



# Nanya Technology Q4 2021 Investor Conference





# Safe Harbor

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# Q4'21 Financial Results Summary

Amount in Million NT\$, except for EPS & BVPS	Q4'21 (Unaudited)		Q3'21		QoQ	Q4'20		YoY
Net Sales	21,399	<b>100%</b>	23,837	<b>100%</b>	-10.2%	14,773	<b>100%</b>	44.8%
Gross Profit (Loss) <i>Gross Margin(%)</i>	10,563	<b>49.4%</b>	11,735	<b>49.2%</b>	-10.0%	3,251	<b>22.0%</b>	224.9%
Operating Income (Loss) <i>Operating Margin(%)</i>	8,023	<b>37.5%</b>	9,073	<b>38.1%</b>	-11.6%	1,304	<b>8.8%</b>	515.5%
EBITDA* <i>EBITDA Margin (%)</i>	11,850	<b>55.4%</b>	12,966	<b>54.4%</b>	-8.6%	4,937	<b>33.4%</b>	140.0%
Non-operating Income (Expense)	99	<b>0.5%</b>	316	<b>1.3%</b>		-167	<b>-1.1%</b>	
Income Tax Benefit (Expense)	-1,672	<b>-7.8%</b>	-1,862	<b>-7.8%</b>		-213	<b>-1.4%</b>	
Net Income (Loss) <i>Net Margin (%)</i>	6,450	<b>30.1%</b>	7,527	<b>31.6%</b>	-14.3%	924	<b>6.3%</b>	598.0%
Earnings Per Share (NT\$)	2.08**		2.44			0.30		
Book Value Per Share (NT\$)	55.85***		53.87			50.02		

Remark: \* EBITDA = Operating income + Depreciation & Amortization Expenses

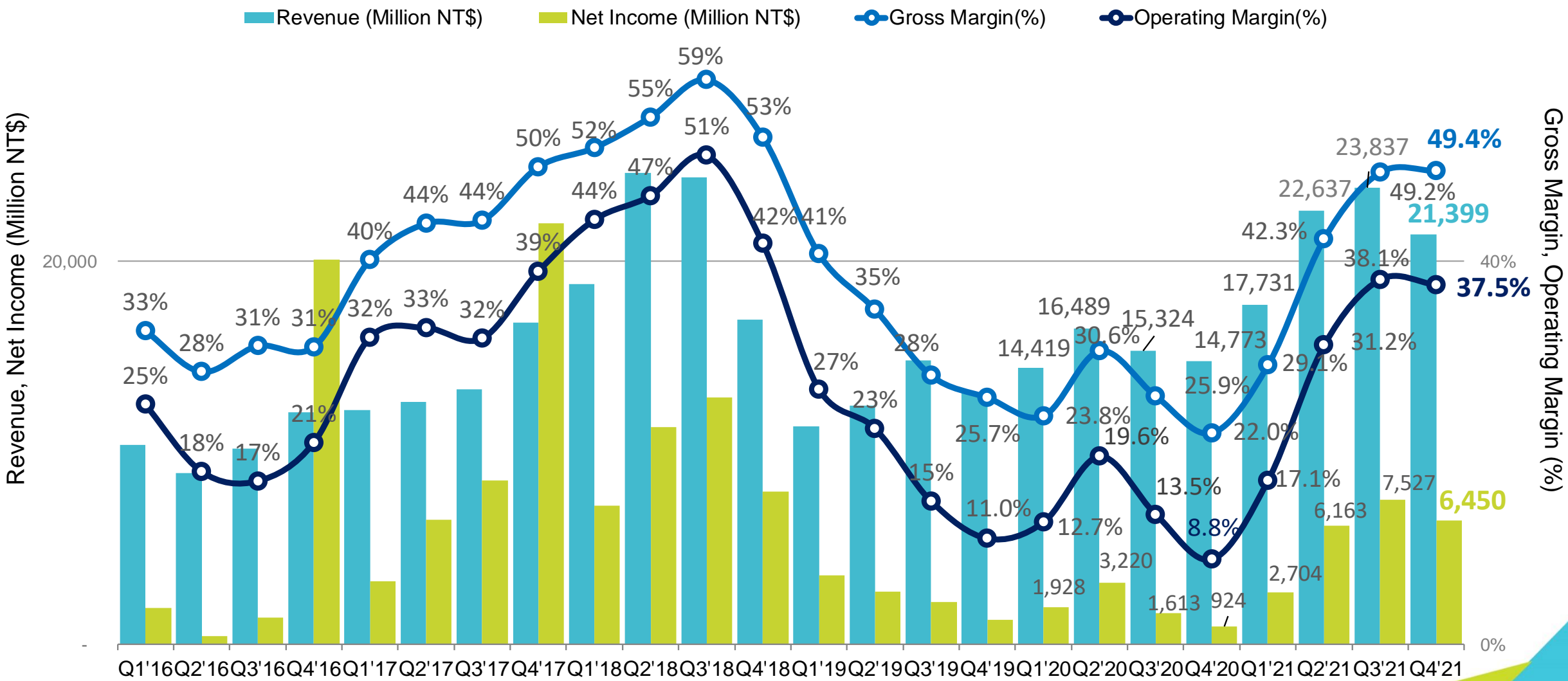
\*\*\* BVPS is calculated based on 3,097M outstanding shares

\*\* EPS is based on weighted average outstanding shares of 3,095M

# Q4'21 vs. Q3'21 Results Comparison

Amount in Million NT\$	Q4'21 (Unaudited)	Q3'21	QoQ (PPT* Delta)	Remarks
<b>Net Sales</b>	21,399	23,837	-10.2%	<ul style="list-style-type: none"> <li>■ Bit shipment decreased mid-single digits%</li> <li>■ ASP decreased low-single digits%</li> </ul>
<b>Gross Profit (Loss)</b> Gross Margin(%)	10,563 <b>49.4%</b>	11,735 <b>49.2%</b>	+0.2%	<ul style="list-style-type: none"> <li>■ Q4'21 Gross profit decreased NT\$ 1,172M, mainly due to ASP and shipment decrease</li> </ul>
<b>Operating Expense</b>	2,540 <b>11.9%</b>	2,662 <b>11.2%</b>	+0.7%	<ul style="list-style-type: none"> <li>■ SG&amp;A and R&amp;D expenses decreased NT\$ 122M</li> </ul>
<b>Operating Income (Loss)</b> Operating Margin(%)	8,023 <b>37.5%</b>	9,073 <b>38.1%</b>	-0.6%	<ul style="list-style-type: none"> <li>■ Q4'21 OP income decreased NT\$ 1,050M</li> </ul>
<b>Net Income (Loss)</b> Net Margin (%)	6,450 <b>30.1%</b>	7,527 <b>31.6%</b>	-1.5%	<ul style="list-style-type: none"> <li>■ Net Income decreased NT\$ 1,077M               <ul style="list-style-type: none"> <li>• OP Income decrease of NT\$ 1,050M</li> <li>• FX impact: NT\$ 193M unfavorable (Q4'21: NT\$ -92M; Q3'21: NT\$ 101M)</li> <li>• Income tax: NT\$ 190M favorable</li> </ul> </li> </ul>

# Quarterly Financial Highlights





# Cash Flows

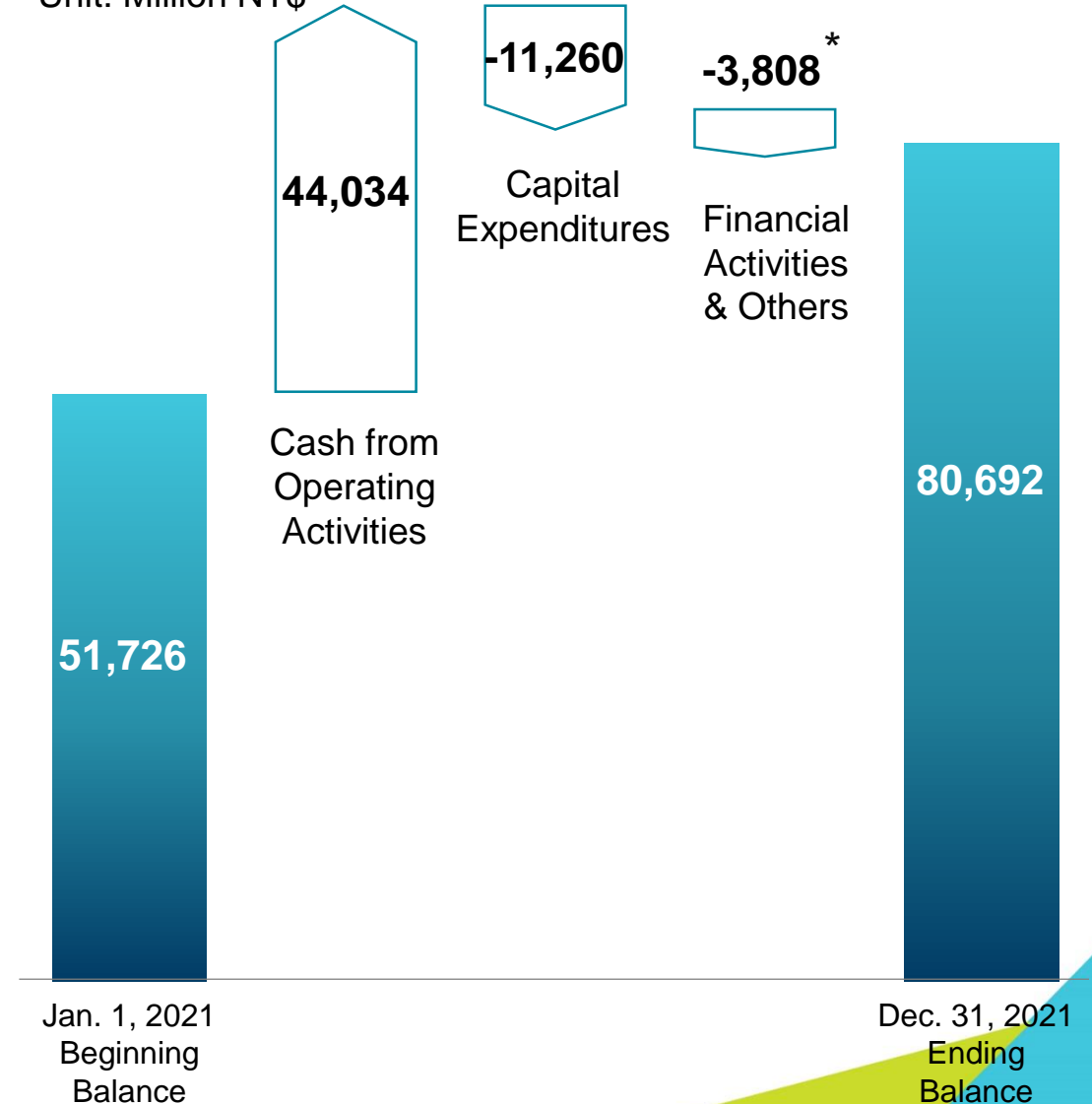
Unit: Million NT\$	Q4'21 (Unaudited)	Q3'21
<b>Beginning Balance</b>	<b>71,558</b>	<b>67,738</b>
Cash from Operating Activities	13,899	11,041
Capital Expenditures	-4,741	-3,801
Financial Activities & Others	-24	-3,420*
<b>Ending Balance</b>	<b>80,692</b>	<b>71,558</b>
Free Cash Flow <sup>(1)</sup>	<b>9,157</b>	<b>7,240</b>

(1) Free Cash Flow = Cash from operating activities – Capital expenditures

- \* 1. - NT\$ 4.0 billion of dividend payout
- 2. +NT\$ 320 million proceeds from treasury stocks

## 2021 Cash Flow

Unit: Million NT\$



# 2021 Consolidated Income Statement

Amount: Million NT\$	2021 (Unaudited)		2020		YoY
Net Sales	85,604	100.0%	61,006	100.0%	40.3%
Cost of Goods Sold	48,560	56.7%	45,314	74.3%	
Gross Margin	37,044	43.3%	15,692	25.7%	136.1%
SG&A Expenses	2,359	2.8%	2,119	3.5%	
R&D Expenses	7,499	8.8%	5,138	8.4%	
Operating Income	27,186	31.8%	8,434	13.8%	222.3%
Non-operating Income (Exp.)	579	0.7%	557	0.9%	
Income before Tax	27,766	32.4%	8,991	14.7%	208.8%
Income Tax Benefit (Expense)	-4,920	-5.7%	-1,305	-2.1%	
Net Income	22,845	26.7%	7,686	12.6%	
EPS(NT\$)	7.40		2.51		
Book Value Per Share(NT\$)	55.85		50.02		

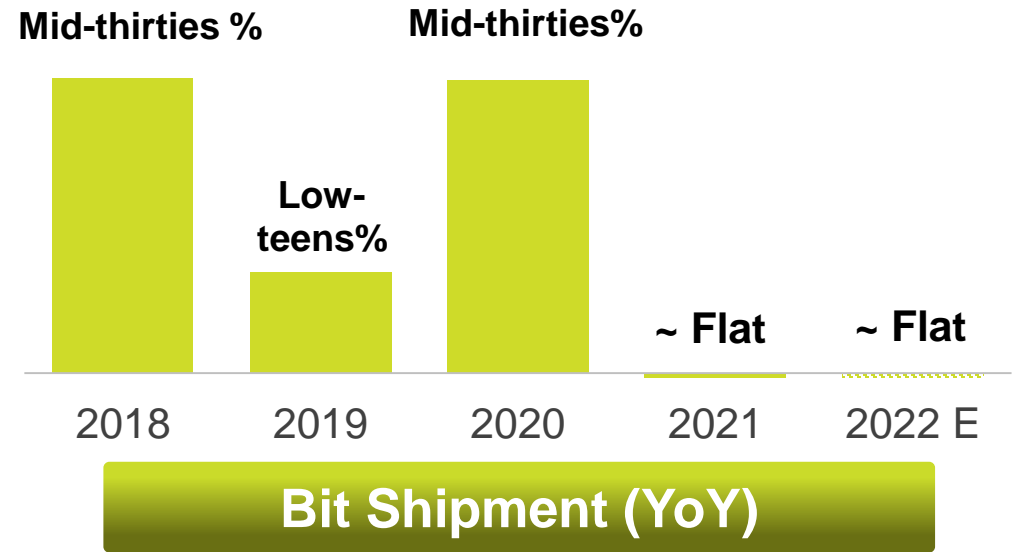
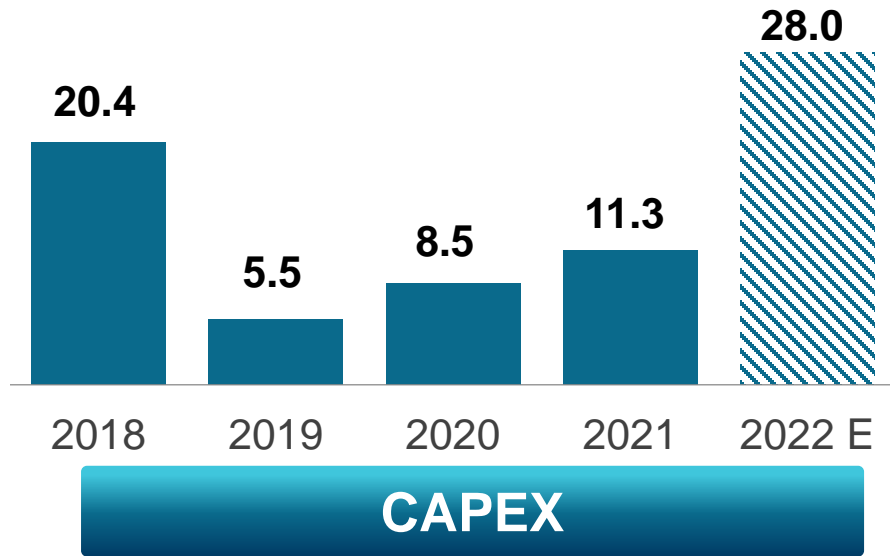
# 2021 vs. 2020 Results Comparison

Amount in Million NT\$	2021 (Unaudited)	2020	YoY (PPT* Delta)	Remarks
<b>Net Sales</b>	85,604	61,006	40.3%	<ul style="list-style-type: none"> <li>■ Bit shipment relatively flat YoY</li> <li>■ ASP increased by &gt;40% YoY</li> <li>■ FX negative impact 5.3%</li> </ul>
<b>Gross Income (Loss)</b> Gross Margin(%)	37,044 <b>43.3%</b>	15,692 <b>25.7%</b>	17.6%	<ul style="list-style-type: none"> <li>■ Gross Income increased by NT\$ 21,352M mainly due to ASP increase</li> </ul>
<b>Operating Expense</b>	9,858 <b>11.5%</b>	7,257 <b>11.9%</b>	-0.4%	<ul style="list-style-type: none"> <li>■ SG&amp;A expense increased NT\$ 240M, R&amp;D expense increased NT\$ 2,361M</li> </ul>
<b>Operating Income (Loss)</b> Operating Margin(%)	27,186 <b>31.8%</b>	8,434 <b>13.8%</b>	18.0%	<ul style="list-style-type: none"> <li>■ Operating Income increased NT\$ 18,752M</li> </ul>
<b>Net Income (Loss)</b> Net Margin (%)	22,845 <b>26.7%</b>	7,686 <b>12.6%</b>	14.1%	<ul style="list-style-type: none"> <li>■ Net Income increased by NT\$ 15,159M mainly due to:               <ul style="list-style-type: none"> <li>• Operating Income increased NT\$ 18,752M</li> <li>• FX loss favorable NT\$ 432M (2021: NT\$ -323M, 2020: NT\$ -755M)</li> <li>• Interest income unfavorable NT\$ 409M</li> <li>• Income tax unfavorable NT\$ 3,615M</li> </ul> </li> </ul>



# CAPEX & Bit Shipment

NT\$ Billion



## Capital Expenditure(CAPEX)

- Q4'21 CAPEX NT\$ 4.7 billion (B)
- 2021 CAPEX NT\$ 11.26B
- 2022 CAPEX plan estimated NT\$ 28B subject to BoD approval

## Bit Shipment

- Q4'21 bit shipment decreased mid-single digits% QoQ
- 2021 YoY bit shipment relatively flat
- 2022 YoY bit shipment expected to be relatively flat

# Market Outlook(2022)

## Outlook

- 2022: Demand from Cloud computing, Smartphone, PC and Consumer remain healthy
- Component shortage alleviated in 2H'22, and DDR5 and new CPU gradually increase
- Cautions on high inflation and geopolitical tensions may impact on demand growth
- In general, cautiously optimistic outlook for 2022 DRAM market

## Supply

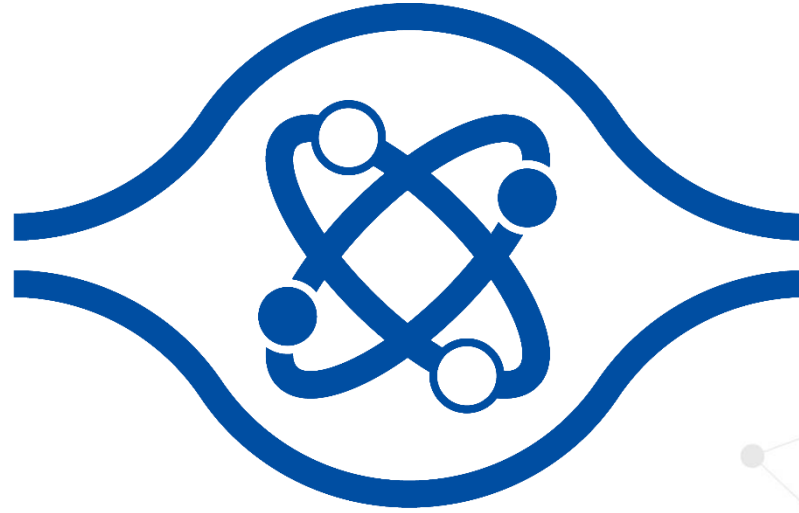
- Q4'21 Suppliers and channel inventory remained low
- 2022 Supplier's dynamic CAPEX increase could change DRAM supply outlook

## Demand

- **Server Market:** Datacenter continuously driving demand growth, components shortage issue lingering, expect easing in 2H'22, and DDR5 and new CPU start shipment
- **Mobile Market:** 2022 shipment growth led by both 5G and 4G segments, with 5G leading in flagship, and 4G driven by emerging markets, and average DRAM content growing
- **PC Market:** NB demand remaining healthy, component shortages and international shipping continue to impact delivery, expect easing in 2H'22
- **Consumer Market:** Positive outlook for networking, wearables, smart speaker, SSD and TV, VR and new game consoles. Automotive chip shortage expect eased by year end

# Nanya Business Review & Outlook

- Named to the Dow Jones Sustainability (DJSI) World Index
- 2021 financial result, revenue NT\$ 85.6B, GM 43%, OPM 32%, EPS 7.40
- 2022 DRAM market outlook cautiously optimistic
- 1st 10nm-class technology small volume production expected in Q3'22
- 2nd 10nm-class product development on schedule
- New fab ground-breaking scheduled in 1H'22



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# Thanks & Questions



# Q4'21 Consolidated Income Statement

Amount: Million NT\$

	Q4'21 (Unaudited)		Q3'21		QoQ	Q4'20		YoY
Net Sales	21,399	100.0%	23,837	100.0%	-10.2%	14,773	100.0%	44.8%
Cost of Goods Sold	10,836	50.6%	12,102	50.8%		11,522	78.0%	
Gross Margin	10,563	49.4%	11,735	49.2%	-10.0%	3,251	22.0%	224.9%
SG&A Expenses	585	2.7%	642	2.7%		509	3.4%	
R&D Expenses	1,955	9.1%	2,020	8.5%		1,439	9.7%	
Operating Income	8,023	37.5%	9,073	38.1%	-11.6%	1,304	8.8%	515.5%
Non-operating Income (Exp.)	99	0.5%	316	1.3%		-167	-1.1%	
Income before Tax	8,123	38.0%	9,389	39.4%	-13.5%	1,137	7.7%	614.5%
Income Tax Benefit (Expense)	-1,672	-7.8%	-1,862	-7.8%		-213	-1.4%	
Net Income	6,450	30.1%	7,527	31.6%	-14.3%	924	6.3%	
Earnings Per Share (NT\$)	2.08		2.44			0.30		
Book Value Per Share(NT\$)	55.85		53.87			50.02		