



Nanya Technology

Q4 2023 Investor Conference

Dr. Pei-Ing Lee, President & Spokesman
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01.

Q4'23 Revenue & Results

Q4'23 Financial Results Summary

Amount in Million NT\$, except for EPS & BVPS	Q4'23 (Unaudited)	Q3'23	QoQ	Q4'22	YoY
Net Sales	8,704 100.0%	7,736 100.0%	12.5%	7,954 100%	9.4%
Gross Profit (Loss) <i>Gross Margin(%)</i>	** -1,188 -13.6%	-1,953 -25.2%	-	1,037 13.0%	-214.5%
Operating Income (Loss) <i>Operating Margin(%)</i>	-4,050 -46.5%	-4,340 -56.1%	-	-1,544 -19.4%	-
EBITDA* <i>EBITDA Margin(%)</i>	-196 -2.2%	-475 -6.1%	-	2,217 27.9%	-108.8%
Non-operating Income (Expense)	521 6.0%	1,198 15.5%		125 1.6%	
Income Tax Benefit (Expense)	1,041 12.0%	638 8.2%		272 3.4%	
Net Income (Loss) <i>Net Margin(%)</i>	-2,488 -28.6%	-2,505 -32.4%	-	-1,146 -14.4%	-
Earnings Per Share (NT\$)	*** -0.80	-0.81		-0.37	
Book Value Per Share (NT\$)	**** 53.88	55.52		58.41	

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

*** EPS is based on weighted average outstanding shares of 3,098M

** Idle cost included

**** BVPS is calculated based on 3,098M outstanding shares

Quarterly Revenue Results

	QoQ Q4'23 vs. Q3'23	YoY Q4'23 vs. Q4'22
Revenue	+12.5%	+9.4%
Shipment	Increased low-teens%	Increased high-thirties%
ASP	Increased low-single digit%	Decreased low-twenties%
Exchange Rate	Increased low-single digit%	Increased low-single digit%

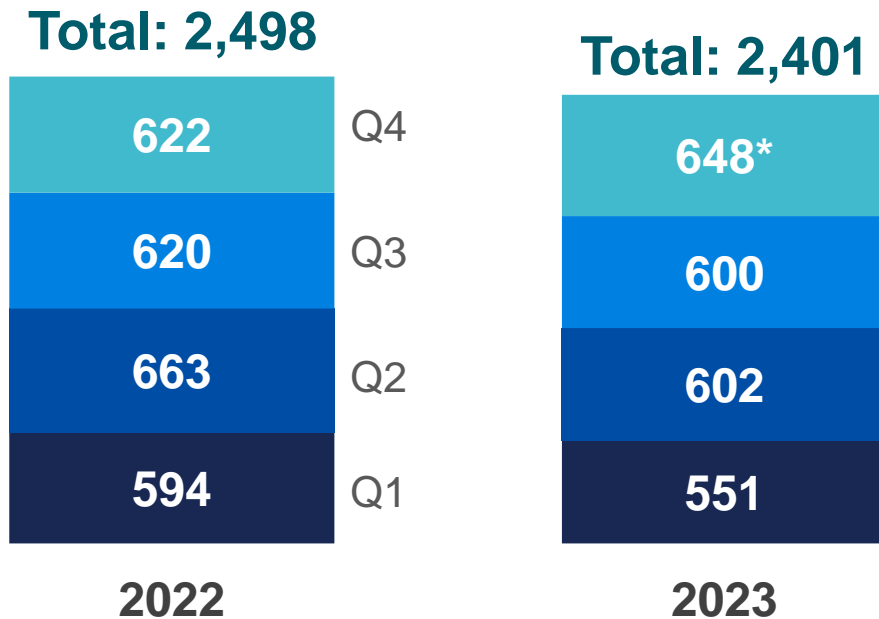
Q4'23 vs. Q3'23 Results Comparison

Amount in Million NT\$	Q4'23 (Unaudited)	Q3'23	QoQ (PPT* Delta)	Remarks
Net Sales	8,704	7,736	12.5%	<ul style="list-style-type: none"> ■ Bit shipment increased low-teens% ■ ASP increased low-single digit% ■ FX favorable low-single digit%
Gross Profit (Loss) Gross Margin(%)	-1,188 -13.6%	-1,953 -25.2%	11.6%	<ul style="list-style-type: none"> ■ Gross loss decreased NT\$ 765M, mainly due to increased ASP and lower idle costs
Operating Expense	2,862 32.9%	2,387 30.9%	2.0%	<ul style="list-style-type: none"> ■ Operating expenses increased NT\$ 475M mainly due to higher R&D expenses
Operating Income (Loss) Operating Margin(%)	-4,050 -46.5%	-4,340 -56.1%	9.6%	<ul style="list-style-type: none"> ■ OP loss decreased NT\$ 290M
Net Income (Loss) Net Margin (%)	-2,488 -28.6%	-2,505 -32.4%	3.8%	<ul style="list-style-type: none"> ■ Net loss decreased NT\$ 17M <ul style="list-style-type: none"> • Exchange rate changes -NT\$ 673M • Income tax favorable NT\$ 404M

Operating Expenses

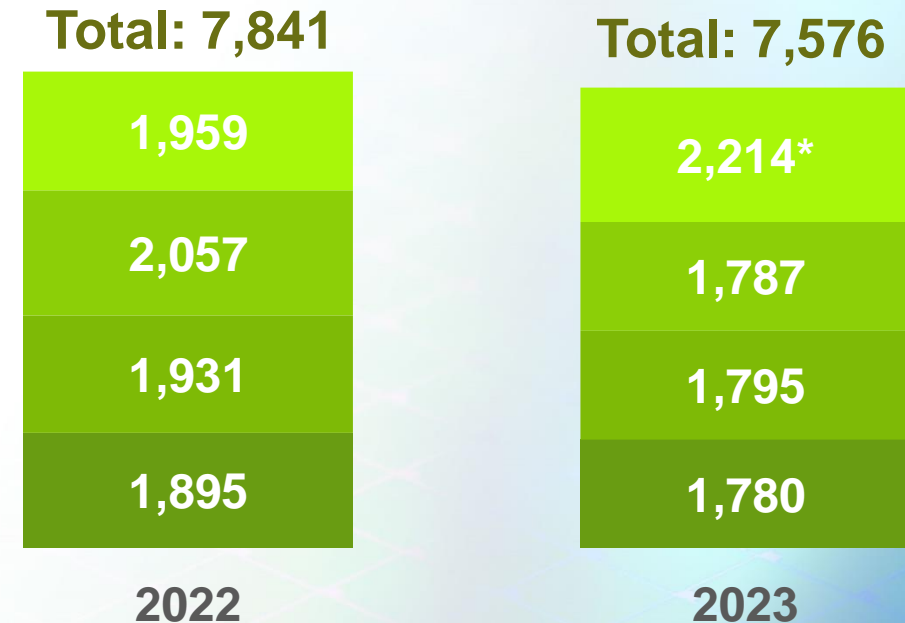
SG&A Expenses (*Unaudited)

(Million NT\$)



R&D Expenses (*Unaudited)

(Million NT\$)



Cash Flows

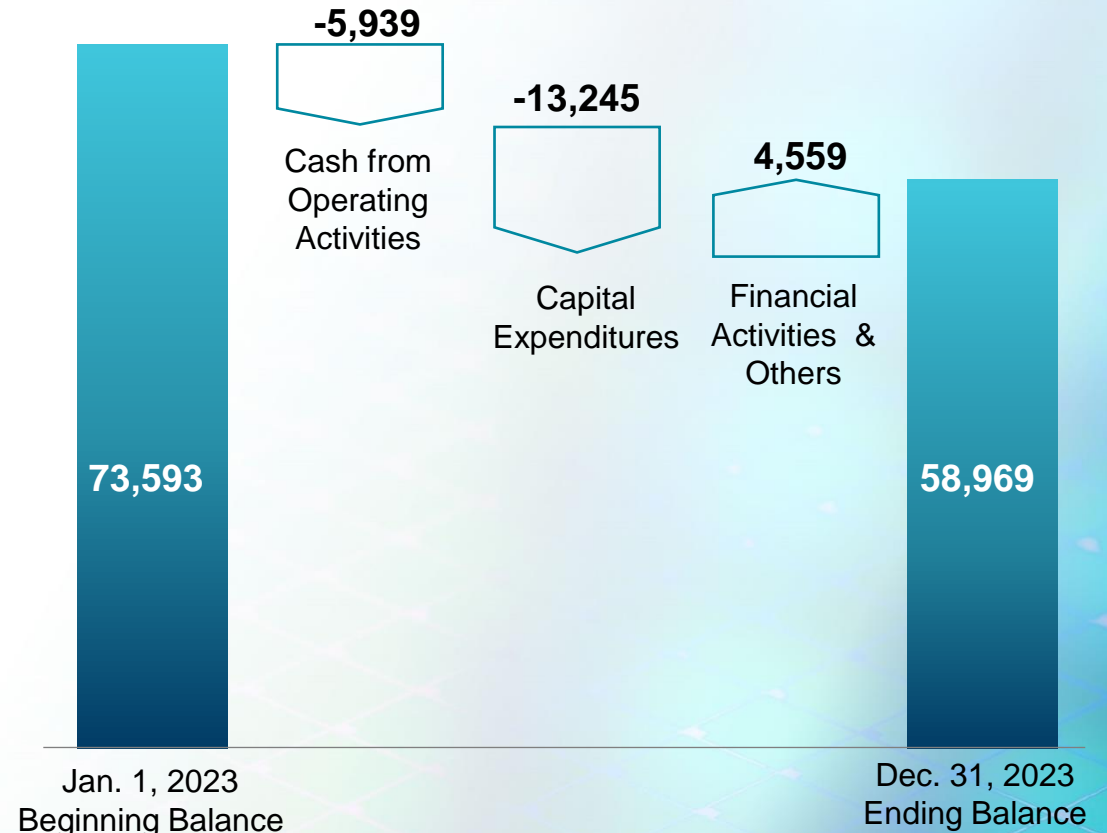
Unit: Million NT\$	Q4'23 (Unaudited)	Q3'23
Beginning Balance	60,474	59,665
Cash from Operating Activities	733	-887
Capital Expenditures	-2,189	-2,431
Financial Activities & Others	-49	4,127
Ending Balance	*58,969	60,474
Free Cash Flow ⁽¹⁾	-1,456	-3,318

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

* Net cash and equivalents (NT\$ 47.8B) = Cash and equivalents (NT\$ 59B) – Short-term debt (NT\$ 11.2B)

2023 Cash Flow

Unit: Million NT\$



02.

2023 Revenue & Results

2023 Financial Results Summary

Amount in Million NT\$, except for EPS & BVPS	2023 (Unaudited)		2022		YoY
Net Sales	29,892	100%	56,952	100.0%	-47.5%
Gross Profit (Loss) <i>Gross Margin(%)</i>	*-4,483	-15.0%	21,342	37.5%	-121.0%
Operating Income (Loss) <i>Operating Margin(%)</i>	-14,460	-48.4%	11,002	19.3%	-231.4%
Non-operating Income (Expense)	3,756	12.6%	5,875	10.3%	
Income Tax Benefit (Expense)	3,256	10.9%	-2,258	-4.0%	
Net Income (Loss) <i>Net Margin(%)</i>	-7,448	-24.9%	14,619	25.7%	-150.9%
Earnings Per Share (NT\$)	** -2.4		4.72		
Book Value Per Share (NT\$)	***53.88		58.41		

Remark: * Idle cost included

** EPS is based on weighted average outstanding shares of 3,098M

*** BVPS is calculated based on 3,098M outstanding shares

2023 vs. 2022 Results Comparison

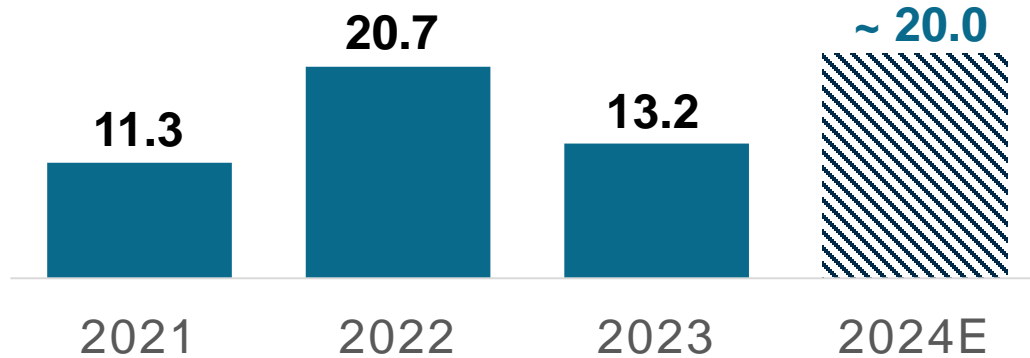
Amount in Million NT\$	2023 (Unaudited)	2022	YoY (PPT* Delta)	Remarks
Net Sales	29,892	56,952	-47.5%	<ul style="list-style-type: none"> ■ Bit shipment decreased mid-single digit % ■ ASP decreased forties % ■ FX favorable high-single digit%
Gross Profit (Loss) Gross Margin(%)	-4,483 <i>-15.0%</i>	21,342 <i>37.5%</i>	-52.5%	<ul style="list-style-type: none"> ■ Gross profit decreased NT\$ 25.8B, mainly due to ASP and shipment decreases
Operating Expense	9,977 <i>33.4%</i>	10,340 <i>18.2%</i>	15.2%	<ul style="list-style-type: none"> ■ Operating expenses decreased NT\$0.4B
Operating Income (Loss) Operating Margin(%)	-14,460 <i>-48.4%</i>	11,002 <i>19.3%</i>	-67.7%	<ul style="list-style-type: none"> ■ OP income decreased NT\$ 25.5B
Net Income (Loss) Net Margin (%)	-7,448 <i>-24.9%</i>	14,619 <i>25.7%</i>	-50.6%	<ul style="list-style-type: none"> ■ Net income decreased NT\$ 22.1B <ul style="list-style-type: none"> • Exchange rate changes -NT\$ 3.2B • Income tax favorable NT\$ 5.5B

03.

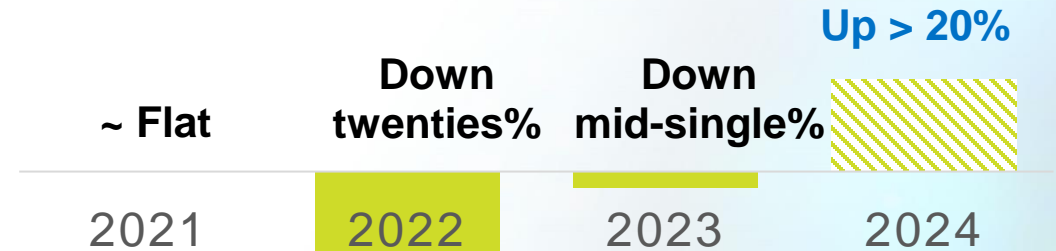
CAPEX & Bit Shipment

CAPEX & Bit Shipment

NT\$ Billion



CAPEX



Bit Shipment (YoY)

Capital Expenditure (CAPEX)

- 2023 CAPEX was NT\$ 13.2B, under the Board-approved NT\$18.5B; a portion of the expenditures (NT\$4.4B) have been deferred to 2024.
- 2024 CAPEX estimated approx. NT\$20B (subject to the Board's approval), in which WFE CAPEX accounts for ~50%

Bit Shipment

- 2023 bit shipment decreased mid-single% YoY
- 2024 bit shipment expected to increase more than twenties% YoY
- 2024 production output may gradually resume normal level

04.

Market Outlook

Market Outlook (2024)

Outlook

- DRAM demand expected to improve by quarter with demand growth from HBM driven by AI chip boom and the transition from DDR4 to DDR5.
- Price rebound, started from Q4'23, is likely to continue in 2024.
- Global market recovery exposed to geopolitical tension, including the Russia-Ukraine war and the US-China conflict.

Supply

- Suppliers accelerated the production of HBM and high-density DDR5, which helped normalise the DDR4 and LPDDR4 inventory. DRAM market expected to restore balance in 2024.
- Inventory continues to destock by quarter as suppliers suppressed capacity and CAPEX.

Demand

- **Server Market:** AI server is favorable for demand; IT spending of US cloud service providers is key to recovery.
- **Mobile Market:** New smartphones ignite DRAM content growth. The high-end market will migrate to AI mobiles. Chinese economic recovery remains crucial, where mobile sales start to improve.
- **PC Market:** Inventory gradually normalises. AI PCs may stimulate the high-end market.
- **Consumer Market:** Demand for IP CAM, networking, industrial and automotive applications are relatively healthy. Consumer market is expected to recover in 2024.

05.

Business Review & Outlook

Nanya Business Review & Outlook

- Nanya Q4'23 net loss NT\$ 2,488 million, EPS NT\$ -0.8; 2023 net loss NT\$ 7,448 million, EPS NT\$ -2.4
- DDR5 conversion and destocking help improve ASP
- Overall demand in 2024 may improve gradually, subject to geopolitical uncertainty
- 2024 production output may gradually resume normal level
- Nanya 2nd 10nm-class (1B) products 8Gb DDR4 and 16Gb DDR5 expect volume production in 2024
- Nanya selected for the Dow Jones Sustainability World Index and Emerging Markets Index



Thanks & Questions

Q4'23 Consolidated Income Statement

Amount: Million NT\$	Q4'23 (Unaudited)		Q3'23		QoQ	Q4'22		YoY
Net Sales	8,704	100.0%	7,736	100.0%	12.5%	7,954	100.0%	9.4%
Cost of Goods Sold	9,892	113.6%	9,689	125.2%		6,917	87.0%	
Gross Profit (Loss)	-1,188	-13.6%	-1,953	-25.2%	-	1,037	13.0%	-214.5%
SG&A Expenses	648	7.4%	600	7.8%		622	7.8%	
R&D Expenses	2,214	25.4%	1,787	23.1%		1,959	24.6%	
Operating Income (Loss)	-4,050	-46.5%	-4,340	-56.1%	-	-1,544	-19.4%	-
Non-operating Income (Exp.)	521	6.0%	1,198	15.5%		125	1.6%	
Income before Tax (Loss)	-3,530	-40.6%	-3,142	-40.6%	-	-1,418	-17.8%	-
Income Tax Benefit (Expense)	1,041	12.0%	638	8.2%		272	3.4%	
Net Income (Loss)	-2,488	-28.6%	-2,505	-32.4%	-	-1,146	-14.4%	-
Earnings Per Share (NT\$)	-0.80		-0.81			-0.37		
Book Value Per Share(NT\$)	53.88		55.52			58.41		