



# **WIN Semiconductors**

*Compound Semiconductor Solutions  
From RF to Light-Wave*

**Company Presentation**



**May 2018**

# Safe Harbor Notice



- *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

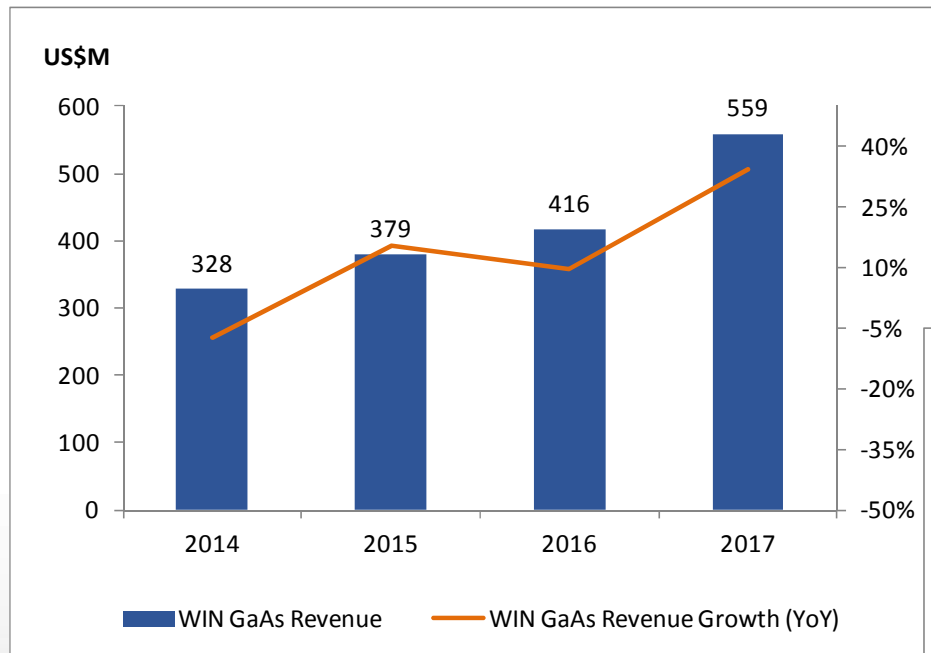
- ✓ **Market Outlook**
- ✓ **Technologies**
- ✓ **The WIN Strategy**
- ✓ **Financial Review & Guidance**
- ✓ **Q&A**

# Market Outlook

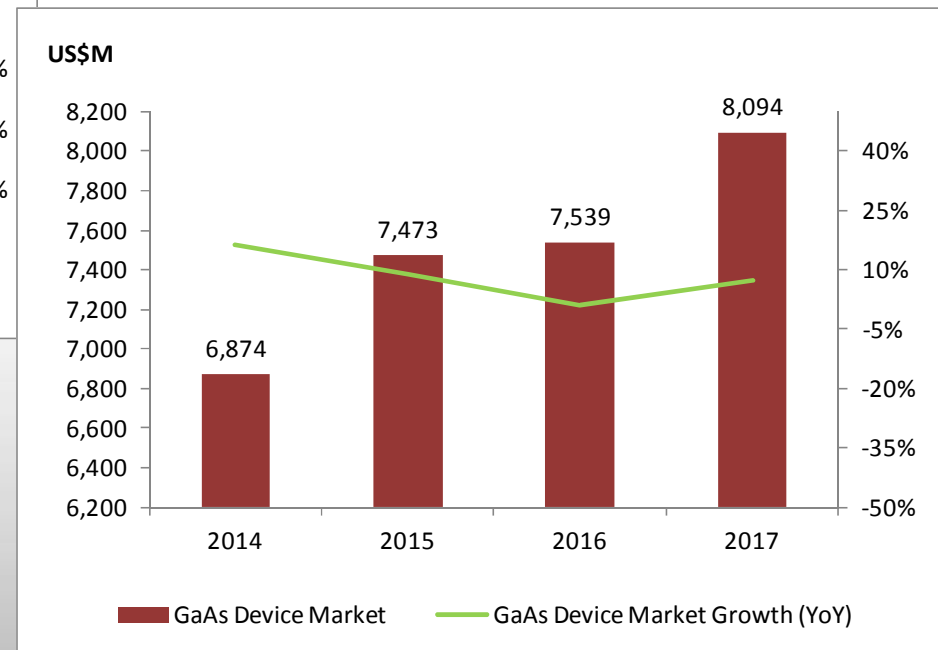
# GaAs Growth Trend (WIN vs. Industry)



## WIN GaAs Revenue Growth Trend

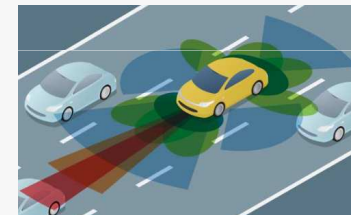


## GaAs Device Market Growth Trend



## 5G Wireless

- Sub-6GHz
- mmWave



## Optical Devices

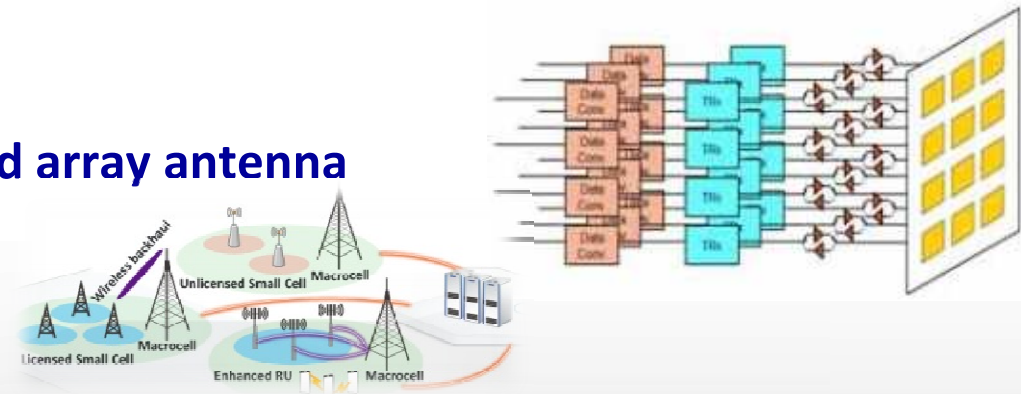
- 3D Sensing
- Optical Communication



# 5G Wireless

## 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**

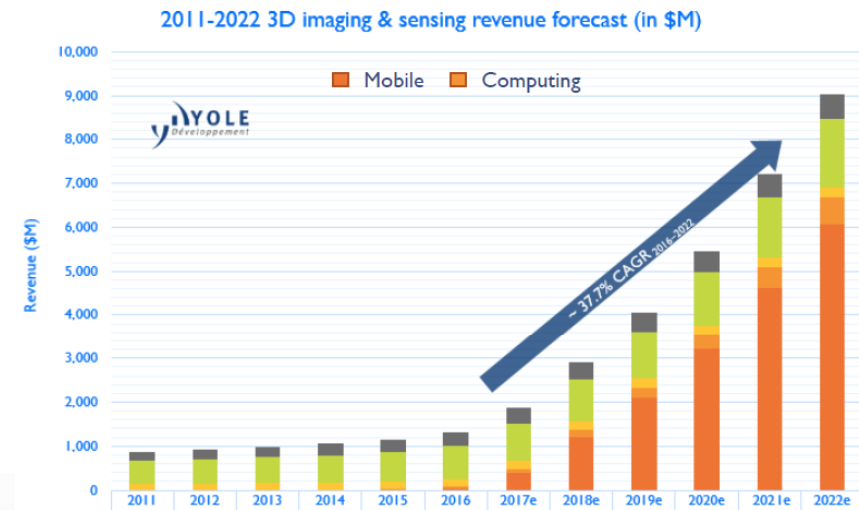
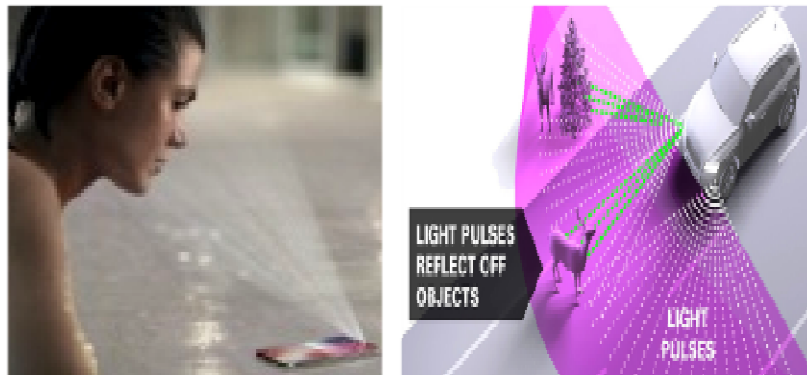
- Sub 6GHz: GaAs HBT and BiHEMT
- mm-wave: Integrated GaAs pHEMT PA/LNA/Switch



# Optical Devices

## ➤ 3D Sensing market explosion

- Face and gesture recognition, AR/VR, LiDAR

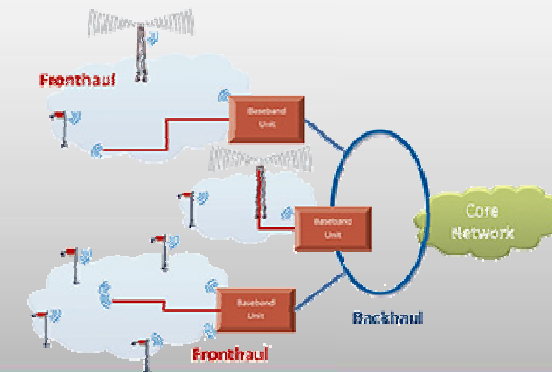


@2017 | www.yole.fr | iPhone X Analysis

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



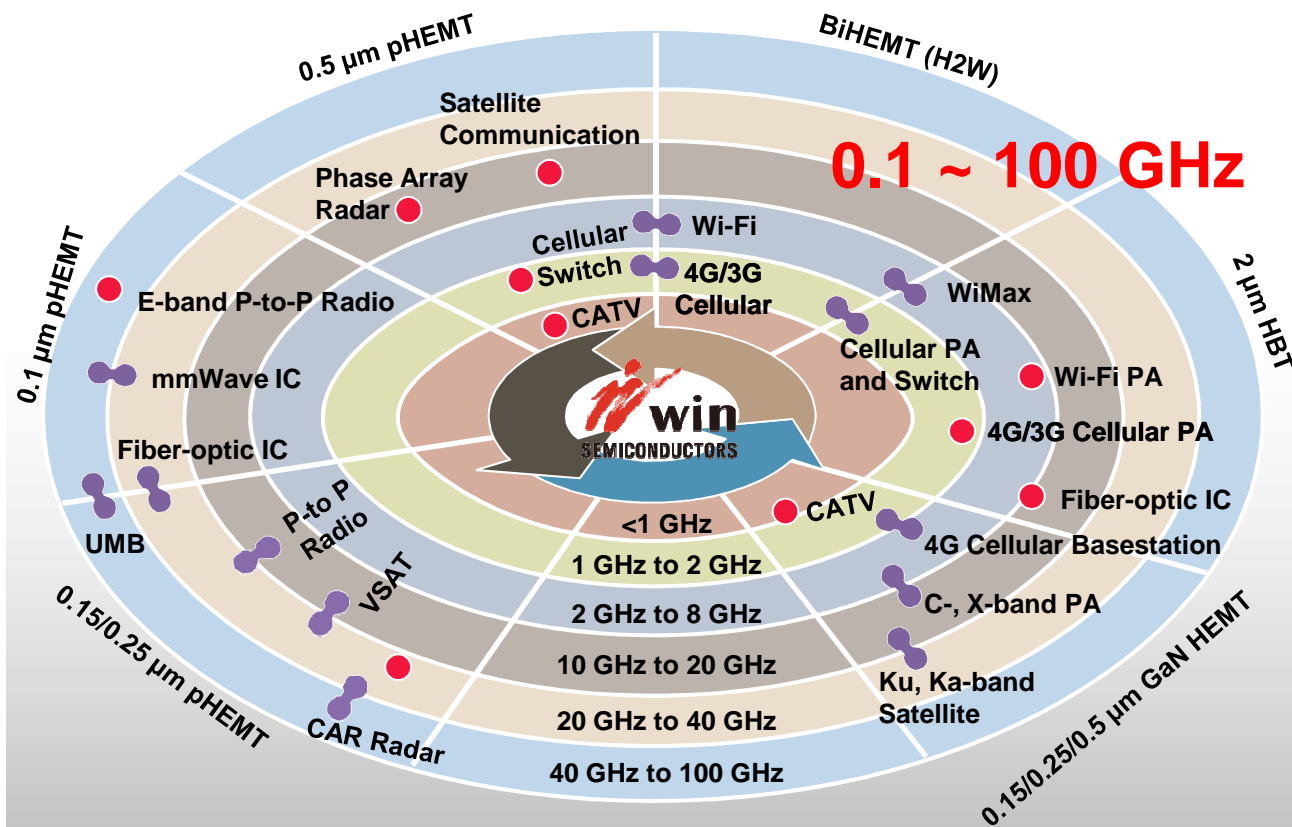


# Technologies

# Broad Portfolio of Advanced Technologies **win**

SEMICONDUCTORS

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



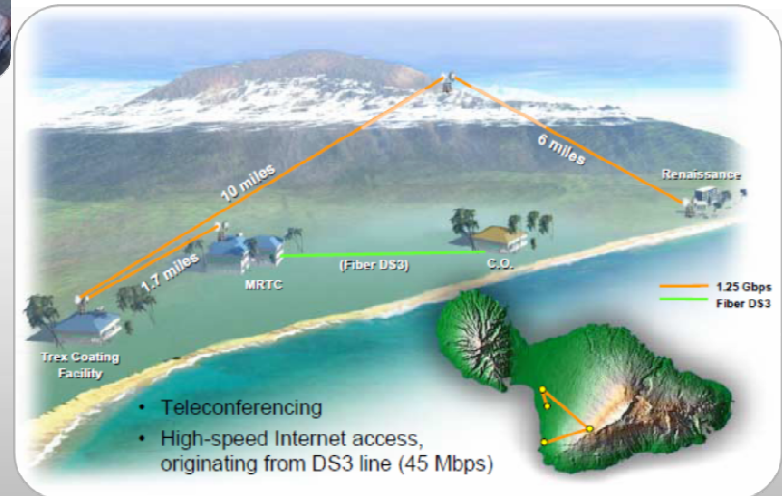
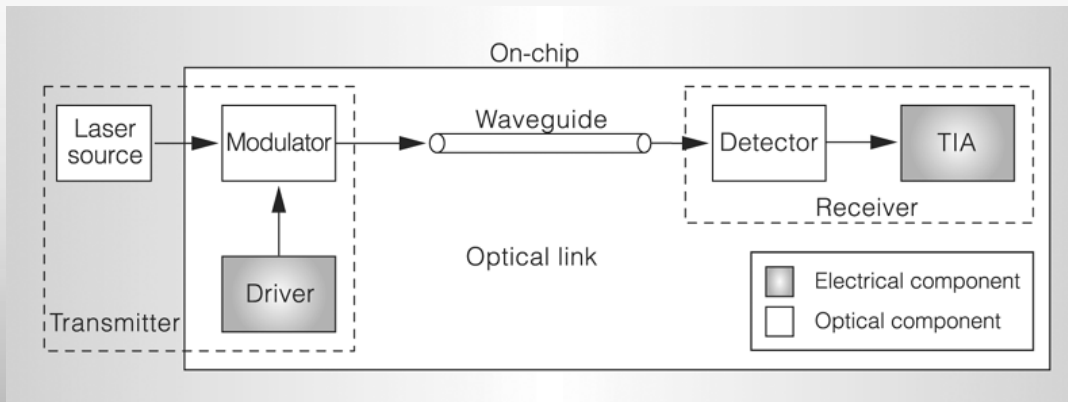
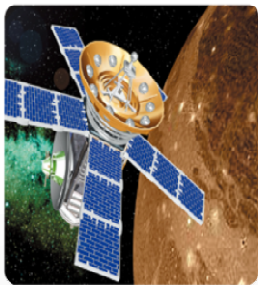
- ✓ Dominant market share for high-performance HBT used in LTE PAs
- ✓ Leading BiHEMT technology for advanced integrated FEM
- ✓ First and only foundry worldwide to commercially develop 0.1μm pHEMT on 6" GaAs wafer
- ✓ Industry leading 0.15–0.25μm pHEMT technology
- ✓ Supports broad range of products 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

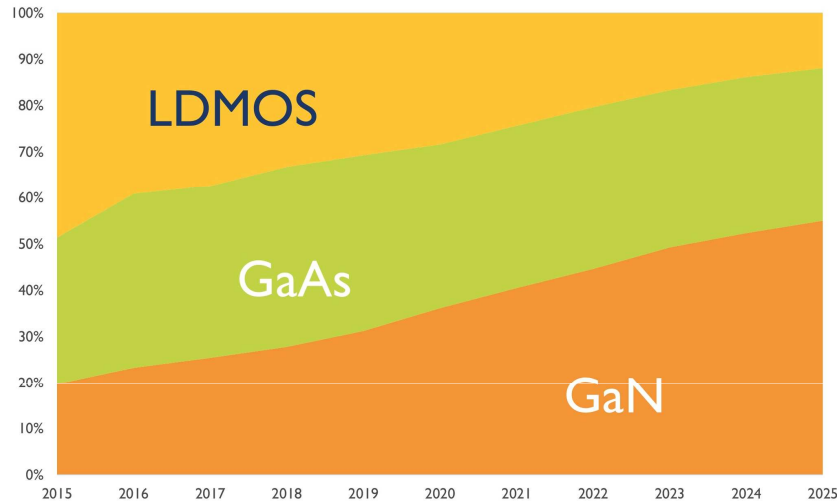


# GaN's Opportunities in 5G Infrastructure



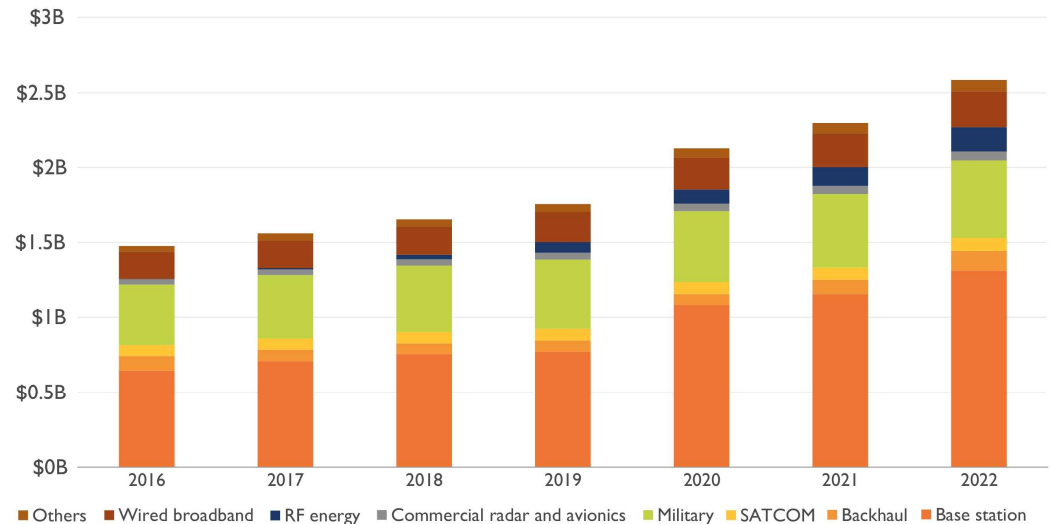
## RF power device market, in value – Breakdown by technology

(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**

**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

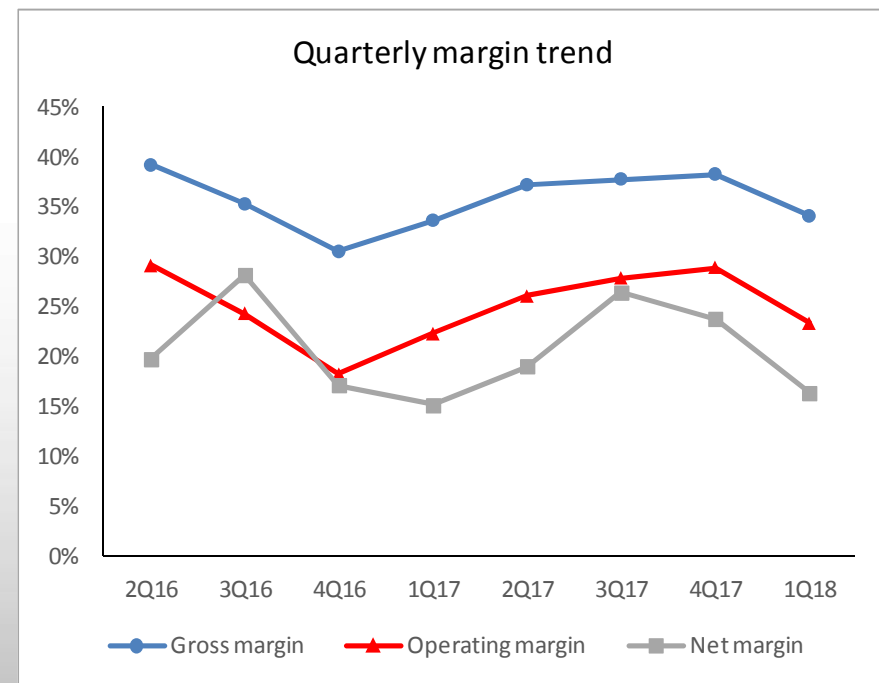
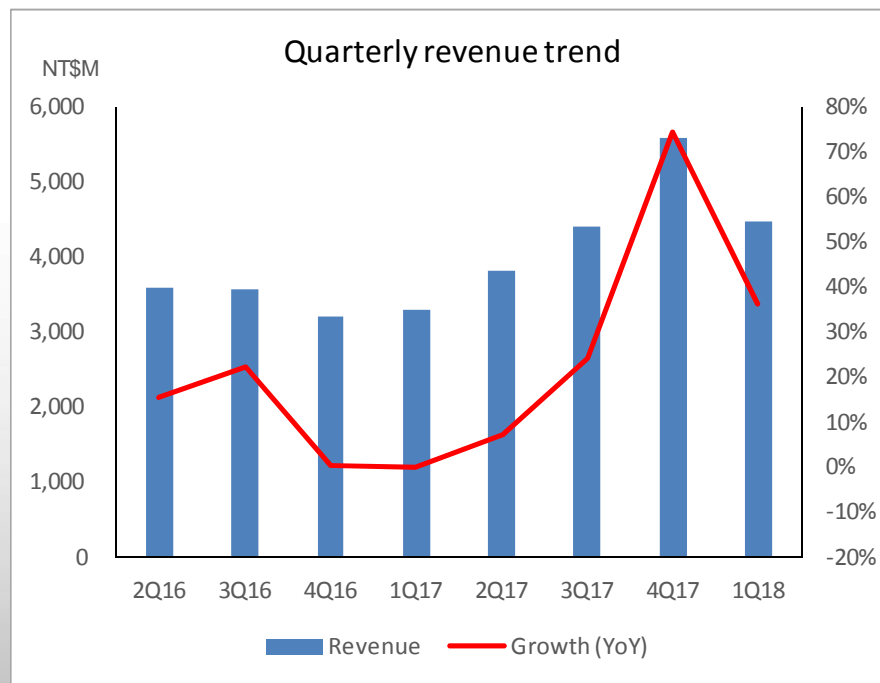
Grow and acquire new customers in existing and new markets to diversify customer base

# Financial Review & Guidance

# Revenue & Margin Trend



- 1Q18 revenue declined 20% QoQ as we previously expected given that first quarter is typically a slower season for the smartphone market, but increased 36% YoY.
- 1Q18 GM and OPM were 34.1% and 23.3%, respectively, down 4.2 and 5.6 pp sequentially. This was mainly due to a lower utilization rate and changes in product mix.



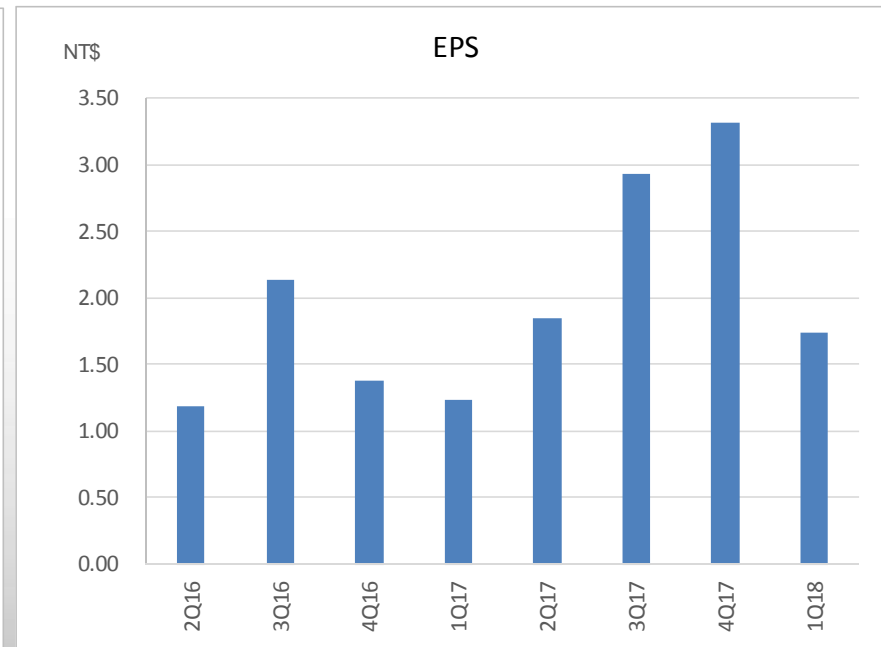
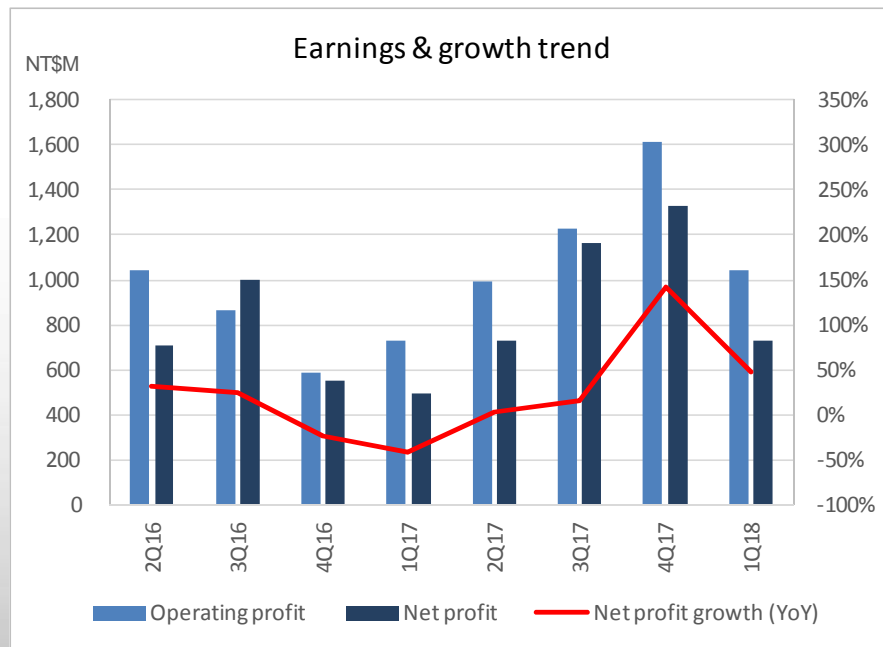
Source: company.



# Earnings Trend



- 1Q18 net income was NT\$0.73bn, down 45% QoQ, owing to a decline in GM and OPM, along with a sequential increase in foreign exchange losses, but net income increased by 47% YoY. 1Q18 EPS came in at NT\$1.74, compared to NT\$3.31 in 4Q17.

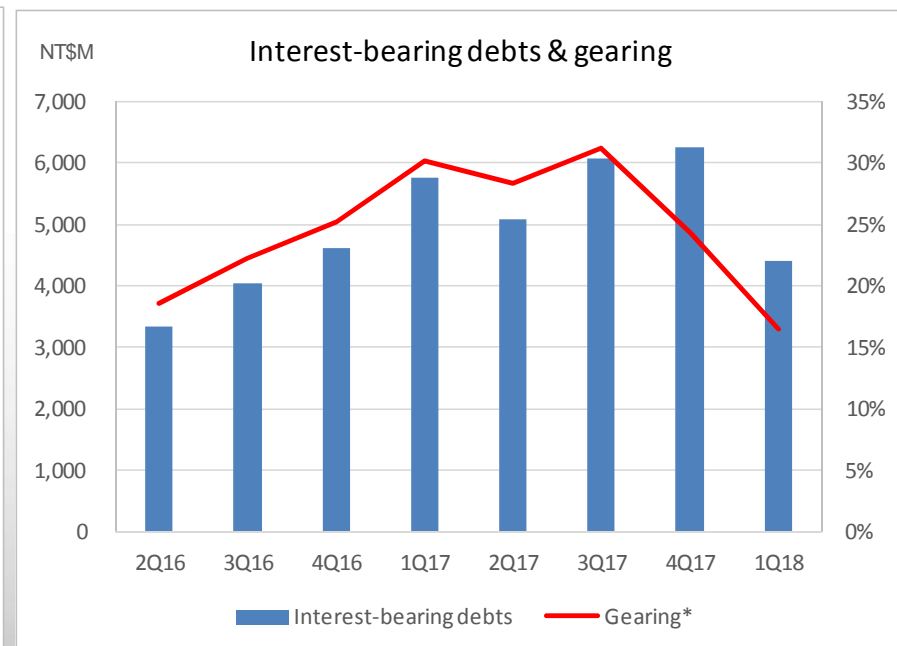
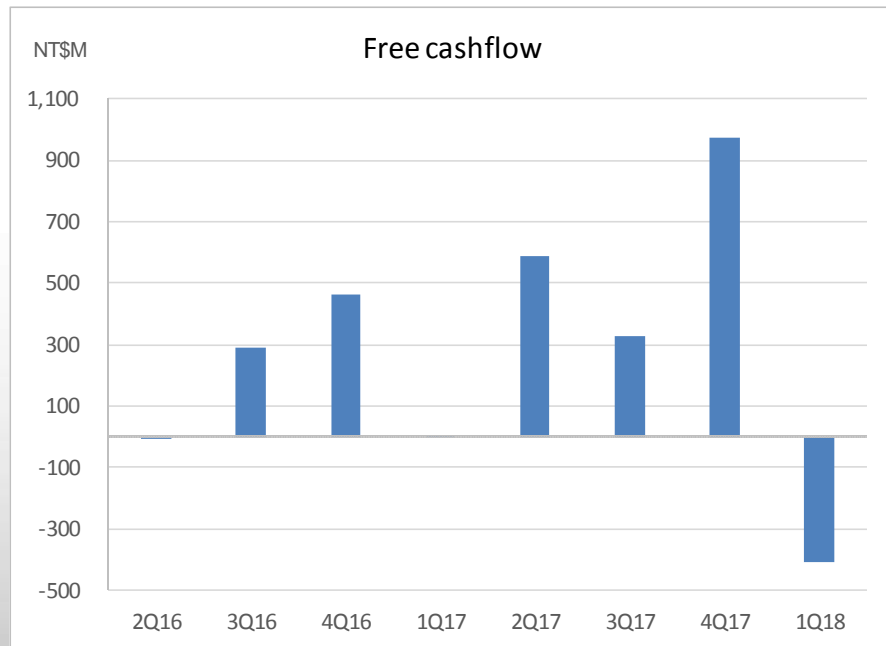


Source: company.

# FCF & Gearing Trend



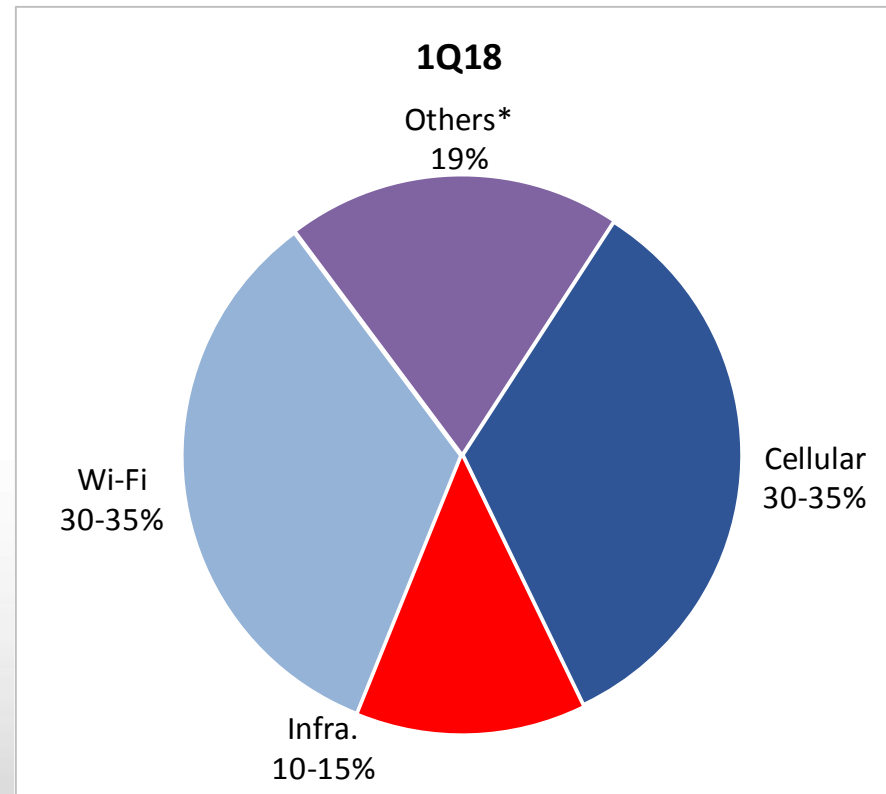
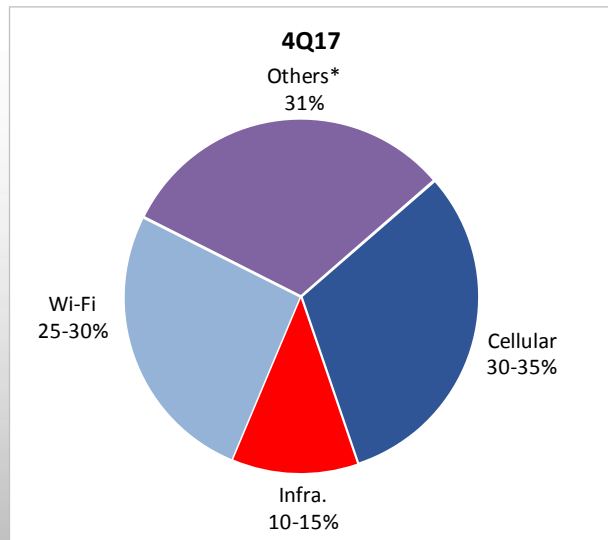
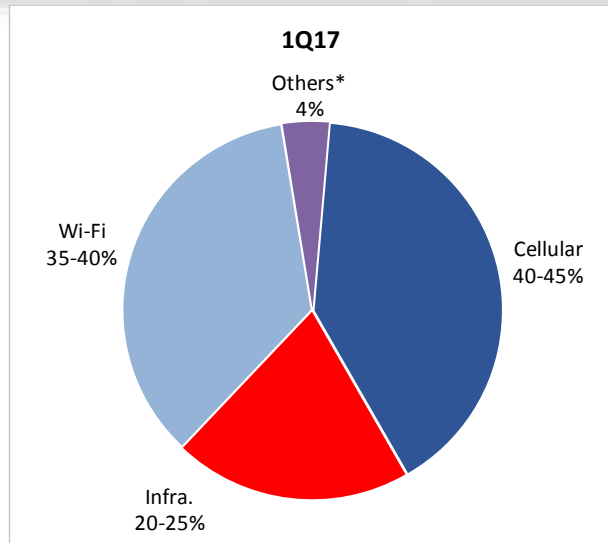
- Free cash flow was negative in 1Q18, mainly due to the continued increase in capex for capacity expansion. .
- As the capital raised from the private placement last year-end has been used for capacity expansion, both interest-bearing debts and gearing ratio materially declined in 1Q18, which further 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.

# 2Q18 Guidance



- We expect revenue to increase by low-single digit QoQ.
- We expect gross margin to be around the same level as 1Q18.

# Appendix - Financial Summary

# Consolidated Statements of Comprehensive Income - Quarterly



Unit: NTD Million	1Q'17	4Q'17	1Q'18 (unaudited)	QoQ	YoY
<b>Net revenue</b>	<b>3,282</b>	<b>5,581</b>	<b>4,464</b>	<b>-20%</b>	<b>+36%</b>
Gross profit	1,105	2,137	1,521	-29%	+38%
<i>Gross margin (%)</i>	33.7%	38.3%	34.1%		
Operating expenses	(373)	(523)	(480)	-8%	+29%
<i>Operating expenses rate (%)</i>	-11%	-9%	-11%		
<b>Operating income</b>	<b>732</b>	<b>1,615</b>	<b>1,041</b>	<b>-36%</b>	<b>+42%</b>
<i>Operating margin (%)</i>	22.3%	28.9%	23.3%		
Non-operating incomes and expenses	(140)	(38)	(132)		
Income before income tax	592	1,577	909	-42%	+54%
Income tax expense	(95)	(249)	(179)		
<b>Net income</b>	<b>496</b>	<b>1,327</b>	<b>730</b>	<b>-45%</b>	<b>+47%</b>
<i>Net margin (%)</i>	15.1%	23.8%	16.4%		
<b>EPS (NT\$)</b>	<b>1.23</b>	<b>3.31</b>	<b>1.74</b>	<b>-47%</b>	<b>+41%</b>
Other comprehensive income, net	270	17	118		
<b>Comprehensive income</b>	<b>767</b>	<b>1,344</b>	<b>848</b>	<b>-37%</b>	<b>+11%</b>
ROE(%)	11%	23%	11%		
Approx. Utilization (%)	80%	100%	85%		
Depreciation	574	714	743		
CAPEX	1,013	1,470	1,760		

# Non-operating Items



Unit: NTD Million	1Q'17	1Q'18 (unaudited)
Foreign exchange gains (losses)	(142)	(73)
Gains (losses) on disposals of property, plant and equipment	-	0.01
Gains (losses) on disposals of investments	(2)	0.3
Gains on financial assets (liabilities) at fair value through profit or loss, net	10	(74)
Share of loss of associates and joint ventures accounted for using equity	(16)	(19)
Others	10	33
<b>Total</b>	<b>(140)</b>	<b>(132)</b>



# Consolidated Balance Sheets



(Unit: NTD Million)	Major Item	2017/3/31		2017/12/31		2018/3/31 (unaudited)	
		\$	%	\$	%	\$	%
	Cash and cash equivalents	3,278	12%	7,849	21%	5,852	17%
	Current financial assets at fair value through profit or	234	1%	1,301	4%	710	2%
	Current available-for-sale financial assets	1,314	5%	1,662	4%	-	0%
	Notes and accounts receivable, net	1,002	4%	1,551	4%	1,348	4%
	Inventories	2,793	10%	3,745	10%	3,775	11%
	Long-term investments	2,170	8%	2,206	6%	4,336	12%
	Net property, plant and equipment	16,322	58%	17,551	47%	18,128	52%
	<b>Total Assets</b>	<b>28,071</b>	<b>100%</b>	<b>37,027</b>	<b>100%</b>	<b>35,126</b>	<b>100%</b>
	Current liabilities	3,973		5,077		3,831	
	Long-term borrowings	4,811		5,905		4,399	
	<b>Total Liabilities</b>	<b>9,010</b>	<b>32%</b>	<b>11,223</b>	<b>30%</b>	<b>8,473</b>	<b>24%</b>
	Common stock	4,027		4,227		4,227	
	<b>Total Equity</b>	<b>19,061</b>	<b>68%</b>	<b>25,805</b>	<b>70%</b>	<b>26,653</b>	<b>76%</b>
	Book value per share (NT\$)	47.34		61.05		63.06	
	<b>Key Indices</b>						
	Current ratio ( <i>Current assets / Current liabilities</i> )	228%		331%		317%	
	Debt ratio ( <i>Total liabilities / Total assets</i> )	32%		30%		24%	

# Q & A

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

For all inquiries, suggestions, and comments  
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