



WIN Semiconductors

Wireless • Information • Networking

Company Presentation

November 2016

- *This presentation contains certain forward-looking statements that are based on current business expectations and are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements.*
- *Except as required by law, we undertake no obligation to update any forward – looking statements, whether as a result of new information, future events or otherwise.*

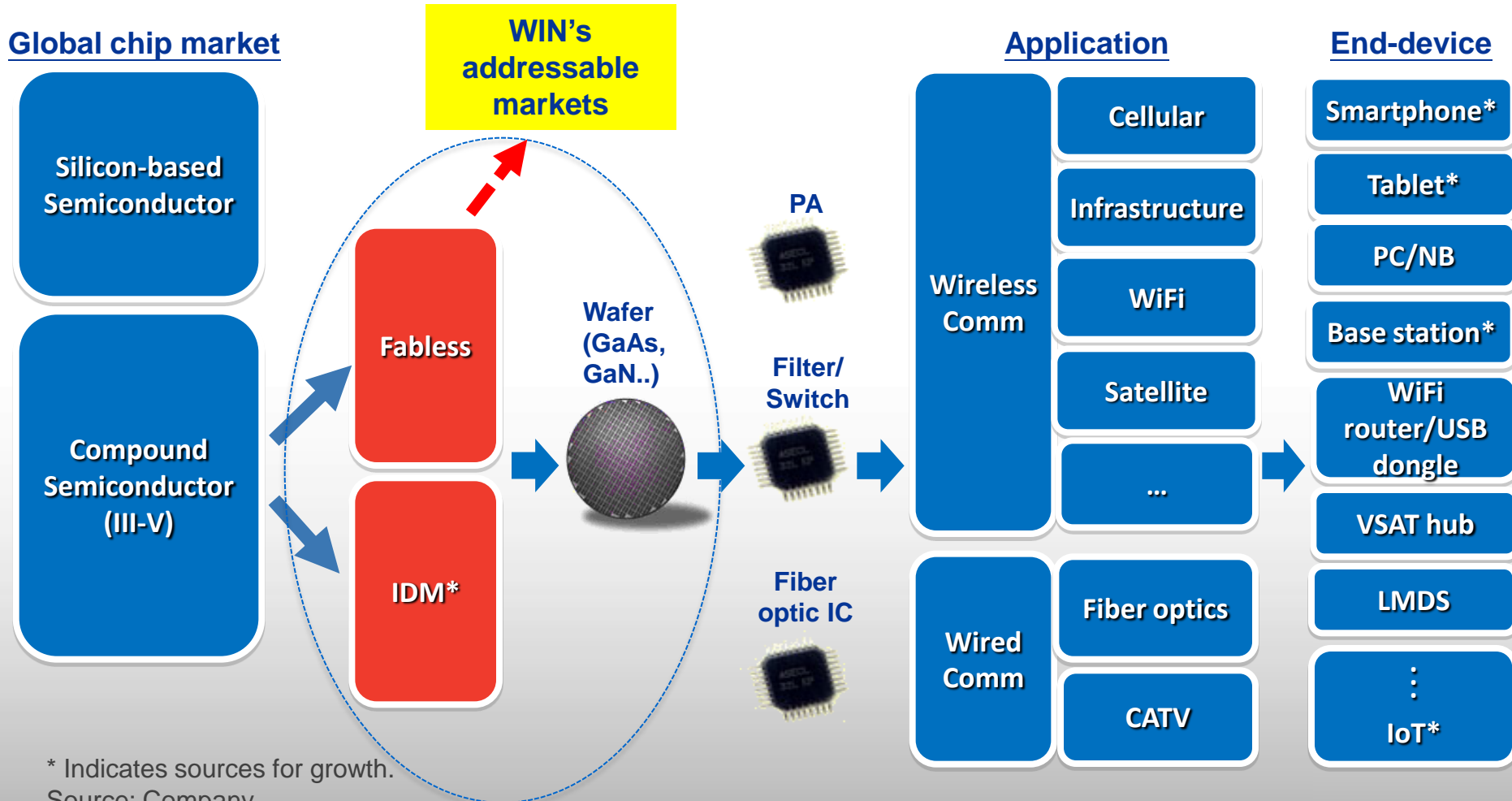
Outline

- ✓ **Market Outlook**
- ✓ **Technology**
- ✓ **The WIN Strategy**
- ✓ **Financial Review & Guidance**
- ✓ **Q&A**

Market Outlook

WIN's Market Positioning

- WIN positions itself as a dedicated compound semiconductor wafer foundry offering foundry works to fabless and IDM customers who target in communication applications.



Summary of Growth Momentum (2016)



4G Smartphones

IoT Gateway

5G Network

Short Term:

- Fast growth of 4G adoption (>65% of cellular terminals)
- Rapid increase of 5/6-mode smartphones
- 802.11ac dual band MIMO

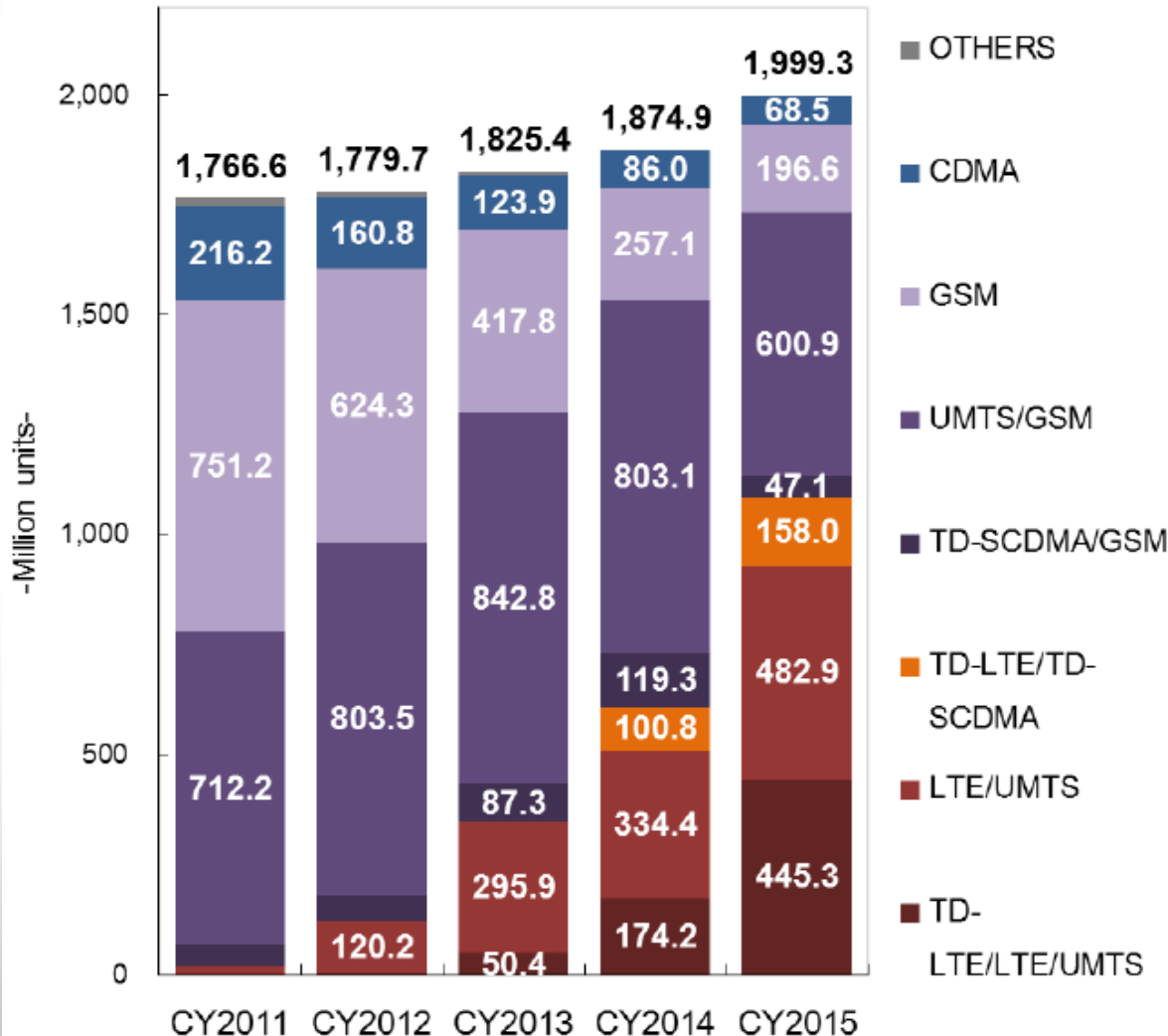
Mid-Term:

- LTE-A widely adopted Carrier Aggregation (CA capable)
- Wi-Fi & 11ac MIMO for mid/low-end smartphones
- Strong infrastructure growth

Long Term:

- Pre-5G launch (e.g. through broadband satellite, dense cells, ...)
- 5G launch with massive IoT deployment

Global Cellular Terminal Shipment

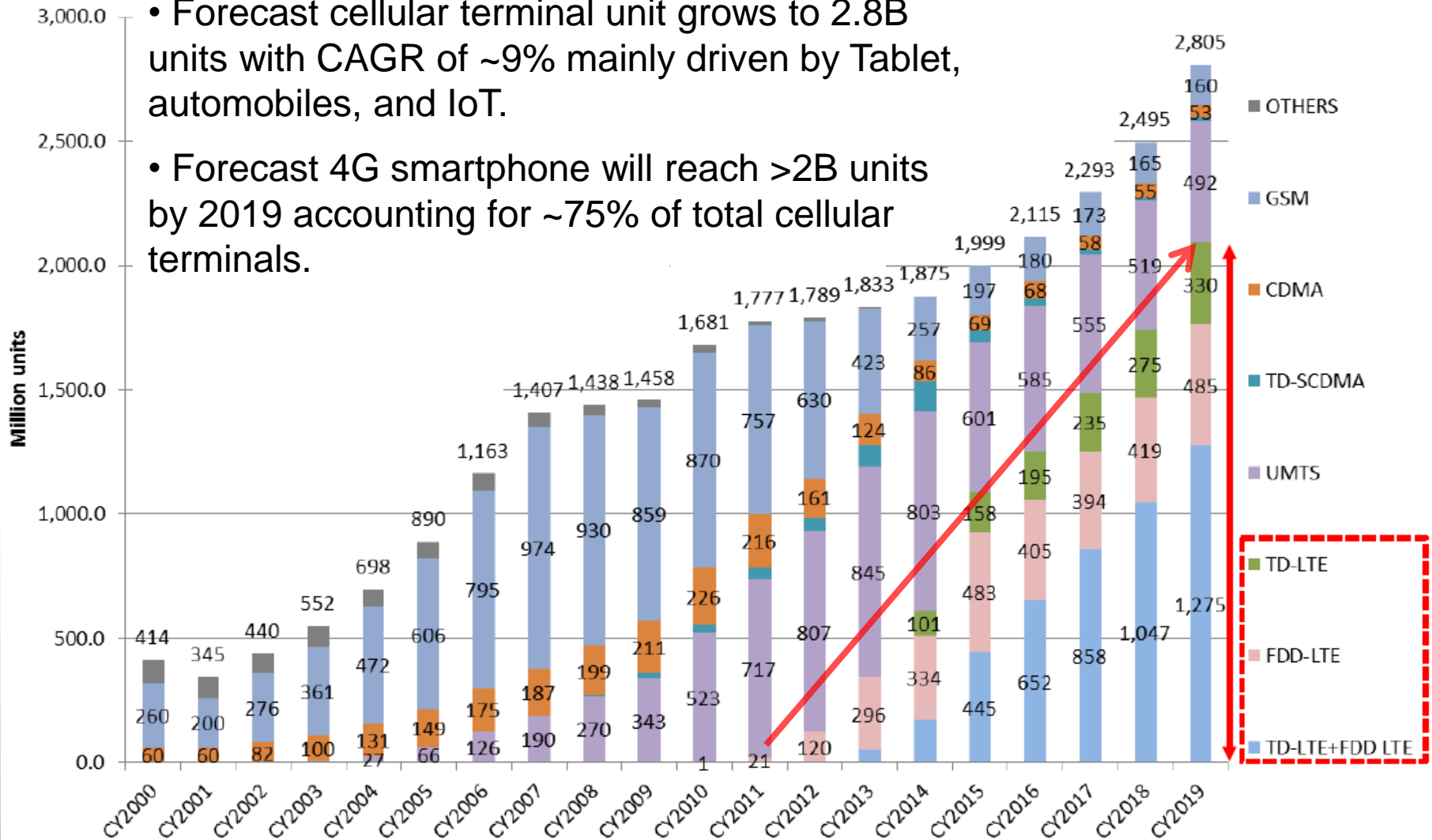


- Cellular terminal unit YoY +6.6% to ~2B units in 2015.
- Smartphone YoY +15.8% (200M units) reached 73.5% total cellular terminal (~1.5B units).
- Mobile devices using 4G network has reached ~1.1B units (54%).
- 5/6-mode smartphone is rapidly increasing to 445 million units in 2015 from 174 million units an year ago.

Source : Navian, RF Devices/Modules for Cellular, Jan. 2016

Global Cellular Terminal Forecast

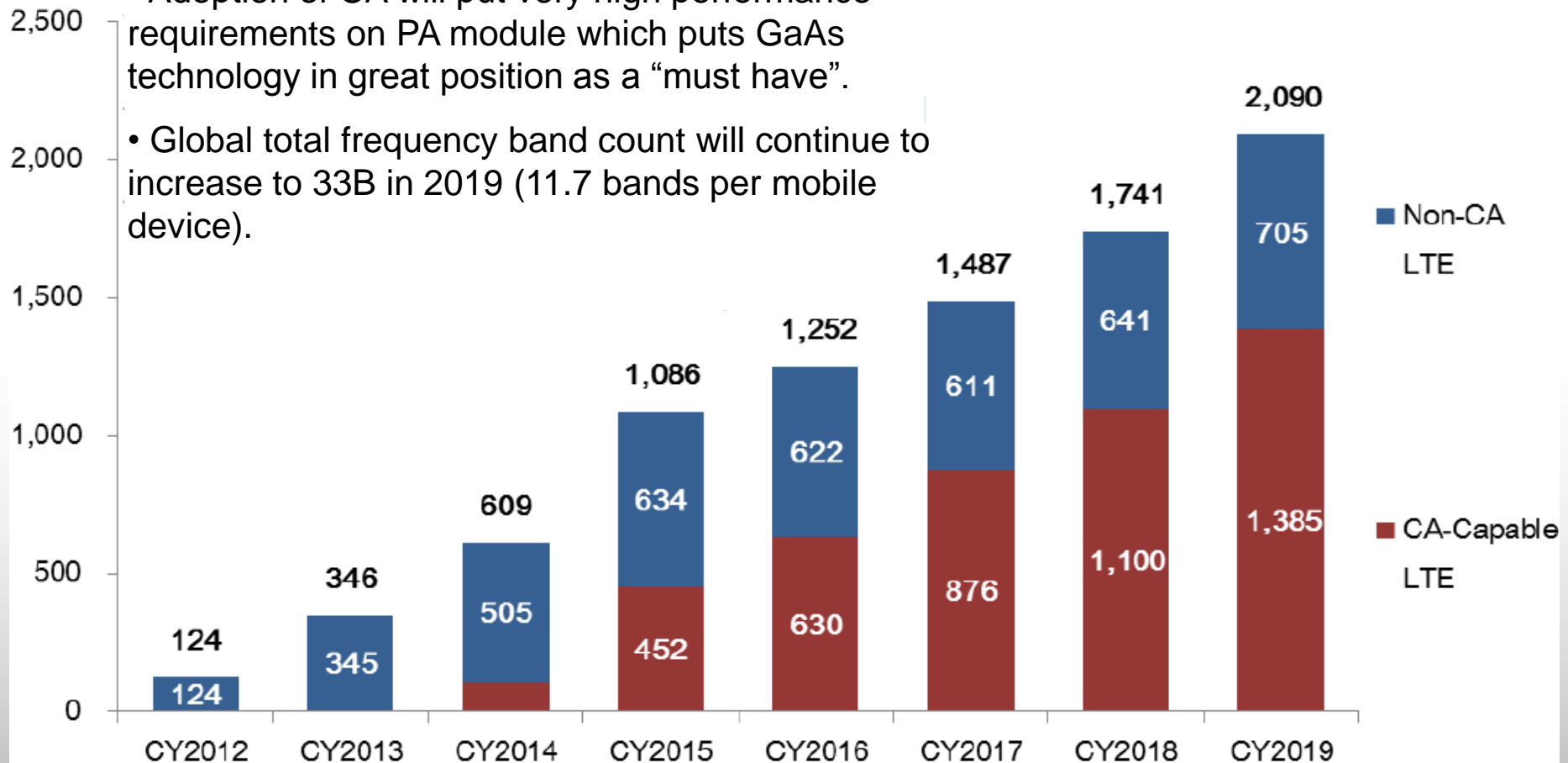
- Forecast cellular terminal unit grows to 2.8B units with CAGR of ~9% mainly driven by Tablet, automobiles, and IoT.
- Forecast 4G smartphone will reach >2B units by 2019 accounting for ~75% of total cellular terminals.



Source : Navian, RF Devices/Modules for Cellular, Jan. 2016

LTE-Advanced (Carrier Aggregation) Forecast

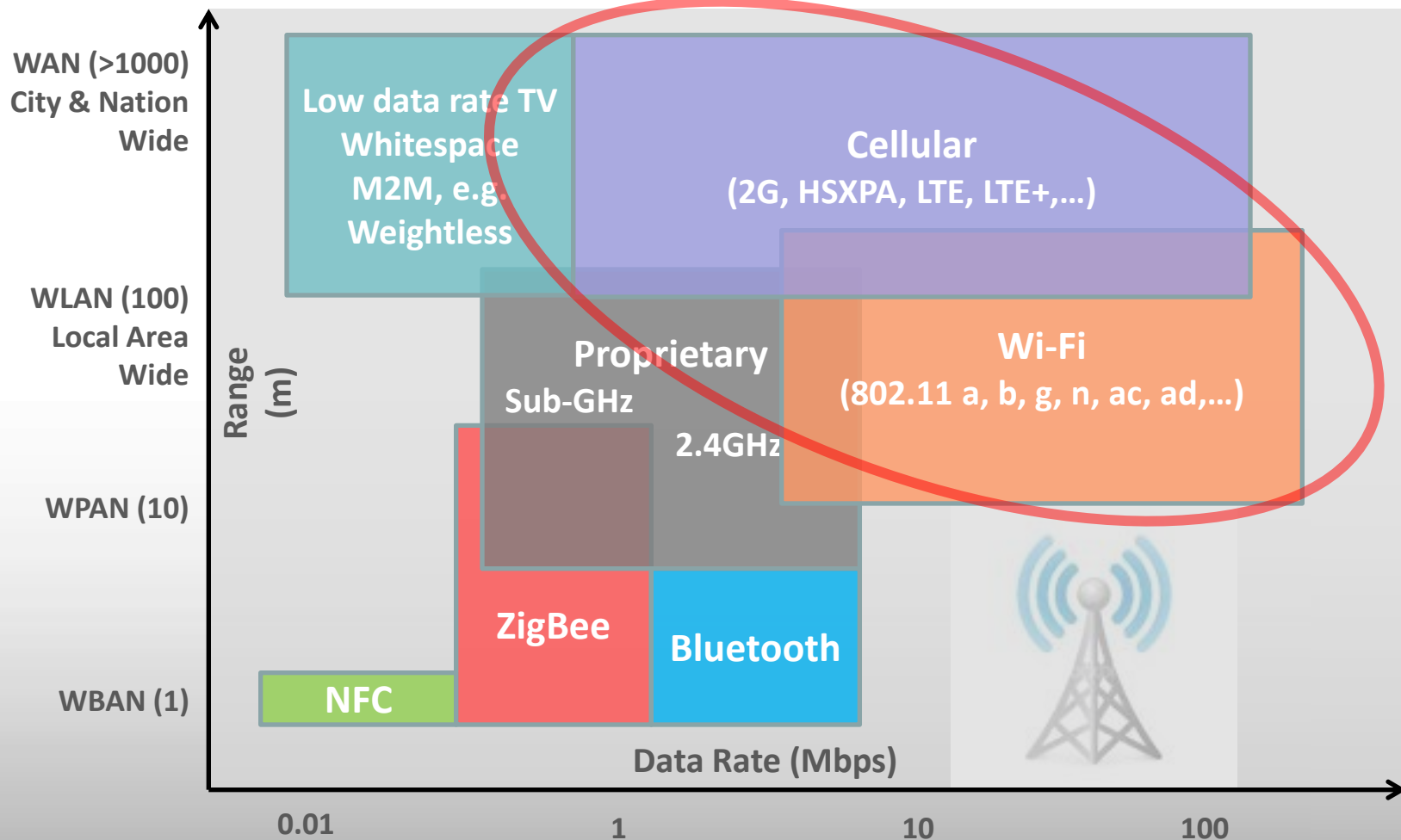
- 4G LTE-Advanced (Carrier Aggregation capable LTE) is forecasted to grow with CAGR of +32%.
- Adoption of CA will put very high performance requirements on PA module which puts GaAs technology in great position as a “must have”.
- Global total frequency band count will continue to increase to 33B in 2019 (11.7 bands per mobile device).



Source : Navian, RF Devices/Modules for Cellular, Jan. 2016

GaAs Opportunities in IoT Wireless Connectivity

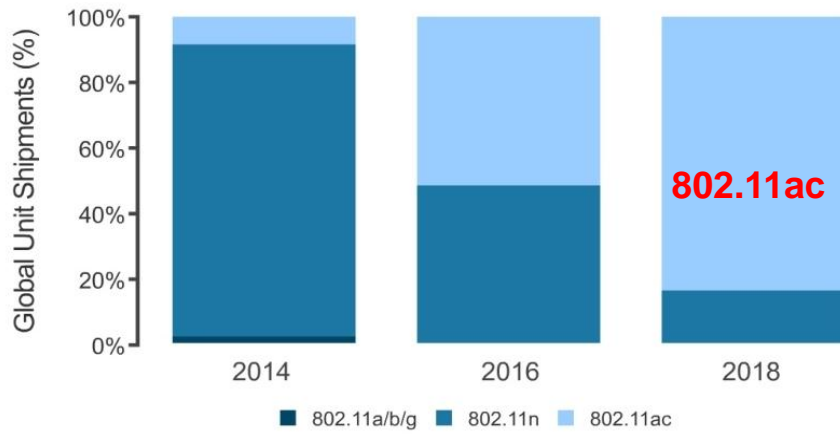
Today's Wireless Landscape



802.11ac Router Growth Trend (2014-18)

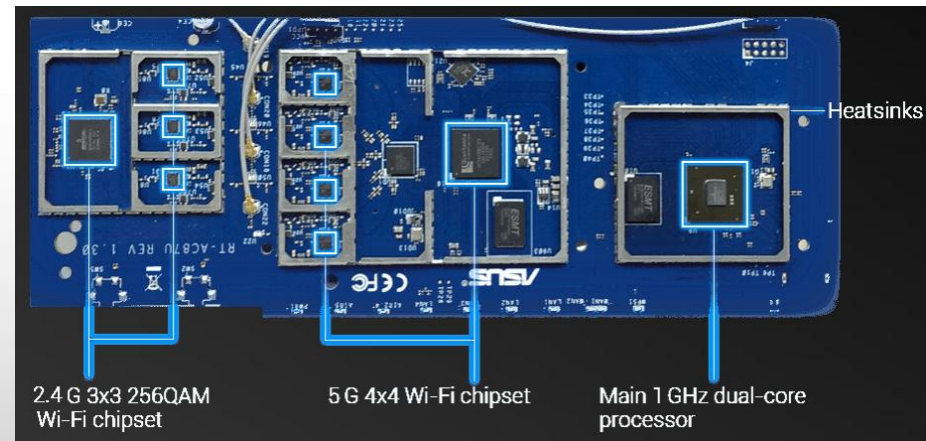
- Higher performance requirement in 802.11ac is a great opportunity for GaAs devices.
- Dual band (2GHz&5GHz) and MIMO requirements represent volume opportunity for GaAs components.
- Same trend is happening in high-end smartphones.
- Low/mid-end smartphones will be the next to adopt 11ac dual bands and MIMO.

802.11ac access points expected to dominate the global WLAN market by 2018



Source: Infonetics Research, Wireless LAN Equipment and WiFi Phones, Quarterly Market Share, Size, and Forecasts, May 2014

802.11ac Dual-Band Wi-Fi Router with MIMO



Source: ASUS's Company Website

Rising Demand for Mobile Data

- Thanks to the constant bandwidth upgrades driven by mobile devices and 4G/LTE, demand for mobile data is rising rapidly where mobile video consumes the most bandwidth and grows the fastest for mobile data (the Big Data trend).
- Cisco forecasts 30.6 Exabytes per month of mobile data traffic by 2020.

Exabytes per month



Note: 1 EB=10⁹ GB

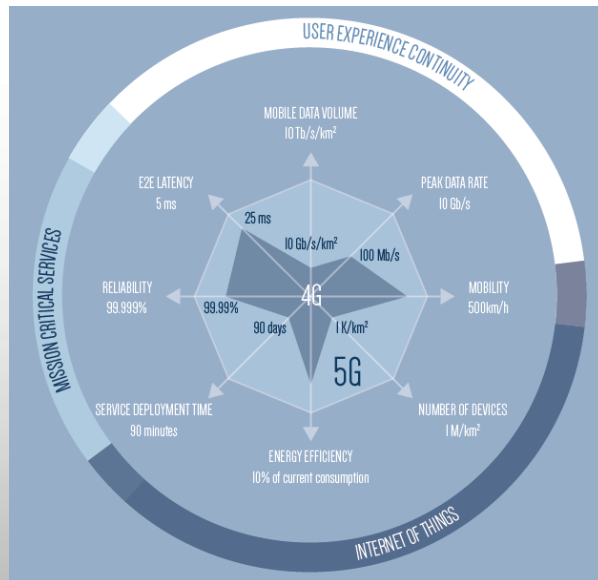
Source: Cisco VNI Mobile, 2016.

Exabytes per month

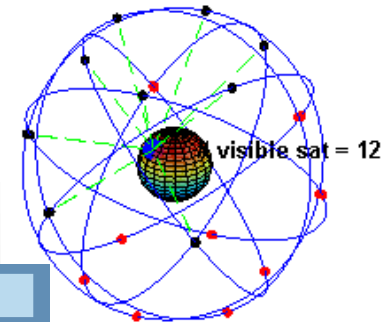
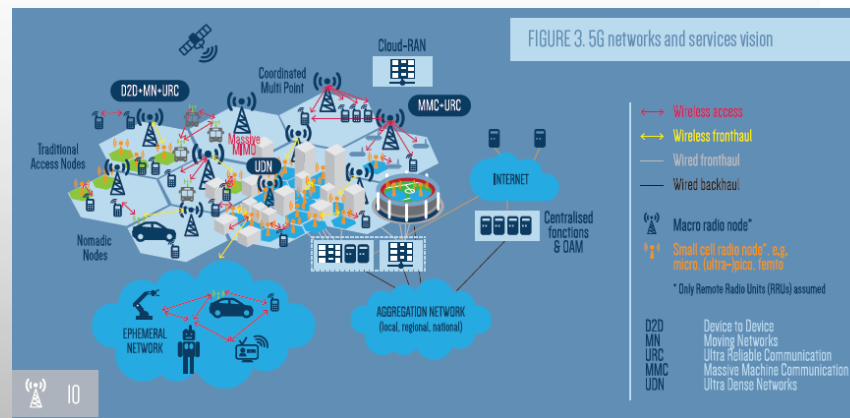


Long Term Momentum (2018~)

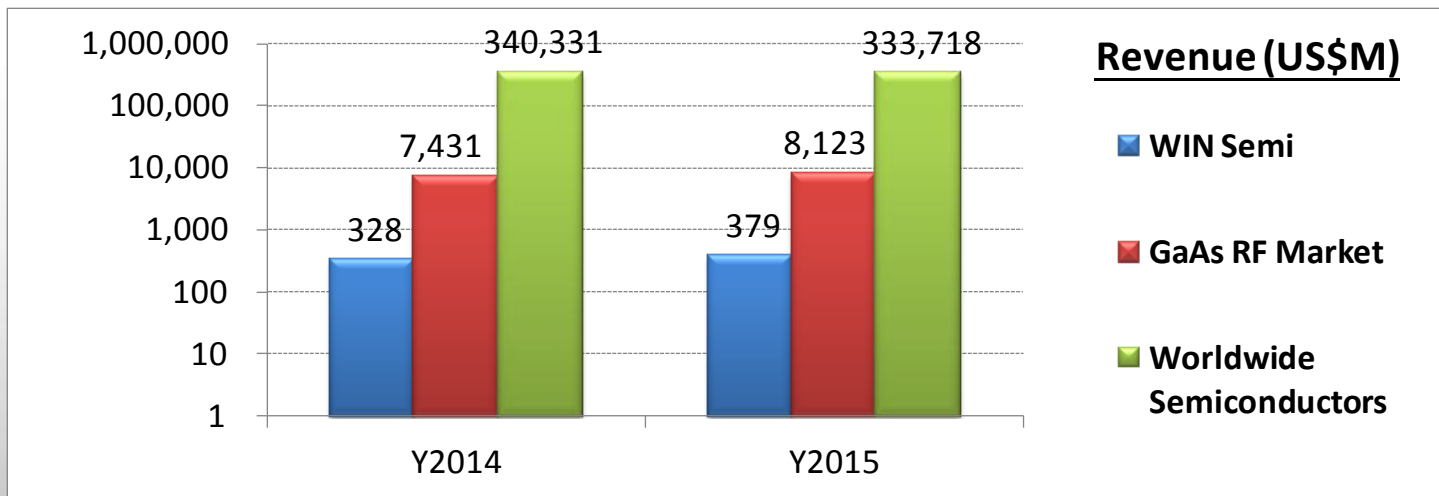
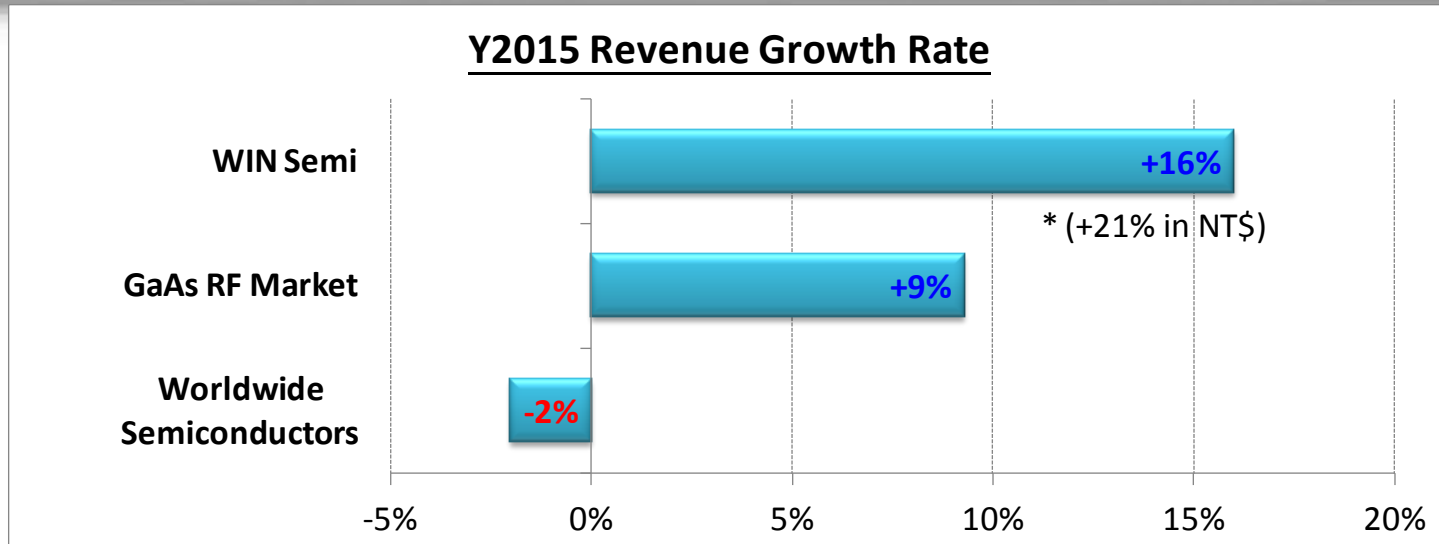
- Pre-5G launch: Broadband internet service through satellite communication (>10GHz) as an example.
- 5G launch using significant higher frequency bands.
- 6GHz ~ 80GHz, small cells, massive MIMO, phase array, ... etc.



Source: 5G PPP: 5G Vision 2015



Semiconductor Revenue Growth



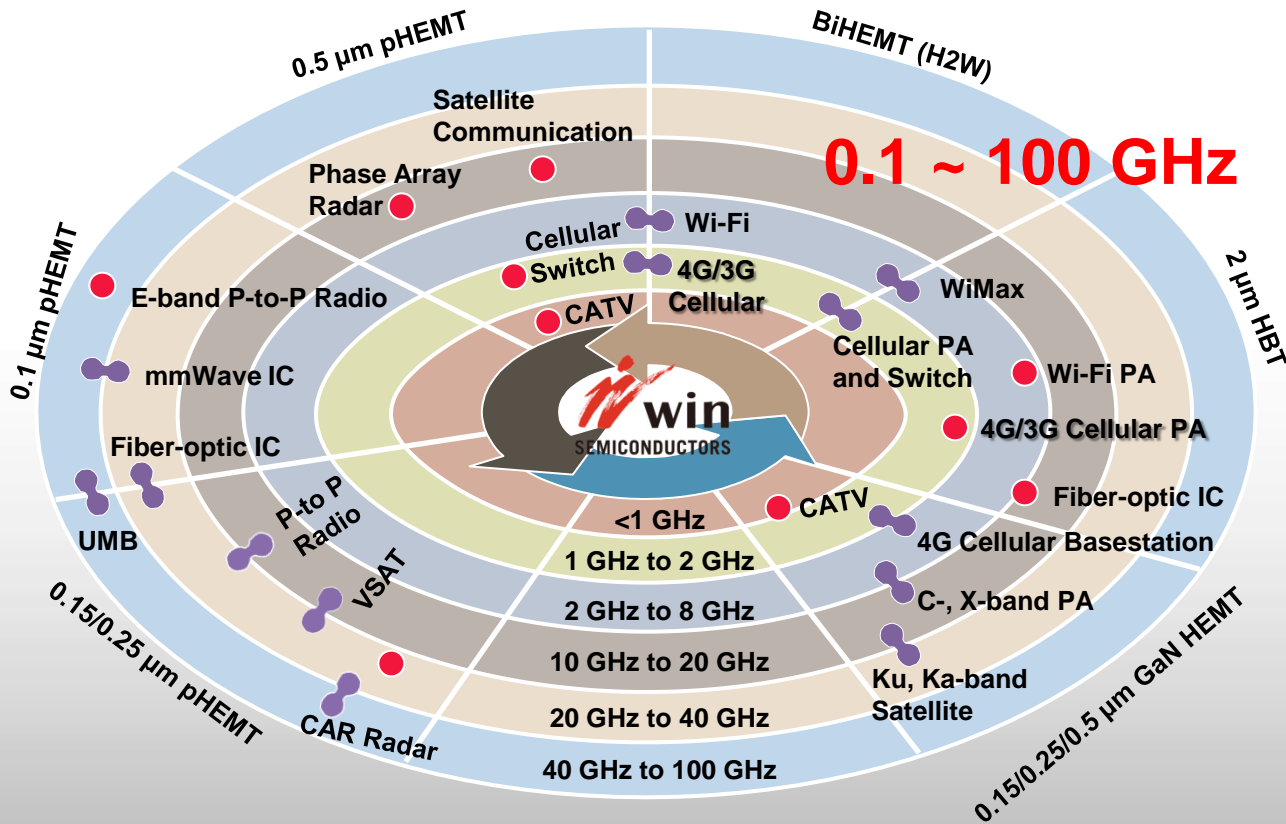
Source : (1) Worldwide Semiconductors Revenue, Gartner, Jan. 2016.

(2) RF GaAs Device Revenue Reaches a New High in 2015, Strategy Analytics, Apr. 2016.

Technology

Broad Portfolio of Advanced Technologies

The most comprehensive technology portfolio in industry enables customers to develop optimized products for a wide range of applications

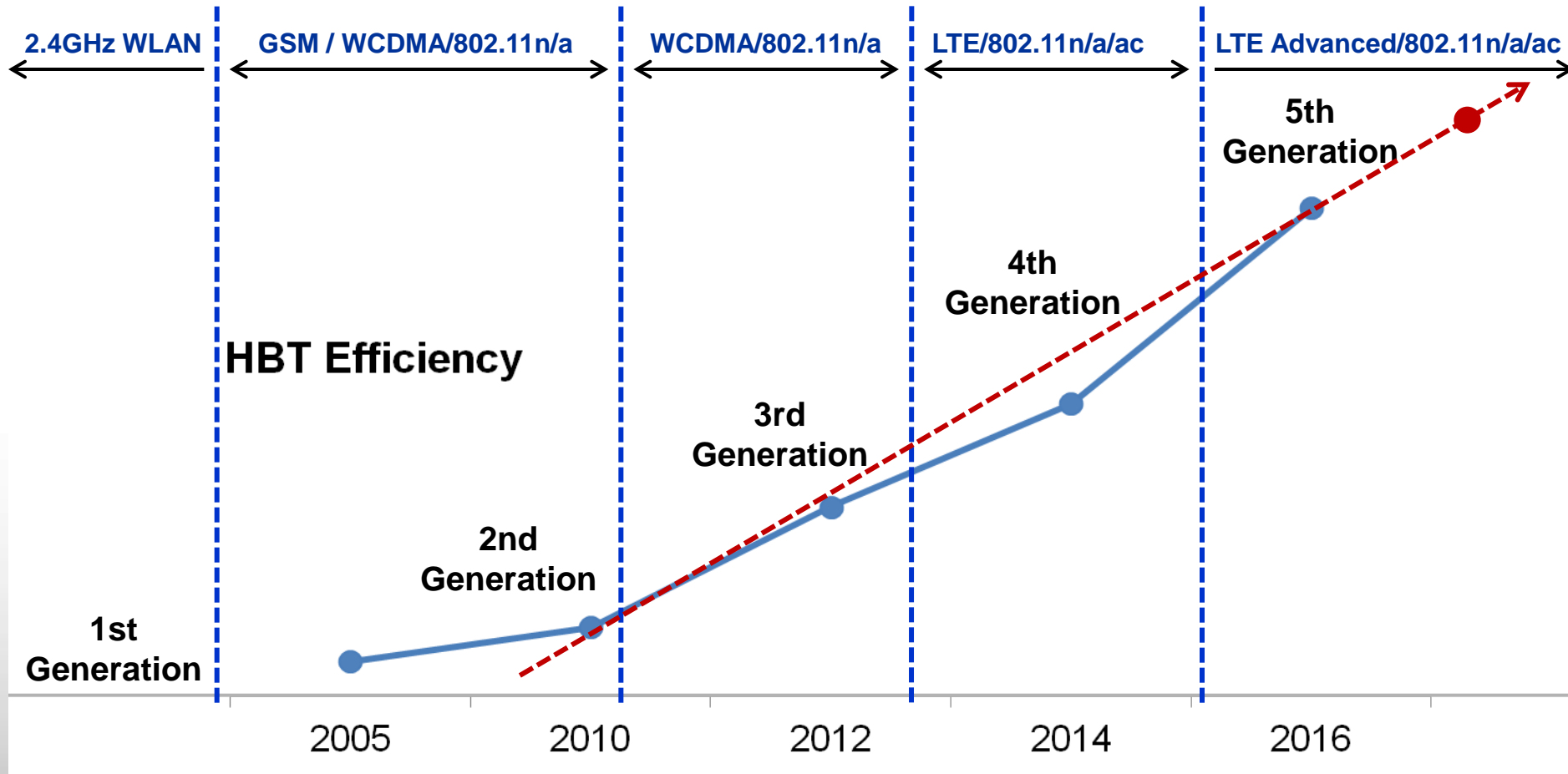


- ✓ **Dominant market share for high-performance HBT used in LTE PAs**
- ✓ **Leading BiHEMT technology for advanced integrated FEM**
- ✓ First and only foundry worldwide to commercially develop 0.1 μm pHEMT on 6" GaAs wafer
- ✓ Industry leading 0.15–0.25 μm pHEMT technology
- ✓ Supports broad range of products such as PAs (from 50MHz–100GHz), switches, and fiber optic IC
- ✓ Developing GaN for high power devices (4G base station)

WIN's HBT PA Generation



For Cellular & WiFi



WIN's HBT efficiency shows significant improved every generation.

Unlike Si semiconductor technology in the digital world focuses on gate/line dimension shrinkage, the RF technology roadmap focuses on the following perspectives:

• Better Performance

GaAs vs CMOS

✓ Higher power efficiency → Longer battery power



✓ Better linearity → Faster speed



✓ Lower noise → Better quality of signal



• Higher Functionality Integration

WIN provides all of the GaAs solution for the above!

WiFi FEM : PA + LNA + Switch + Logic

BiHEMT = HBT + E/D pHEMT

PA + LNA/Switch/Logic

PA/LNA/Switch/Logic

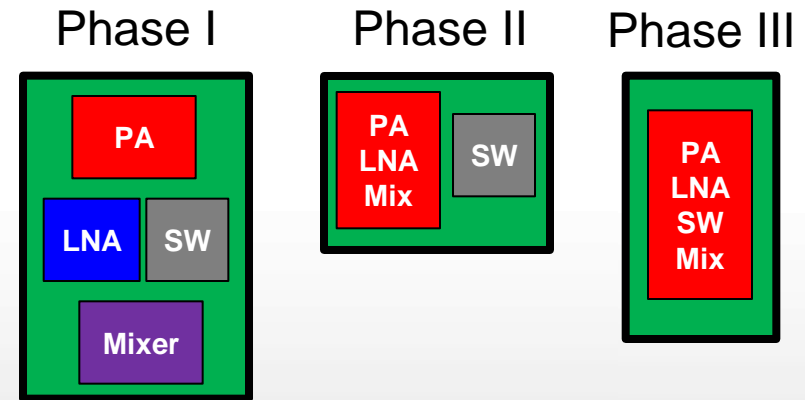
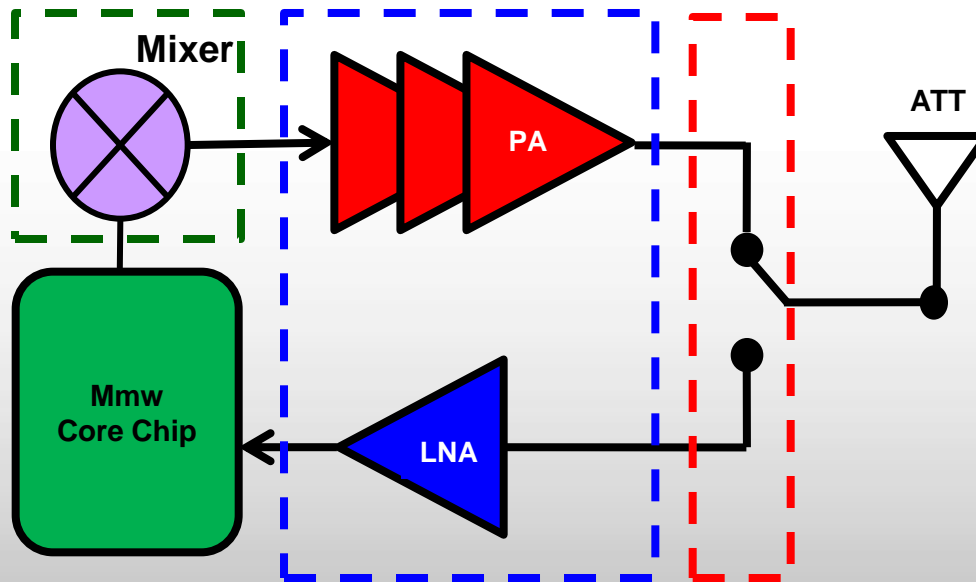
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Cu Pillar Bump Flip Chip

For High Frequency Products

GaAs Key Components vs. Solution of Integrated GaAs Chips.

GaAs Schottky GaAs pHEMT GaAs PIN

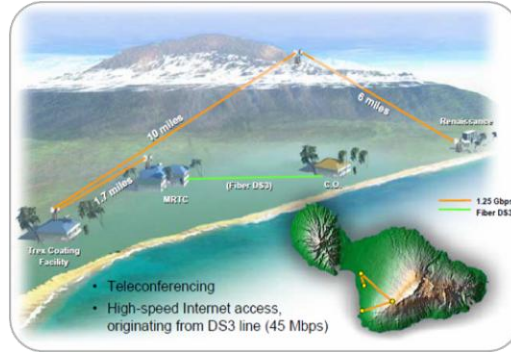


- pHEMT
- PIN
- Schottky
- mmw Pack

- S_pHEMT
- PIN
- mmw Pack

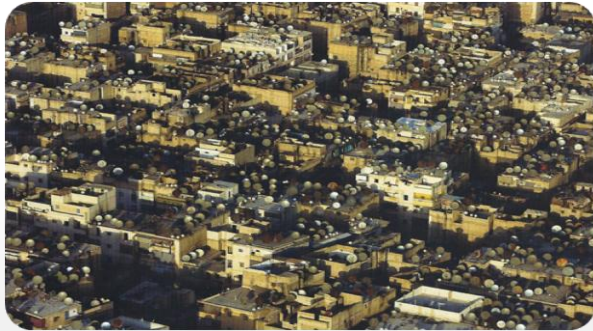
- PINHEMT
- mmw Pack

WIN 0.25/0.15/0.10 μ m pHEMT Inside!



Ultra high frequency semiconductor technology provider!

Satellite Communications, Fiber optic Communication, Wireless infrastructure ...



The WIN Strategy

Invest in capacity to capture demand growth and improve margins through product remix

Scale & Remix

Technology Leadership

Invest in technologies to maintain competitive edge and sustain leadership

Cost & Efficiency

Customer Diversification

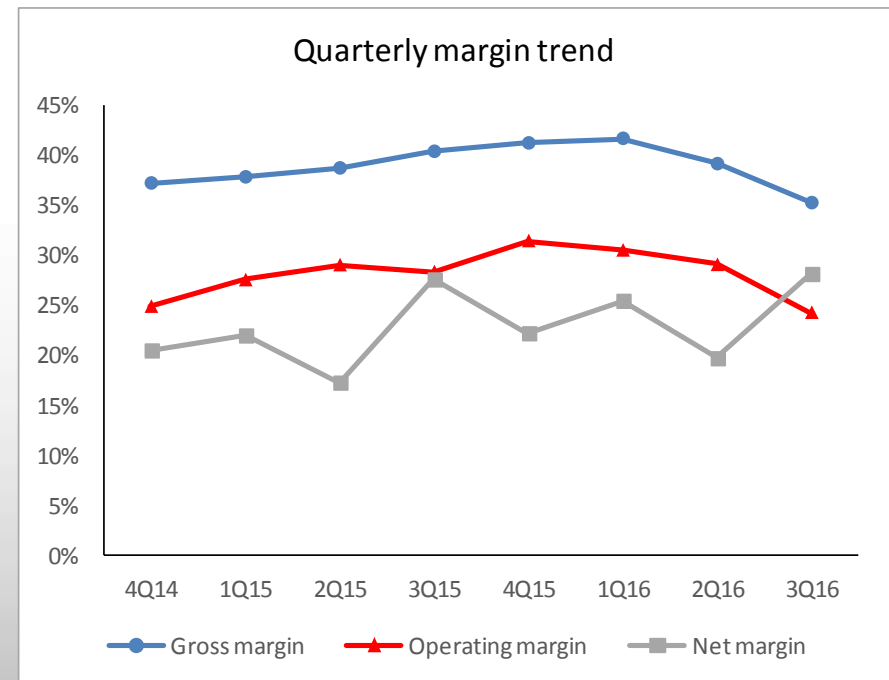
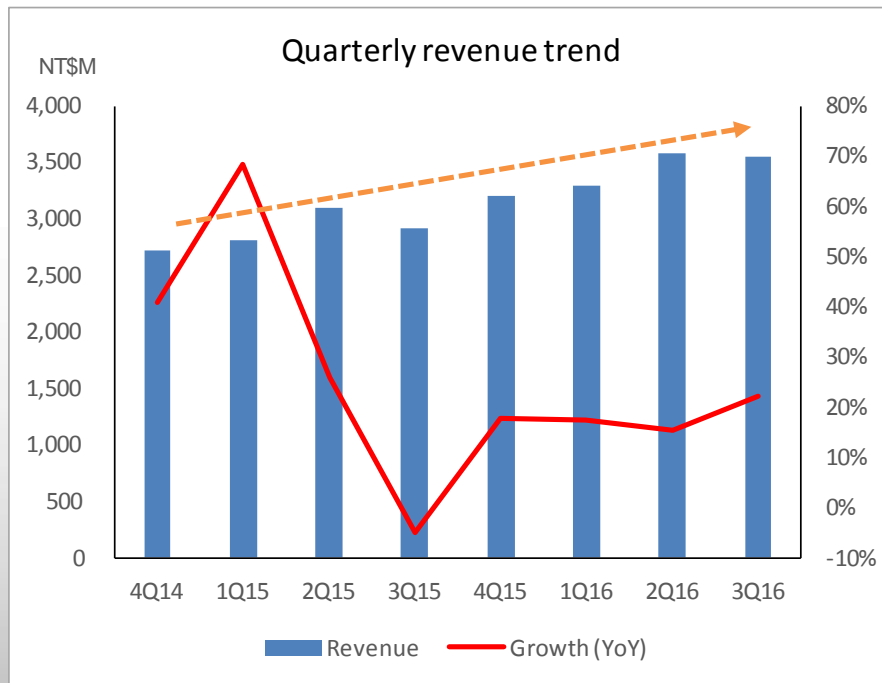
Leverage on technology and manufacture expertise to lift efficiency and drive cost down

Grow and acquire new customers in existing and new markets to diversify customer base

Financial Review & Guidance

Revenue & Margin Trend

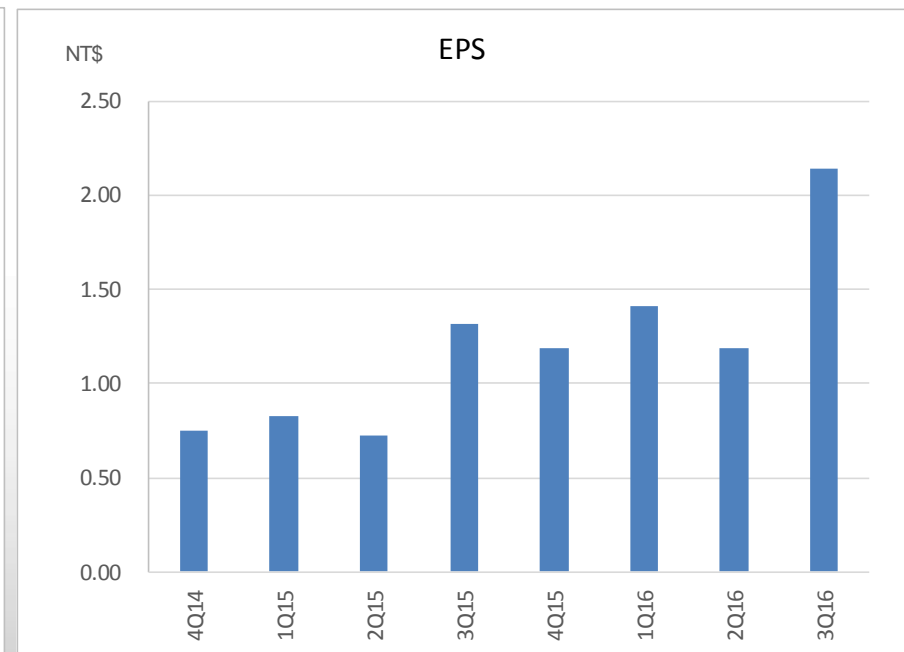
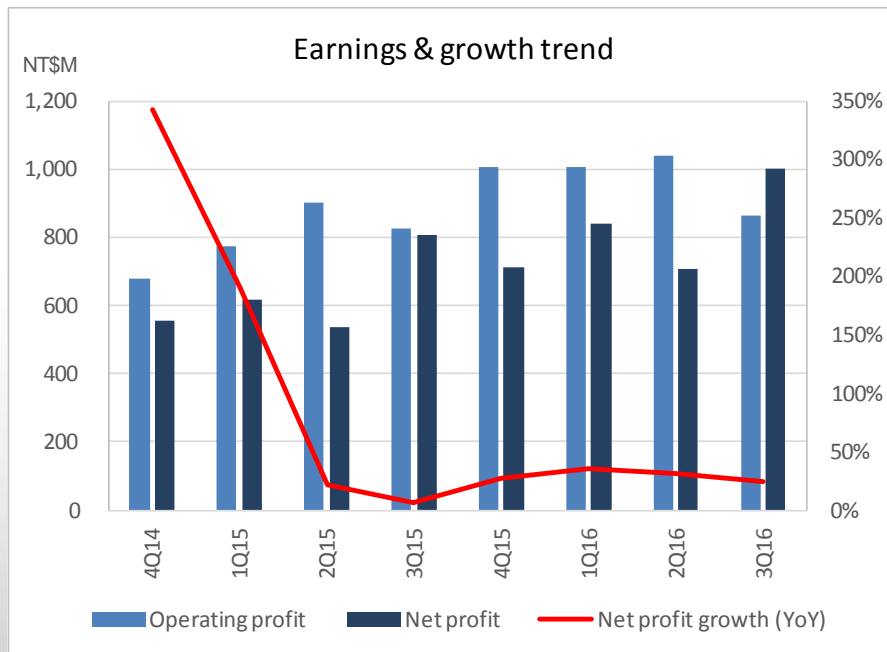
- 3Q16 revenue declined 1% QoQ but increased 22% YoY. This mainly reflects that the long-term demand for the RF industry remains strong, while near-term is impacted by unfavorable forex trend and product transition in the smartphone market.
- 3Q16 GM and OPM were 35.3% and 24.3%, respectively, with sequential decline of 3.9 and 4.8 pp. This was mainly due to the increase in fixed costs and depreciation expenses for the new Fab C, and the valuation impact for the items newly-consolidated into the consolidated financial report in accordance with IFRS.



Source: company.

Earnings Trend

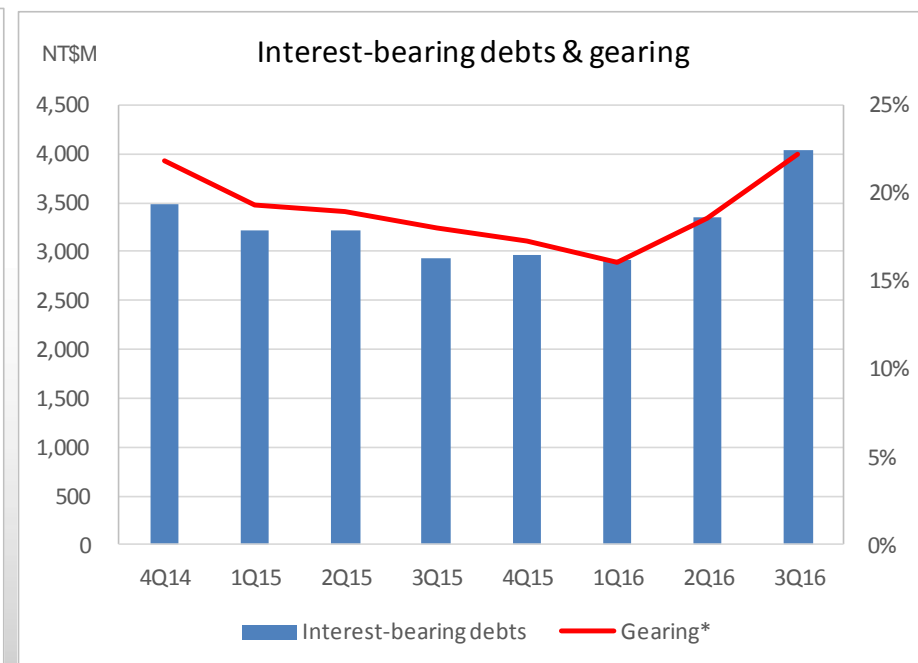
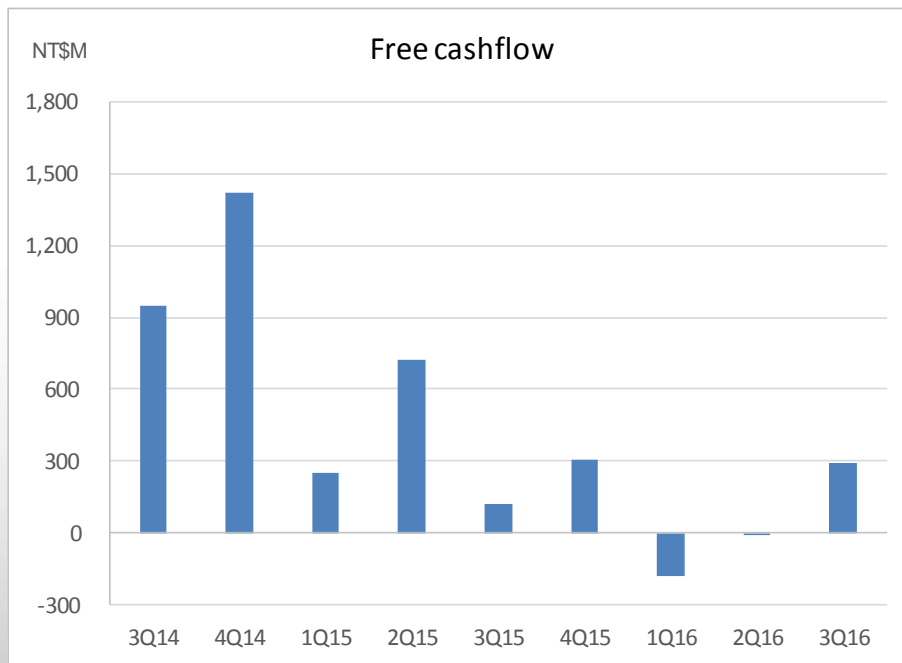
- 3Q16 net profit and EPS both reached a record high for a single quarter. Net profit was NT\$1bn, up 42% QoQ and 24% YoY. EPS came in at NT\$2.14, compared to NT\$1.19 in 2Q16.



Source: company.

FCF & Gearing Trend

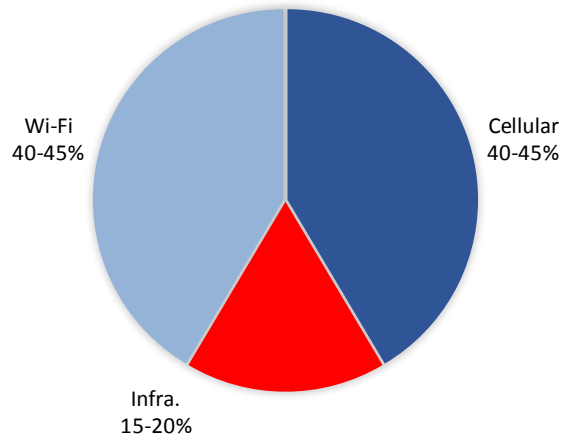
- Although 3Q16 capex continues to increase, free cash flow has materially improved in the quarter.
- Interest-bearing debts and gearing ratio modestly increased, as we moderately increase leverage while maintaining a healthy financial structure.



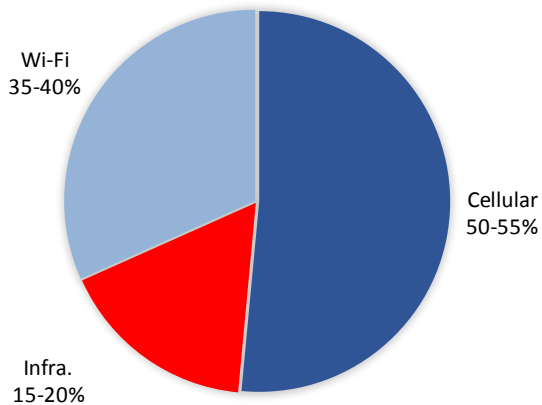
* Gearing = interest-bearing debts / equity
Source: company.

Product Mix

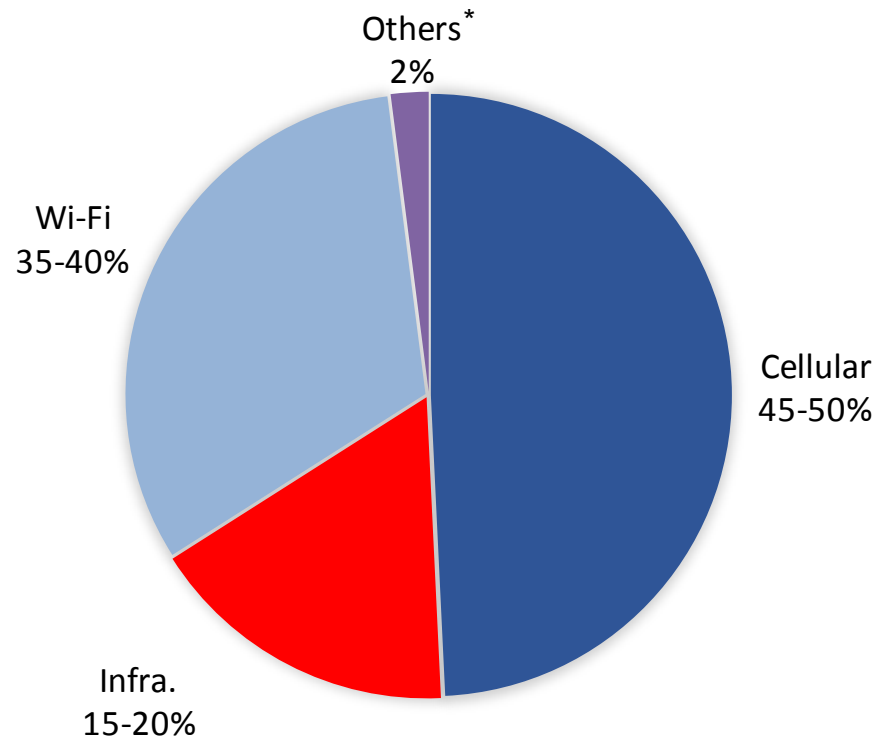
3Q15



2Q16



3Q16



* Others: additional revenue being consolidated in accordance with IFRS

Source: company.

4Q16 Guidance



- We expect 4Q16 revenue to decrease by low teens QoQ.
- We expect 4Q16 gross margin to be flat at or slightly lower than the 3Q16 level.

Q & A

For more information regarding WIN
www.winfoudry.com

For all inquiries, suggestions, and comments
ir@winfoundry.com



Appendix – 3Q'16 Financial Results

Consolidated Statements of Comprehensive Income - Quarterly

Unit: NTD Million	3Q'15	2Q'16	3Q'16 (unaudited)	QoQ	YoY
Net revenue	2,913	3,572	3,553	-1%	+22%
Gross profit	1,178	1,400	1,254	-10%	+6%
<i>Gross margin (%)</i>	40.4%	39.2%	35.3%		
Operating expenses	(350)	(360)	(390)	+8%	+11%
<i>Operating expenses rate (%)</i>	-12%	-10%	-11%		
Operating income	827	1,040	864	-17%	+4%
<i>Operating margin (%)</i>	28.4%	29.1%	24.3%		
Non-operating incomes and expenses	137	50	284		
Income before income tax	964	1,090	1,148	+5%	+19%
Income tax expense	(159)	(384)	(146)		
Net income	805	706	1,001	+42%	+24%
<i>Net margin (%)</i>	27.6%	19.8%	28.2%		
EPS (NT\$)	1.32	1.19	2.14	+80%	+62%
Other comprehensive income, net	34	171	69		
Comprehensive income	839	876	1,071	+22%	+28%
ROE(%)	19%	16%	22%		
Approx. Utilization (%)	85%	90%	90%		
Depreciation	475	560	637		
CAPEX	907	795	861		

Consolidated Statements of Comprehensive Income - YTD

Unit: NTD Million	1-3Q'15	1-3Q'16 (unaudited)	YoY
Net revenue	8,819	10,417	+18%
Gross profit	3,442	4,027	+17%
<i>Gross margin (%)</i>	39.0%	38.7%	
Operating expenses	(939)	(1,117)	+19%
<i>Operating expenses rate (%)</i>	-11%	-10%	
Operating income	2,503	2,911	+16%
<i>Operating margin (%)</i>	28.4%	27.9%	
Non-operating incomes and expenses	46	332	
Income before income tax	2,549	3,243	+27%
Income tax expense	(589)	(696)	
Net income	1,960	2,546	+30%
<i>Net margin (%)</i>	22.2%	24.4%	
EPS (NT\$)	2.81	4.62	+64%
Other comprehensive income, net	1	413	
Comprehensive income	1,961	2,959	+51%
ROE(%)	16%	19%	
Approx. Utilization (%)	85%	90%	
Depreciation	1,412	1,702	
CAPEX	1,787	2,535	

Non-operating Items

Unit: NTD Million

	3Q'15	3Q'16 (unaudited)	1-3Q'15	1-3Q'16 (unaudited)
Foreign exchange gains (losses)	112	(34)	60	(85)
Gains (losses) on disposals of property, plant and equipment	1	(2)	1	(3)
Gains (losses) on disposals of investments	2	227	3	228
Gains on financial assets (liabilities) at fair value through profit or loss, net	(3)	(11)	(5)	18
Share of loss of associates and joint ventures accounted for using equity	(11)	(8)	(44)	(17)
Others	36	112	30	192
Total	137	284	46	332

Consolidated Balance Sheets

(Unit: NTD Million)	Major Item	2015/9/30		2016/6/30		2016/9/30 (unaudited)	
		\$	%	\$	%	\$	%
	Cash and cash equivalents	1,675	8%	1,415	6%	1,813	7%
	Current financial assets at fair value through profit or	1,050	5%	506	2%	193	1%
	Current available-for-sale financial assets	607	3%	931	4%	922	4%
	Notes and accounts receivable, net	946	4%	1,297	5%	960	4%
	Inventories	2,166	10%	2,541	10%	2,569	10%
	Long-term investments	1,900	9%	2,588	10%	2,066	8%
	Net property, plant and equipment	13,462	60%	15,819	62%	15,889	63%
	Total Assets	22,269	100%	25,591	100%	25,306	100%
	Current liabilities	3,562		4,983		4,048	
	Long-term borrowings	2,197		2,356		2,858	
	Total Liabilities	5,951	27%	7,545	29%	7,119	28%
	Common stock	5,955		5,867		4,077	
	Total Equity	16,318	73%	18,046	71%	18,188	72%
	Book value per share (NT\$)	27.40		30.76		44.61	
	Key Indices						
	Current ratio (<i>Current assets / Current liabilities</i>)	189%		140%		171%	
	Debt ratio (<i>Total liabilities / Total assets</i>)	27%		29%		28%	