
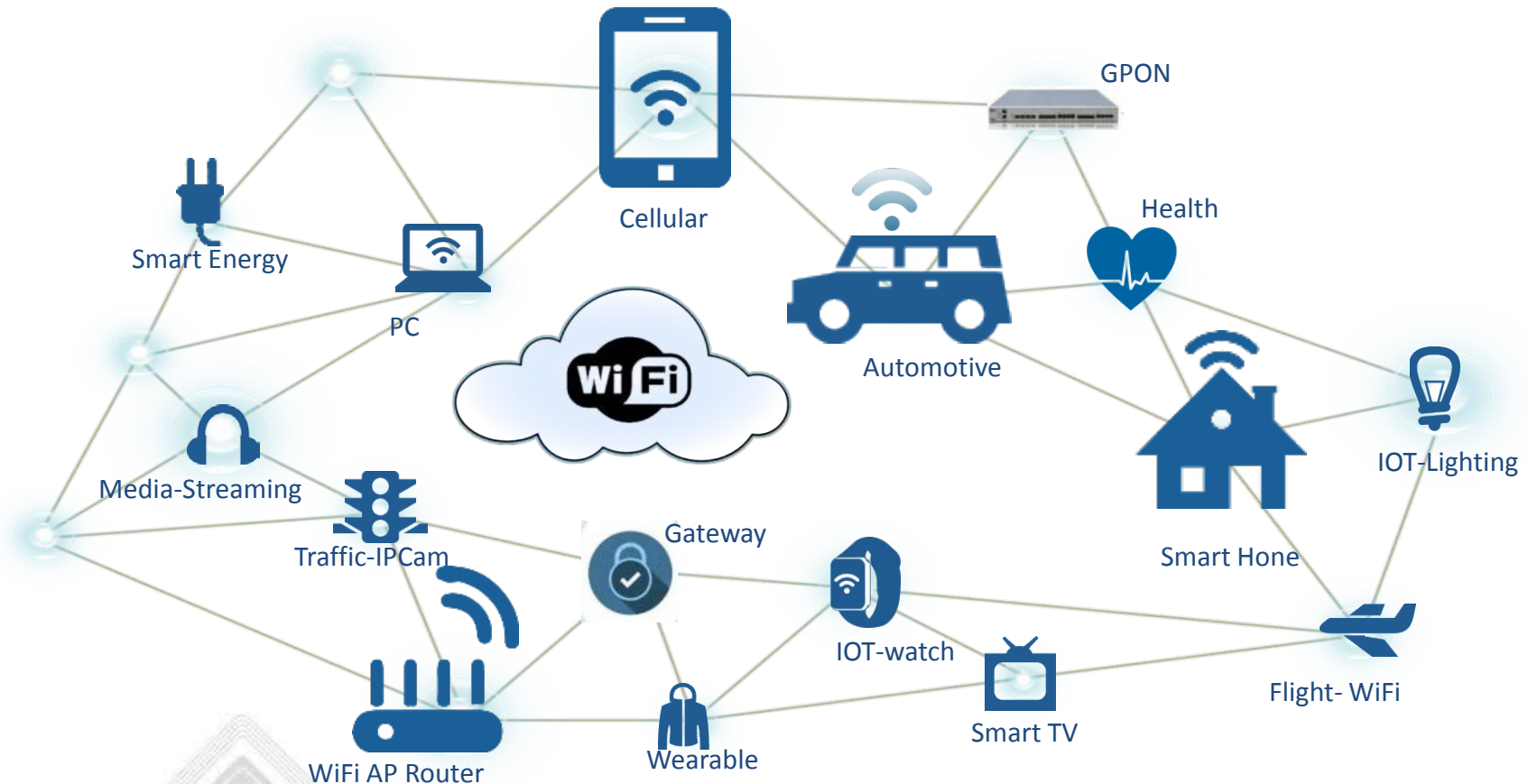


RichWave Technology Corp. 2016 Q1 Investor Conference

May 4, 2016

RF the Heart to Connectivity

- There is no limit for people looking for real time connectivity.
- RF  is the key component for all kinds of connection devices.



Market Trend for WiFi



AP- Carrier

- * Carrier need huge data throughput up to 3X3 MIMO WiFi & High-Power WiFi
- * Carrier WiFi grow by 10%/year

High Power PA
High MIMO
Low Noise Amplifier



AP- Retail

- * Home entertainment need huge data throughput
- * AC & MIMO High-Power
- * 10% growth/year

High Power PA
Mid-high MIMO
Low Noise Amplifier



Smartphone

- * Better sensitivity S/N
- * Higher power to reach AP
- * 11n => 11ac over 50% in 2016

Low Noise Amp
Switch
Optional PA

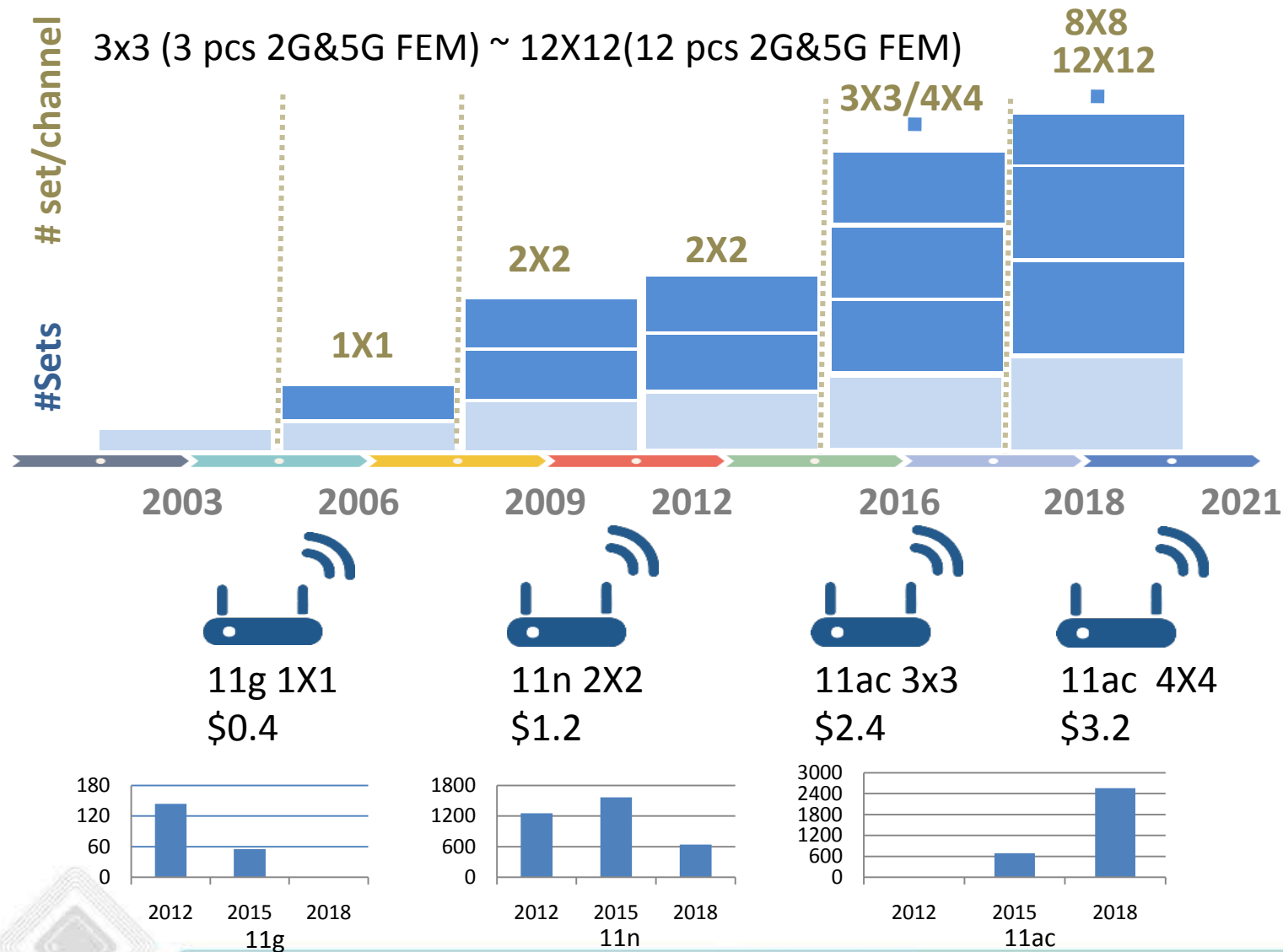


IOT&Embedded

- * High sensitivity S/N
- * Isolation
- * Various connections
- * IOT 11.5 billion in 2018

Switch
Low Noise Amplifier

WiFi MIMO Boost the Demand for RFFE



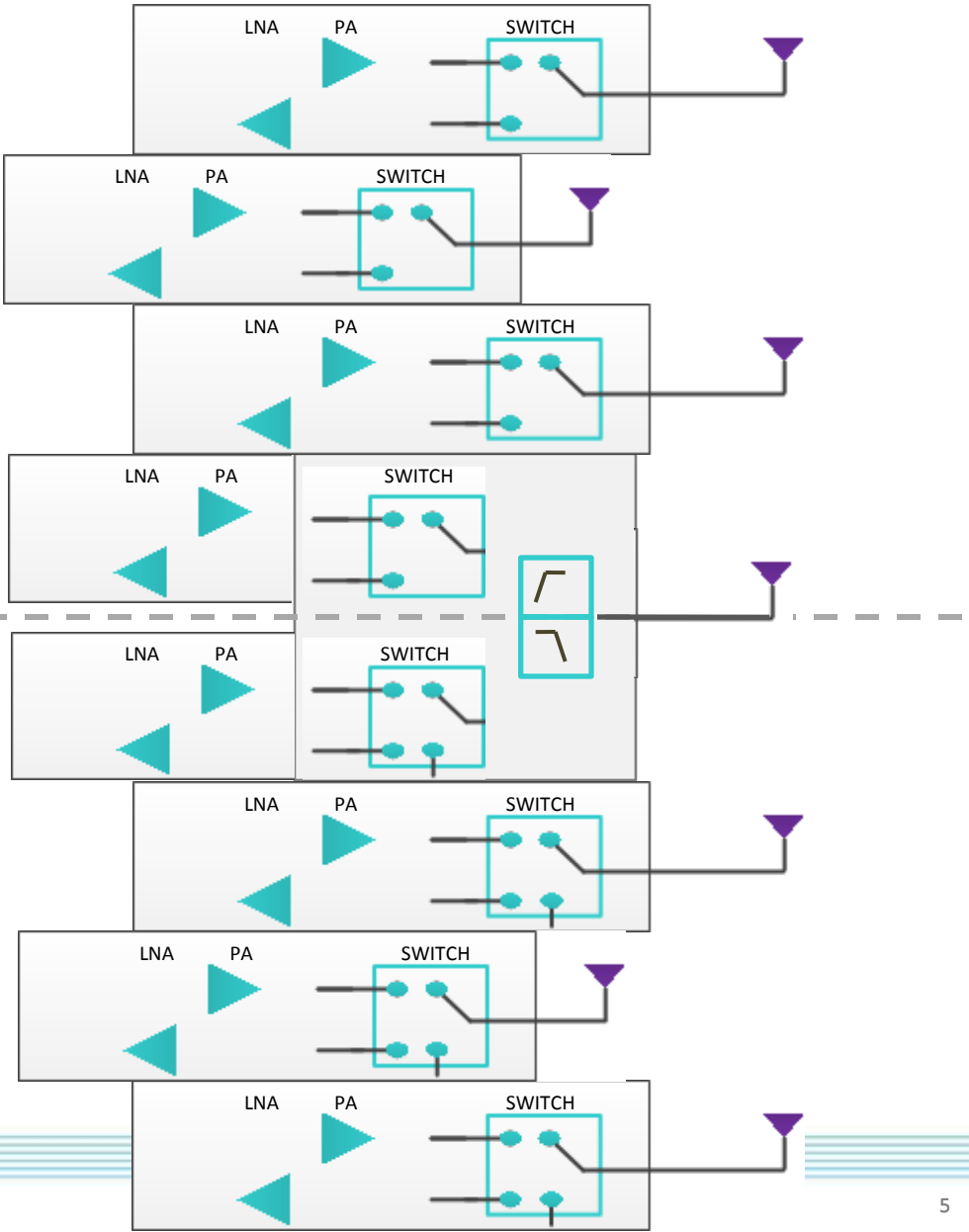
MU- MIMO Features Increase # RF Front End



Baseband Processor

Main Chipset (5GHz)

Main Chipset (2.4GHz)



Consumption Map by Applications

Output Power

Bandwidth

H

H



Video Stream

- Various Output Power and higher Output Power PA
- Wider Bandwidth require for better Sensitivity & ultra low noise, LNA is must.

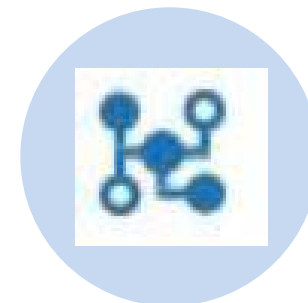


Data Connected

Set-top box



IOT



Error Vector Magnitude

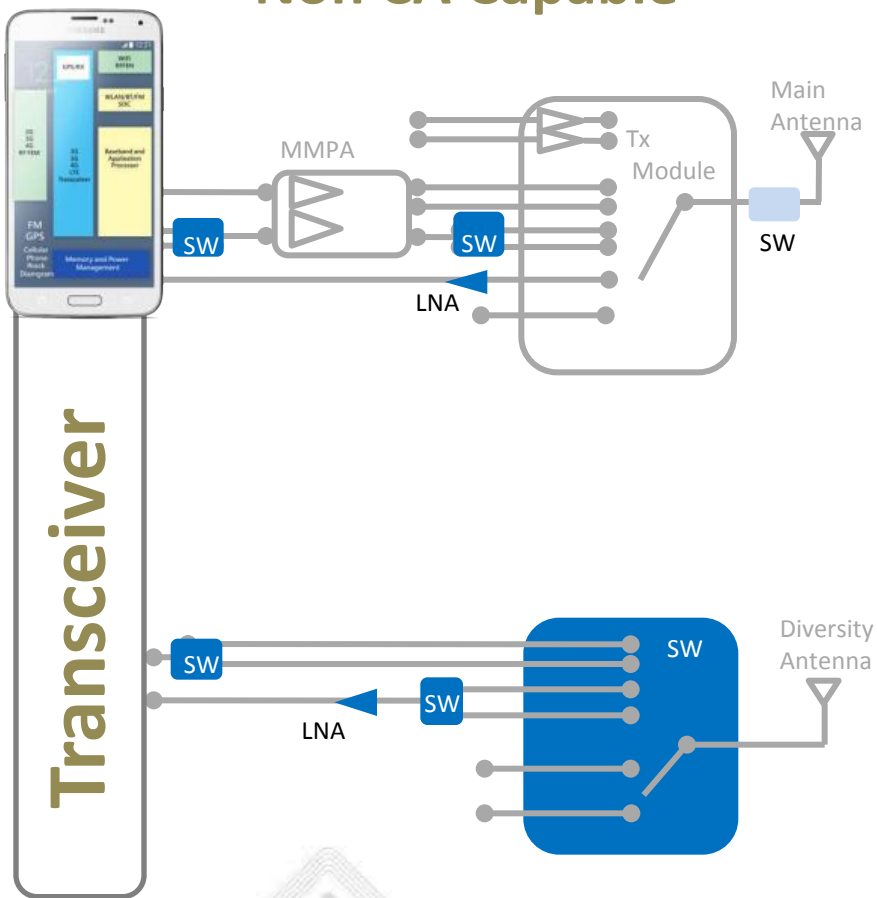
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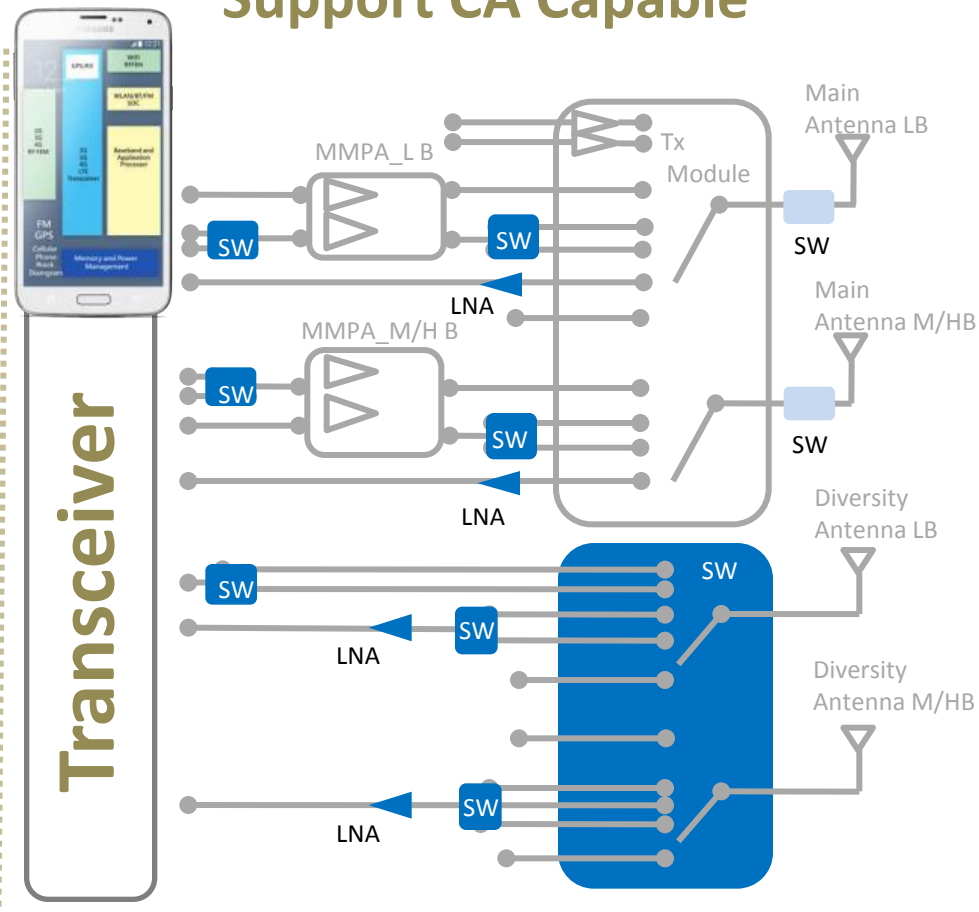
H

CA Boost the Demand for LTE RFFE Components

Non CA Capable



Support CA Capable



Rich Wave's 802.11ac RFFE Products

	PA	LNA	SW	FEM	PFEM		PA	LNA	SW	FEM	PFEM
High-Power	V		V			High-Power	V	V	V	V	
Mid-Power	V	V	V	V	V(n)	Mid-Power		V	V	V	V(ac)

- Mid-power ac FEM as entry product
- PA used mainly for 2GHz
- Customers like FEM for 5G
- PFEM (passive FEM) with low power IPA

- High power 5GHz 11ac FEM launch
- 2GHz PA may convert to FEM
- Mid-power FEM continue to be developed for Mobile/IOT
- LNA required for better sensitivity
- Passive FEM continue to play role for 11ac era

Selling

Penetrating

RichWave's LTE RFFE Products

	SW LT/MT	SW Mipi	SW HT	LNA
Main path	✓			
Diversity path	✓			

	SW LT/MT	SW Mipi	SW HT	LNA
Main path	✓	✓	✓	✓
Diversity path	✓	✓	✓	✓

- Switch LT/MT as entry
- Adopted in Diversity path & also on main path
- Successfully launched on AVL of key 3rd parties
- Successfully MP at Brand platform

- Continue on more SW
- MIPI SW
- LNA start to be designed-in

Selling

Penetrating

Strong QVL & Reference Design with Main-chip platforms

* accumulated over 70 reference designs



WiFi

Mobile phone

Femtocell

Brand Mobile Customers



Broadcasting Family

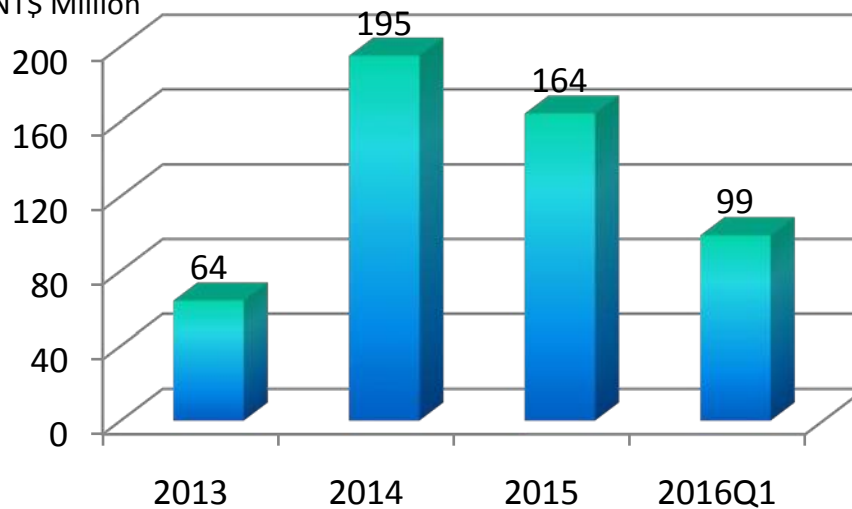
FM/FM-RDS



FM-MONO



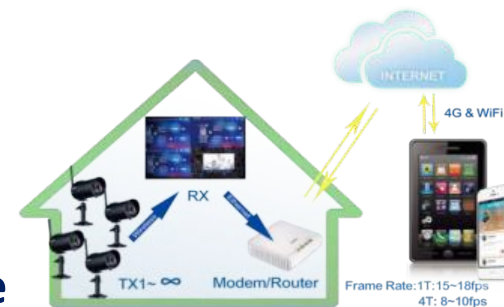
Unit: NT\$ Million



Smart Home & IOT Applications



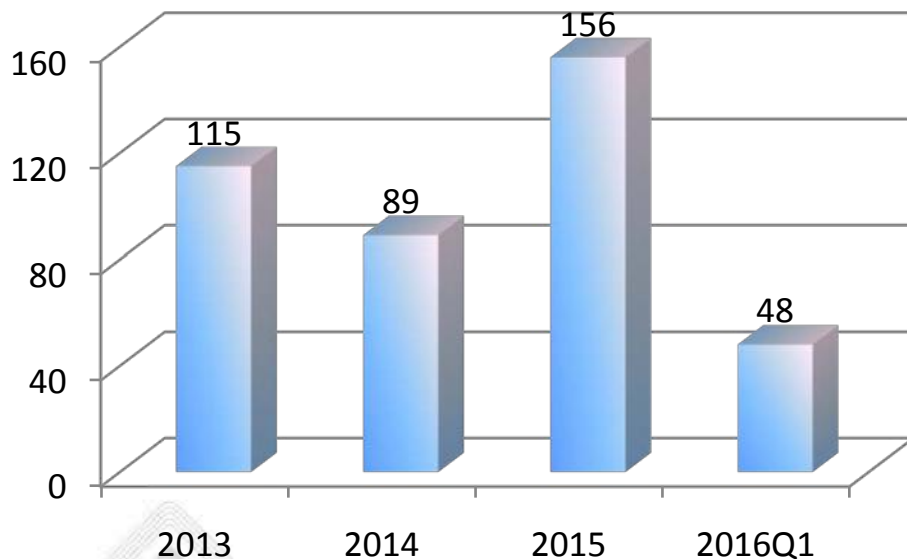
Prof. Drone/ Micro Drone



Smart Home & Surveillance

Wireless Parking Assist System

Unit: NT\$ Million





Growth Strategy & Momentum

Growth Momentum - 2016

	WiFi Carrier	WiFi AP Retail	LTE	Broadcasting	DA-AV
Main Growth Driver	<p>HP PA for AC HP FEM (3in1) for AC</p>	<p>Various Pout PA&FEM(3in1) FEM(2in1) HP FEM</p>	<p>LT/MT SW ramp up LNA penetrating</p>	<p>FM on Flagship phone ramping up</p>	<p>Car rearview Rearview-cost Drone</p>
Market Trend & Advantage	<p>FEM for easy design LNA must for sensitivity in broadband</p>	<p>Diversified Pout PA/FEM for different applications SW, PA, LNA still significant</p>	<p>Diversified LT/MT/HT SW LNA needed for sensitivity, critical for CA</p>	<p>WiFi Combo chip excluding FM FM&AM long existing</p>	<p>Latency critical Rear view keep increase Drone increase and video need special solution</p>



2016 New Successful Launches

- FM at Flagship mobile phone, and continue on more US models.
- WiFi 2-in-1 (LNA+SW) 11ac FEM at Flagship mobile phone.
- WiFi 3-in-1 (PA+LNA+SW) high power 11ac FEM for AP/router for worldwide carrier, set-top-box brands, China brands and various ODMs.
- WiFi Passive 11ac FEM (Diplexer+SW) for set-top-box and for smart TV continue to win from worldwide brands.
- WiFi switch is selected by Flagship mobile phone and for IoT.
- HP 2GHz PA continue to be selected by worldwide brands and carriers.
- LTE SW approved by Taiwan and China mobile brands and start to ramp up.



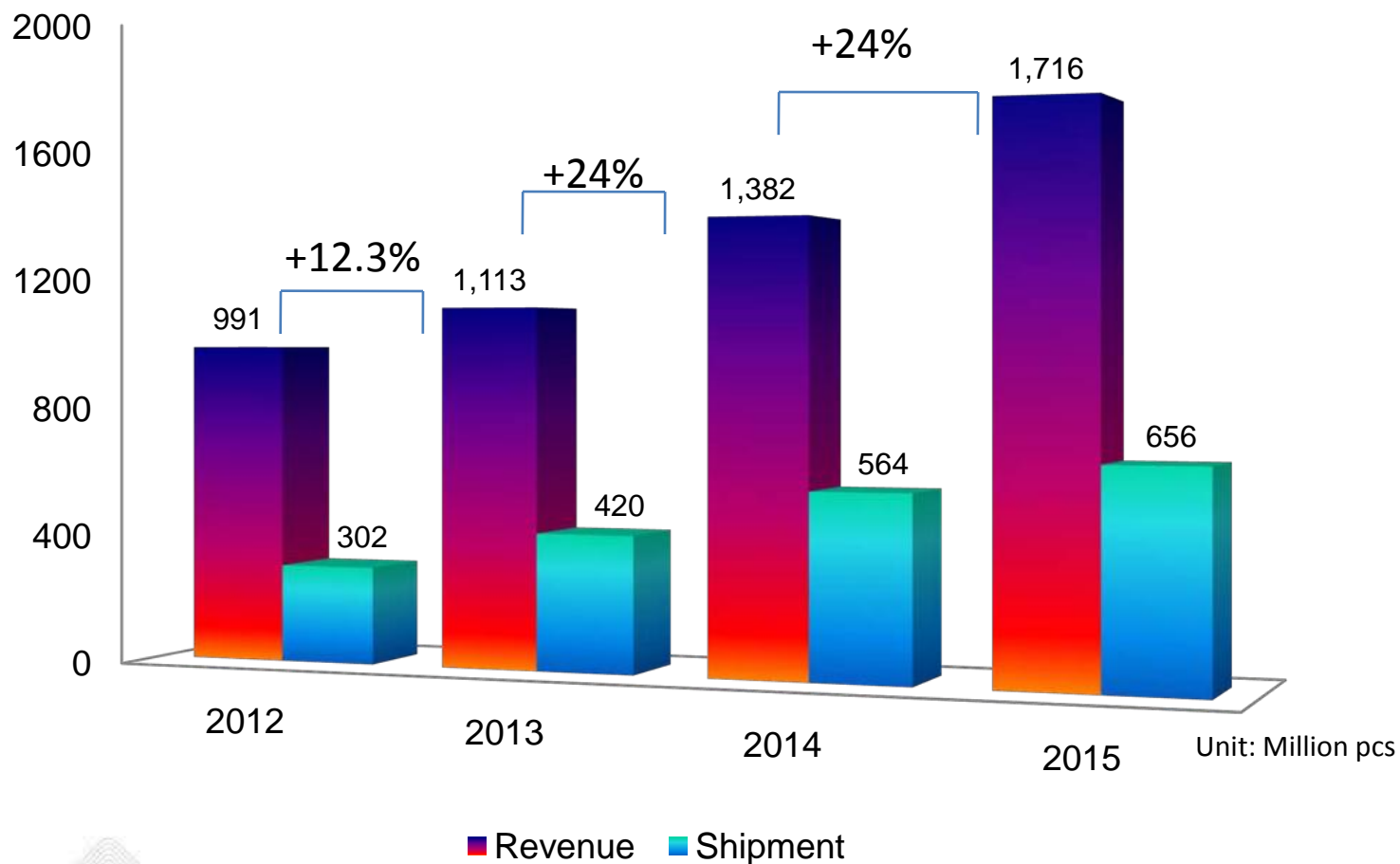
Financial Report

2016 Q1 Operation Results

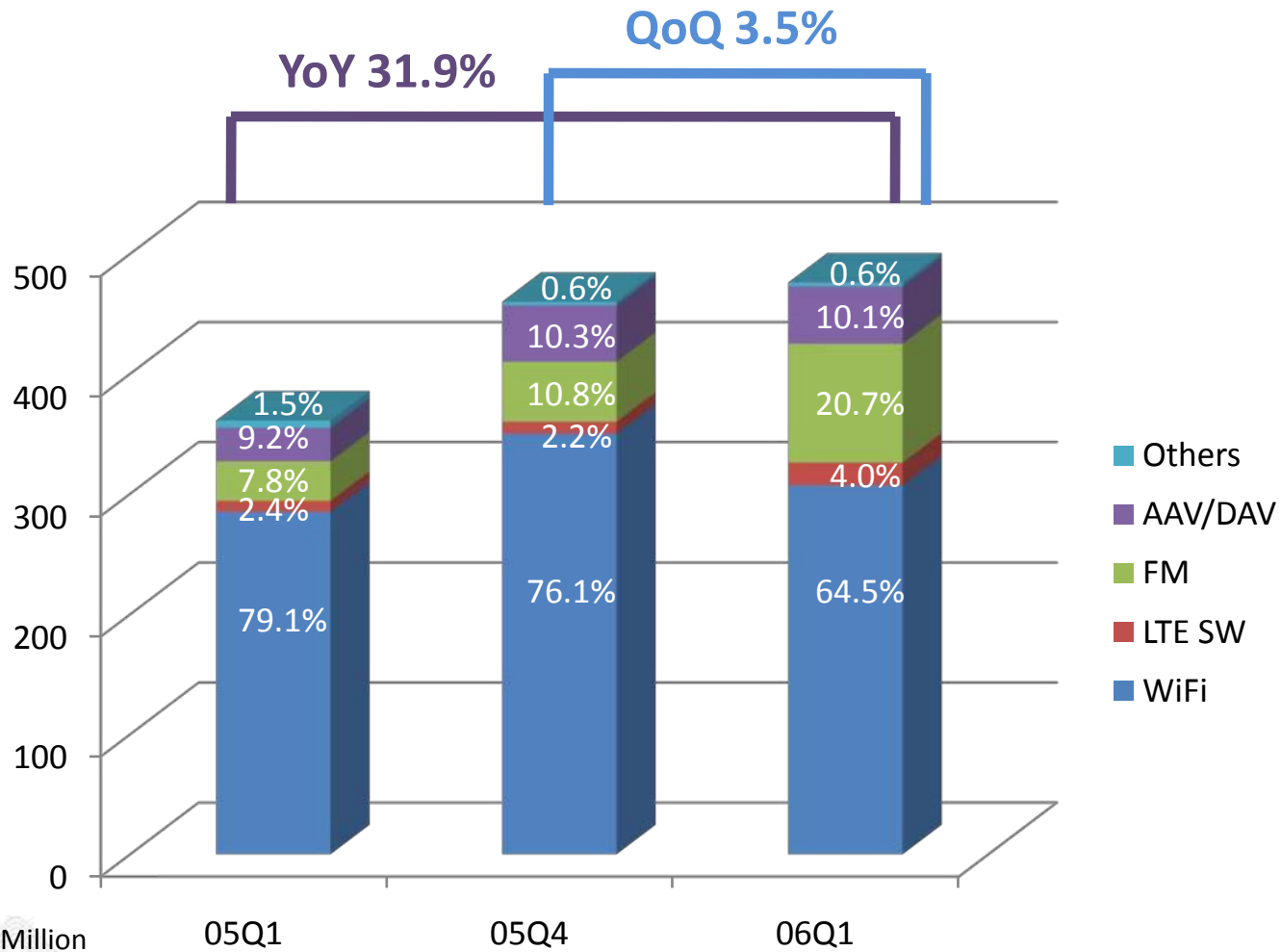
Amount:NT\$ MN	2016 Q1		2015 Q4		QoQ	2015 Q1		YoY
	Amount	%	Amount	%	%	Amount	%	%
Net Sales	476	100%	461	100%	3.3%	361	100%	32%
Gross Margin	155	33%	157	34%	-1%	119	33%	30%
Operating Expense	114	24%	135	29%	-16%	83	23%	37%
Operating Profit	41	9%	22	5%	86%	36	10%	14%
Net Income before Tax	29	6%	23	5%	26%	32	9%	-9%
Net Income after Tax	25	5%	23	5%	9%	27	7%	-7%
EPS	0.5		0.47			0.61		

Trend in Net Sales & Units

Unit: NT\$ Million



Revenue by Products



Unit: NT\$ Million

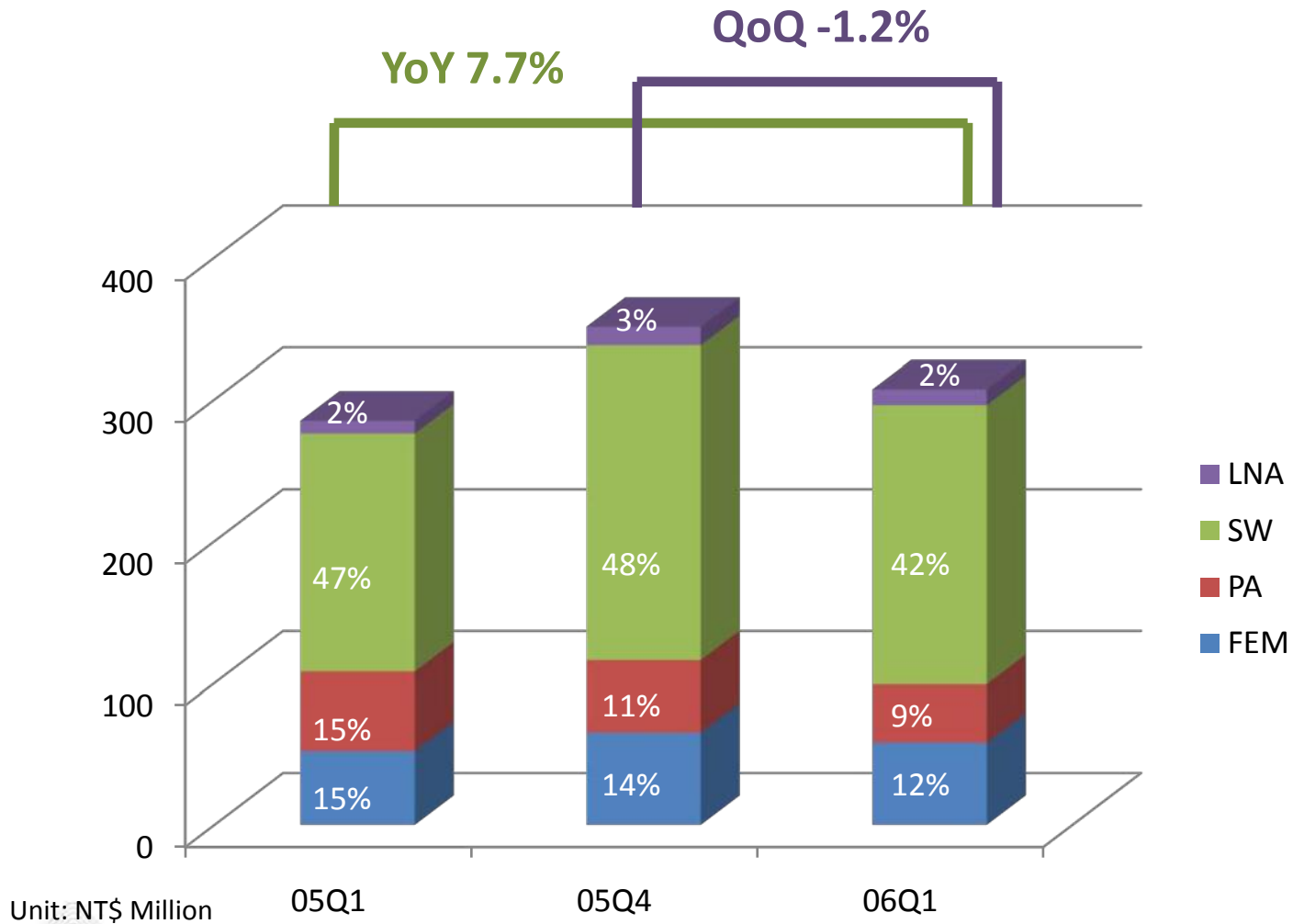
05Q1

05Q4

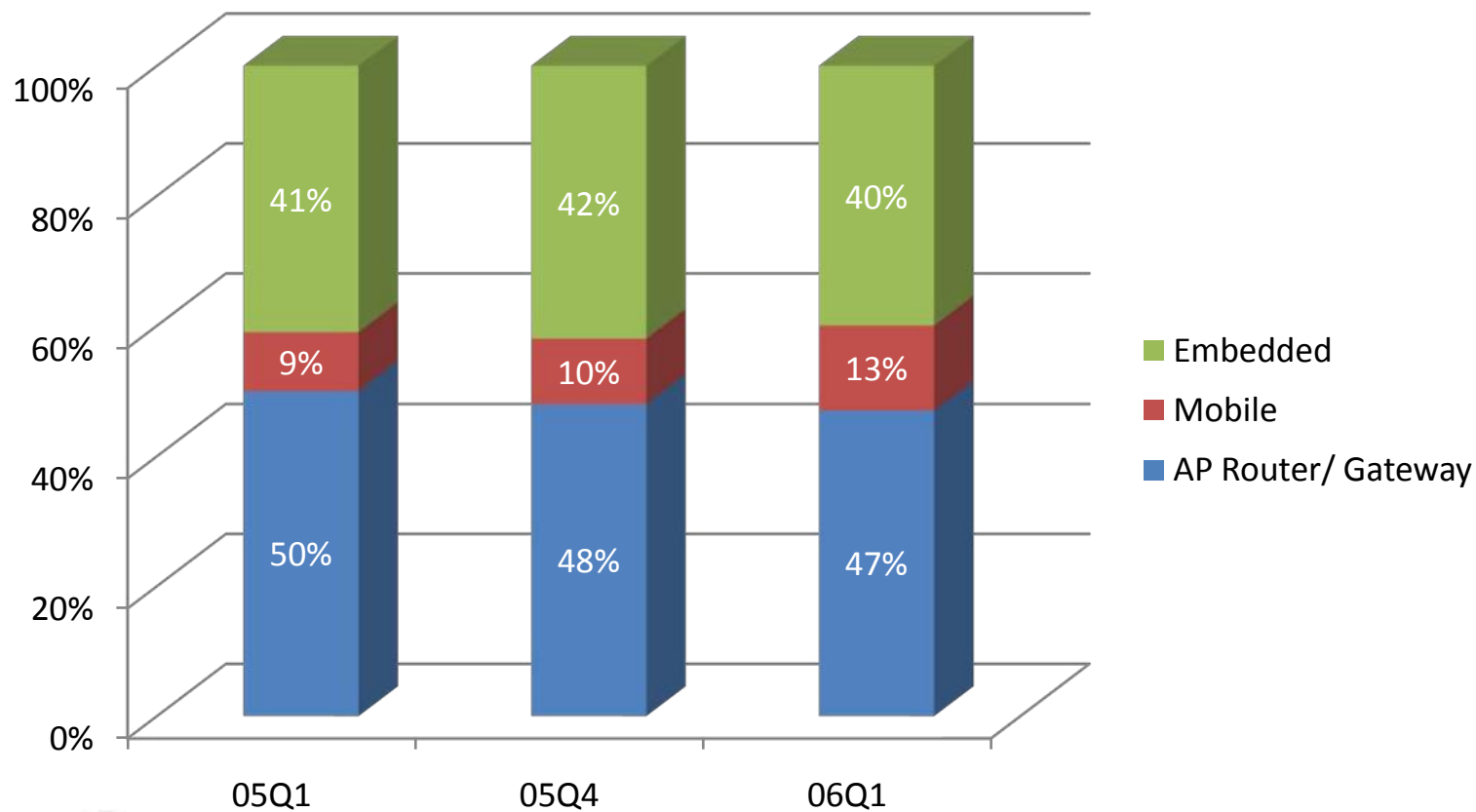
06Q1

- Others
- AAV/DAV
- FM
- LTE SW
- WiFi

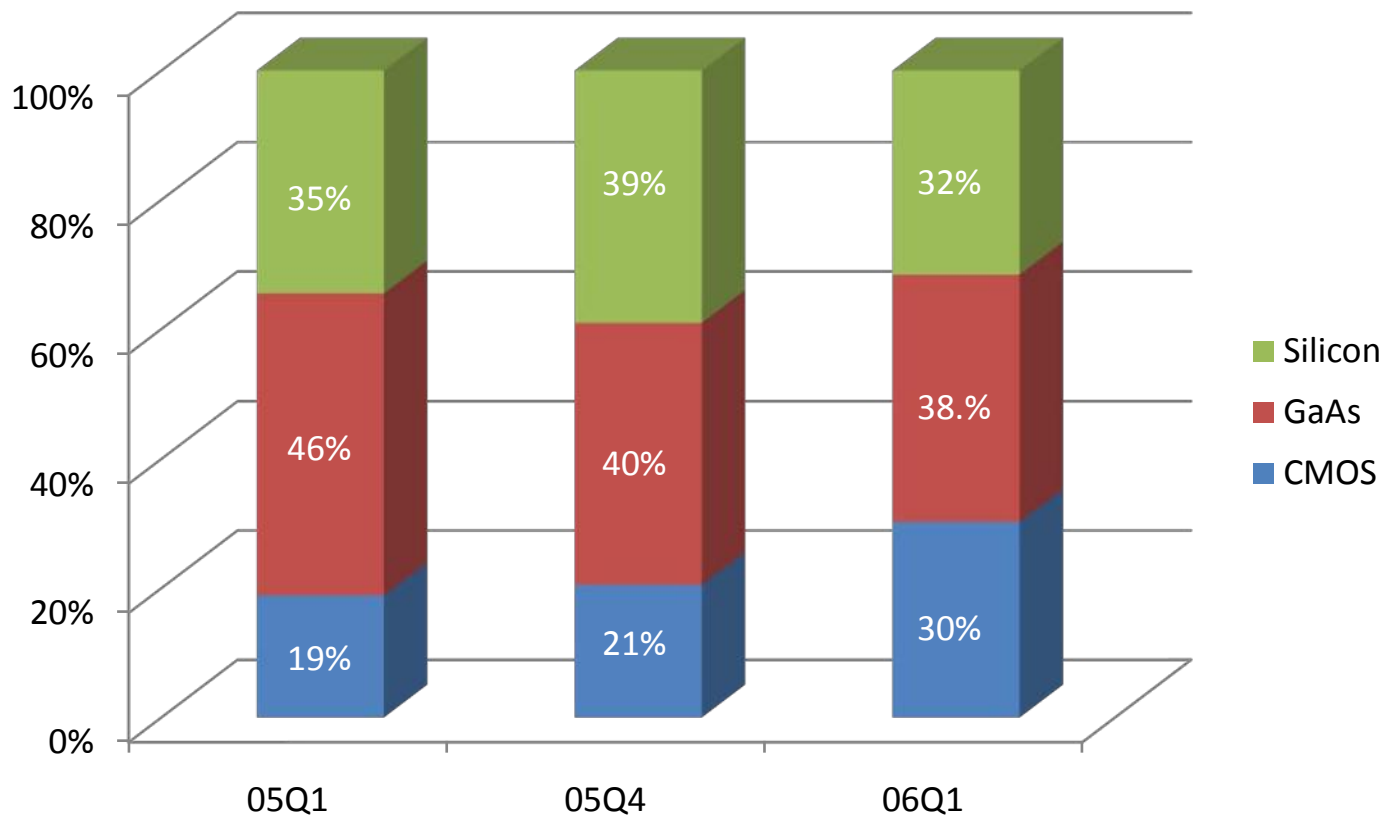
WiFi revenue by Product



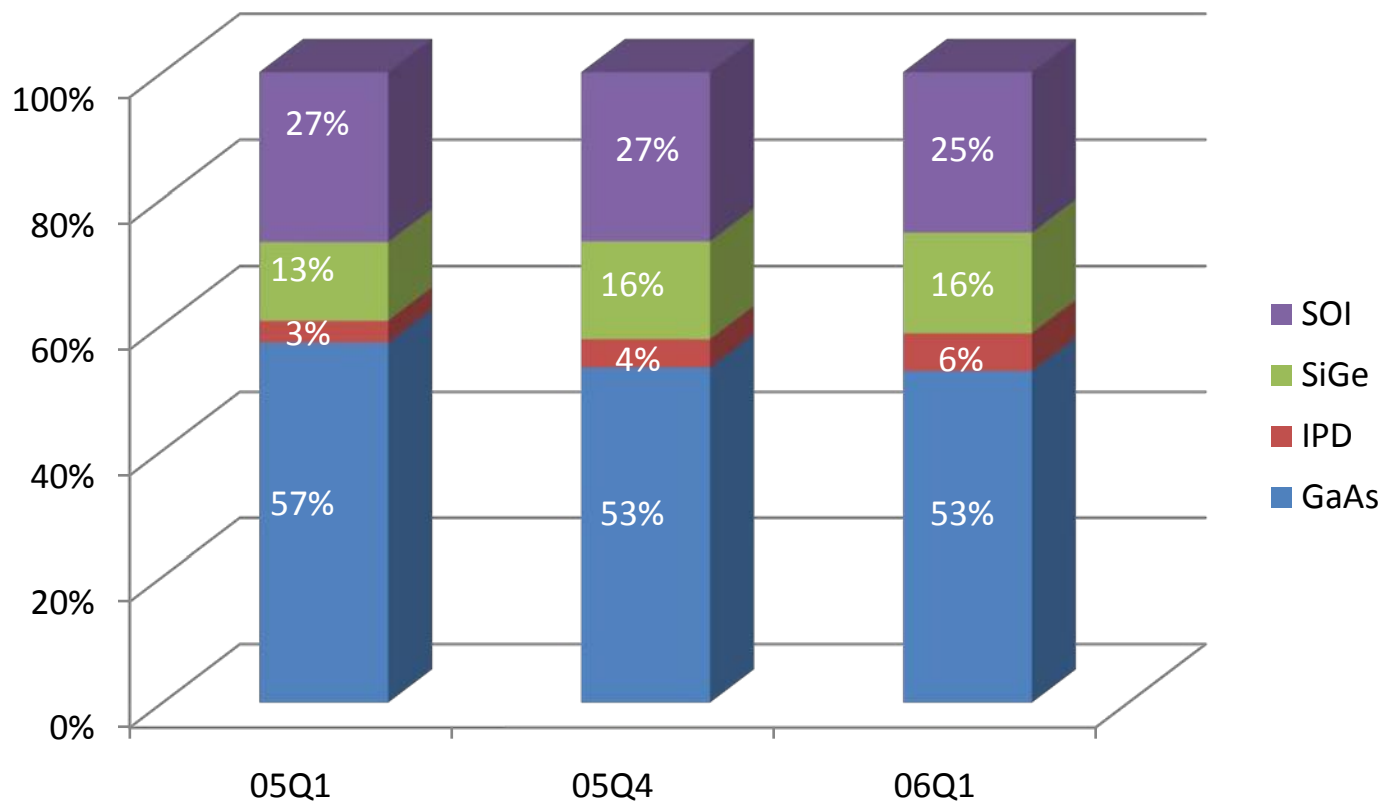
WiFi Sales by Applications



Revenue by Process



WiFi Revenue by Process





RichWave