

# Financial Results

FQ1 2023

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# Sanjay Mehrotra

President and CEO



 Delivered fiscal first quarter revenue and EPS within guidance range despite a pricing environment which deteriorated significantly from prior earnings call.

 Micron exercising supply discipline by making significant cuts to capex and wafer starts while maintaining its competitive position. Also taking measures to cut costs and opex across the company.

Customer inventory is impacting near term demand and is expected to continue improving.
 Expect most customers to have reduced inventory to relatively healthy levels by mid CY23.
 Consequently, expect revenue in second half FY23 to improve from first half.

• Expect Micron's days of inventory to peak in FQ2 and gradually improve over the next few quarters, as bit shipments improve and supply growth is reduced.

 As previously indicated, slowed the ramps of 1-beta DRAM and 232-layer NAND to better align Micron's supply with market demand; both nodes offer strong cost reductions.



# **End Market Highlights**



#### **Data Center**

- Expect cloud demand in 2023 to grow well below historical trend, due to the significant impact of inventory reductions at key customers
- Expect server DDR5 bit shipments to become more meaningful in 2H CY23, with crossover expected in mid-CY24
- In FQ1, began qualifying 1-alpha 24Gb DDR5 and validated DDR5 for the new AMD EPYC™ 9004 Series processors
- Introduced Micron's first CXL DRAM samples to data center customers in FQ1
- In data center SSDs in FQ1, nearly doubled the number of customers where Micron is qualified
- Completed qualification of 176-layer QLC with an important enterprise customer



#### PC & Graphics

- PC: forecast CY22 units to decline in the high teens percentage and expect 2023 PC unit volume to decline by low to mid single digit %
- In FQ1, client and consumer QLC SSDs had very strong growth which helped increase our NAND QLC mix to a new record
- In December, Micron began shipping the world's most advanced client SSD featuring 232-layer NAND technology
- Micron's 2550 NVMe SSD demonstrates superior speed, density, and power savings – enabled by industry leading NAND node
- Graphics: expect bit growth to outpace the broader market in CY23
- Micron continues to drive the industry's fastest graphics memory with 24Gbps 16Gb GDDR6X shipping in high-volume production



#### **Mobile & Intelligent Edge**

- Mobile: expect CY22 smartphone unit volume to decline 10% Y/Y, versus high single digit decline projection last earnings. Forecast CY23 smartphone unit volume to be flattish to slightly up Y/Y
- In FQ1, the majority of mobile DRAM bit shipments were LP5. Also Micron's LP5X was validated for Qualcomm's latest platform
- Shipped the industry's first 1-beta DRAM qual samples with Micron's 16Gb LP5
- Auto: revenues grew ~30% Y/Y, just below FQ4-22 quarterly record. Expect robust growth in FY23, with ramp of next-gen infotainment and ADAS driving content
- Industrial: market continued to soften in FQ1.
   Expect volumes to recover in 2H FY23 as inventory levels improve



# **Industry Outlook**

- Expect CY22 industry bit demand growth in the low to mid-single digit percentage range for both DRAM and NAND. For CY23, expect industry demand growth of ~10% in DRAM and ~20% in NAND.
- Near term, over next few months, expect gradually improving demand trends for memory as customer inventory levels improve further, new CPU platforms are launched, and China's demand starts to grow as its economy reopens.
- Longer term, expect DRAM bit demand CAGR in mid-teens % range and NAND bit demand CAGR in low to mid 20s % range. Revised down from earlier this year primarily due to lowered growth expectations from PC and smartphone markets and some moderation in the strong long-term growth in the cloud.
- Expect CY22 industry bit supply growth for both DRAM and NAND to be close to their respective long-term demand CAGRs and well above CY22 industry demand growth.
   For CY23, expect that DRAM and NAND industry supply growth will be well below their long-term CAGRs and also well below expected demand growth in 2023.
- Given the significant supply demand mismatch entering CY23, expect industry profitability will remain challenged throughout 2023.



### Micron's Actions and Outlook

- 1) Reducing capex: FY23 capex lowered to a range between \$7.0B to \$7.5B. Expect FY23 WFE to be down more than 50% Y/Y. Significantly reducing FY24 capex from earlier plans to align with the supply-demand environment. Expect FY24 WFE to fall from FY23 levels, even as construction spending increases Y/Y.
- 2) Sharp reduction in wafer starts: As previously announced, Micron reduced wafer starts for DRAM and NAND by ~20%.
- **3) Slowing process tech node transitions:** Given the decision to slow 1-beta production ramp, now expect that 1-gamma introduction will be in 2025. Next NAND node beyond 232-layer will be delayed to align to the new demand & supply outlook.
- **4) Reducing costs:** Project spending to decrease through the year actively lowering discretionary spend. Expect to exit FY23 with quarterly opex of around \$850M, with additional savings in COGS in the P&L.

**Resulting Outlook: Expect Micron's CY23** production bit growth to be negative in DRAM and up slightly in NAND. Full impact of the wafer start cuts will be realized beginning FQ3-23. Micron's bit supply in 2024 will be materially reduced from the prior trajectory.

# **Mark Murphy**

**Chief Financial Officer** 

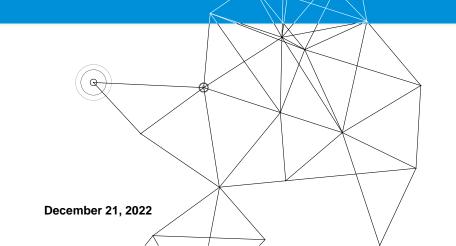


### FQ1-23 Revenue

\$4.1B

Revenue down 39% Q/Q and down 47% Y/Y





# Performance by Technology

### **DRAM**

- 69% of total revenue in FQ1-23
- Revenue down 41% Q/Q and down 49% Y/Y
- Bit shipments declined in the mid-20 percent range Q/Q
- ASPs declined in the low-20 percent range Q/Q

# **NAND**

- 27% of total revenue in FQ1-23
- Revenue down 35% Q/Q and down 41% Y/Y
- Bit shipments declined in the mid-teens percent range Q/Q
- ASPs declined in the low-20 percent range Q/Q



# **Revenue by Business Unit**

Amounts in millions	FQ1-23	FQ4-22	FQ4-22 Q/Q % Change		Y/Y % Change
Compute and Networking (CNBU)	\$1,746	\$2,931	-40%	\$3,406	-49%
Embedded (EBU)	\$1,000	\$1,303	-23%	\$1,220	-18%
Storage (SBU)	\$ 680	\$ 891	-24%	\$1,150	-41%
Mobile (MBU)	\$ 655	\$1,511	-57%	\$1,907	-66%



### **FQ1-23**

Non-GAAP Operating Results

Revenue: \$4.1 billion

**Gross margin:** 22.9%

Operating expenses: \$999 million

Operating income (loss): (\$65) million

Net income (loss): (\$39) million

**Diluted earnings (loss) per share: (\$0.04)** 

Adjusted EBITDA: \$1.8 billion

Cash from operations (GAAP): \$943 million



# Cash Flow and Capital Allocation

#### From FY-20 to FQ1-23:

- \$5 billion of free cash flow generated\*
- \$4.2 billion towards repurchasing 63 million shares
- \$300 million toward settling convert premiums which reduced diluted share count by 5 million shares
- \$5.1 billion returned to shareholders from share repurchases, convert premiums, and dividends

Cash flow from operations	• FQ1-23: \$943M (23% of revenue)
Net CapEx <sup>1</sup>	<ul><li>FQ1-23: CapEx of \$2.5B</li><li>FY-23: CapEx guidance of \$7.0B to \$7.5B</li></ul>
FCF*	<ul> <li>FQ1-23: Negative \$1.5B</li> </ul>
Buybacks	■ FQ1-23: \$425M (8.6M shares)
Dividends	Dividend payment of \$0.115 per share will be paid on January 19 <sup>th</sup>
Liquidity <sup>2</sup>	\$14.6B in liquidity at end of FQ1-23
Cash <sup>3</sup> -Debt	\$1.8B of net cash at end of FQ1-23

Free cash flow is a non-GAAP measure defined as net cash provided by operating activities less investments in capital expenditures net of amounts funded by partners and proceeds from sales of property, plant, and equipment.



<sup>&</sup>lt;sup>1</sup>CapEx net of amounts funded by partners and proceeds from sales of property, plant, and equipment

<sup>&</sup>lt;sup>2</sup>Cash, short-term and long-term marketable investments, restricted cash, and undrawn revolver capacity

<sup>&</sup>lt;sup>3</sup>Cash, short-term and long-term marketable investments, and restricted cash

# FQ2-23 Guidance

Non-GAAP

Revenue	\$3.8 billion ± \$200 million
Gross margin	8.5% ± 2.5%
Operating expenses	\$945 million ± \$15 million
Diluted earnings (loss) per share*	$(\$0.62) \pm \$0.10$



# Other key data



# Financial Summary Non-GAAP

Amounts in millions, except per share	FQ1-23	% of Revenue	FQ4-22	% of Revenue	FQ1-22	% of Revenue
Revenue	\$4,085	100%	\$6,643	100%	\$7,687	100%
Gross margin	934	23%	2,676	40%	3,616	47%
Operating income (loss)	(65)	-2%	1,662	25%	2,725	35%
Income tax (provision) benefit	(1)		(74)		(240)	
Net income (loss)	(39)	-1%	1,621	24%	2,471	32%
Diluted earnings (loss) per share	(0.04)		1.45		2.16	
Cash provided by operating activities (GAAP)	943		3,777		3,938	
Cash, marketable investments, and restricted cash (GAAP)	12,097		11,055		11,480	



### Non-GAAP Financial Data and Guidance

% of Revenue	FQ1-23
DRAM	69%
NAND	27%

% Sales Volume Change	FQ1-23 Q/Q
DRAM	Declined in the mid-20 percent range
NAND	Declined in the mid-teens percent range

% ASP Change	FQ1-23 Q/Q
DRAM	Declined in the low-20 percent range
NAND	Declined in the low-20 percent range

	FQ1-23 Non-GAAP (amounts in millions, except per share)		FQ2-23 Non-GAAP Guidance
Revenue	\$ 4,085		\$3.8 billion ± \$200 million
Gross margin		22.9%	8.5% ± 2.5%
Operating expenses	\$	999	\$945 million ± \$15 million
Diluted earnings (loss) per share	\$ (0.04)		(\$0.62) ± \$0.10

	23 Non-GAAP nts in millions)	FQ2-23 Non-GAAP Estimates
Diluted shares	1,090	~1.09 billion
Income tax (provision) benefit	\$ (1)	~(\$60) million
Cash from operations (GAAP)	\$ 943	_
Depreciation and amortization	\$ 1,921	_
Investments in capex, net (capital cash flow)	\$ 2,471	FY-23: \$7.0 billion to \$7.5 billion



# Revenue by Technology

Amounts in millions	FQ1-23	% of Revenue	FQ4-22	% of Revenue	FQ1-22	% of Revenue
DRAM	\$ 2,829	69%	\$ 4,809	72%	\$ 5,587	73%
NAND	1,103	27%	1,688	25%	1,878	24%
Other	153	4%	146	2%	222	3%
Total	\$ 4,085	100%	\$ 6,643	100%	\$ 7,687	100%





Amounts in millions	FQ1-23	FQ4-22	FQ1-22
GAAP gross margin	\$ 893	\$ 2,622	\$ 3,565
Stock-based compensation	36	49	43
Other	5	5	8
Non-GAAP gross margin	\$ 934	\$ 2,676	\$ 3,616
GAAP operating expenses	\$ 1,102	\$ 1,101	\$ 934
Stock-based compensation	(90)	(82)	(73)
Restructure and asset impairments	(13)	(5)	(38)
Other	_	_	68
Non-GAAP operating expenses	\$ 999	\$ 1,014	\$ 891
GAAP operating income (loss)	\$ (209)	\$ 1,521	\$ 2,631
Stock-based compensation	126	131	116
Restructure and asset impairments	13	5	38
Other	5	5	(60)
Non-GAAP operating income (loss)	\$ (65)	\$ 1,662	\$ 2,725



Amounts in millions	FQ1-23	FQ4-22		FQ1-22
GAAP cost of goods sold	\$ 3,192	\$	4,021	\$ 4,122
Stock-based compensation	(36)		(49)	(43)
Other	(5)		(5)	(8)
Non-GAAP cost of goods sold	\$ 3,151	\$	3,967	\$ 4,071
GAAP research and development	\$ 849	\$	839	\$ 712
Stock-based compensation	(53)		(47)	(38)
Non-GAAP research and development	\$ 796	\$	792	\$ 674
GAAP selling, general, and administrative	\$ 251	\$	280	\$ 259
Stock-based compensation	(37)		(35)	(35)
Non-GAAP selling, general, and administrative	\$ 214	\$	245	\$ 224



Amounts in millions	FQ1-23	FQ4-22	FQ1-22
GAAP net income (loss)	\$ (195)	\$ 1,492	\$ 2,306
Stock-based compensation	126	131	116
Restructure and asset impairments	13	5	38
Amortization of debt discount and other costs	5	6	Ş
(Gain) loss on debt repurchases	_	_	83
Other	5	5	(60
Estimated tax effects of above and other tax adjustments	7	(18)	(21
Non-GAAP net income (loss)	\$ (39)	\$ 1,621	\$ 2,471
GAAP interest (income) expense, net	\$ 37	\$ 9	\$ (35
Amortization of debt discount and other costs	5	6	Ç
Non-GAAP interest (income) expense, net	\$ 42	\$ 15	\$ (26
GAAP income tax (provision) benefit	\$ (8)	\$ (56)	\$ (219
Estimated tax effects of non-GAAP adjustments and other tax adjustments	7	(18)	(2
Non-GAAP income tax (provision) benefit	\$ (1)	\$ (74)	\$ (240



Amounts in millions	FQ1-23	FQ4-22	FQ1-22
GAAP shares used in diluted EPS calculations	1,090	1,106	1,130
Adjustment for stock-based compensation	-	15	11
Non-GAAP shares used in diluted EPS calculations	1,090	1,121	1,141
GAAP diluted earnings (loss) per share	\$ (0.18)	\$ 1.35	\$ 2.04
Effects of non-GAAP adjustments	0.14	0.10	0.12
Non-GAAP diluted earnings (loss) per share	\$ (0.04)	\$ 1.45	\$ 2.16
GAAP net income (loss)	\$ (195)	\$ 1,492	\$ 2,306
Interest (income) expense, net	(37)	(9)	35
Provision (benefit) for income taxes	8	56	219
Depreciation expense and amortization of intangible assets	1,921	1,882	1,671
Non-GAAP adjustments			
Stock-based compensation	126	131	116
Restructure and asset impairments	13	5	38
(Gain) loss on debt repurchase	_	_	83
Other	_	_	(65)
Adjusted EBITDA	\$ 1,836	\$ 3,557	\$ 4,403



Amounts in millions	FQ1-23	FQ4-22	FQ1-22
Net cash provided by operating activities	\$ 943	\$ 3,777	\$ 3,938
Expenditures for property, plant, and equipment	(2,449)	(3,613)	(3,265)
Proceeds from sales of property, plant, and equipment	23	30	21
Payments on equipment purchase contracts	(47)	(9)	(78)
Amounts funded by partners	2	11	55
Investments in capital expenditures, net	(2,471)	(3,581)	(3,267)
Adjusted free cash flow	\$ (1,528)	\$ 196	\$ 671

Amounts in millions	FQ1-23		FQ4-22	
Cash and short-term investments	\$	10,581	\$	9,331
Current and noncurrent restricted cash		68		77
Long-term marketable investments		1,426		1,647
Current and long-term debt		(10,265)		(6,906)
Net cash	\$	1,810	\$	4,149



# FQ2-23 Guidance

#### Non-GAAP Reconciliations

	GAAP	Adjustm	Adjustments Non-GA	
Revenue	\$3.8 billion ± \$200 million	_		\$3.8 billion ± \$200 million
Gross margin	7.5% ± 2.5%	~1%	А	8.5% ± 2.5%
Operating expenses	\$1.08 billion ± \$15 million	\$137 million	В	\$945 million ± \$15 million
Diluted earnings (loss) per share*	$(\$0.79) \pm \$0.10$	\$0.17	A,B,C	(\$0.62) ± \$0.10

Adjustments (amounts in millions)				
Α	Stock-based compensation – cost of goods sold	\$ 40		
Α	Other – cost of goods sold	4		
В	Stock-based compensation – research and development	62		
В	Stock-based compensation – selling, general, and administrative	45		
В	Restructure and asset impairments	30		
С	Tax effects of the above items and other tax adjustments	8		
		\$ 189		

The above guidance does not incorporate the impact of any potential business combinations, divestitures, additional restructuring activities, balance sheet valuation adjustments, strategic investments, financing transactions, and other significant transactions. The timing and impact of such items are dependent on future events that may be uncertain or outside of our control.



<sup>\*</sup>GAAP and Non-GAAP earnings (loss) per share based on approximately 1.09 billion diluted shares.

