



# **WIN** Semiconductors

*Compound Semiconductor Solutions  
From RF to Light-Wave*

**Company Presentation**



**Aug 2018**

- *This presentation contains certain forward-looking statements that are based on current 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

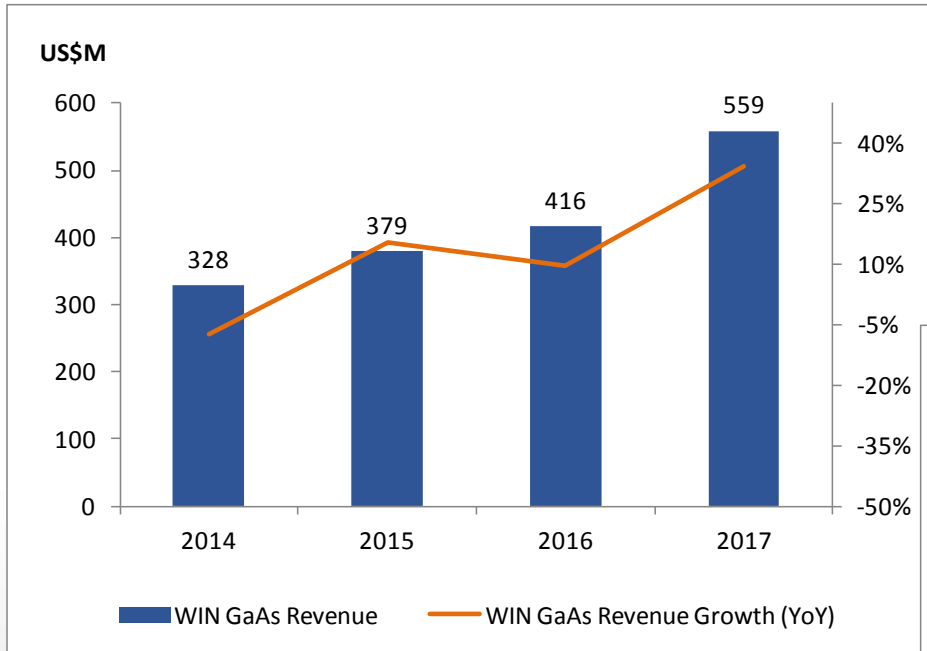
- ✓ **Market Outlook**
- ✓ **Technologies**
- ✓ **The WIN Strategy**
- ✓ **Financial Review & Guidance**
- ✓ **Q&A**

# Market Outlook

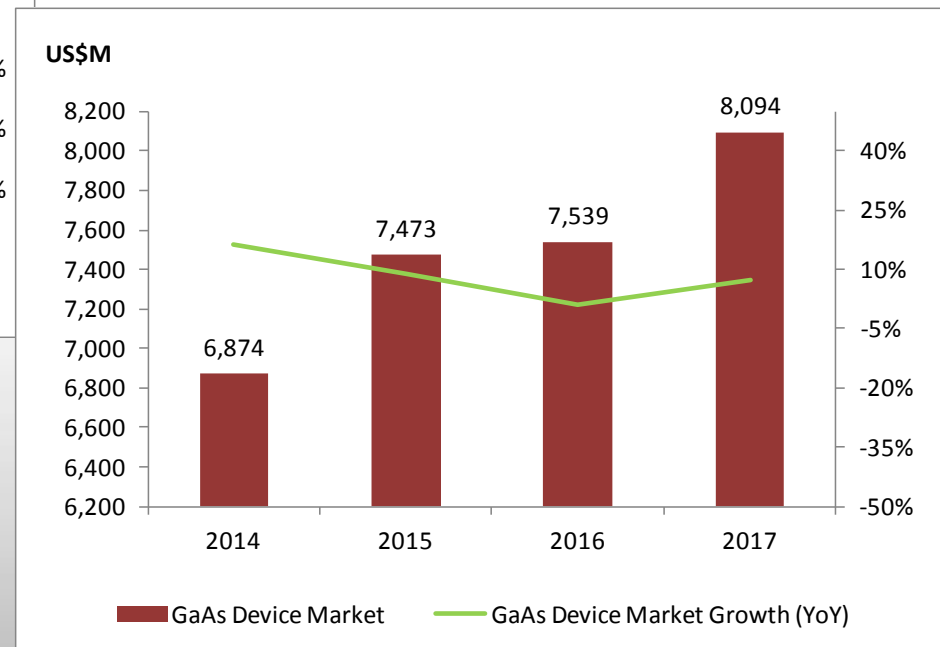
# GaAs Growth Trend (WIN vs. Industry)



## WIN GaAs Revenue Growth Trend



## GaAs Device Market Growth Trend



## 5G Wireless

- Sub-6GHz
- mmWave



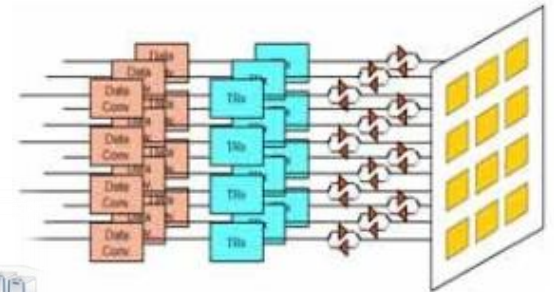
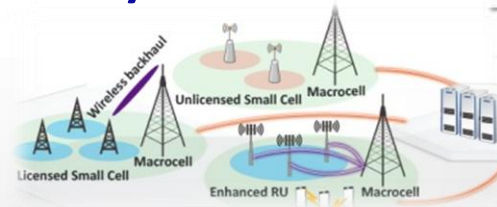
## Optical Devices

- 3D Sensing
- Optical Communication



## Largely increased RF contents

- Sub-6 GHz
  - More frequency bands at higher frequencies
  - MIMO to enhance data transmit rate
- mmWave (>28GHz)
  - Beamforming using phased array antenna
  - Small cell base stations



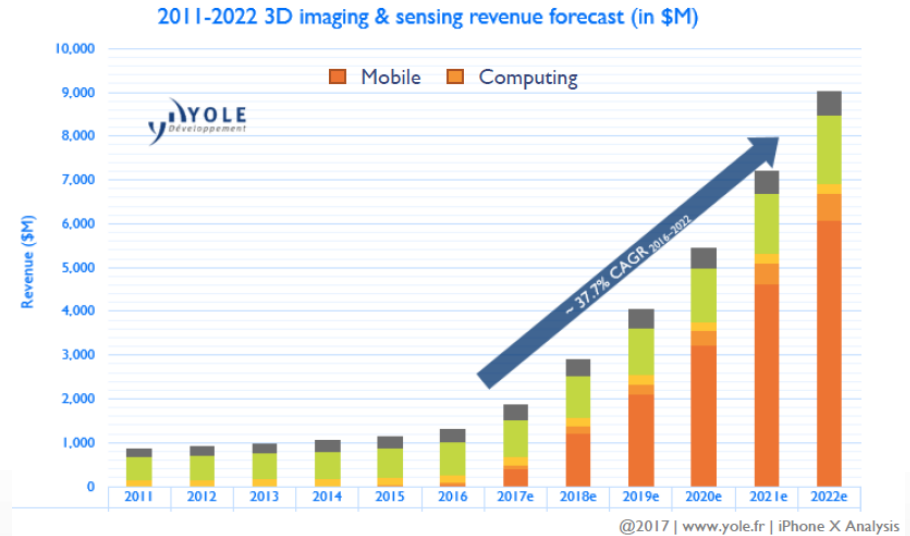
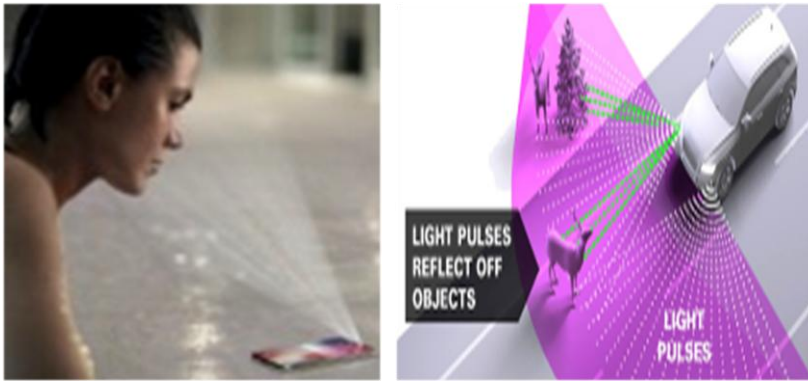
**WIN Semiconductors' technology portfolio provides high performance integrated solutions across all 5G frequency bands**

- Sub 6GHz: GaAs HBT and BiHEMT
- mm-wave: Integrated GaAs pHEMT PA/LNA/Switch

# Optical Devices

## ➤ 3D Sensing market explosion

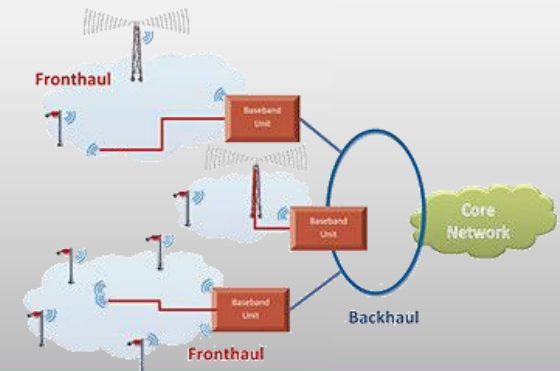
- Face and gesture recognition, AR/VR, LiDAR



Source: Webcast 3D Imaging Sensing, Yole Development, System Plus Consulting, Sept. 2017

## ➤ Optical Communication

- Fiber to The Home (FTTH)
- Data Center
- 4G/5G Mobile fronthaul and backhaul access

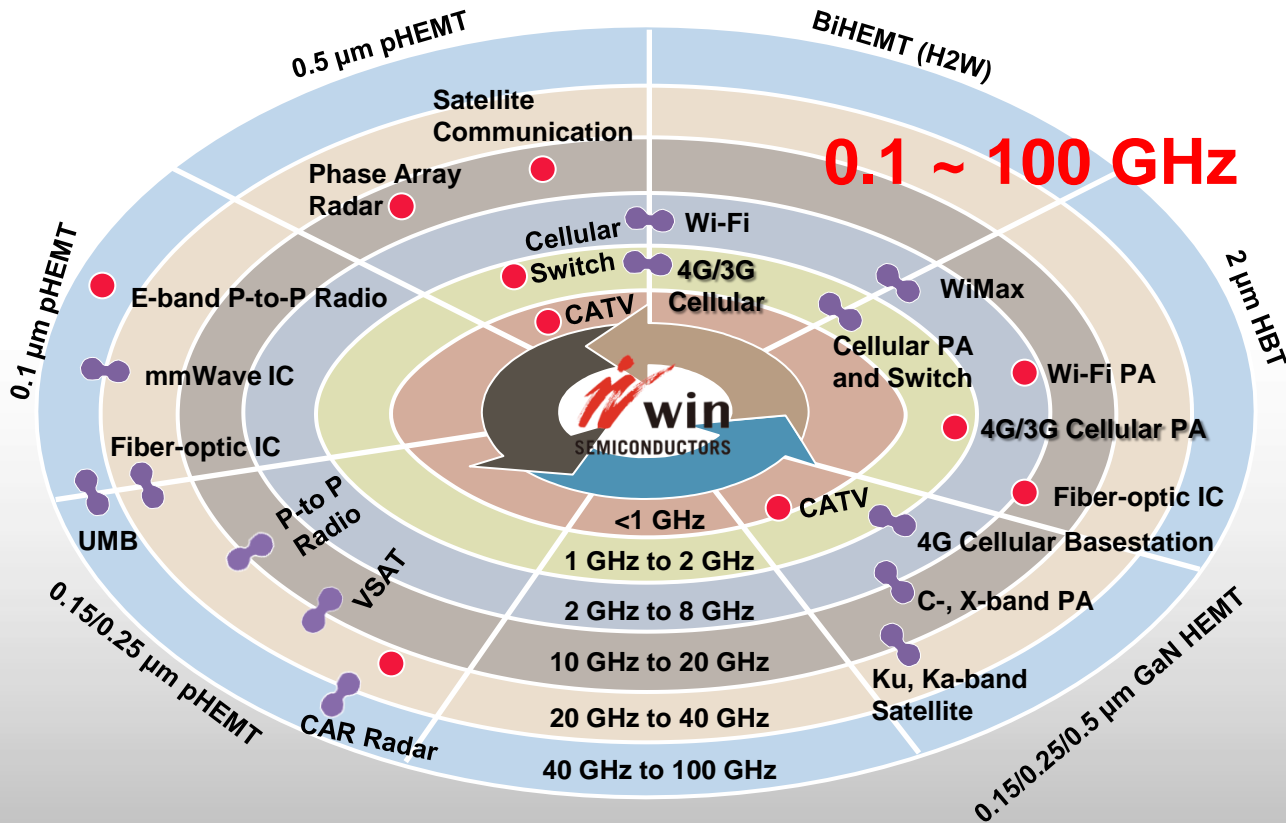




# Technologies

# Broad Portfolio of Advanced Technologies

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



**0.1 ~ 100 GHz**

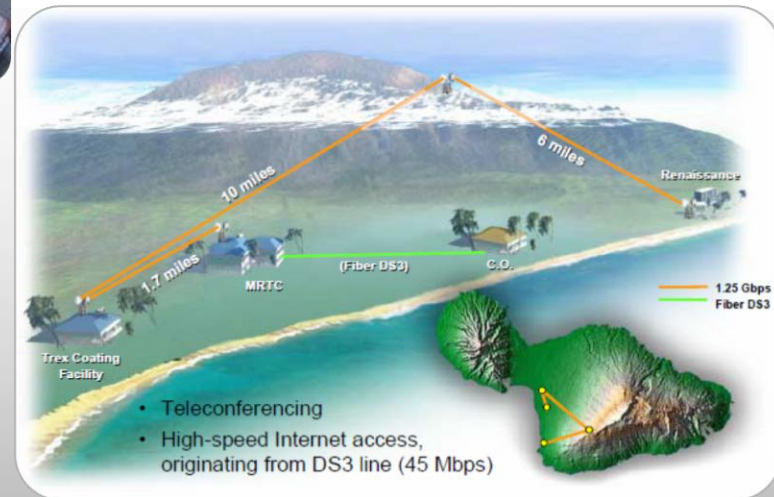
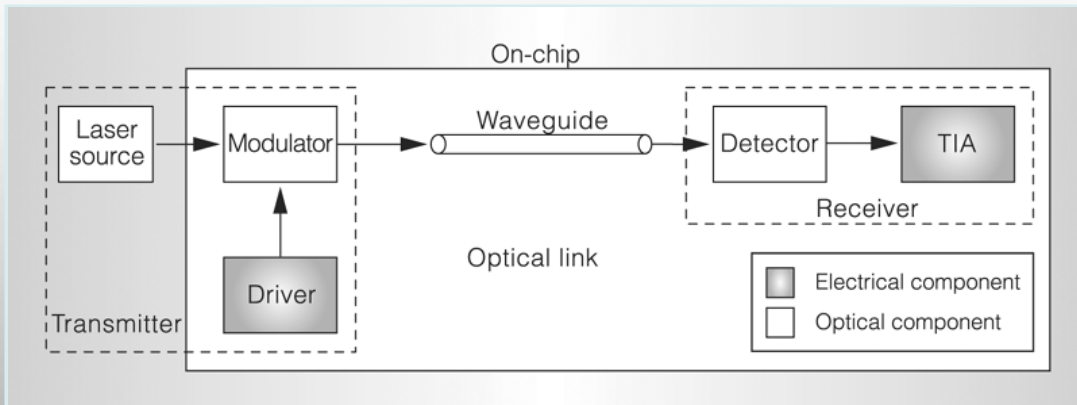
- ✓ Dominant market share for high-performance HBT used in LTE PAs
- ✓ Leading BiHEMT technology for advanced integrated FEM
- ✓ First and only foundry worldwide to commercially develop 0.1μm pHEMT on 6" GaAs wafer
- ✓ Industry leading 0.15–0.25μm pHEMT technology
- ✓ Supports broad range of products such as PAs (from 50MHz–100GHz), switches, and fiber optic IC
- ✓ Developing GaN for high power devices (4/5G base station)

# WIN 0.25/0.15/0.10 $\mu$ m pHEMT Inside!



**Ultra high frequency semiconductor technology provider!**

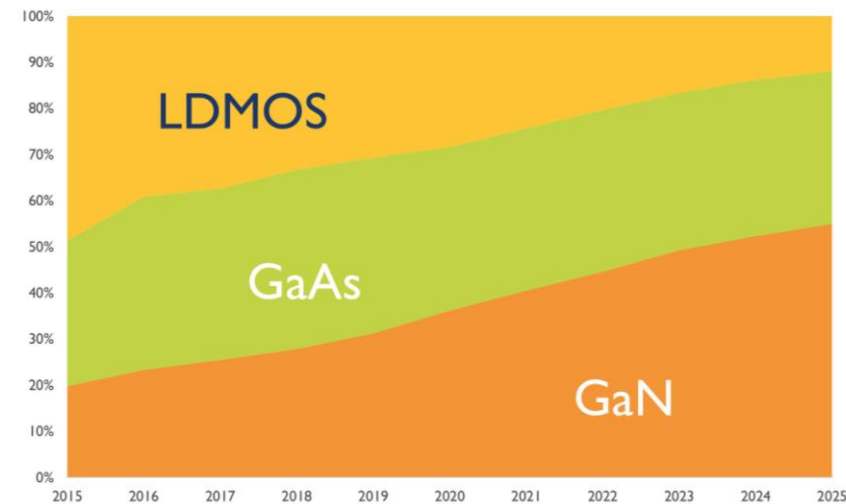
- Wireless infrastructure
- Satellite Communications
- Fiber optic Communication
- ADAS



# GaN's Opportunities in 5G Infrastructure

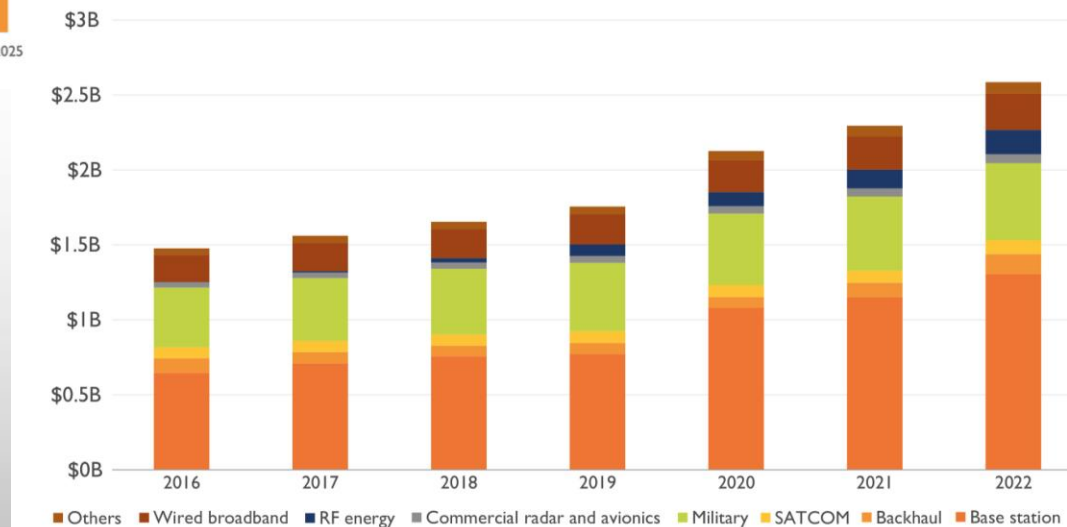
## RF power device market, in value – Breakdown by technology

(Only considering RF power semiconductors above 3W, excluding such applications as mobile PAs)



**“Growth is being driven by increasing demand for telecom base-station upgrades and small-cell implementations.”**

## RF power market from 2016 to 2022



Source: Yole Développement’s “RF Power Market and Technologies 2017: GaN, GaAs and LDMOS Report”

# The WIN Strategy

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

**Scale & Remix**

Invest in technologies to maintain competitive edge and sustain leadership

**Technology Leadership**

**Cost & Efficiency**

**Customer Diversification**

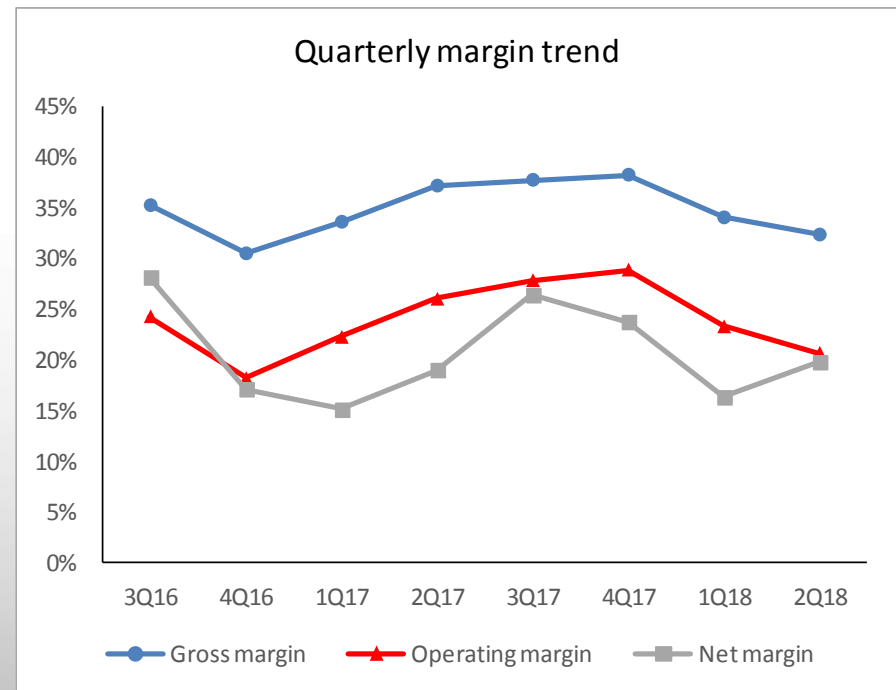
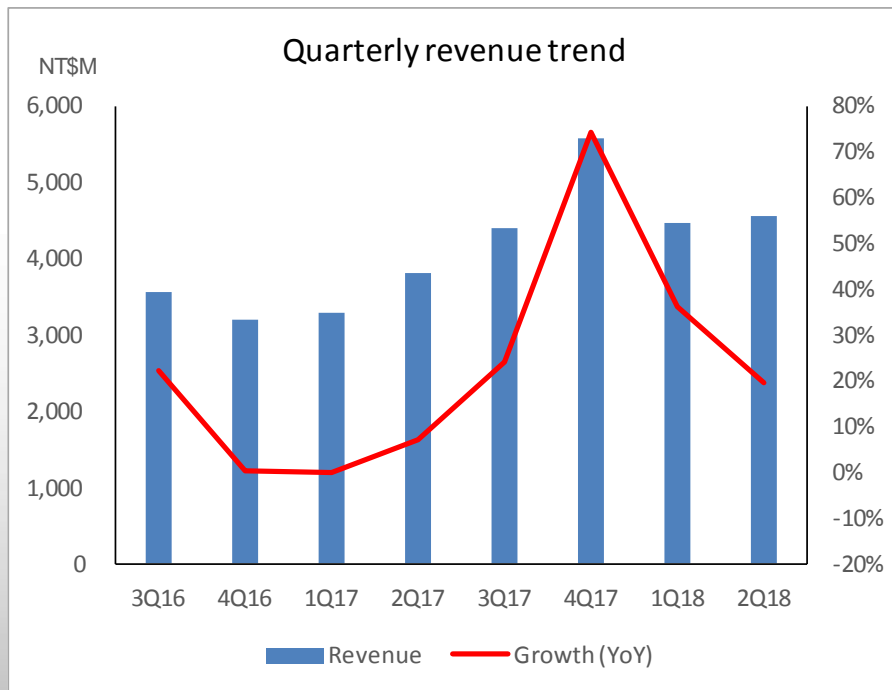
Leverage on technology and manufacture expertise to lift efficiency and drive cost down

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

# Financial Review & Guidance

# Revenue & Margin Trend

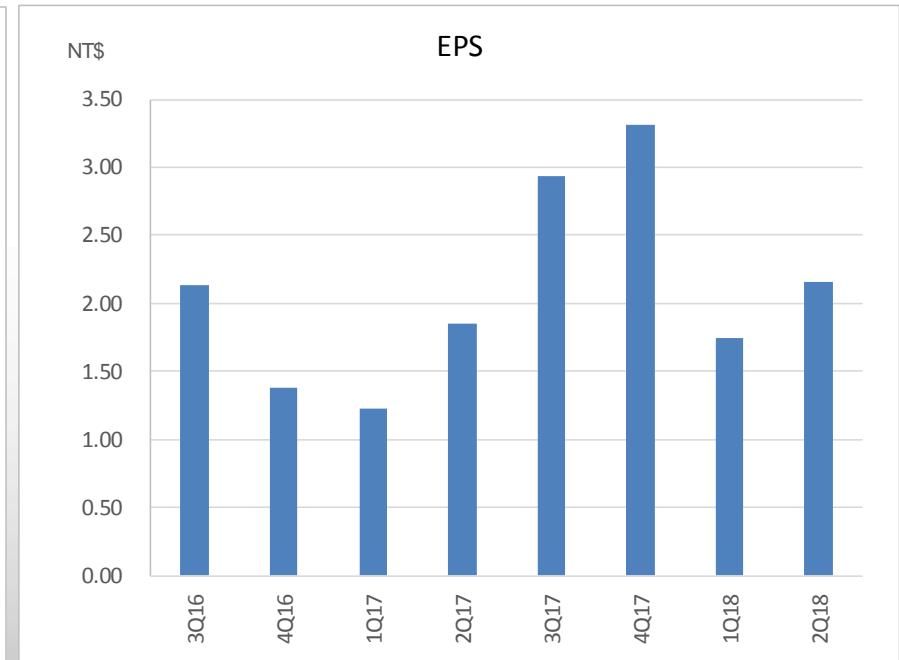
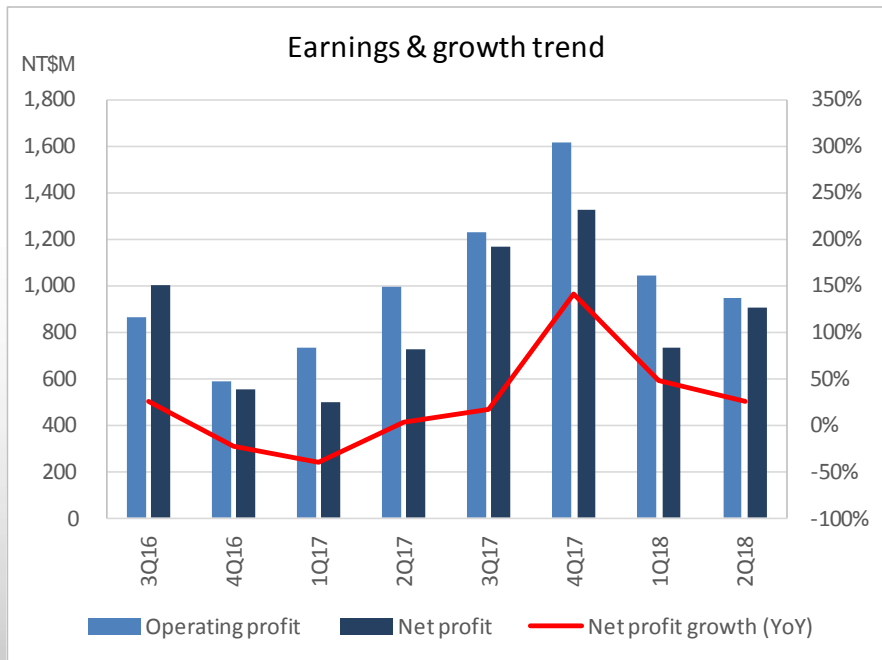
- 2Q18 revenue finished at NT\$4,567m, up 2% QoQ and 20% YoY.
- Due to the impact of product mix, 2Q18 GM and OPM were 32.4% and 20.7%, respectively, down 1.7 and 2.6 pp sequentially.



Source: company.

# Earnings Trend

- 2Q18 net income was NT\$905m, up 24% QoQ, driven by foreign exchange gains of NT\$176m as USD appreciated in the quarter, and net income also increased by 24% YoY. 2Q18 EPS came in at NT\$2.16, compared to NT\$1.74 in 1Q18.

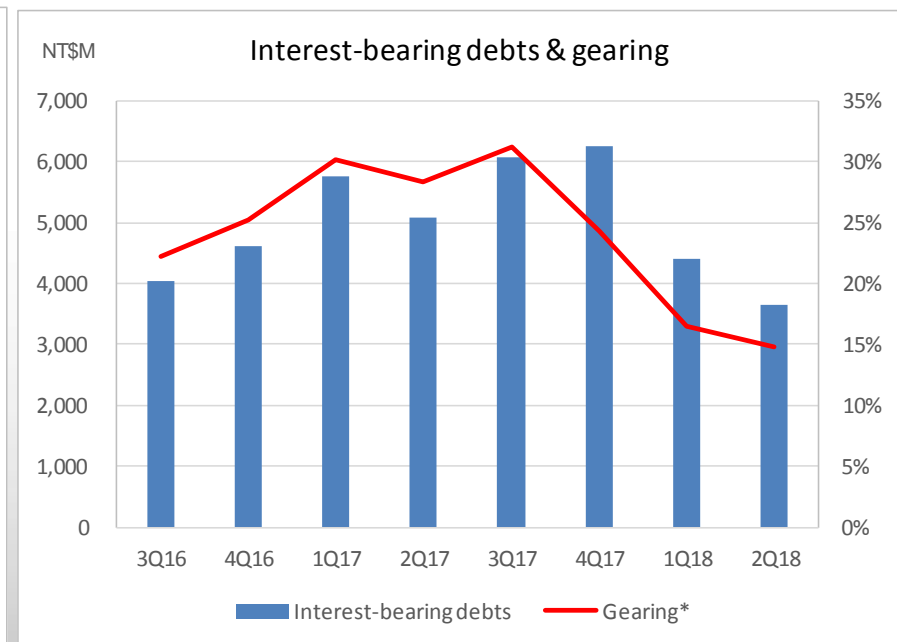
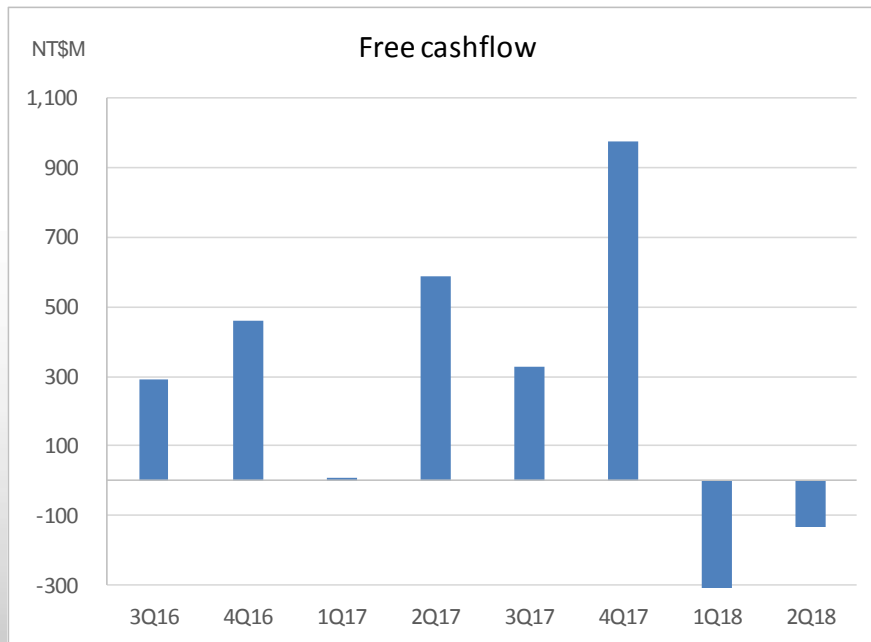


Source: company.



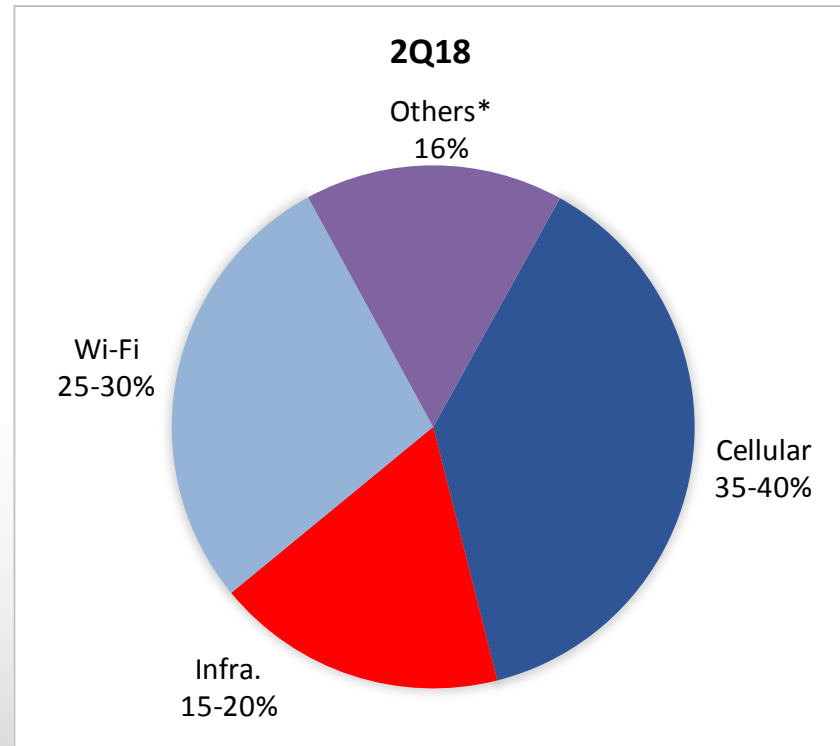
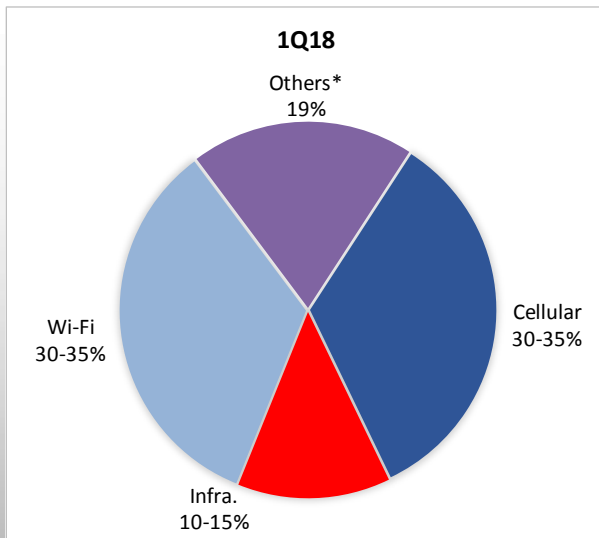
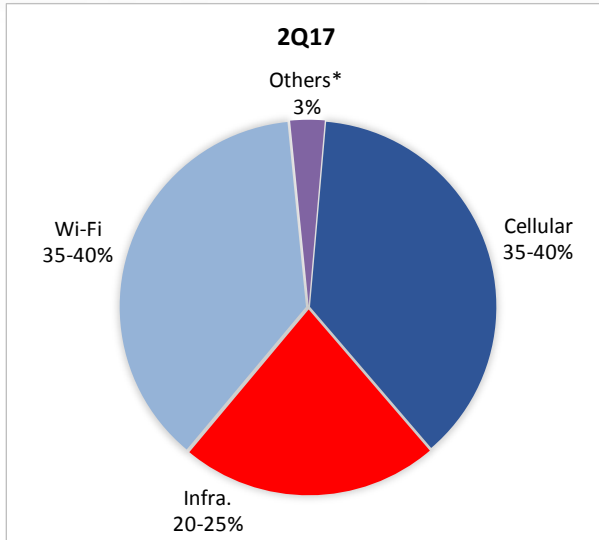
# FCF & Gearing Trend

- As we continued to spend higher capex in 2Q18, we experienced net outflow of free cash flow in the quarter.
- Interest-bearing debts and gearing ratio continued to decline in the quarter, reaching the lowest level in two years, which further enhanced our financial structure to a healthier level.



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

# Product Mix



\* Others: Revenue not attributable to main product segments and additional revenue being consolidated in accordance with IFRS.

Source: company.

# 3Q18 Guidance



- As demand not as strong as the same period before due to part of customers experiencing inventory correction, we expect 3Q18 revenue to decline around 10% QoQ.
- We expect 3Q18 gross margin to be around the level of low thirties.

# Appendix - Financial Summary

# Consolidated Statements of Comprehensive Income - Quarterly



Unit: NTD Million	2Q'17	1Q'18	2Q'18 (unaudited)	QoQ	YoY
<b>Net revenue</b>	<b>3,820</b>	<b>4,464</b>	<b>4,567</b>	<b>+2%</b>	<b>+20%</b>
Gross profit	1,422	1,521	1,479	-3%	+4%
<i>Gross margin (%)</i>	37.2%	34.1%	32.4%		
Operating expenses	(427)	(480)	(533)	+11%	+25%
<i>Operating expenses rate (%)</i>	-11%	-11%	-12%		
<b>Operating income</b>	<b>995</b>	<b>1,041</b>	<b>946</b>	<b>-9%</b>	<b>-5%</b>
<i>Operating margin (%)</i>	26.1%	23.3%	20.7%		
Non-operating incomes and expenses	0.05	(132)	211		
Income before income tax	995	909	1,157	+27%	+16%
Income tax expense	(268)	(179)	(252)		
<b>Net income</b>	<b>727</b>	<b>730</b>	<b>905</b>	<b>+24%</b>	<b>+24%</b>
<i>Net margin (%)</i>	19.0%	16.4%	19.8%		
<b>EPS (NT\$)</b>	<b>1.85</b>	<b>1.74</b>	<b>2.16</b>	<b>+24%</b>	<b>+17%</b>
Other comprehensive income, net	90	118	56		
<b>Comprehensive income</b>	<b>817</b>	<b>848</b>	<b>962</b>	<b>+13%</b>	<b>+18%</b>
ROE(%)	16%	11%	14%		
Approx. Utilization (%)	90%	85%	85%		
Depreciation	576	743	772		
CAPEX	740	1,760	1,453		

# Consolidated Statements of Comprehensive Income - 1H18

Unit: NTD Million	2017H1	2018H1 (unaudited)	YoY
<b>Net revenue</b>	<b>7,102</b>	<b>9,031</b>	<b>+27%</b>
Gross profit	2,526	3,001	+19%
<i>Gross margin (%)</i>	35.6%	33.2%	
Operating expenses	(800)	(1,013)	+27%
<i>Operating expenses rate (%)</i>	-11%	-11%	
<b>Operating income</b>	<b>1,727</b>	<b>1,987</b>	<b>+15%</b>
<i>Operating margin (%)</i>	24.3%	22.0%	
Non-operating incomes and expenses	(140)	79	
Income before income tax	1,587	2,066	+30%
Income tax expense	(363)	(431)	
<b>Net income</b>	<b>1,224</b>	<b>1,635</b>	<b>+34%</b>
<i>Net margin (%)</i>	17.2%	18.1%	
<b>EPS (NT\$)</b>	<b>3.08</b>	<b>3.90</b>	<b>+27%</b>
Other comprehensive income, net	360	175	
<b>Comprehensive income</b>	<b>1,584</b>	<b>1,810</b>	<b>+14%</b>
ROE(%)	13%	13%	
Approx. Utilization (%)	85%	85%	
Depreciation	1,150	1,515	
CAPEX	1,753	3,213	

# Non-operating Items

Unit: NTD Million

	2Q'17	2Q'18 (unaudited)	2017H1	2018H1 (unaudited)
Foreign exchange gains (losses)	7	176	(134)	104
Gains (losses) on disposals of property, plant and equipment	(0.2)	0.2	(0.2)	0.2
Gains (losses) on disposals of investments	(4)	0.02	(6)	0.3
Gains on financial assets (liabilities) at fair value through profit or loss, net	(20)	(21)	(10)	(94)
Share of loss of associates and joint ventures accounted for using equity	(18)	(21)	(34)	(41)
Others	35	77	46	110
<b>Total</b>	<b>0.05</b>	<b>211</b>	<b>(140)</b>	<b>79</b>

# Consolidated Balance Sheets

(Unit: NTD Million)	Major Item	2017/6/30		2018/3/31		2018/6/30 (unaudited)	
		\$	%	\$	%	\$	%
	Cash and cash equivalents	3,189	11%	5,852	17%	4,819	13%
	Current financial assets at fair value through profit or	197	1%	710	2%	877	2%
	Current available-for-sale financial assets *	1,290	5%	-	0%	-	0%
	Notes and accounts receivable, net	1,064	4%	1,348	4%	1,803	5%
	Inventories	3,009	11%	3,775	11%	4,055	11%
	Long-term investments *	2,484	9%	4,336	12%	4,334	12%
	Net property, plant and equipment	16,263	57%	18,128	52%	19,204	53%
	<b>Total Assets</b>	<b>28,420</b>	<b>100%</b>	<b>35,126</b>	<b>100%</b>	<b>36,134</b>	<b>100%</b>
	Current liabilities	6,295		3,831		7,581	
	Long-term borrowings	3,940		4,399		3,649	
	<b>Total Liabilities</b>	<b>10,460</b>	<b>37%</b>	<b>8,473</b>	<b>24%</b>	<b>11,478</b>	<b>32%</b>
	Common stock	4,027		4,227		4,227	
	<b>Total Equity</b>	<b>17,960</b>	<b>63%</b>	<b>26,653</b>	<b>76%</b>	<b>24,656</b>	<b>68%</b>
	Book value per share (NT\$)	44.60		63.06		58.33	
	<b>Key Indices</b>						
	Current ratio ( <i>Current assets / Current liabilities</i> )	147%		317%		159%	
	Debt ratio ( <i>Total liabilities / Total assets</i> )	37%		24%		32%	

\* The classifications of financial assets are re-recognized in accordance with IFRS 9, effective on January 1, 2018.



# Q & A

For more information regarding WIN  
[www.winfoudry.com](http://www.winfoudry.com)

For all inquiries, suggestions, and comments  
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