

環宇  
芯系天下

**Q1 2021  
Quarterly  
Online Investor  
Conference  
(線上法說會)**

**Apr 27, 2021**



環宇通訊半導體  
Global Communication Semiconductors, LLC



“Enabling Today’s Global  
Communications  
and Beyond”

# Disclaimer Statement



This presentation includes forward-looking statements. All statements, other than statements of historical facts, that address activities, events or developments that GCS Holdings, Inc. expects or anticipates will or may occur in the future (including but not limited to projections, targets, estimates and business plans) are forward-looking statements.

GCS's actual results or developments may differ materially from those indicated by these forward-looking statements as a result of various factors and uncertainties, including but not limited to price fluctuations, actual demand, exchange rate fluctuations, market share, competition, environmental risks, change in legal, financial and regulatory frameworks, government policies, international economic and financial market conditions, political risks, cost estimates and other risks and factors beyond our control.

GCS does not undertake any obligation to publicly update any forward-looking statement to reflect events or circumstances after the date on which any such statement is made or to reflect the occurrence of unanticipated events.

# Agenda



Opening:

Brian Ann, CEO & President

Financial Section:

Grace Li, Senior Director & Special Assistant to  
CEO

Market Overview:

Simon Yu, Senior VP and Spokesperson

Q&A: All



# **GCS Holdings, Inc.**

*- A Global Network of Advanced  
Semiconductor Foundry Services for  
Customers Worldwide*

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# Global Network of Advanced Semi Foundries



Optical Components Business	CS Foundry services	CS Foundry services	CS Foundry services	Regional supplier management, Customer support
GCS, SmartCore	GCS, Summitview, Epistar	GCS	GCS, Epistar	GCS
Photo detectors, lasers, packaging	GaAs HBT, pHEMT, VCSEL sensors, RF filters and FEM	GaAs HBT, pHEMT, GaN, RF fitters, THz diodes, Varactor diodes, IPD, Optical PIC, PD/APD, lasers, LIDAR.	GaN for RF and PE, RF filters, micro LED, VCSEL sensors, optical component	
Optical networks, data center, Consumers	Mobile and consumer electronics, automotive	Infrastructure, automotive, aerospace health care, and defense.	Mobile and consumer electronics, automotive,	

# About GCS LLC.

- Founded in 1997, Headquarters in Torrance, California
- Listed on Taipei Exchange (TAIEX), ITAR Registered, ISO9001:2008/AS9100C:2009 Certified
- A leader in advanced compound semiconductor (CS) process technologies that are essential to:

- 5G/4G Networks
- Smart Devices
- Automotive
- Optical Network
- Industrial



- Offering our own brands of advanced optical components
- Providing specialty compound semiconductor foundry services for radio frequency integrated circuits(RFIC), power electronics and optoelectronic devices

# Broad Applications of Technologies

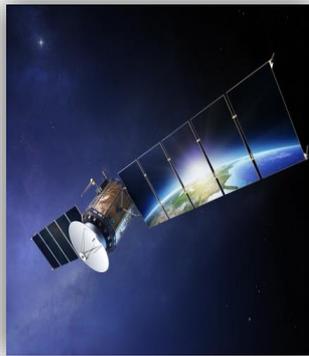


## Wireless Infrastructure



**GaAs HBT  
GaN HEMT  
RF PiN Diode**

## Aerospace



**GaAs pHEMT  
GaAs HBT  
Mixer Diode  
RF PiN Diode  
GaN HEMT  
Space  
Qualified**

## Opto Electronics



**PiN PD  
APD  
EE Laser  
VCSEL  
InP HBT  
PIC/EPIC**

## Power Electronics



**GaN SB Diode  
GaN SB HEMT  
GaN MISHEMT  
SiC SB Diode  
SiC JFET**

## Mobile Devices



**GaAs/InP HBT  
GaAs pHEMT  
BAW filter  
GaN/Si HEMT**

# About Unikorn

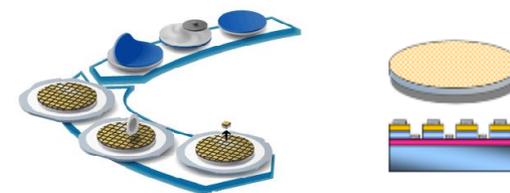
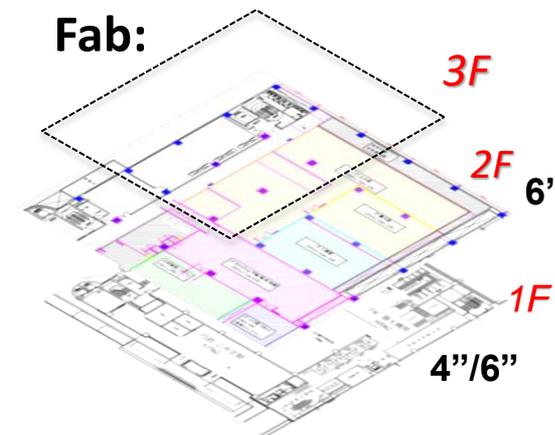
- ✓ Founded : **October 2018**
- ✓ Employees : **~200** (As of November 2020)
- ✓ Capital : **26M USD**
- ✓ Shareholders: **EPISTAR(64%)**  
**GCS(36%)**

Target Market :

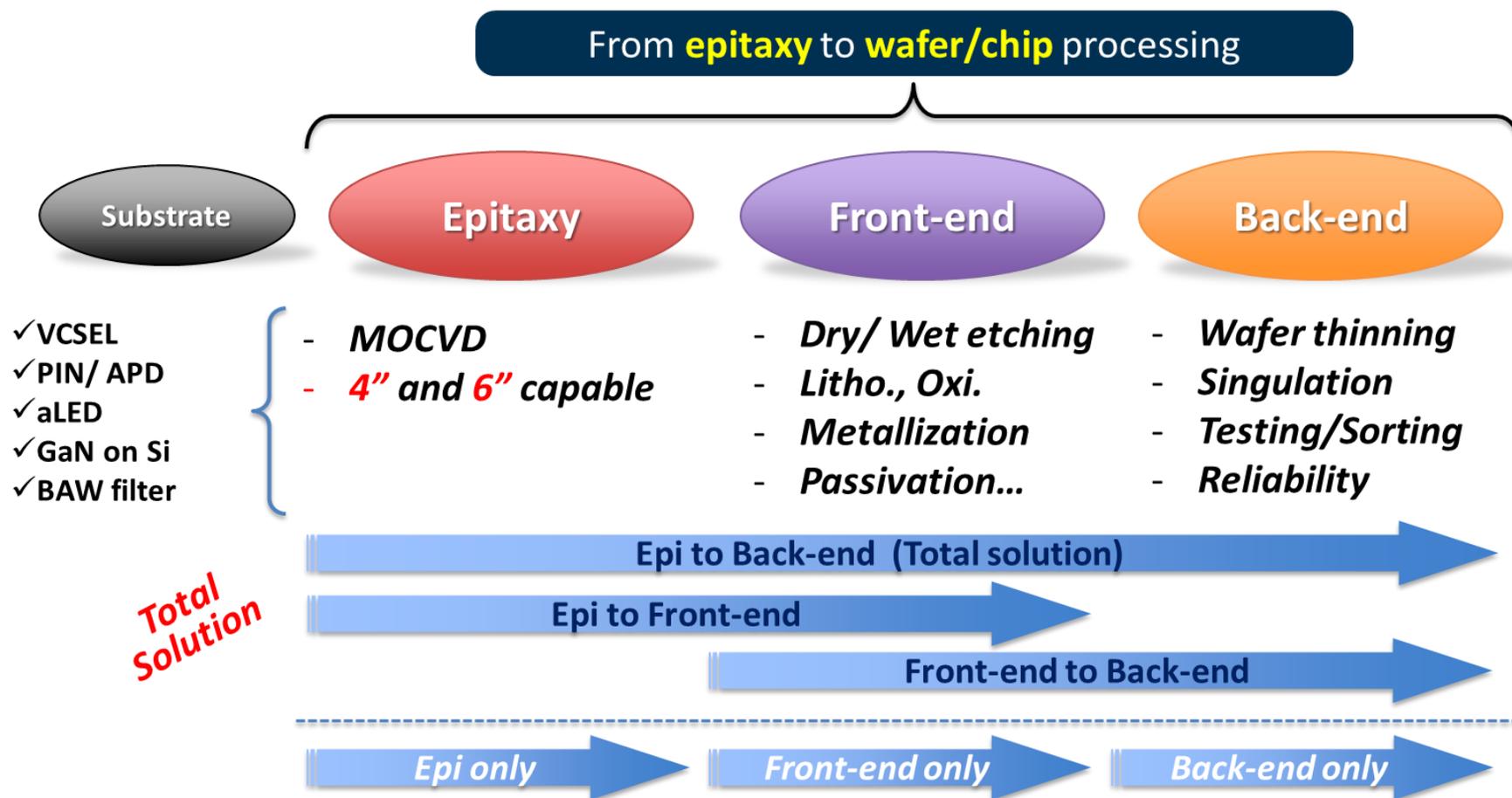
- ✓ **VCSEL**
- ✓ **PIN/ APD**
- ✓ **Advanced LED (aLED) →  $\mu$ LED**
- ✓ **GaN on Si (RF/ Power...)**
- ✓ **BAW filter**



**Fab:**



# Unikorn Value Proposition



# About Chemsemi

- ✓ Founded : **March 2020**
- ✓ Employees : **~100** (As of 12/2020)
- ✓ Capital : **~ 45M USD**
- ✓ Shareholders : **Summitview Capital**

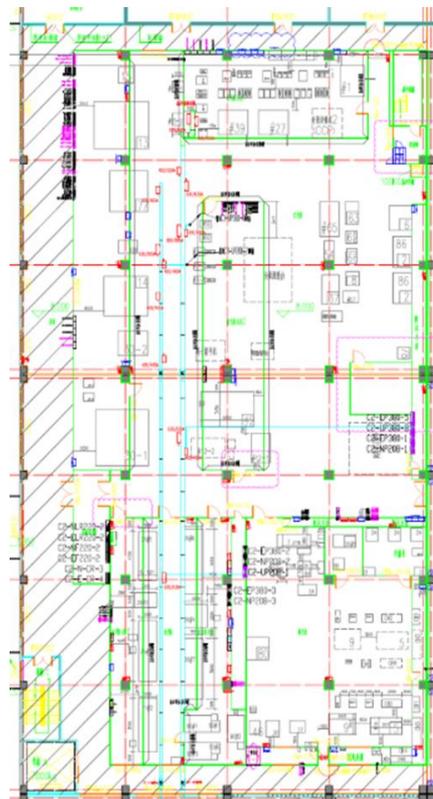
**GCS Holdings**

**Epistar**

Target Market :

## **Mobile/Consumer Electronics**

- ✓ **VCSEL for 3D sensing**
- ✓ **GaAs HBT, pHEMT**
- ✓ **Advance SAW filters**
- ✓ **BAW filters**
- ✓ **Power Electronics**





*GCS Holding, Inc.*

*A Global Network of Advanced Semiconductor  
Foundry Services for Customers Worldwide*



# FINANCIAL SECTION

# Statements of Comprehensive Income - QoQ



(in NT\$ thousands except EPS)

	1Q21	4Q20	1Q20	1Q21 Over 4Q20	1Q21 Over 1Q20
Net Operating Revenue	301,307	344,057	367,352	-12.4%	-18.0%
Gross Profit	100,005	119,015	159,898	-16.0%	-37.5%
Gross Margin	33.2%	34.6%	43.5%		
Operating Expenses	(99,221)	(107,102)	(109,694)	-7.4%	-9.5%
Operating Expenses to Revenue %	32.9%	31.1%	29.9%		
Operating Income	784	11,913	50,204	-93.4%	-98.4%
Operating Margin	0.3%	3.5%	13.7%		
Non-operating Items	(87,521)	(128,478)	(35,440)	-31.9%	147.0%
Income (Loss) before Income Tax	(86,737)	(116,565)	14,764	-25.6%	-687.5%
Income Tax (Expense) Benefit	(1,452)	28,519	(12,209)	-105.1%	-88.1%
Net Income (Loss)	(88,189)	(88,046)	2,555	0.2%	-3551.6%
Net Income (Loss) Attributable to owners of the Parent	(88,189)	(88,046)	2,477		
Net Income (Loss) %	-29.3%	-25.6%	0.7%		
Basic EPS (NTD)	(0.99)	(0.99)	0.03		
Diluted EPS (NTD)	(0.99)	(0.99)	0.03		
R&D Expense % to Revenue	13.2%	12.9%	12.3%		
ROA (%)	-9.1%	-8.7%	0.3%		
ROE (%)	-10.1%	-10.0%	0.3%		

Note 1: 89,350 thousand shares and 89,350 thousand shares were used in basic EPS and diluted EPS calculation for 1Q21, respectively.

Note 2. Revenue supplemental information

	1Q21	4Q20	1Q20	1Q21 Over 4Q20	1Q21 Over 1Q20
Revenue in US\$ thousand	10,621	11,992	12,200	-11.44%	-12.9%
Exchange Rate	28.37	29.55	30.11		

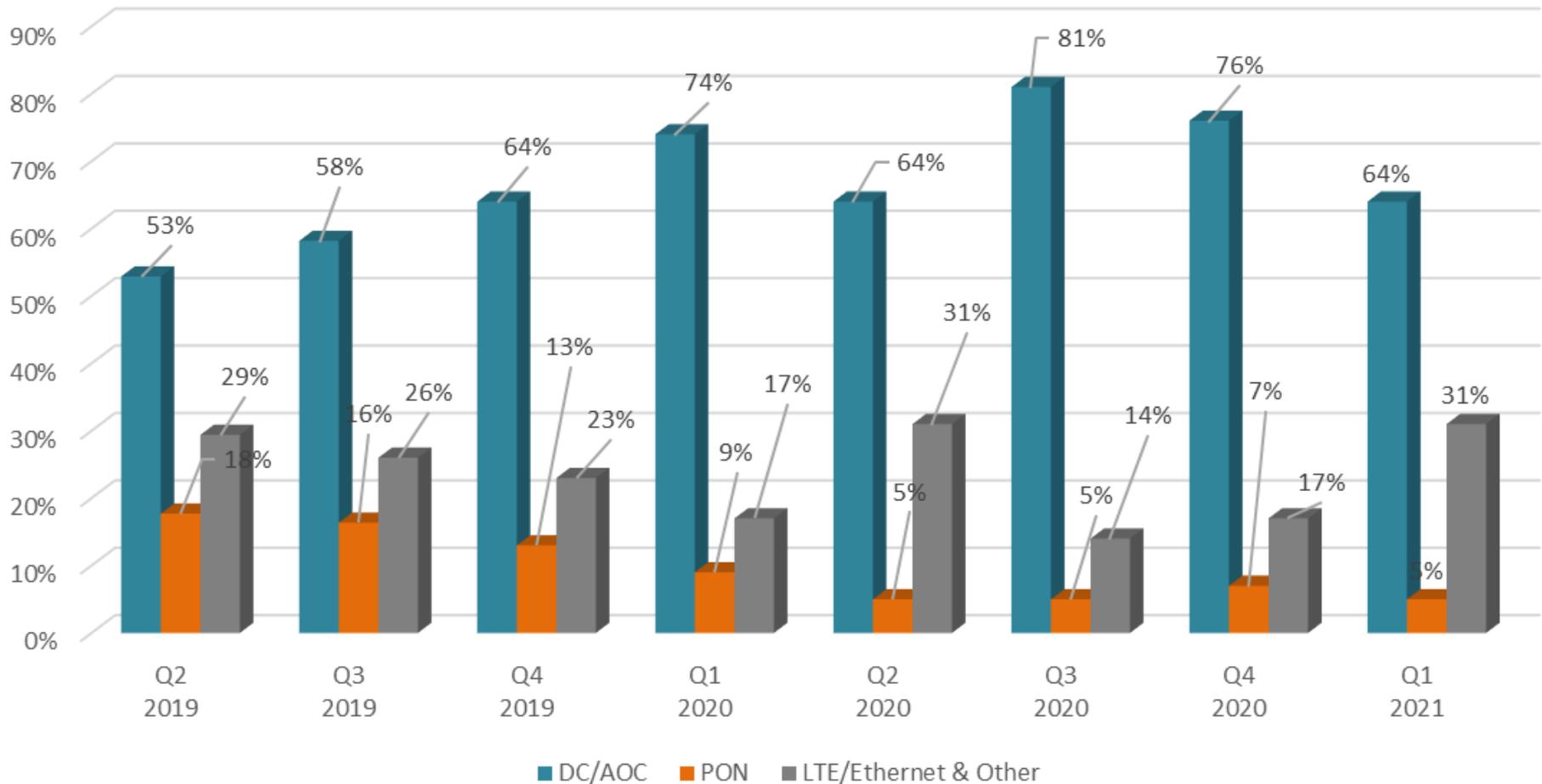
# Revenue Mix % vs Gross Margin - QoQ



# KGD Revenue Mix - QoQ



## KGD Revenue Analysis-By Application



# Non-operating Income and Expenses- QoQ



(in NT\$ thousands)

	1Q21	4Q20	1Q20	1Q21 Over 4Q20	1Q21 Over 1Q20
Other Income - other	1,935	2,911	6,248	-33.5%	-69.0%
Other Income - Income from forgiveness of PPP loan	6,838	-	-	-	-
Other Gains and Losses					
Net currency exchange gain or (loss)	(113)	(3,652)	461	-96.9%	-124.5%
Gain (loss) on disposal of property, plant and equipment	(1,028)	(281)	213	265.8%	-582.6%
Gain (loss) on disposal of investments	-	(18)	-	-100.0%	-
Impairment loss on intangible assets	-	(40,094)	-	-100.0%	-
Others	(581)	(798)	(87)	-27.2%	568%
Finance Cost					
Interest expense	(573)	(693)	(994)	-17.3%	-42.4%
Share of profit (loss) of equity-accounted investees	(93,999)	(85,853)	(41,281)	9.5%	127.7%
<b>Total Non-operating Income and Expenses</b>	<b>(87,521)</b>	<b>(128,478)</b>	<b>(35,440)</b>	<b>-31.9%</b>	<b>147.0%</b>

# Balance Sheet Highlight & Key Indices



## *Selected Items from Balance Sheet*

(in NT\$ thousands)

	1Q21		4Q20		1Q20	
	Amount	%	Amount	%	Amount	%
Cash and Cash Equivalent	1,159,644	31%	1,106,476	28%	1,448,840	37%
Accounts Receivable and Notes Receivable	197,894	5%	197,537	5%	201,303	5%
Inventory	346,235	9%	362,021	9%	369,392	10%
Other current assets	30,887	1%	172,763	5%	183,166	5%
Investments accounted for under the Equity Method	917,721	24%	1,013,963	26%	519,865	13%
Net Property, Plant and Equipment	691,484	18%	695,634	18%	757,595	19%
Intangible Assets	143,474	4%	144,655	4%	197,022	5%
Deferred Tax Assets	116,814	3%	116,767	3%	121,431	3%
Prepaid investment	85,620	2%	-	0%	-	0%
<b>Total Assets</b>	<b>3,791,314</b>	<b>100%</b>	<b>3,898,075</b>	<b>100%</b>	<b>3,886,093</b>	<b>100%</b>
Short Term Loan	20,000	1%	20,000	0%	20,000	1%
Accounts Payable and Other Payables	118,455	3%	133,292	4%	194,888	5%
Long Term Bank Borrowings - Current Portion	28,455	1%	22,828	1%	23,446	1%
Long Term Bank Loans	94,464	2%	106,993	3%	36,538	1%
Deferred Tax Liabilities	60,802	2%	60,674	2%	72,612	2%
<b>Total Liabilities</b>	<b>343,582</b>	<b>9%</b>	<b>370,979</b>	<b>10%</b>	<b>373,535</b>	<b>10%</b>
<b>Total Stockholders' Equity</b>	<b>3,447,732</b>	<b>91%</b>	<b>3,527,096</b>	<b>90%</b>	<b>3,512,558</b>	<b>90%</b>

## *Key Indices*

Current Ratio	974%	958%	879%
Debt Ratio	9%	10%	10%
AR Turnover Days	60	64	66
Inventory Turnover Days	191	175	184

# Cash Flows



(in NT\$ thousands)

	1Q21	4Q20	1Q20
<b>Beginning Balance</b>	1,106,476	1,146,721	1,838,994
Cash from Operating Activities	28,131	43,538	182,004
Acquisition of investments accounted for under the equity method	-	-	(400,000)
Acquisition of property, plant and equipment	(32,444)	(8,840)	(23,443)
Decrease (Increase) in other current assets	141,392	1,357	(151,354)
Decrease(Increase) in other non-current assets	(177)	(5,367)	-
Acquisition of intangible assets	-	(1,734)	-
Prepayments for investments	(84,615)	-	-
Proceed from long-term loan	5,340	-	-
Repayments of long-term loans	(5,624)	(5,631)	(5,707)
Principal elements of lease payments	(1,453)	(1,446)	(2,226)
Proceeds from the sale of property, plant and equipment	284	-	256
Cash dividend paid	-	(45,623)	-
Disposal of a subsidiary- decrease in cash and cash equivalents	-	-	(11,707)
The effect of exchange rate changes	2,334	(16,106)	20,985
Others	-	(393)	1,038
<b>Ending Balance</b>	1,159,644	1,106,476	1,448,840
<b>Increase (Decrease) in Cash</b>	53,168	(40,245)	(390,154)
<b>Free Cash Flow (Note)</b>	(4,313)	34,698	158,561

**Note: Free Cash Flow = Cash from Operating Activities - Capital Expenditures**

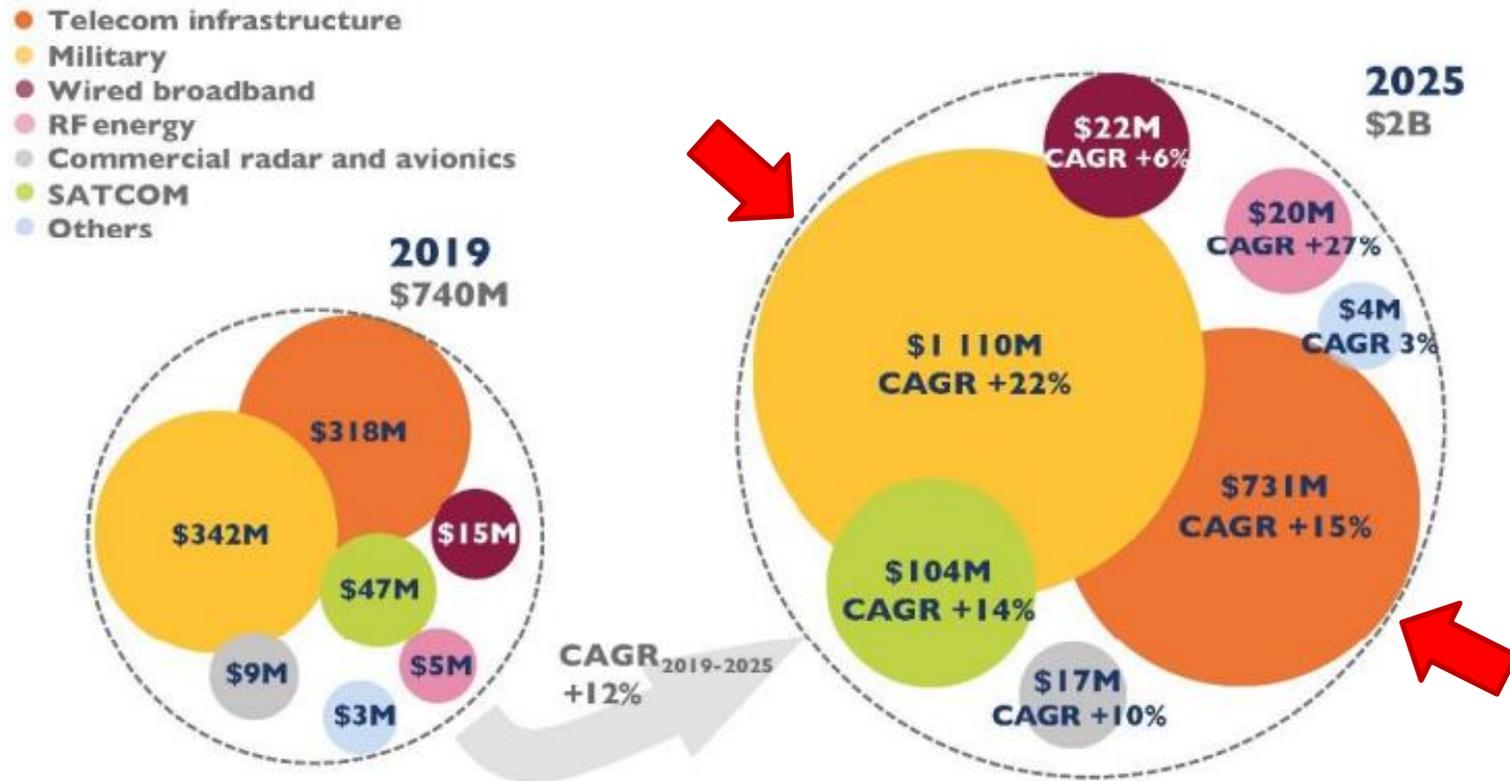
# MARKET OVERVIEW

- ❖ 5G RFQ continues delay in China
- ❖ 100G modules maintain a steady path (above \$2 billion a year)
- ❖ 200G solution – adopted by Facebook, start ramp in 2021
- ❖ 2x400G solution – adopted by Google; volume deployment in 2022
- ❖ 9 of top 15 CSPs provide capex guidance up 11% in 2021
- ❖ All sectors see fierce price competition, China customers are forced to use domestic suppliers, especially driven by US-China conflict ← KGD business challenges

- ❖ Covid-19 and US-China conflict will continue change the RF landscape – China will be forced to re-think its strategies and pump more investment into RF and develop its own domestic suppliers or use European suppliers. Long term not positive for US suppliers in China market?
- ❖ RF front-end market – Yole forecast 11% CAGR (2020-2025)
- ❖ RF GaN will continue growth – taking away LDMOS' share
- ❖ 5G base stations – the picture is blurry, can Biden's plan help?
- ❖ Lack of killer applications for 5G infrastructure

## 2019-2025 packaged GaN RF device market forecast - Split by application

(Source: GaN RF Market: Applications, Players, Technology, and Substrates 2020 report, Yole Développement, 2020)



# Q & A



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**For further inquiry  
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