



*Compound Semiconductor Solutions  
from RF to Lightwave*

穩懋半導體

# WIN Semiconductors Company Presentation

Aug - Oct 2020



# 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.**

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

# MARKET OUTLOOK

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# Business Growth Drivers



**5G + Wi-Fi 6**



**Infrastructure**



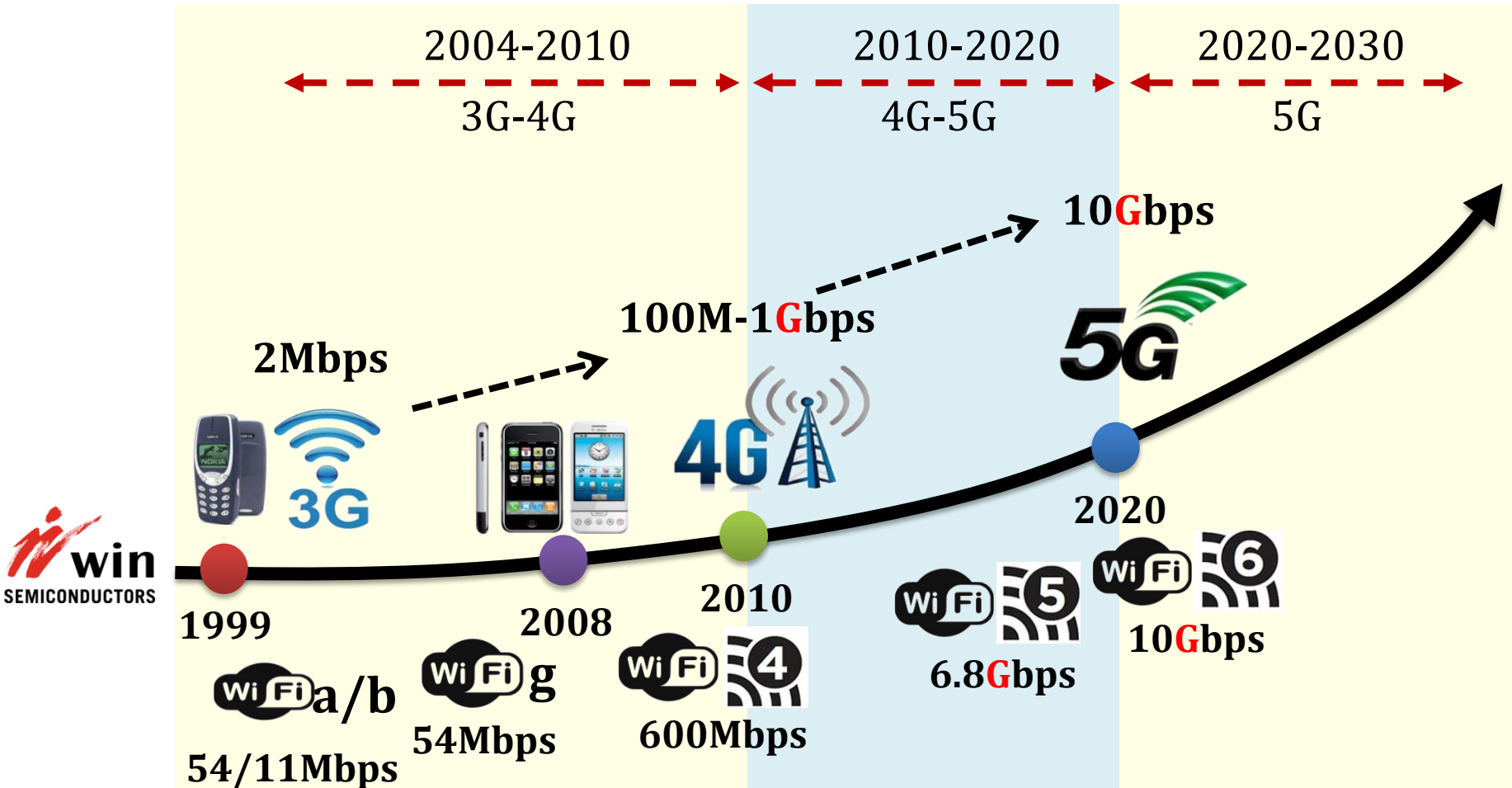
**Optical Devices**



# Performance

Ultra-High  
Speed

is required in **wireless communication**.  
It is the advantage of compound semiconductors.





# Opportunities for Compound Semiconductors



Y2019-20

Implement Phase

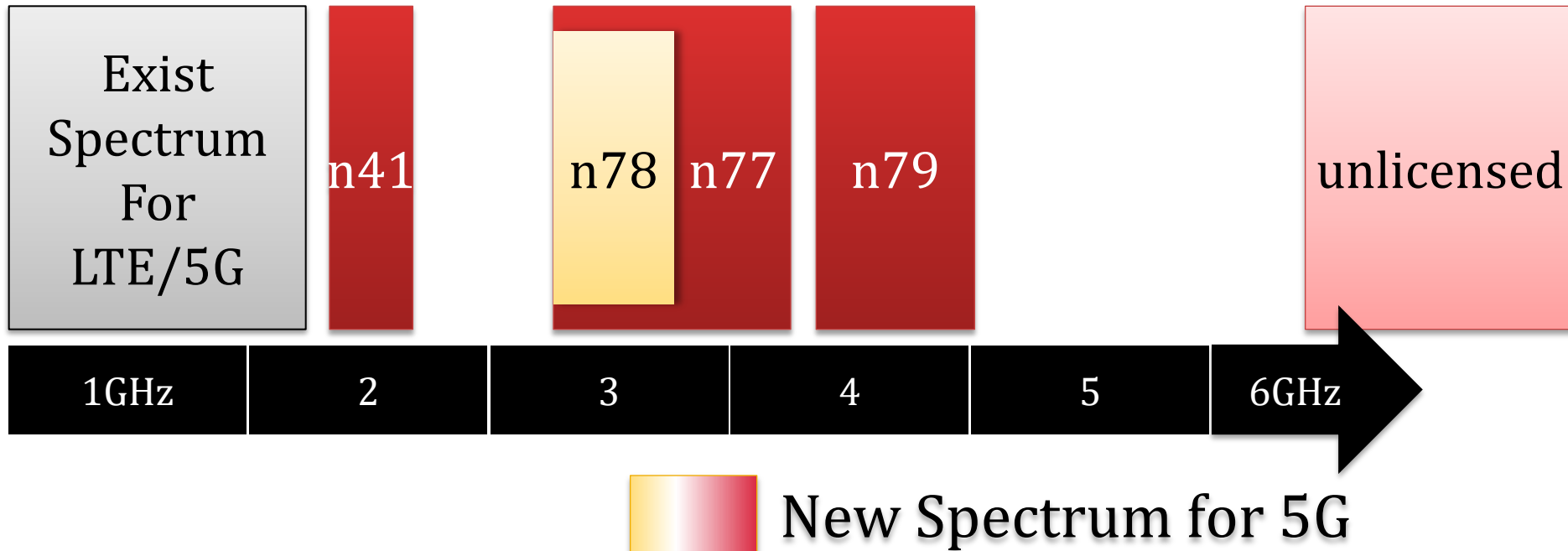
Y2021-25

Demand Rapid Growth

	Mobile Device	Infrastructure/CPE
Sub-6GHz	<ul style="list-style-type: none"><li>• GaAs HBT</li></ul>	<ul style="list-style-type: none"><li>• GaN HEMT</li><li>• GaAs pHEMT</li></ul>
mmWave	<ul style="list-style-type: none"><li>• Integrated compound semi technologies</li></ul>	<ul style="list-style-type: none"><li>• GaN HEMT</li><li>• GaAs pHEMT</li></ul>

- 5G sub-6GHz (<6GHz) spectrum bands for ubiquitous network coverage
- 5G mmWave (~30GHz) likely for fixed wireless access as a start followed by extreme mobile broadband in the longer term

# 5G Sub-6GHz Freq. Spectrum



(1) New frequency bands for 5G

(2) MIMO: n41, n77, n78, and n79

(3) Additional 5G PA (Refarm existing 4G Frequency band )

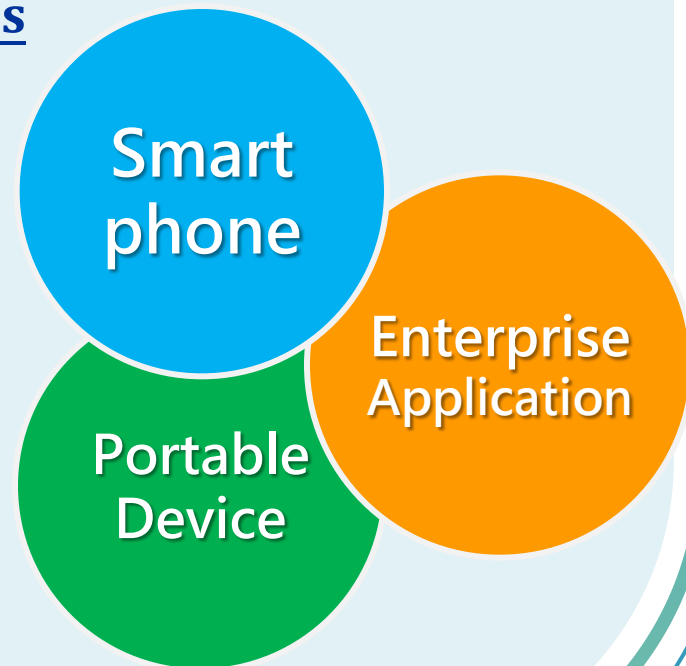




# Opportunities

## Wi-Fi 6 has been arriving and Wi-Fi 7 is developing

- Wi-Fi will be upgraded from 802.11ac to 802.11ax (Wi-Fi 6), from flagship to mid-range phones
  - Faster throughput
  - Higher network efficiency
  - Better in dense environments
- 802.11be (Wi-Fi 7)
  - Extreme high throughput
  - Extend to 6GHz frequency band

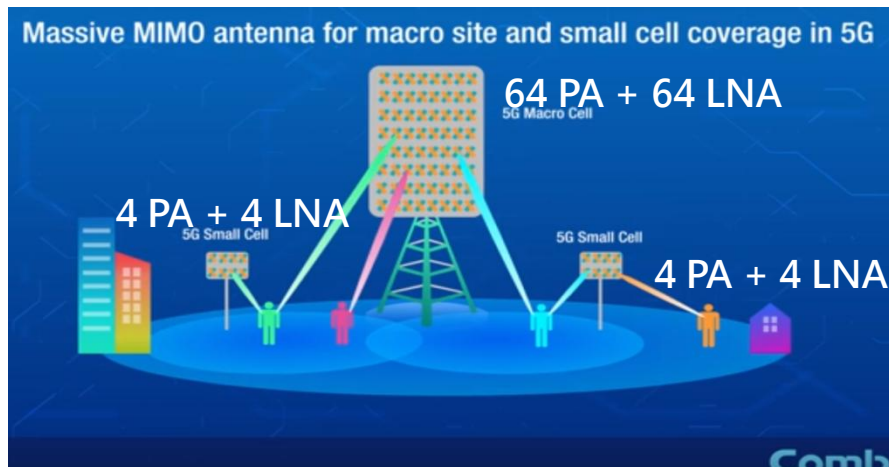


## ● RF Device Inside Macro & Small Cell Sector

- The high performance of compound semiconductors is the better choice for PA and LNA on 5G base-station.
- More than 100M transceivers in 2020.

## ● Satellite Communication Era is Coming

- More than 6,500 small satellites (<500kg) in orbit by 2027.
- Comms. application will be the key growth engine for satellite.



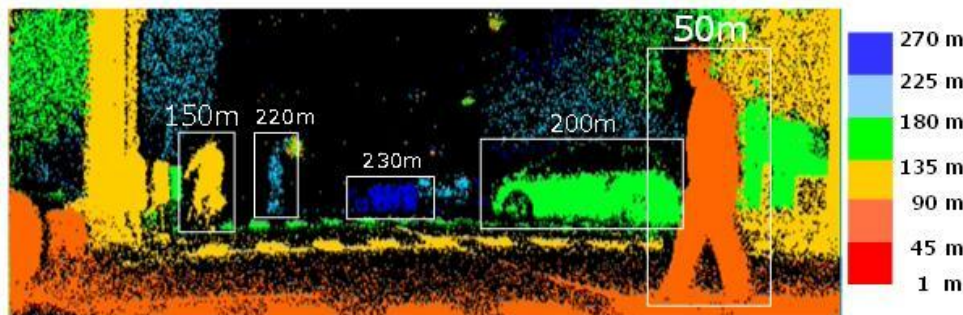
# Optical for 3D Sensing

- **Structure-Light demand keep very strong**
- **ToF for 3D sensing applications will keep growth**
  - Production was started since 2H2019
  - Multiple customers use ToF for both front and world facing applications

## World Facing AR



## Autonomous



## Gesture Recognition



## ● Optical Devices

- Data center interconnect, or metro/long-haul coherent transmission
- Proximity/Light sensor



- More and more customers engagement and will enter production stage soon

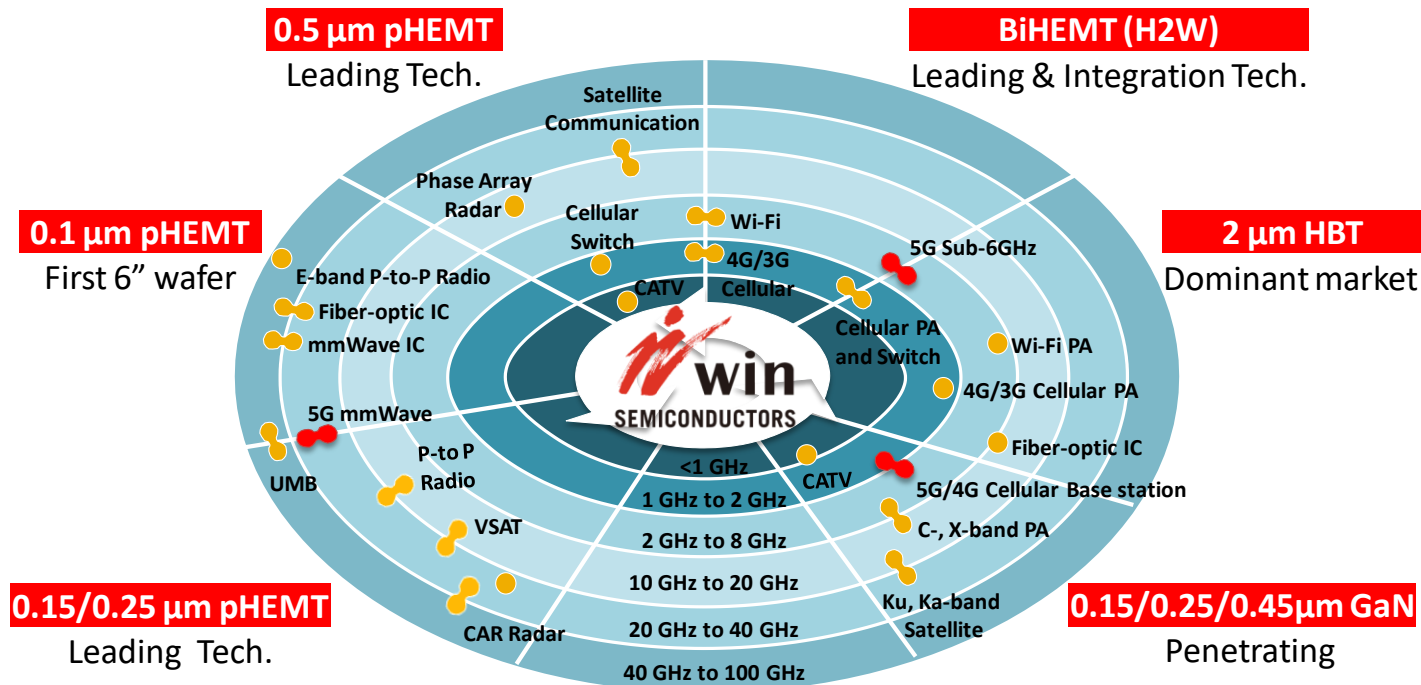
# TECHNOLOGIES

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# 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 $\mu\text{m}$  pHEMT on 6" GaAs wafer

- Industry leading 0.15–0.25 $\mu\text{m}$  pHEMT technology
- Supports broad range of products such as PAs (from 50MHz–100GHz), switches, and fiberoptic IC
- Developing GaN for high power devices (4/5G base station)

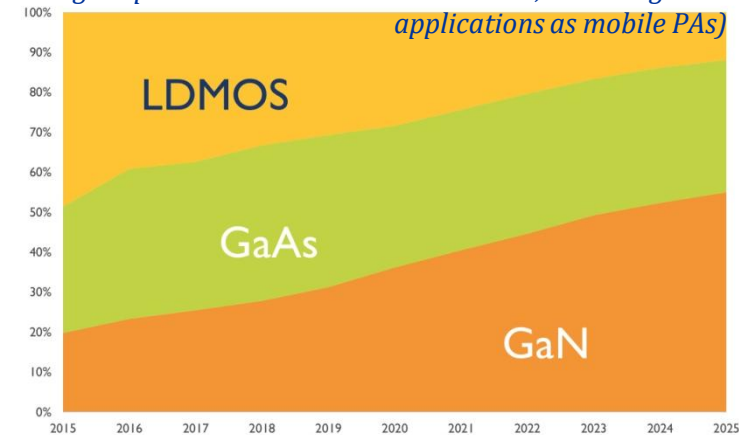
# 4/5G Infrastructure – WIN Inside!

## Ultra high frequency semiconductor technology provider!

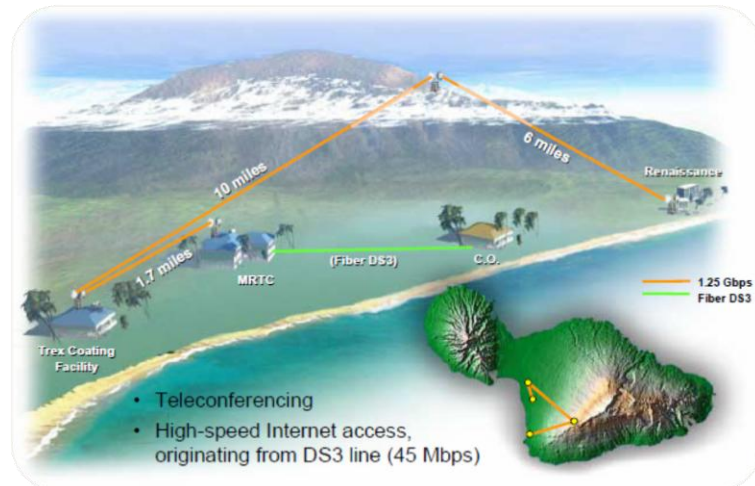
- Wireless infrastructure
- Satellite communications
- Fiberoptic communication
- ADAS

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

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



Source: Yole Développement



# 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**

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

**Cost & Efficiency**

**Customer Diversification**

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

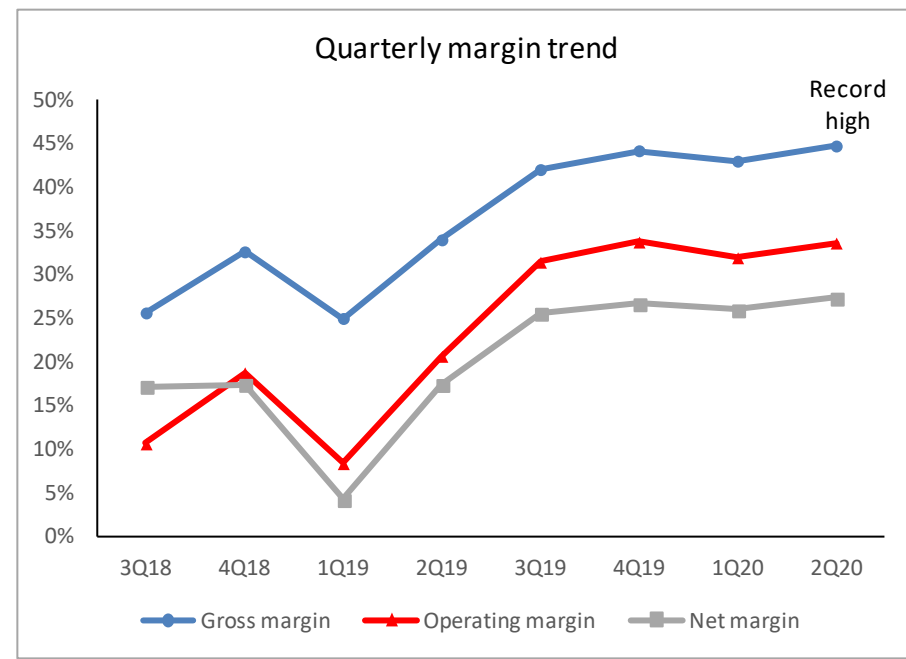
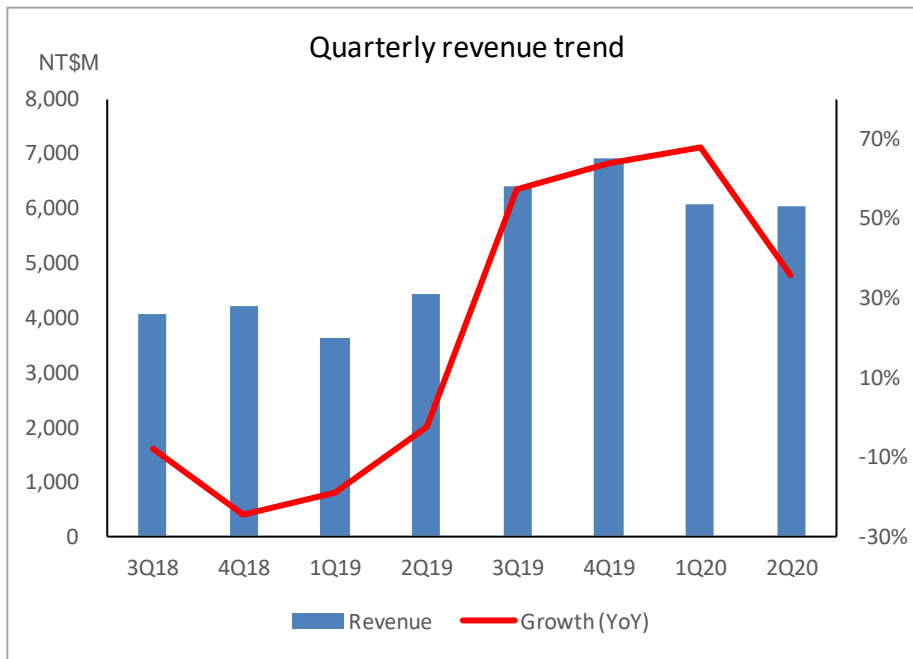


# FINANCIAL REVIEW & GUIDANCE

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# Revenue & Margin Trend

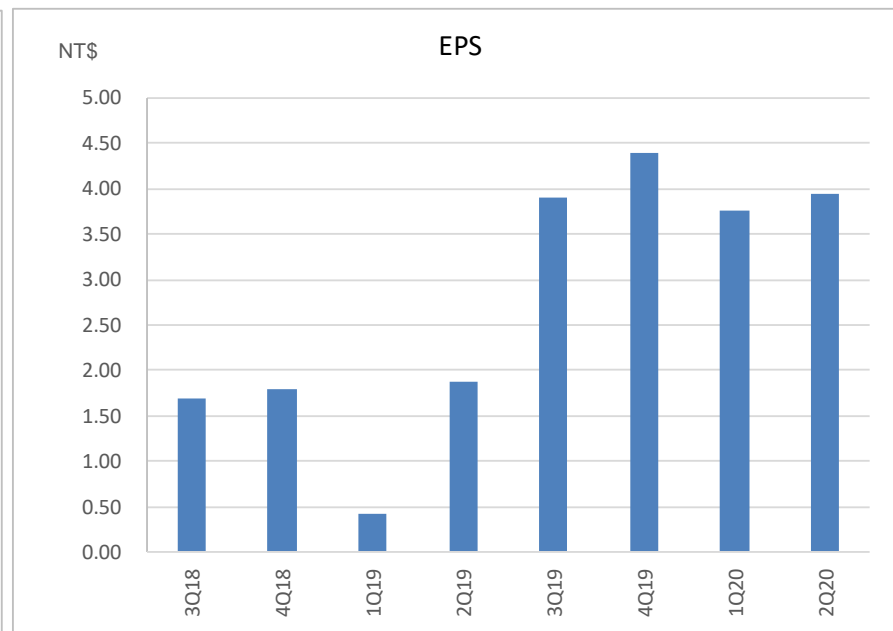
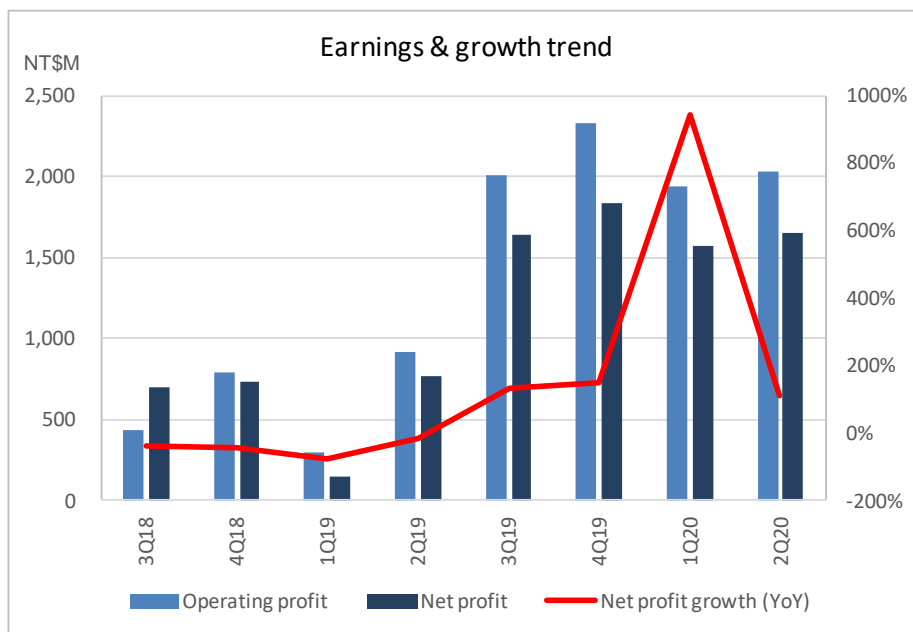
- 2Q20 revenue was NT\$6,048m, down 0.4% QoQ but up 36% YoY.
- In 2Q20, as the capacity utilization rate remain high and the product mix was better than last quarter, gross margin increased by 1.8pp sequentially to 44.8%, and operating margin increased by 1.7pp sequentially to 33.6%.



Source: company.

# Earnings Trend

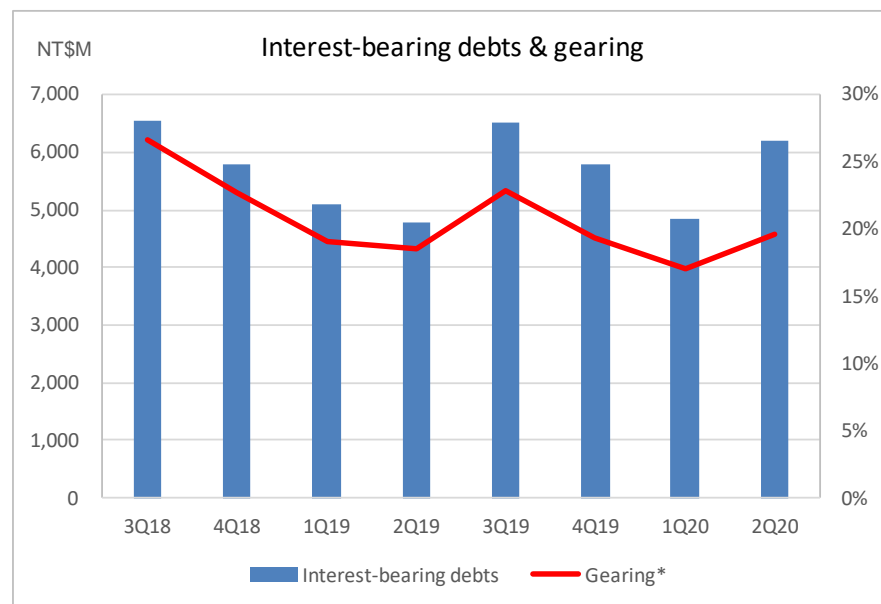
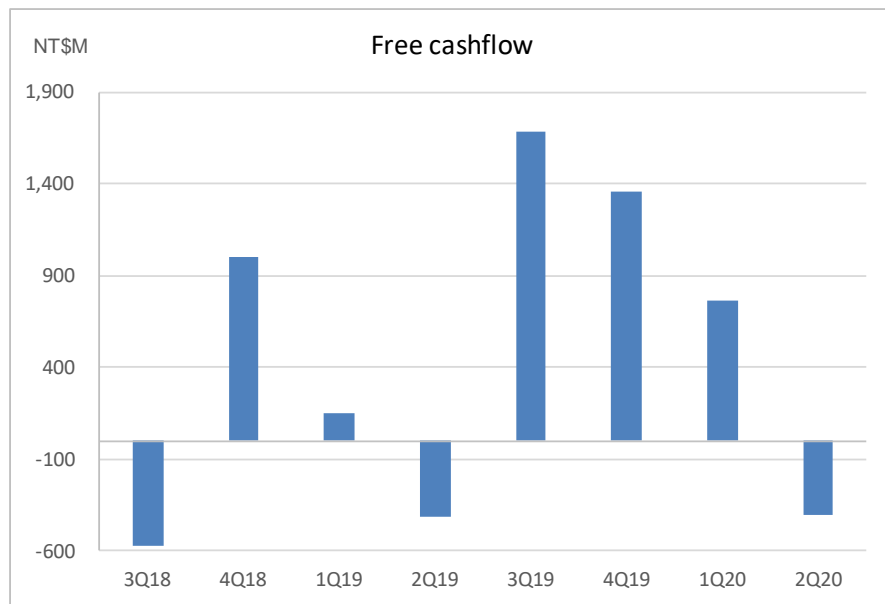
- In 2Q20, net profit was NT\$1,651m, up 5% QoQ and 113% YoY. EPS came in at NT\$3.94, compares to NT\$3.76 in 1Q20.



Source: company.

# FCF & Gearing Trend

- In 2Q20, given continued increase in capex, we generated net outflow of free cash flow in the quarter.
- In 2Q20, interest-bearing debts and gearing ratio both increased sequentially, but our financial structure remained healthy.

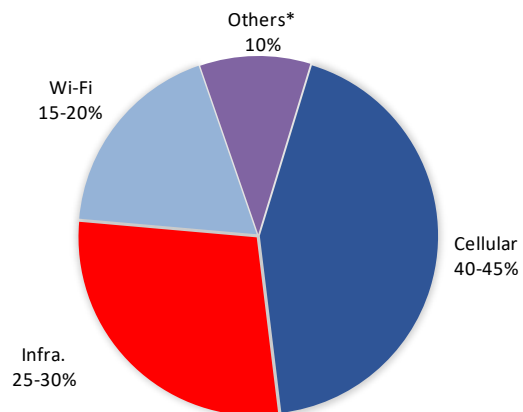


\* Gearing = interest-bearing debts / equity

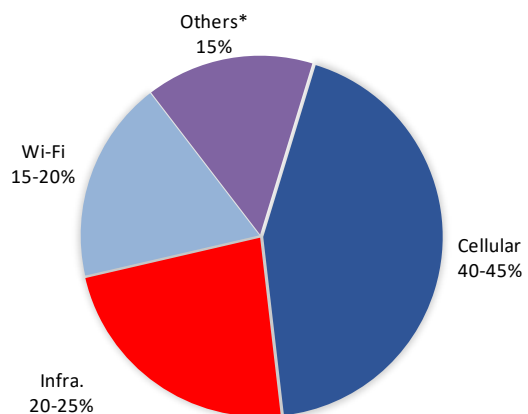
Source: company.

# Product Mix

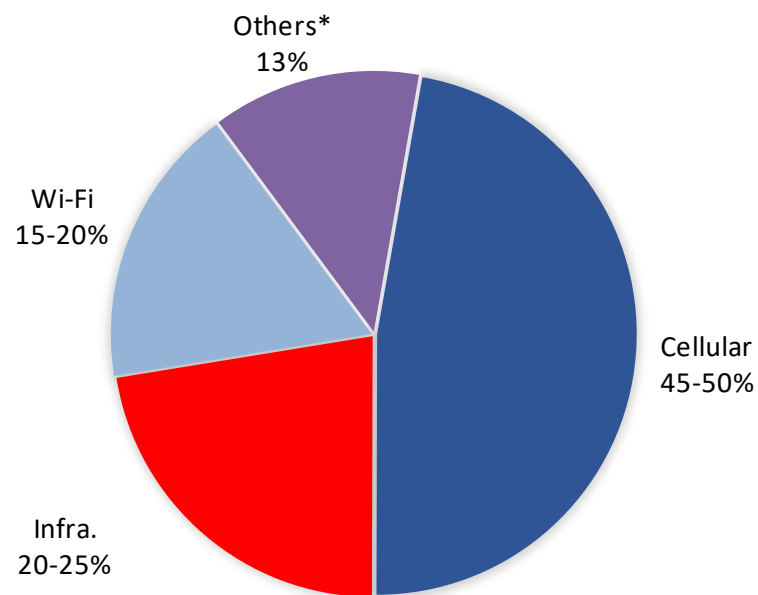
**2Q19**



**1Q20**



**2Q20**



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

Source: company.

# 3Q20 Guidance



- We expect 3Q20 revenue to grow by mid-single digit QoQ.
- We expect 3Q20 gross margin to be around the level of low-forties.

# **APPENDIX - FINANCIAL SUMMARY**

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# Consolidated Statements of Comprehensive Income - Quarterly

Unit: NTD Million	2Q'19	1Q'20	2Q'20 (unaudited)	QoQ	YoY
<b>Net revenue</b>	<b>4,451</b>	<b>6,071</b>	<b>6,048</b>	-0.4%	+36%
Gross profit	1,513	2,611	2,707	+4%	+79%
<i>Gross margin (%)</i>	<i>34.0%</i>	<i>43.0%</i>	<i>44.8%</i>		
Operating expenses	(595)	(673)	(674)	+0.1%	+13%
<i>Operating expenses rate (%)</i>	<i>-13%</i>	<i>-11%</i>	<i>-11%</i>		
<b>Operating income</b>	<b>918</b>	<b>1,938</b>	<b>2,033</b>	+5%	+122%
<i>Operating margin (%)</i>	<i>20.6%</i>	<i>31.9%</i>	<i>33.6%</i>		
Non-operating incomes and expenses	82	26	(3)		
Income before income tax	999	1,965	2,030	+3%	+103%
Income tax expense	(226)	(389)	(380)		
<b>Net income</b>	<b>774</b>	<b>1,575</b>	<b>1,651</b>	+5%	+113%
<i>Net margin (%)</i>	<i>17.4%</i>	<i>25.9%</i>	<i>27.3%</i>		
<b>EPS (NT\$)</b>	<b>1.87</b>	<b>3.76</b>	<b>3.94</b>	+5%	+111%
Other comprehensive income, net	415	(3)	606		
<b>Comprehensive income</b>	<b>1,189</b>	<b>1,572</b>	<b>2,256</b>	+44%	+90%
ROE(%)	12%	22%	22%		
Approx. Utilization (%)	80%	90%	90%		
Depreciation	842	841	868		
CAPEX	1,669	1,322	1,938		



# Consolidated Statements of Comprehensive Income - YTD

Unit: NTD Million	2019H1	2020H1 (unaudited)	YoY
<b>Net revenue</b>	<b>8,070</b>	<b>12,119</b>	<b>+50%</b>
Gross profit	2,416	5,318	+120%
<i>Gross margin (%)</i>	<i>29.9%</i>	<i>43.9%</i>	
Operating expenses	(1,198)	(1,347)	+12%
<i>Operating expenses rate (%)</i>	<i>-15%</i>	<i>-11%</i>	
<b>Operating income</b>	<b>1,218</b>	<b>3,971</b>	<b>+226%</b>
<i>Operating margin (%)</i>	<i>15.1%</i>	<i>32.8%</i>	
Non-operating incomes and expenses	(26)	23	
Income before income tax	1,192	3,995	+235%
Income tax expense	(267)	(769)	
<b>Net income</b>	<b>924</b>	<b>3,226</b>	<b>+249%</b>
<i>Net margin (%)</i>	<i>11.5%</i>	<i>26.6%</i>	
<b>EPS (NT\$)</b>	<b>2.28</b>	<b>7.70</b>	<b>+238%</b>
Other comprehensive income, net	1,474	603	
<b>Comprehensive income</b>	<b>2,399</b>	<b>3,829</b>	<b>+60%</b>
ROE(%)	7%	21%	
Approx. Utilization (%)	65%	90%	
Depreciation	1,668	1,709	
CAPEX	2,489	3,260	

# Non-operating Items

Unit: NTD Million	2Q'19	2Q'20 (unaudited)	2019H1	2020H1 (unaudited)
Foreign exchange gains (losses)	42	(65)	44	(2)
Gains (losses) on disposals of property, plant and equipment	-	0.3	(1)	(1)
Gains (losses) on disposals of investments	105	-	80	-
Gains on financial assets (liabilities) at fair value through profit or loss, net	(119)	(11)	(78)	(67)
Share of gains (losses) of associates and joint ventures accounted for using equity method	(10)	21	(189)	15
Others	64	52	119	78
<b>Total</b>	<b>82</b>	<b>(3)</b>	<b>(26)</b>	<b>23</b>

# Consolidated Balance Sheets

(Unit: NTD Million)	Major Item	2019/6/30		2020/3/31		2020/6/30 (unaudited)	
		\$	%	\$	%	\$	%
	Cash and cash equivalents	4,206	11%	4,812	11%	6,159	13%
	Current financial assets at fair value through profit or loss	103	0.3%	587	1%	1,033	2%
	Notes and accounts receivable, net	1,855	5%	2,297	5%	2,318	5%
	Inventories	4,438	12%	4,977	12%	5,347	11%
	Long-term investments	4,760	13%	6,342	15%	7,150	15%
	Net property, plant and equipment	20,358	54%	22,112	51%	23,058	49%
	<b>Total Assets</b>	<b>37,434</b>	<b>100%</b>	<b>42,996</b>	<b>100%</b>	<b>47,169</b>	<b>100%</b>
	Current liabilities	6,287		9,178		8,906	
	Long-term borrowings	4,780		4,833		6,187	
	<b>Total Liabilities</b>	<b>11,567</b>	<b>31%</b>	<b>14,533</b>	<b>34%</b>	<b>15,629</b>	<b>33%</b>
	Common stock	4,241		4,241		4,241	
	Total equity attributable to owners of parent	25,723		28,299		30,596	
	<b>Total Equity</b>	<b>25,867</b>	<b>69%</b>	<b>28,463</b>	<b>66%</b>	<b>31,540</b>	<b>67%</b>
	Book value per share (NT\$) <sup>1</sup>	60.66		66.73		72.15	
	<b>Key Indices</b>						
	Current ratio ( <i>Current assets / Current liabilities</i> )	175%		142%		172%	
	Debt ratio ( <i>Total liabilities / Total assets</i> )	31%		34%		33%	

<sup>1</sup> Book value per share = total equity attributable to owners of parent / number of common shares

# Q & A

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

For all inquiries, suggestions, and comments  
[ir@winfoundry.com](mailto:ir@winfoundry.com)



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