

Powertech Technology Inc.

Fourth Quarter of Year 2021

Institutional Investor Conference

Jan 25, 2022

PROMISE
TECHNOLOGY
INTEGRATION

6239.TW

Safe Harbor Statement

This following presentation may include predictions, estimates or other information that might be considered forward-looking.

These forward-looking statements are based on information available to PTI as of the date of this conference and current expectations, forecasts and assumptions, and involve a number of risks and uncertainties that could cause actual results to differ materially from those anticipated by these forward-looking statements. You are cautioned not to place undue reliance on these forward-looking statements and please keep in mind that except as required by law, we are not obligating ourselves to revise or publicly release the results of any revision to these forward-looking statements.

Agenda

- | | | | |
|---|----------------------------------|--|----------|
| 1 | Welcome Remarks | DK Tsai | Chairman |
| 2 | 4Q21 Financial Results | Evan Tseng | CFO |
| 3 | 4Q21 Business Overview | | |
| 4 | 4Q21 and Onward Business Outlook | Boris Hsieh | CEO |
| 5 | PTI Technology Focus | | |
| 6 | Q&A | DK Tsai / Boris Hsieh/
JS Leu (PTI President)/ Evan Tseng | |

The background image shows a modern, multi-story building with a light blue facade and large glass windows. In the foreground, there are stone steps leading up to the building, and some trees are visible on the right side. A large teal text box with a white dotted pattern is overlaid on the center of the image.

1. Welcome Remarks from Chairman



2. 4Q21 Financial Results

QoQ Comparison of 4Q21 Consolidated Statement of Comprehensive Income

Account	4Q21	%	3Q21	%	(NTD M)
					QoQ %
Revenue	22,423	100%	22,320	100%	0.5%
Operating Costs	17,168	76.6%	17,001	76.2%	1.0%
Gross Profit	5,255	23.4%	5,319	23.8%	-1.2%
Operating Expenses	1,344	6.0%	1,219	5.5%	10.3%
Operating Income	3,911	17.4%	4,100	18.4%	-4.6%
Non-Operating Income (Expenses)	94	0.4%	69	0.3%	37.1%
Income Before Income Tax	4,005	17.9%	4,169	18.7%	-3.9%
Income Tax Expense	777	3.5%	857	3.8%	-9.4%
Net Income	3,228	14.4%	3,312	14.8%	-2.6%
Shareholders of the Parent	2,496	11.1%	2,471	11.1%	1.0%
Non-Controlling Interests	732	3.3%	841	3.8%	-12.9%
EPS (NT\$)	3.25		3.20		1.6%

Remark :The financial statement of 4Q21 was un-audited.

YoY Comparison of 4Q21 Consolidated Statement of Comprehensive Income

						(NTD M)
Account	4Q21	%	4Q20	%	YoY %	
Revenue	22,423	100%	19,023	100%	17.9%	
Operating Costs	17,168	76.6%	15,159	79.7%	13.3%	
Gross Profit	5,255	23.4%	3,864	20.3%	36.0%	
Operating Expenses	1,344	6.0%	1,091	5.7%	23.2%	
Operating Income	3,911	17.4%	2,773	14.6%	41.0%	
Non-Operating Income (Expenses)	94	0.4%	(183)	-1.0%	-151.4%	
Income Before Income Tax	4,005	17.9%	2,590	13.6%	54.6%	
Income Tax Expense	777	3.5%	536	2.8%	45.0%	
Net Income	3,228	14.4%	2,054	10.8%	57.1%	
Shareholders of the Parent	2,496	11.1%	1,661	8.7%	50.3%	
Non-Controlling Interests	732	3.3%	393	2.1%	86.4%	
EPS (NT\$)	3.25		2.14		51.9%	

Remark: The financial statement of 4Q21 was un-audited.

Comparison of Annual Consolidated Statement of Comprehensive Income

Account	2021	%	2020	%	(NTD M) YoY %
Revenue	83,794	100%	76,181	100%	10.0%
Operating Costs	64,499	77.0%	61,152	80.3%	5.5%
Gross Profit	19,295	23.0%	15,029	19.7%	28.4%
Operating Expenses	4,772	5.7%	4,310	5.7%	10.7%
Operating Income	14,523	17.3%	10,719	14.1%	35.5%
Non-Operating Income (Expenses)	183	0.2%	(323)	-0.4%	-156.6%
Income Before Income Tax	14,706	17.5%	10,396	13.6%	41.4%
Income Tax Expense	2,980	3.6%	2,216	2.9%	34.5%
Net Income	11,726	14.0%	8,180	10.7%	43.3%
Shareholders of the corporation	8,898	10.6%	6,662	8.7%	33.6%
Non-Controlling Interests	2,828	3.4%	1,518	2.0%	86.3%
EPS (NT\$)	11.54		8.60		34.2%

Remark: The financial statement of 4Q21 was un-audited.

Consolidated Balance Sheet as of Dec. 31 2021

(NTD M)		
Account	Amount	%
Current Assets	51,910	43.8%
- Cash and Cash Equivalents	22,632	19.1%
Non-Current Assets	66,629	56.2%
Total Assets	118,539	100%
Current Liabilities	23,270	19.7%
Non-Current Liabilities	31,962	27.0%
Total Liabilities	55,232	46.6%
Equity Attributable to Shareholders of the Parent	49,507	41.8%
Non-Controlling Interests	13,800	11.6%
Total Equity	63,307	53.4%
Total Liabilities and Equity	118,539	100%

Remark: 1. Net worth per share as of Dec. 31 2021 was NT\$64.22.
 2. The financial statement of 4Q21 was un-audited.



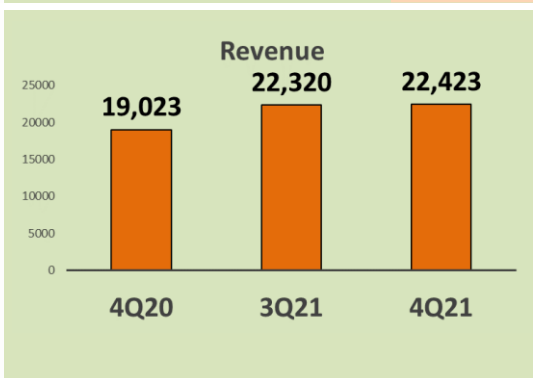
3. 4Q21 Business Overview

4Q21 Key Financial Results

Revenue

\$22.4 B

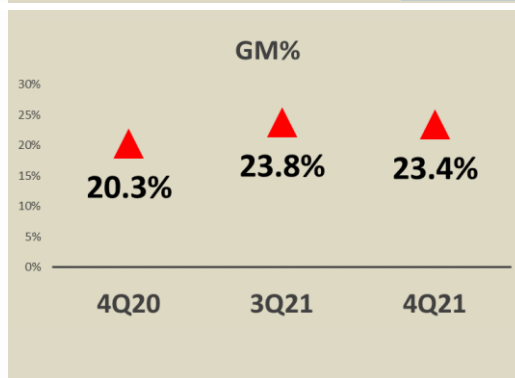
YoY
+17.9%



Gross Margin %

23.4%

YoY
+3.1%



EPS

\$3.25

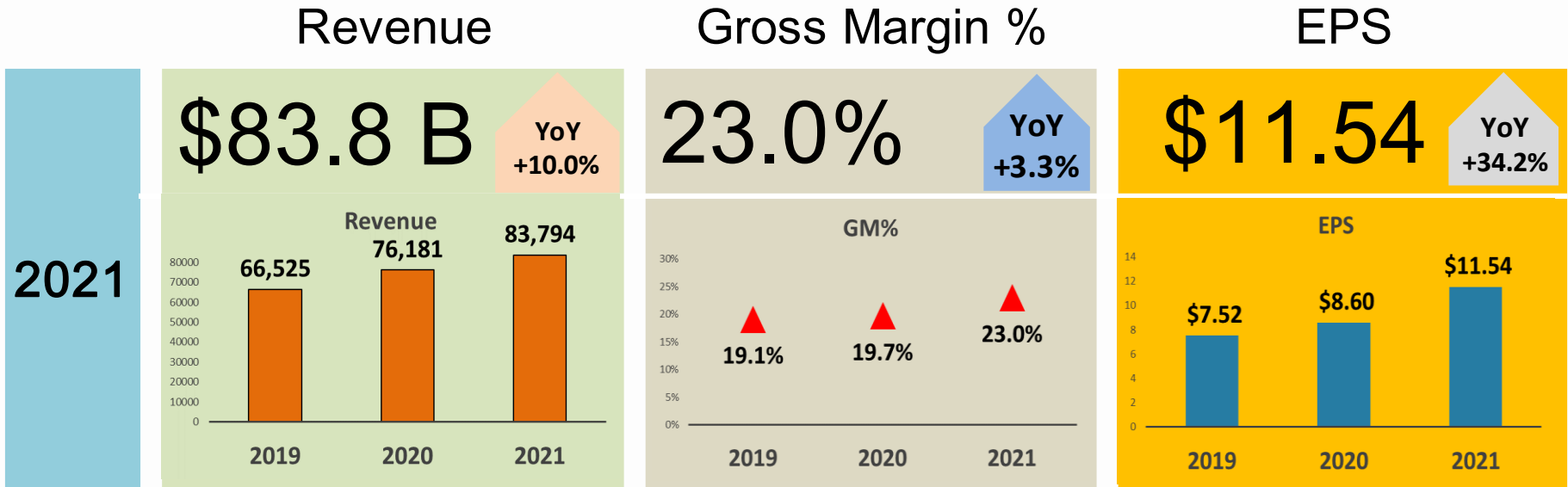
YoY
+51.9%



4Q21

- ✓ 4Q21 Revenue set a record high for 3rd consecutive quarter.
- ✓ 4Q21 GM% was the best 4th quarter after year 2012.
- ✓ 4Q21 EPS was the best after year 2012.

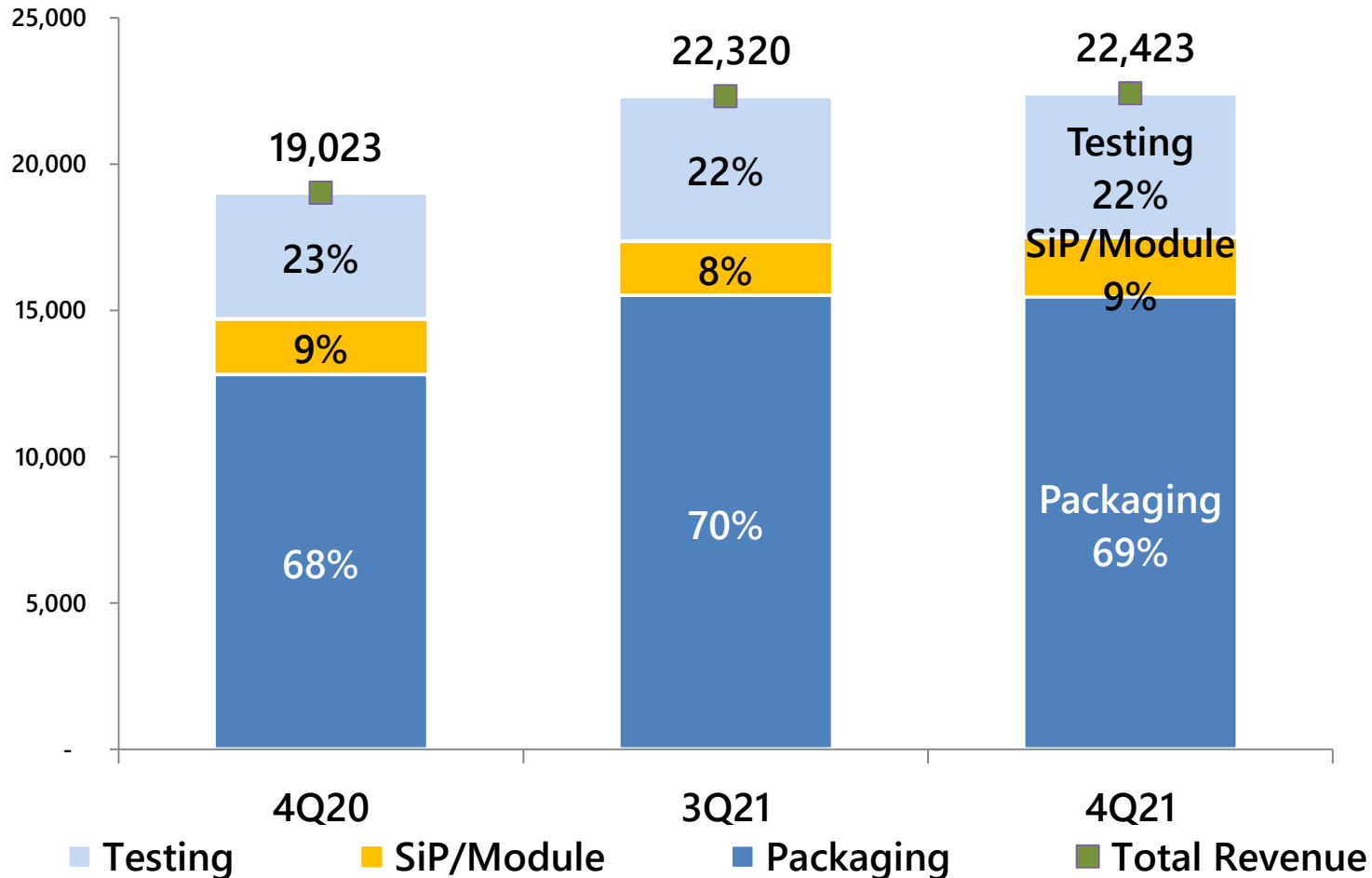
2021 Key Financial Results



- ✓ 2021 Revenue set a record high for 2nd consecutive year.
- ✓ 2021 GM% was the best after year 2012.
- ✓ 2021 EPS set a record high.

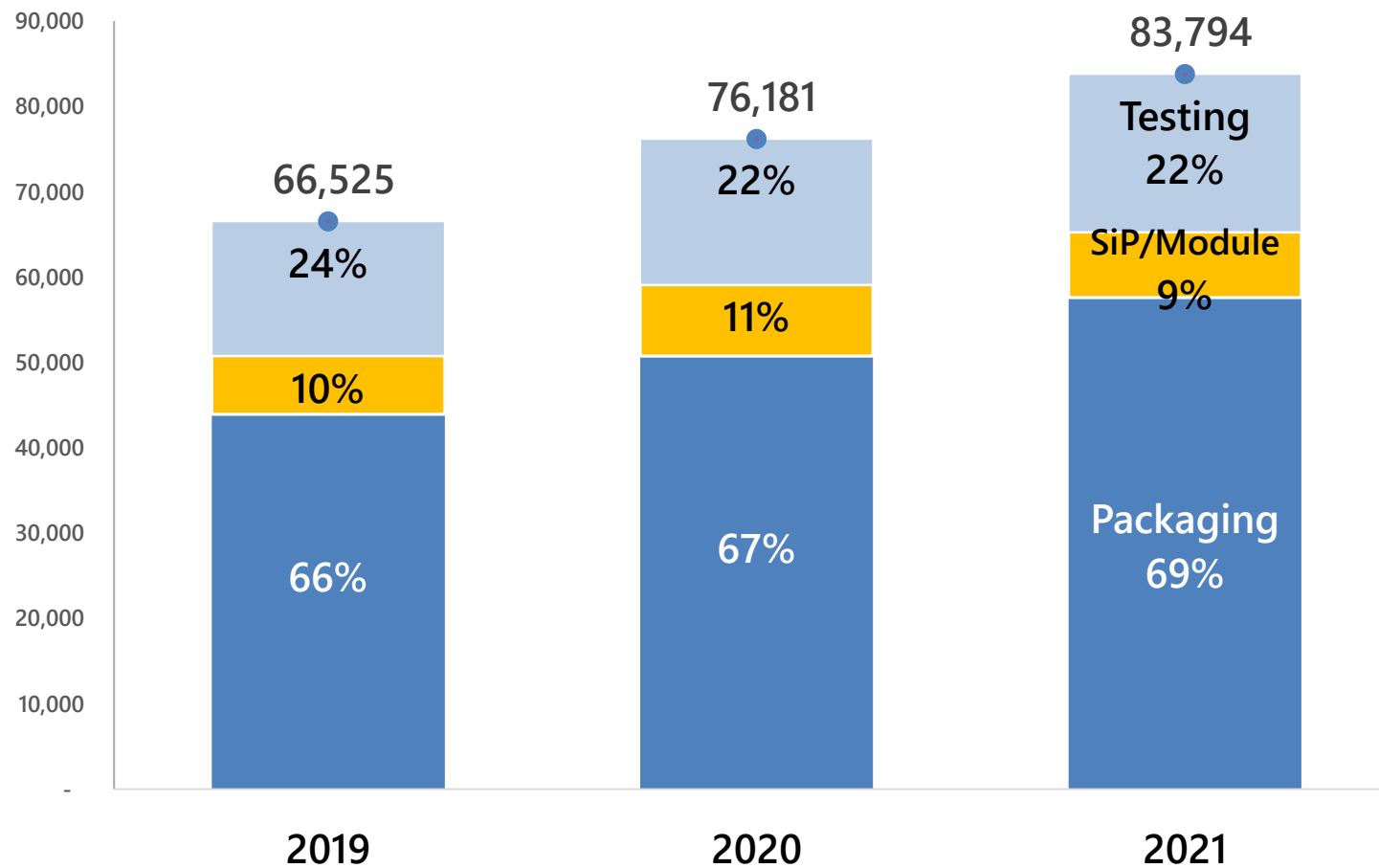
Quarterly Consolidated Revenue by Service

(In NTD M)



Annual Consolidated Revenue by Service

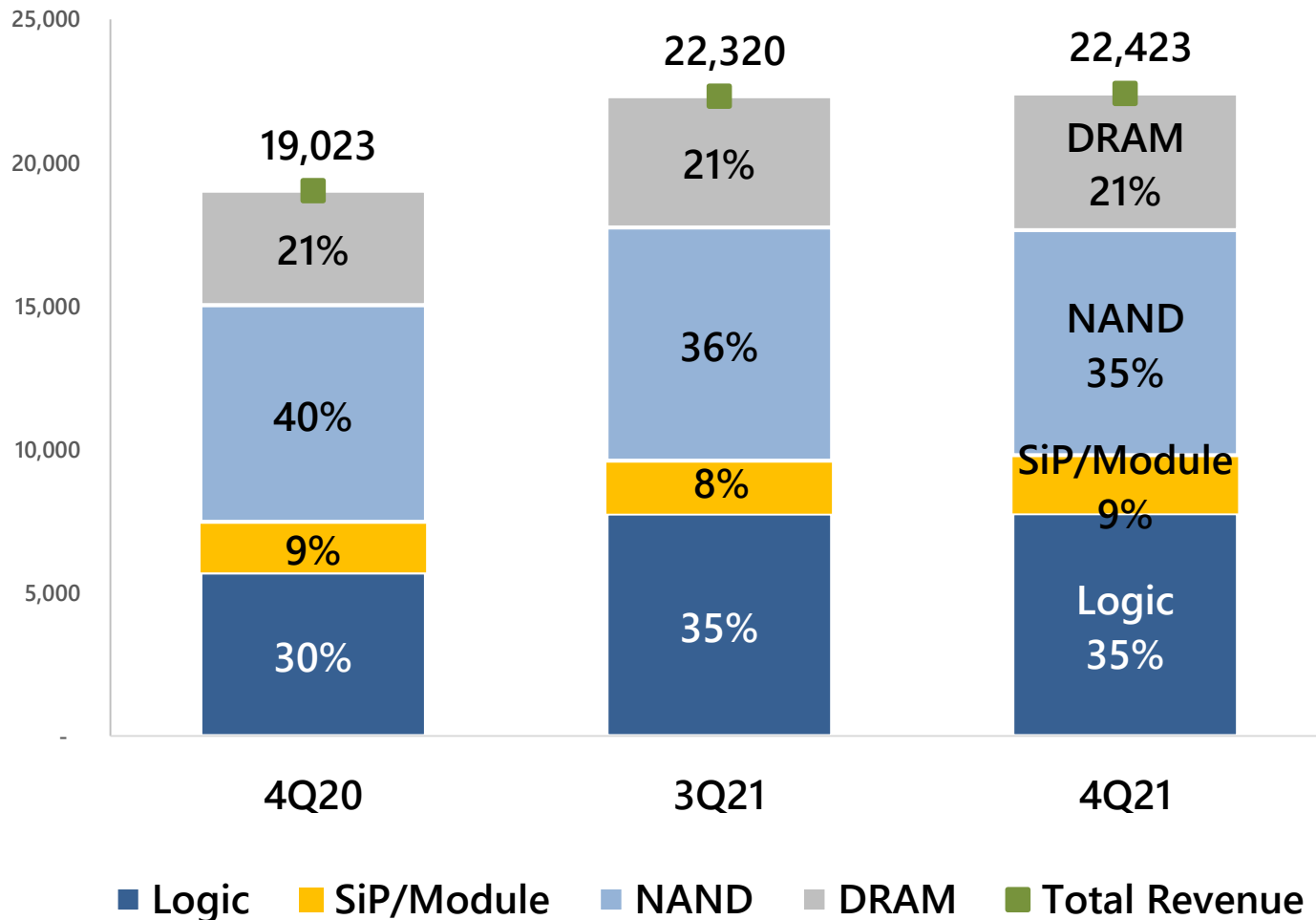
(In NTD M)



■ Packaging ■ SiP/Module ■ Testing ● Total Revenue

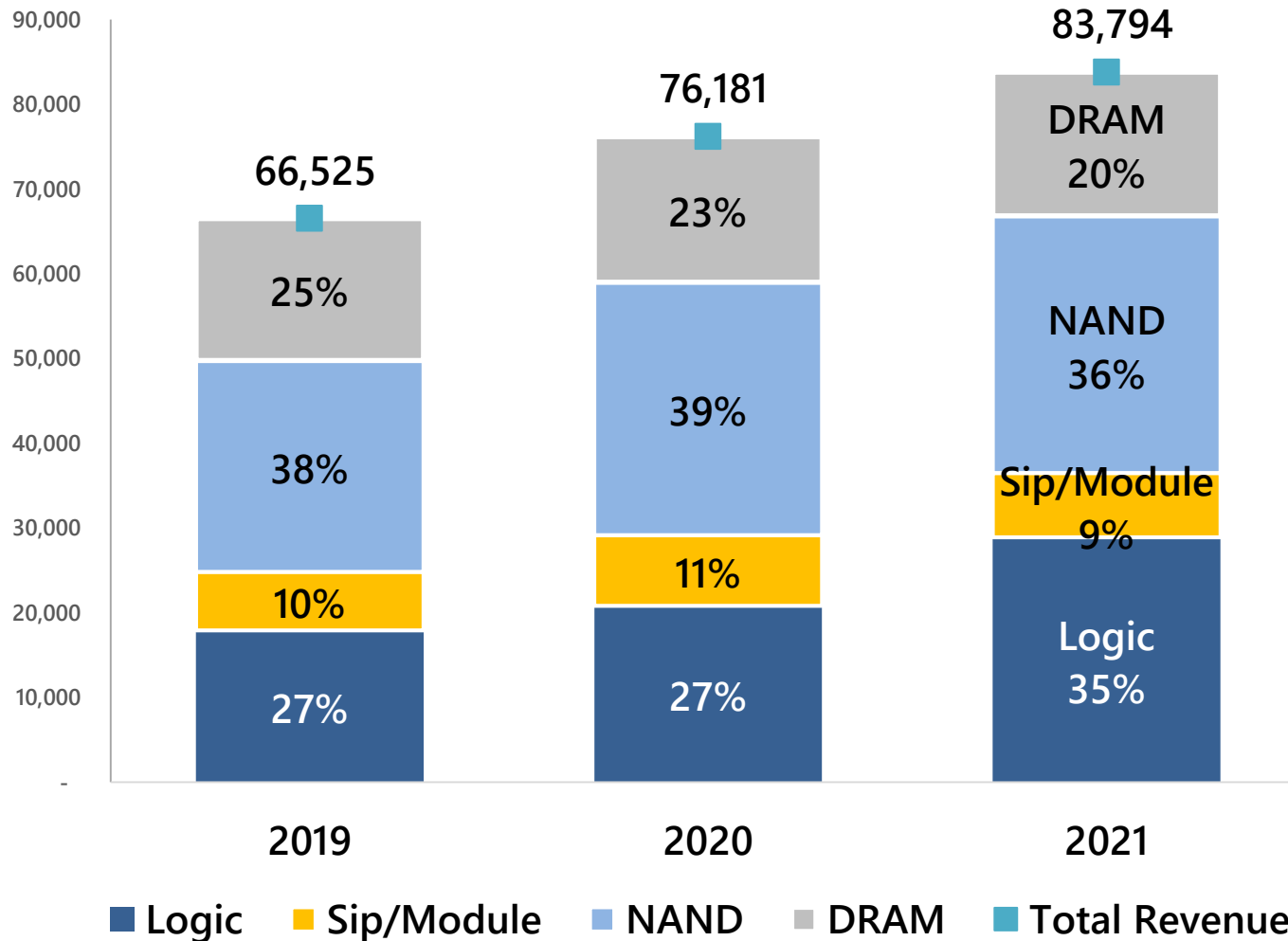
Quarterly Consolidated Revenue by Product

(In NTD M)



Annual Consolidated Revenue by Product

(In NTD M)



Business Overview

**4Q21 revenue met expectations. 0.5% QoQ and 17.9% YoY growth.
Record high quarterly revenue with top performance in GM% and EPS.**

◆ DRAM

- Commodity : Fully utilized capacity and stable revenue contribution.
- Mobile : Strong seasonal demand.
- Graphic : Robust demand improved.

◆ NAND Flash

- Component : Seasonal adjustment.
- SSD : Strong recovery with improved component supply.

◆ Logic

- Greatek : Utilization remained high.
- PTI : Double YoY revenue.
- Tera Probe/
TeraPower : Over 40% YoY revenue growth.



4. 1Q22 and Onward Business Outlook

1Q22 and Onward Business Outlook

1Q22 revenue outlook remains strong on YoY growth.

- ◆ DRAM –
 - Commodity operations stable and on track seasonal demand.
- ◆ NAND Flash –
 - Demand inline with seasonality. Content intensity as a favorable driver.
- ◆ SSD/SIP/SIM –
 - Demand improved sequentially.
- ◆ Bumping and WLP –
 - Accelerate new customers and products expansion. Strong demand for 2022.
- ◆ FCCSP/ FCBGA –
 - Strong demand and capacity increase.

1Q22 and Onward Business Outlook (Continued)

- ◆ CIS –
 - Projects and qualifications are on track.
- ◆ Logic –
 - PTI : Strengthening product portfolio.
 - Greatek : Solid demand for 1H22 YoY growth.
 - TeraProbe/
TeraPower: Robust growth in 1H22.

**1Q22 QoQ with seasonal adjustment and
YoY remains strong growth.
Optimistic 2022 outlook.**

Onward Business Outlook

Xian Service Agreement with Micron

- ◆ Contract will be expired in April 2022 and most likely will continue for a certain period of time which is still under negotiation for the best interests of both parties. PTI is willing to transfer the operations to customer:
 - (1) Customer will have a most cost effective wBGA operations.
 - (2) PTI will be able to exit at lowest risk of:
 - single customer
 - additional investment for higher end packaging technology
 - minimize financial exposure
 - improve group gross margin
 - (3) PTI will rebuild wBGA capacity in Taiwan and continue expand to other business to make up the revenue shortfall with better gross margin.

Onward Business Outlook (Continue)

Solidigm

- We are excited to hear the information regarding the SK Hynix acquisition of Intel NPSG had received regulatory approval from China government and a new US based SSD provider, Solidigm, is launched at the same time.
- As our understanding, PTI will still be one of the best partners of Solidigm.
- We look forward to continue our strong relationship and partnership.



www.solidigmtechnology.com

SK Hynix subsidiary Solidigm is headquartered in San Jose and will manage product development, manufacturing, and sales of its SSD products separate from SK Hynix's NAND products. The name Solidigm, it says, refers to it creating “a new solid-state paradigm that provides unmatched customer service and revolutionises the memory storage industry.”



5. PTI Technology Focus

Complete Service Provider

Customers

- IC design house
- Wafer foundry
- IDM company
- System company

“PTI offers complete semiconductor backend services from bump to system.”



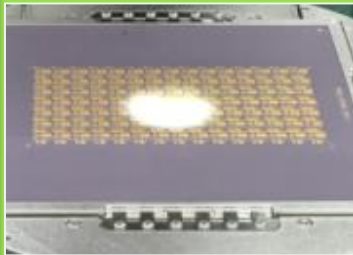
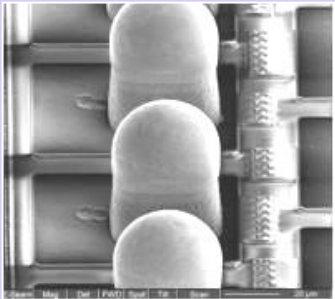
Bump

Wafer
Sort

Package
(WB, FC, SiP,
FO, TSV, etc.)

Final Test

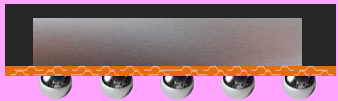
Module /
System
Assembly



PTI Panel Level Fan-Out Technology

- ✓ There are four basic Fan-Out structures.
- ✓ Variety of applications can be developed from the four basic structures.

BF²O[®] (Bump Free)



- **Feature**
 - L/S 15um / 15um
 - Package < 10mm
 - No bump, cost competitive
- **Application**
 - PMIC
 - RF transceiver
 - Radar

Bump Free FanOut

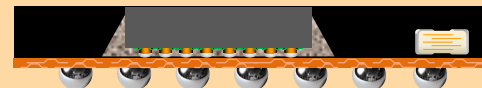
CHIEFS[®] (Chip First)



- **Feature**
 - L/S > 5um / 5um
 - Lower cost than CLIP
- **Application**
 - APU
 - Baseband
 - ASIC
 - Memory

Chips Integration Embedded FanOut Solution

CLIP[®] (Chip Last)



- **Feature**
 - Known Good RDL
 - Finer L/S
 - Passive integration available
 - L/S < 5um / 5um achievable
- **Application**
 - High performance device (CPU, GPU, FPGA)
 - Thermal sensitive devices

Chip Last Integration Package

PiFO[®] (Chip Middle)



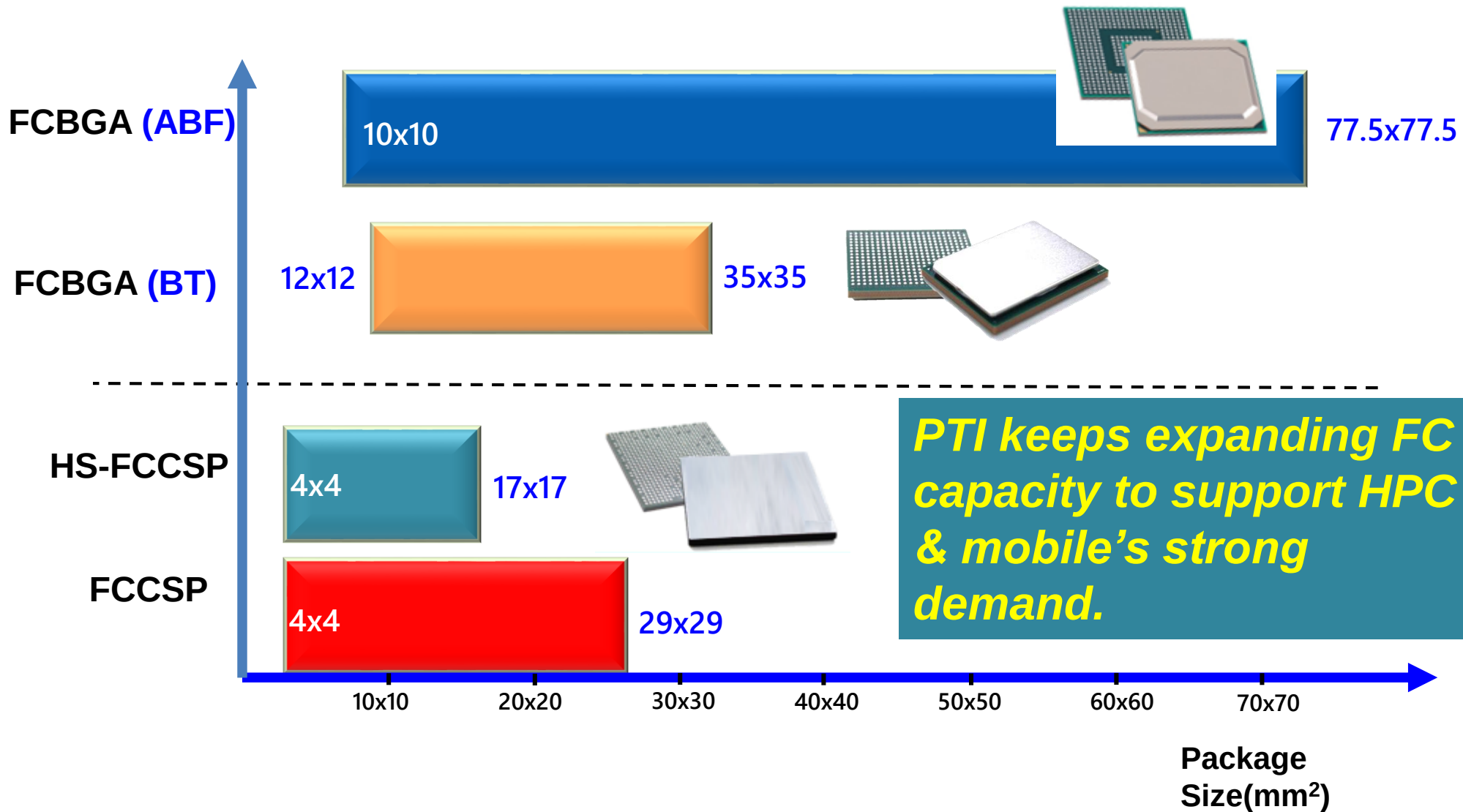
- **Feature**
 - Pillars link top-bottom RDL
 - Passive integration available
- **Application**
 - APU for smartphone
 - 3D stacking
 - RF module
 - SiP
 - Sensor

Pillars In FanOut

TSV TECHNOLOGY

- **TSV CSP for CIS**
- **TSV for HBM**

FCCSP and FCBGA Portfolio



Memory (NAND / DRAM) Package Technology

- **UltraThin wafer**

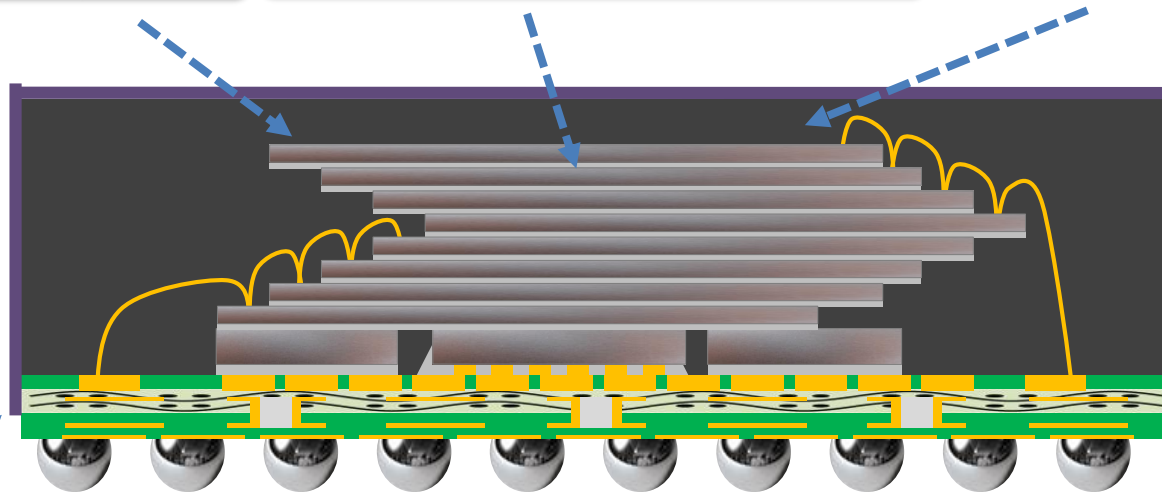
- 33um 3D NAND HVM
- SDBG/DBG
- 16D stacking HVM

- **Thin DAF, FOW, FOD**

- Thin die attach material
- Particle control

- **Thin Mold Encapsulation**

- Mold thickness control
- Wire loop & sweep control
- Mold gap fill capability



- **UltraThin Substrate**

- 2L/3L, 80um
- High stiffness SR
- Coreless or ETS
- Cavity substrate

- **Warp/Height Control**

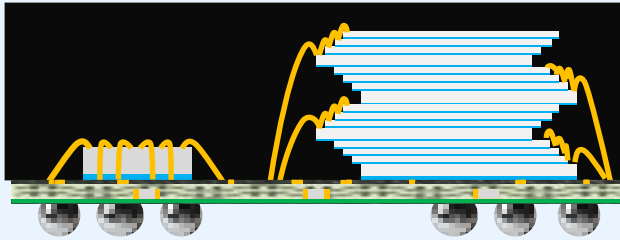
- Structure optimization
- Materials properties control
- Process control

- **EMI Shielding (PVD)**

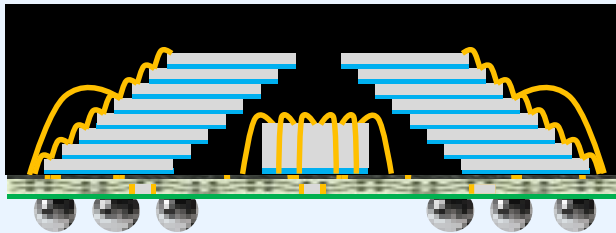
- Conformal
- Compartmental

High Density Memory Package in Production

NAND Package

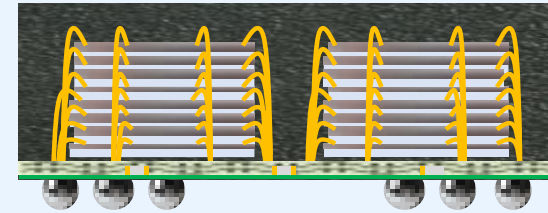


16 pcs NAND

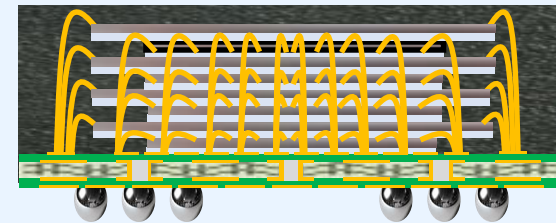


16 pcs NAND

DRAM Package



16 pcs DRAM

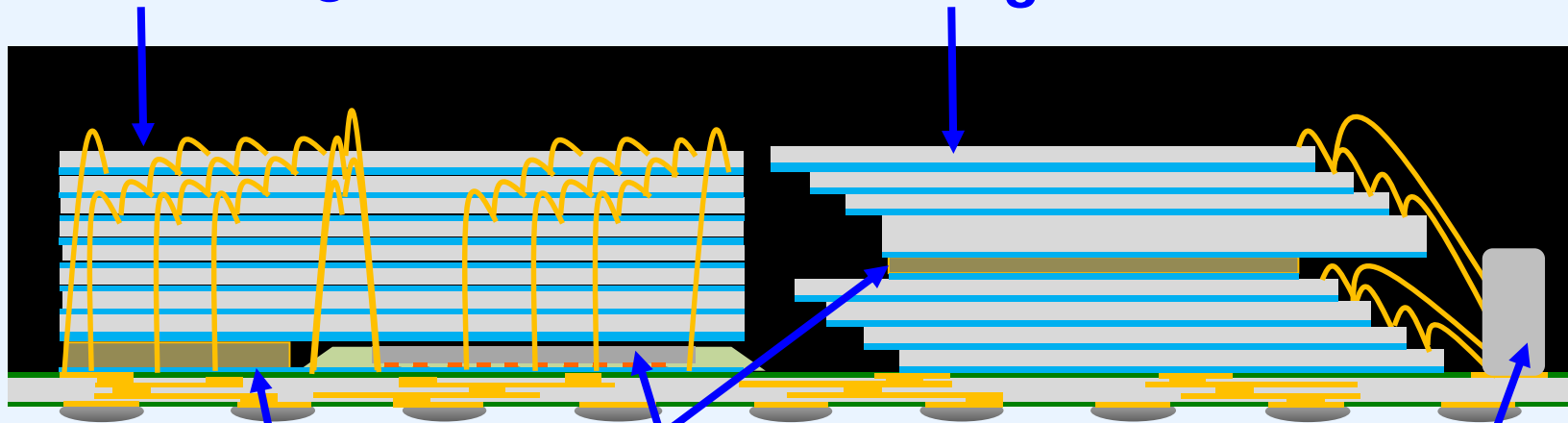


8 pcs DRAM

NAND + DRAM uMCP

- 8 pcs DRAM stacking

- 8 pcs NAND stacking



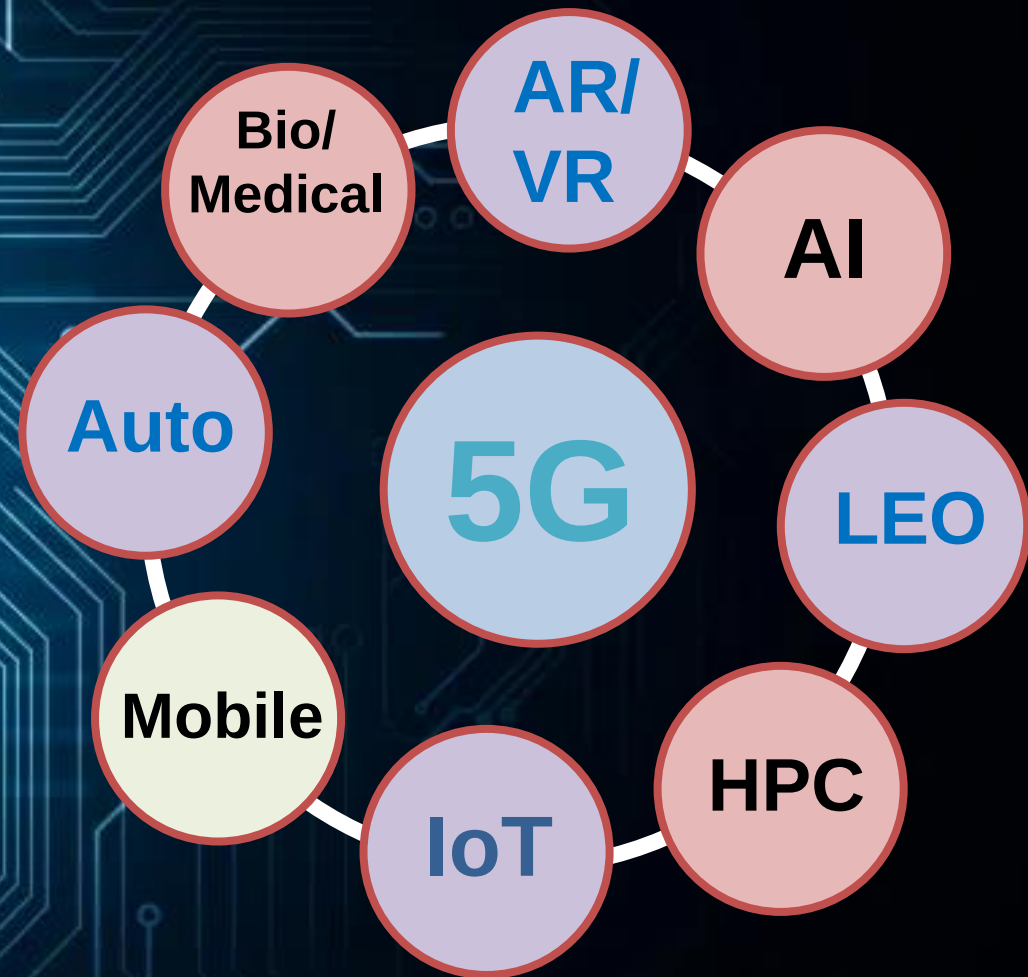
- 3 spacers

- Controller

- Passive components

PTI Collaborates with Customers for Next Generation Products

PTI has entered the supply chains of a variety of advanced applications.

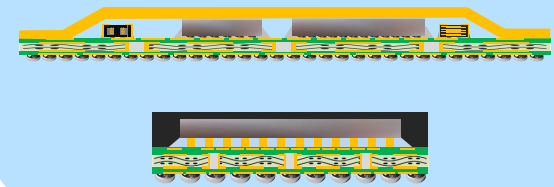


PTI Ready to Support LEO Applications

	GEO Satellites	LEO Satellites
Altitude	35,786 km	160 ~ 2000 km
Number of Satellites with global coverage	3 Satellites	Hundreds to Thousands satellites
Major Applications	• Satellite phones • Satellite TVs • Meteorology	• Communication • Broad band • IoT • Earth observation

Package

- FCBGA
- FCCSP
- AiP
- SiP module



PTI's Flipchip and SiP module technologies ready to support LEO applications.

New Advanced Package Fab

- Building ready in 2H21
- Finish Equipment move in by 1H22

5F~8F: Production
4F: CIS Production
3F: Office
2F: FO Production
1F: Public area

PTI's TSV, FanOut, SiP technologies extend Moore's Law.



Partnership for Success

Promise

We promise to deliver products and services at the high level of quality in a reliable and consistent manner.

Technology

We develop advanced technology to create values for partners and customers.

Integration

We integrate the interests of all stakeholders to ensure sustained and mutually rewarding relationships.



6. Q&A



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Tera Probe, Inc.

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Thank you