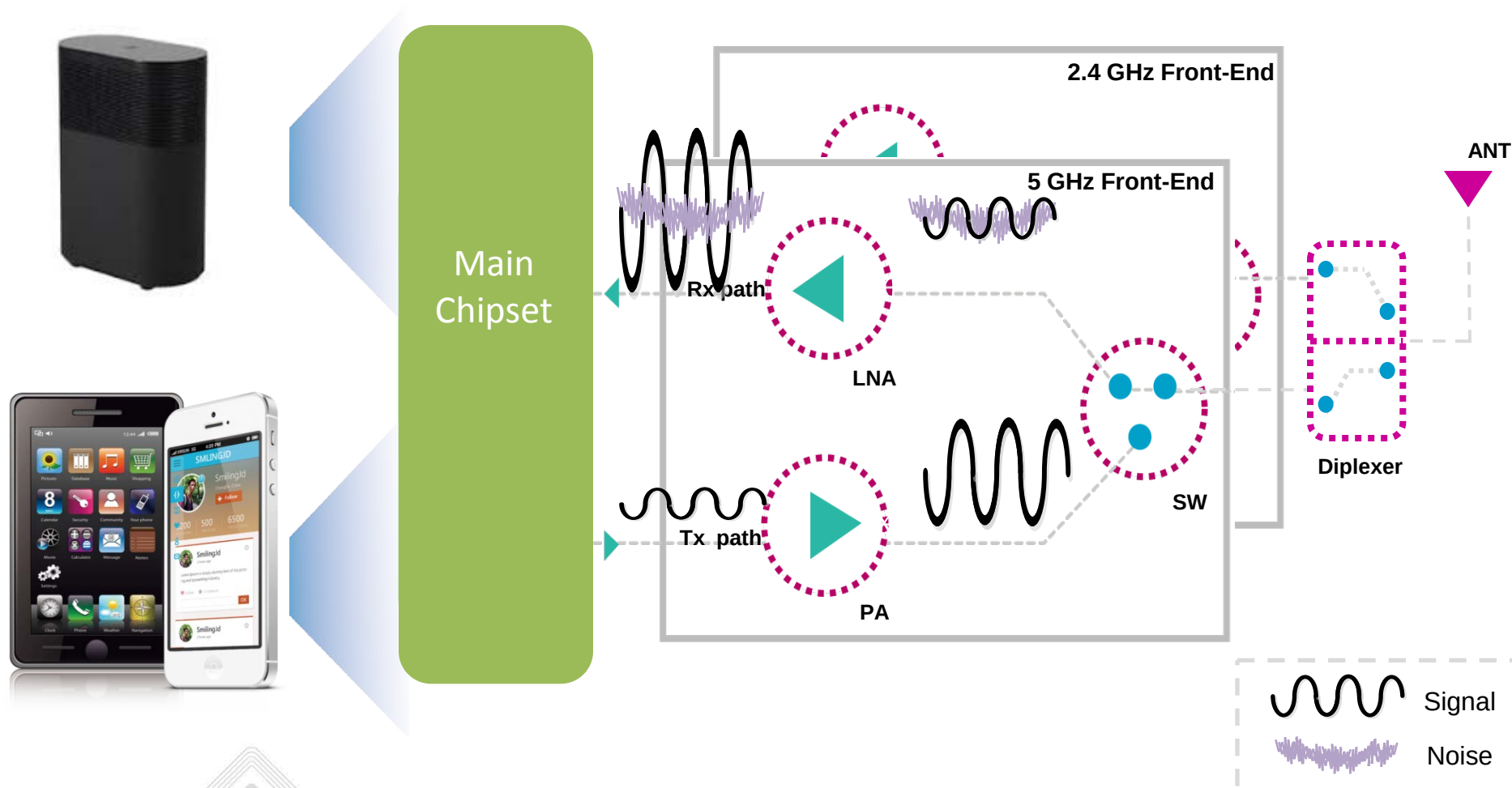


RF Specialize in WiFi, Mobile & IOT

RichWave complete RF components,
including RFFE(PA, LNA,SW, and FEM, LTE SW, FM,...etc.).

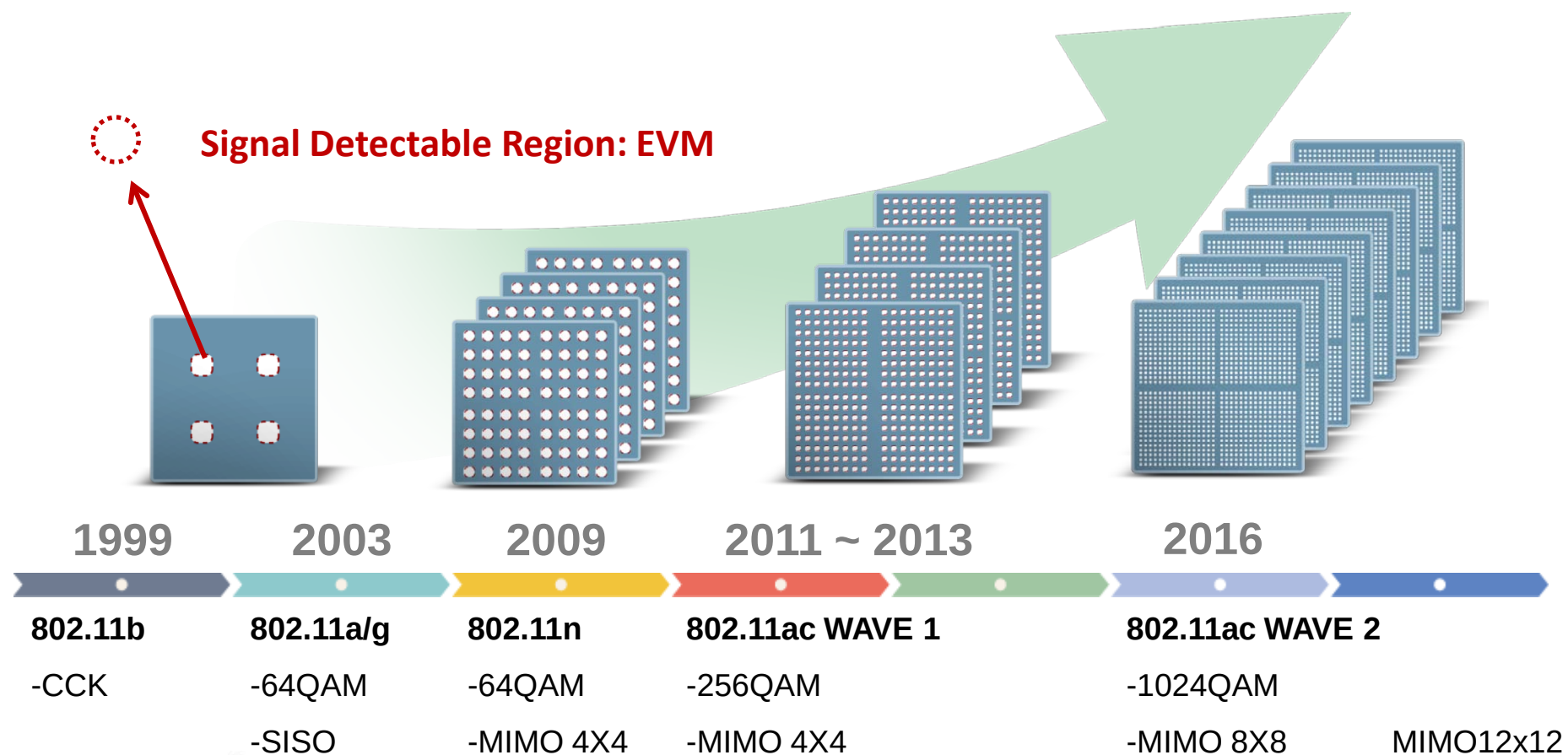


RF parts and its Criticalness in WiFi Front-End



Surge Demand on Throughput

- Driven the complexity in technology



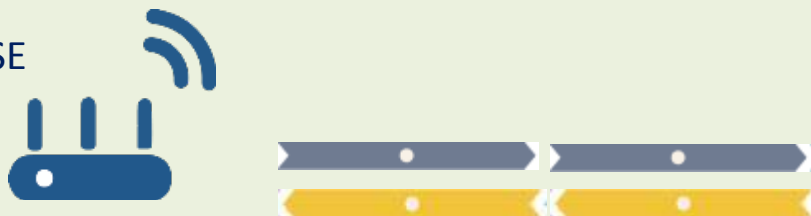
Multiple Coverage Range Needed

- Affect Design Difficulty, Transmit and Receive

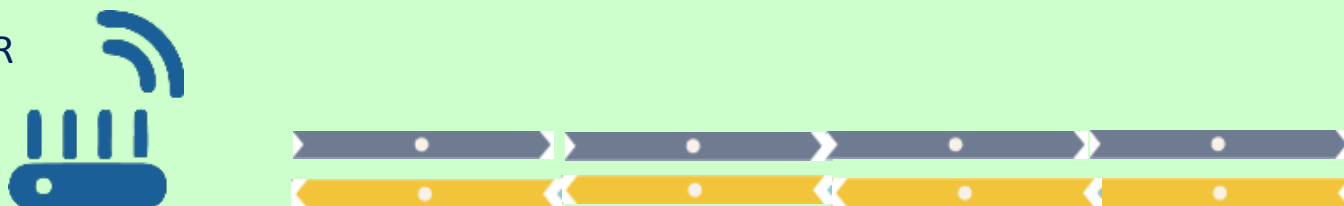
CONSUMER



ENTERPRISE



OUTDOOR



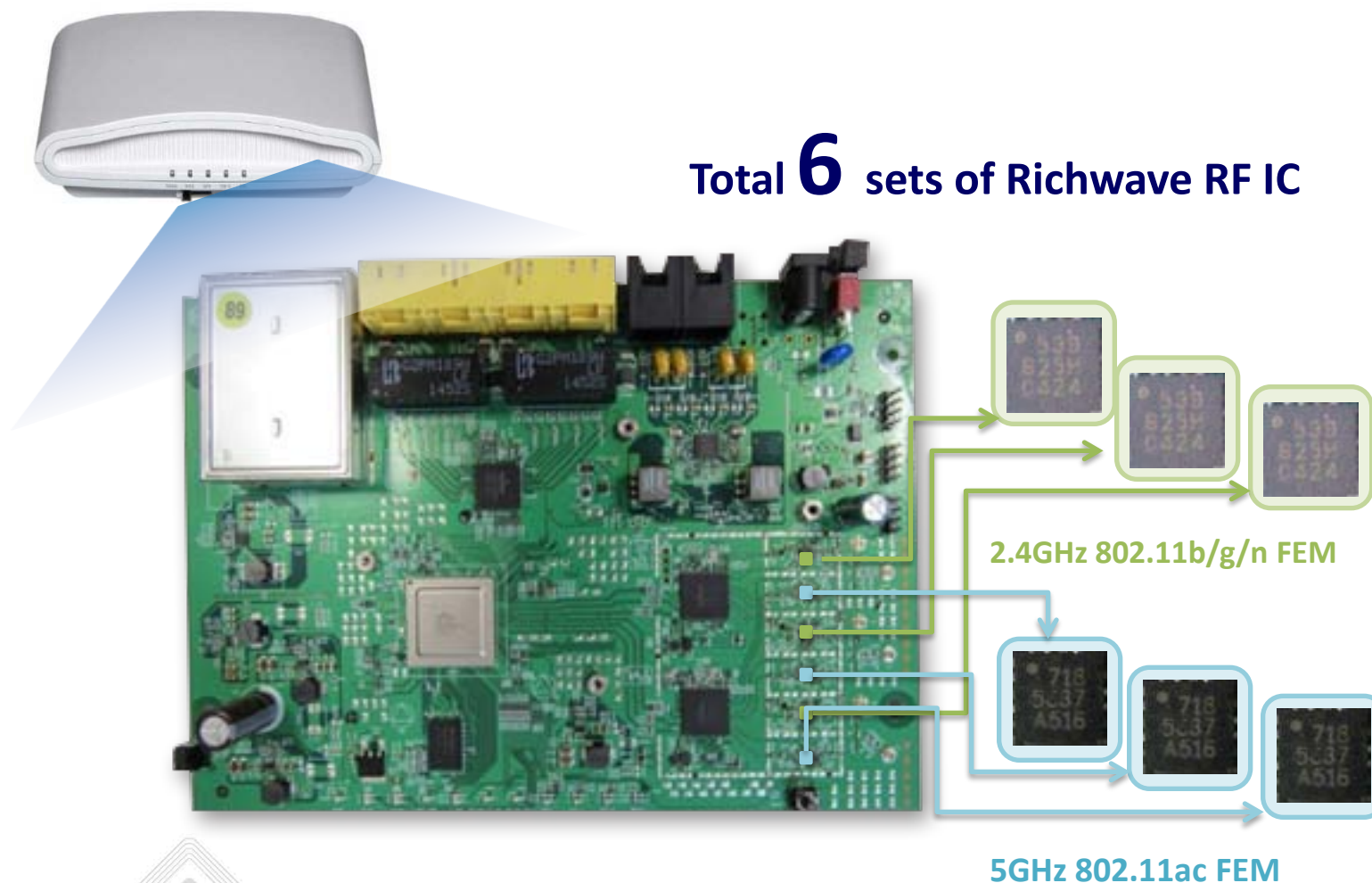
Requested Transmit Signal Strength (PA)

Requested Sensitivity on Receive Signal (LNA)

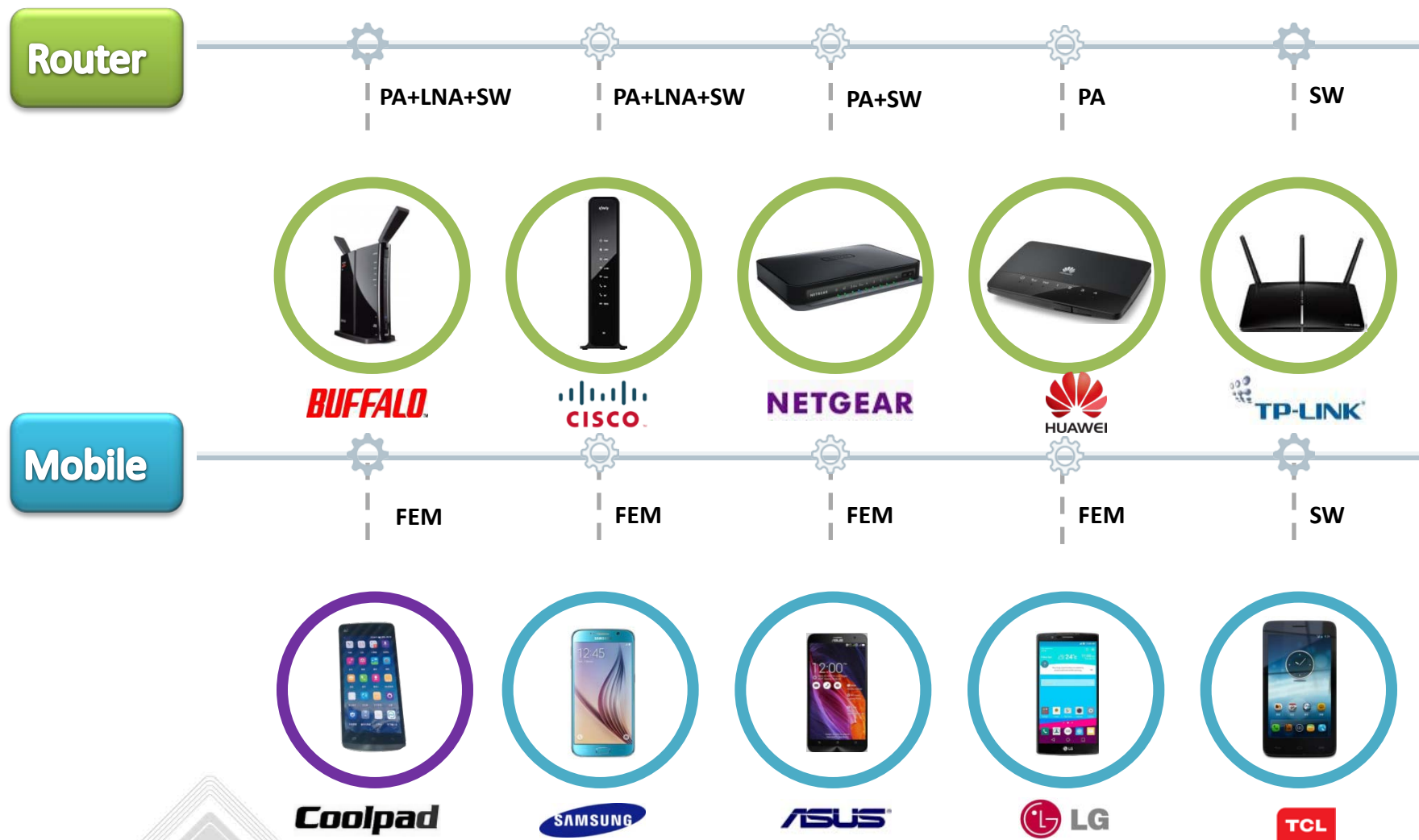


A 3x3 WiFi Router Example

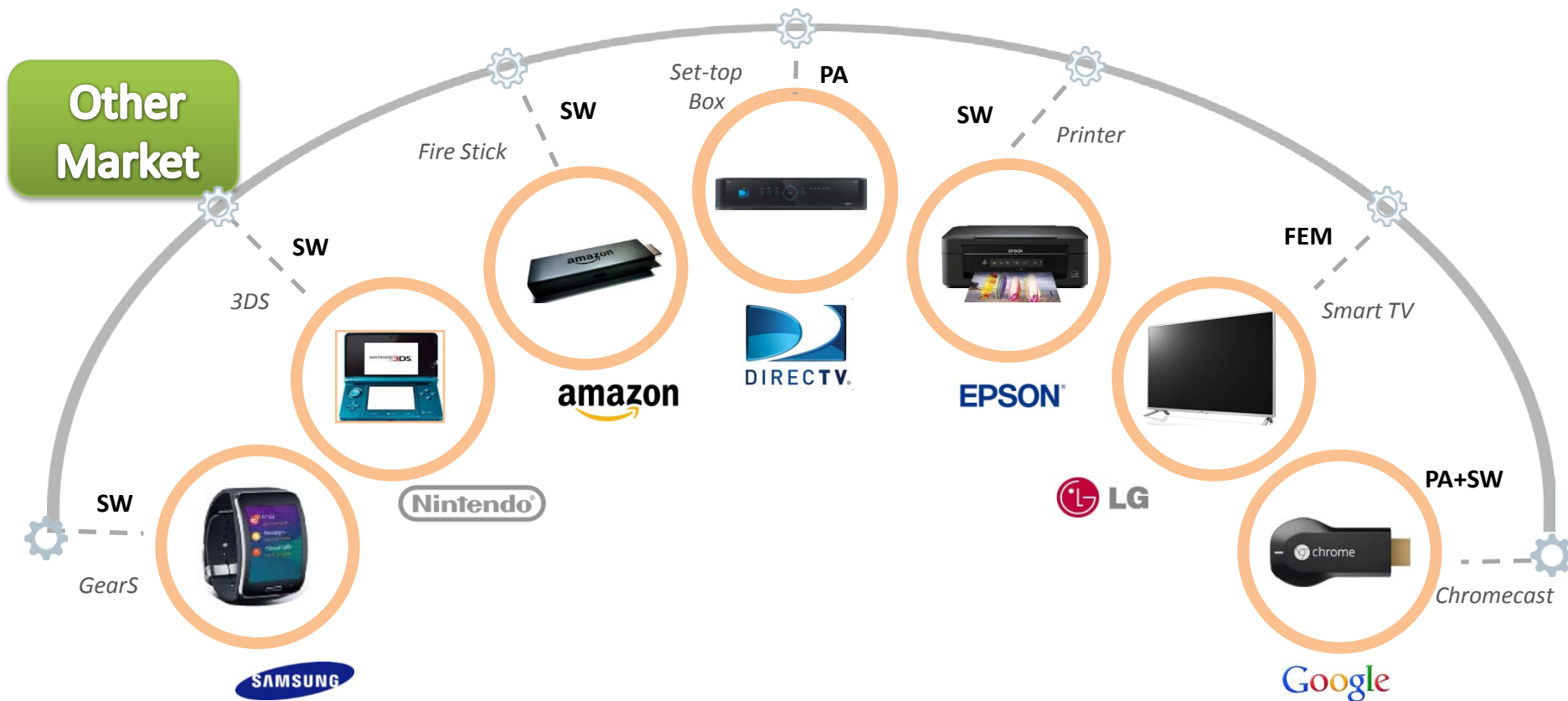
Total **6** sets of Richwave RF IC



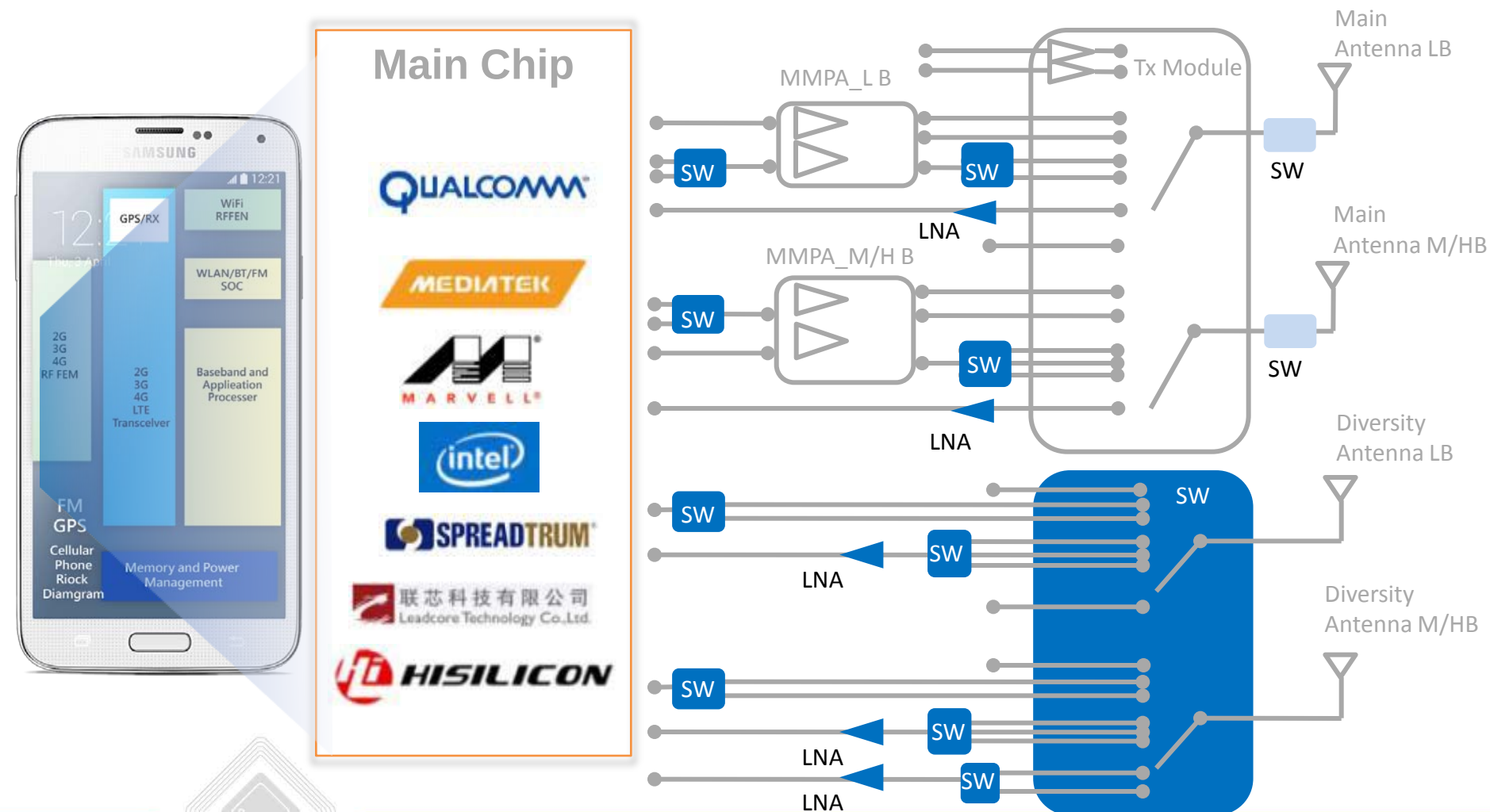
WiFi Applications with RichWave



WiFi Applications with RichWave



RF Parts and its Criticalness in Cellular Front-End (CA Example)



Mobile Applications with RichWave



Smart Home & IOT Applications



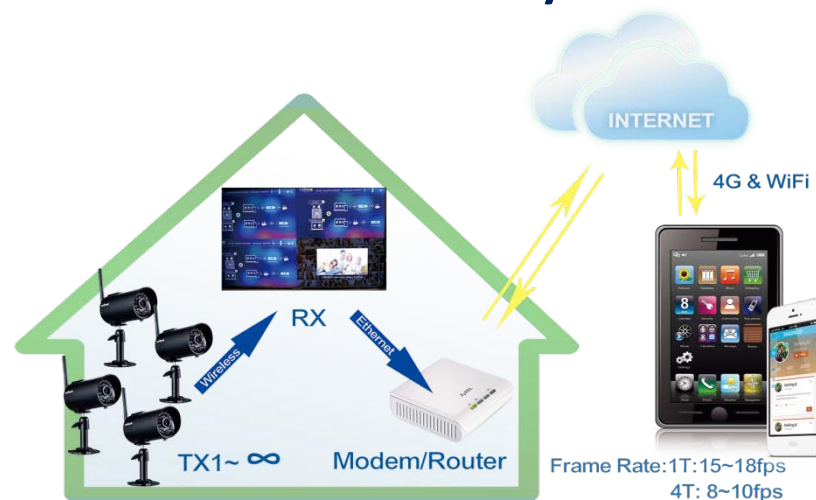
FM and AM Broadcasting



Wireless Drone System

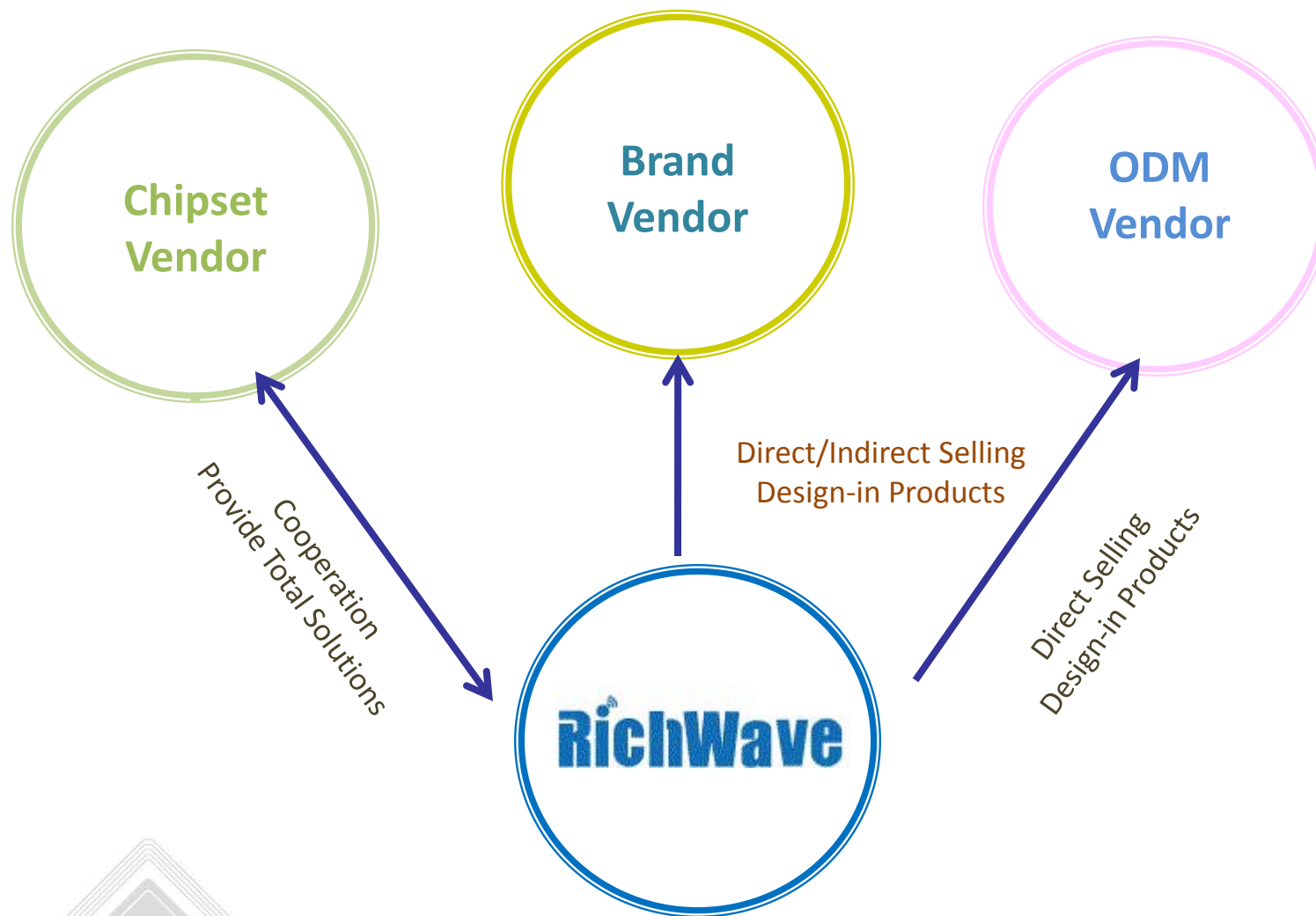


Wireless Parking Assist System



Smart Home & Surveillance

Sales Model with Clients



3rd Party Collaboration Partners

CHINA

MORNINGSTAR®

SPREADTRUM

LEADCORE
联芯科技

UNITED STATES

LANTIQ

Quantenna
Communications

MARVELL®

BROADCOM.

Qualcomm
ATHEROS

MI

intel®

TAIWAN

Ralink



REALTEK

MEDiatek

1999

2003

2006

2009

2011

2013

2016



Financial Report

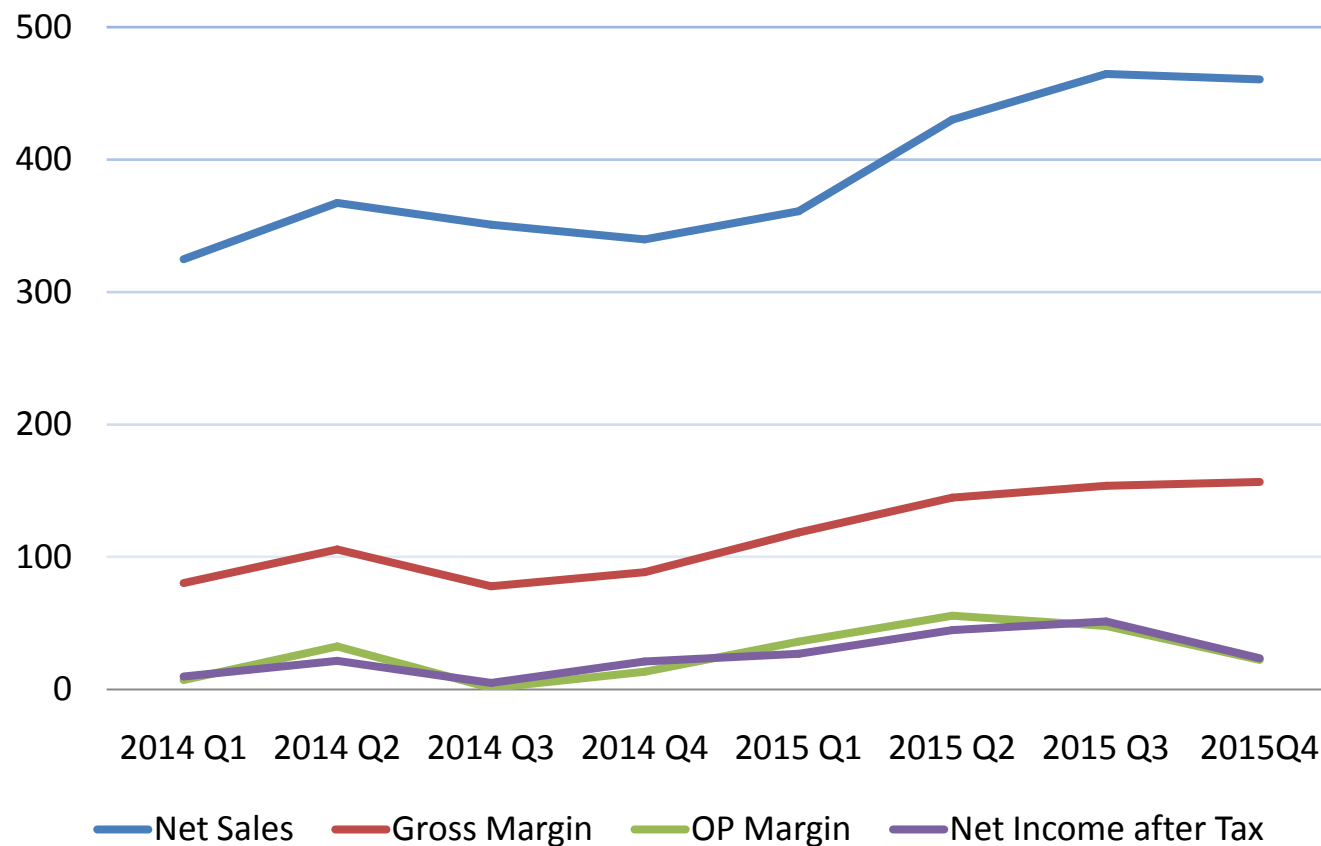
Income Statement

Amount:NT\$ MN	2015 Q4		2015 Q3		QoQ	2014 Q4		YoY
	Amount	%	Amount	%	%	Amount	%	%
Net Sales	461	100%	465	100%	-1%	340	100%	36%
Gross Margin	157	34%	154	33%	2%	88	26%	78%
Operating Expense	135	29%	106	23%	27%	75	22%	80%
Operating Profit	22	5%	48	10%	-54%	13	4%	69%
Net Income before Tax	22	5%	62	13%	-65%	25	7%	-12%
Net Income after Tax	23	5%	51	11%	-55%	21	6%	10%
EPS	0.47		1.17			0.49		



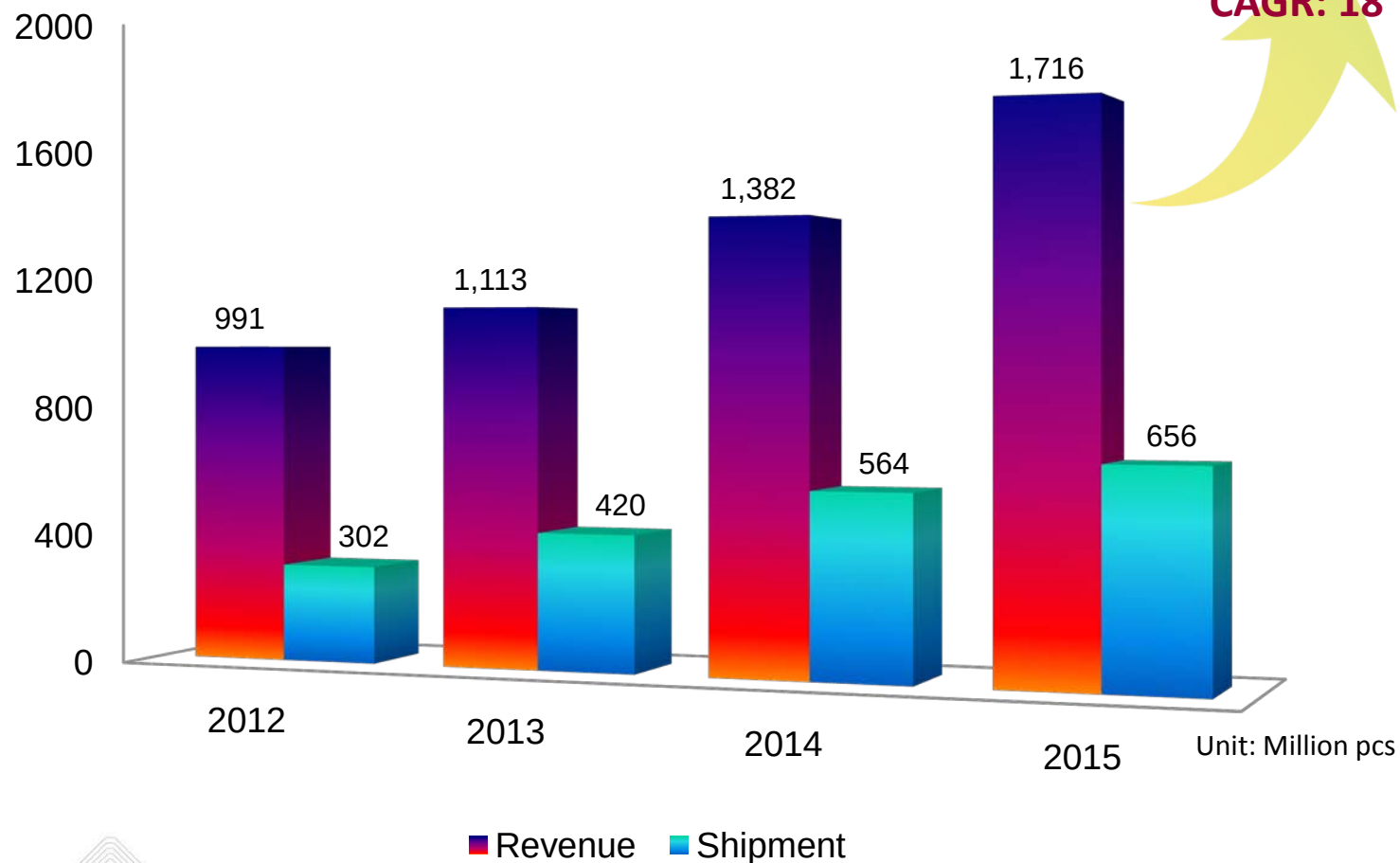
History Financial index

Amount: NT\$ MN



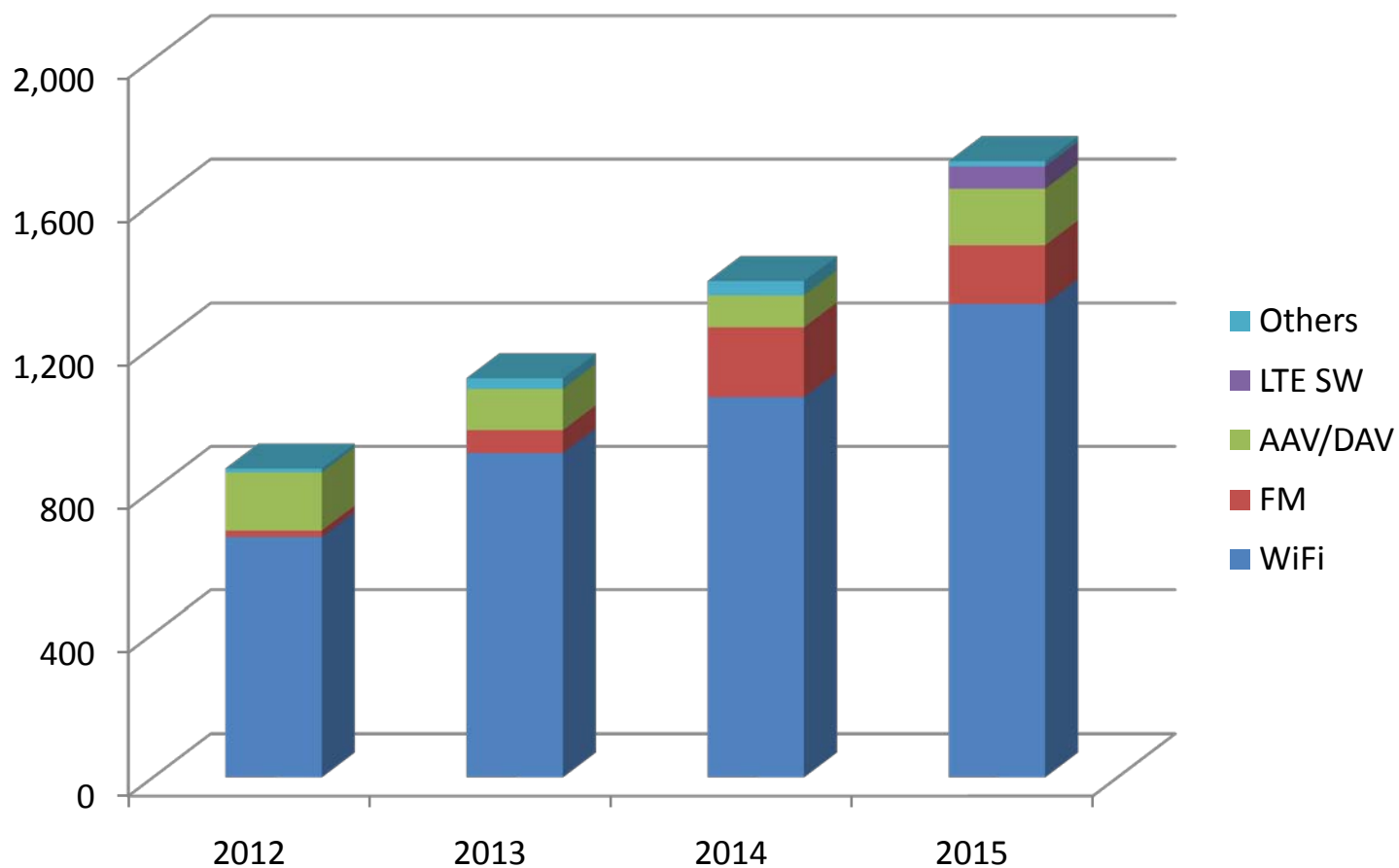
Revenue and Shipment

Unit: NT\$ Million



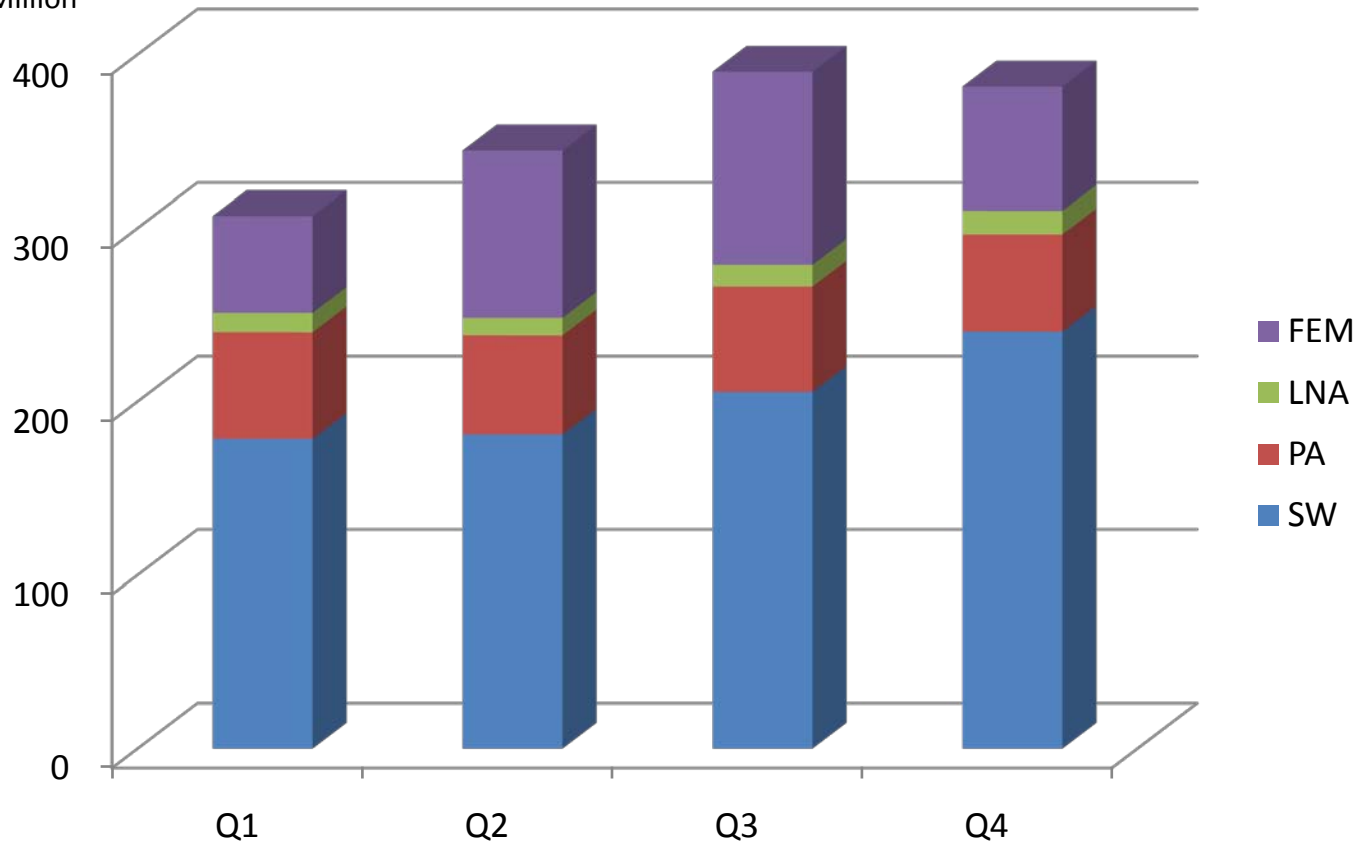
CAGR: 18~20%

Revenue by Products – 2012~2015

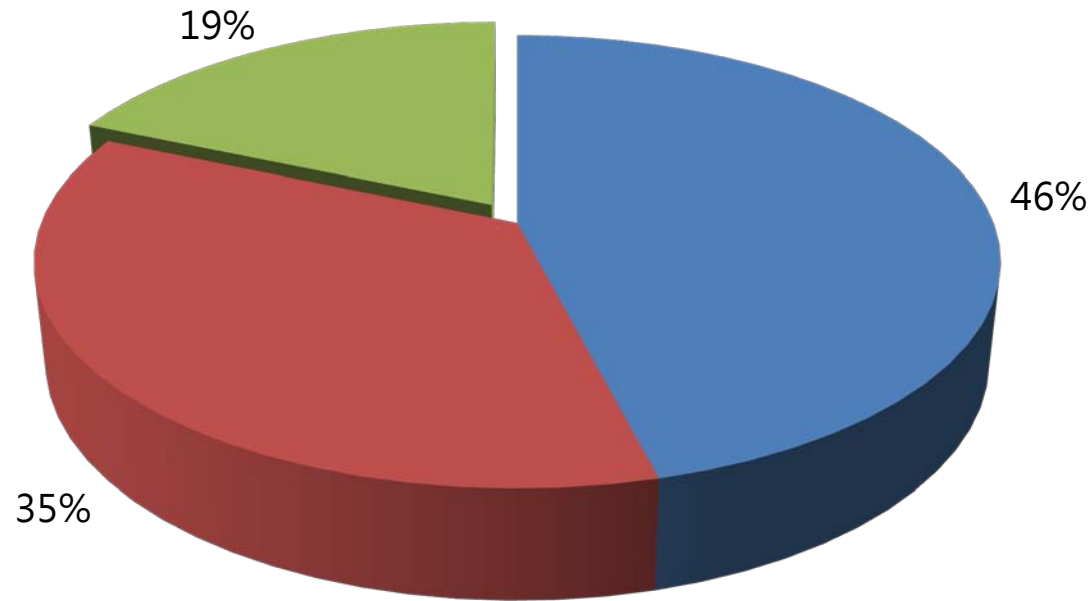


WiFi revenue by Quarterly - 2015

Unit: NT\$ Million



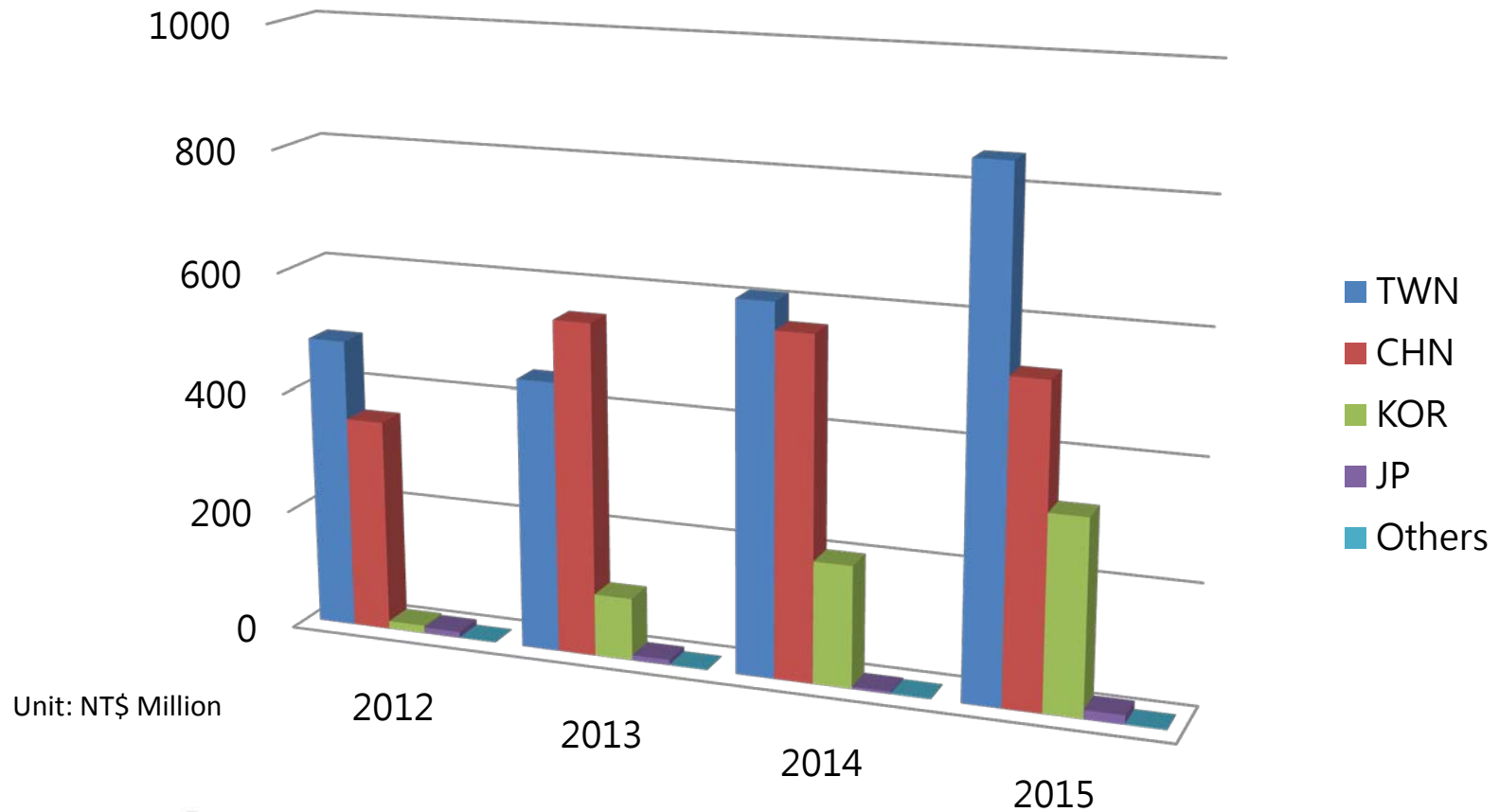
Revenue by Process

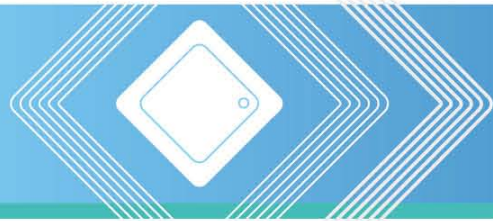


■ (Component) GaAs ■ (Component) Silicon ■ (System) CMOS



Revenue by Area - 2012~2015





RichWave