Financial results

FQ1 2024

Safe harbor statement

During the course of this meeting, we may make projections or other forward-looking statements regarding market demand and supply, pricing, cost reductions, expected product volume production, expected product announcements, future events or the future financial performance or expected financial projections of the Company and the industry. We wish to caution you that such statements are predictions, and that actual events or results may differ materially. We refer you to the documents the Company files from time to time with the Securities and Exchange Commission, including the Company’s most recent Form 10-K and Form 10-Q. These documents contain and identify important factors that could cause the actual results for the Company to differ materially from those contained in our projections or forward-looking statements. These certain factors can be found at investors.micron.com/risk-factor. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. We are under no duty to update any of the forward-looking statements to conform these statements to actual results.

This presentation includes Non-GAAP financial measures. Non-GAAP financial measures represent GAAP measures, excluding the impact of certain activities, which management excludes in analyzing our operating results and understanding trends in our earnings, adjusted free cash flow, and business outlook. Further information regarding Micron's use of non-GAAP measures and reconciliations between GAAP and non-GAAP measures are included in the Appendix.

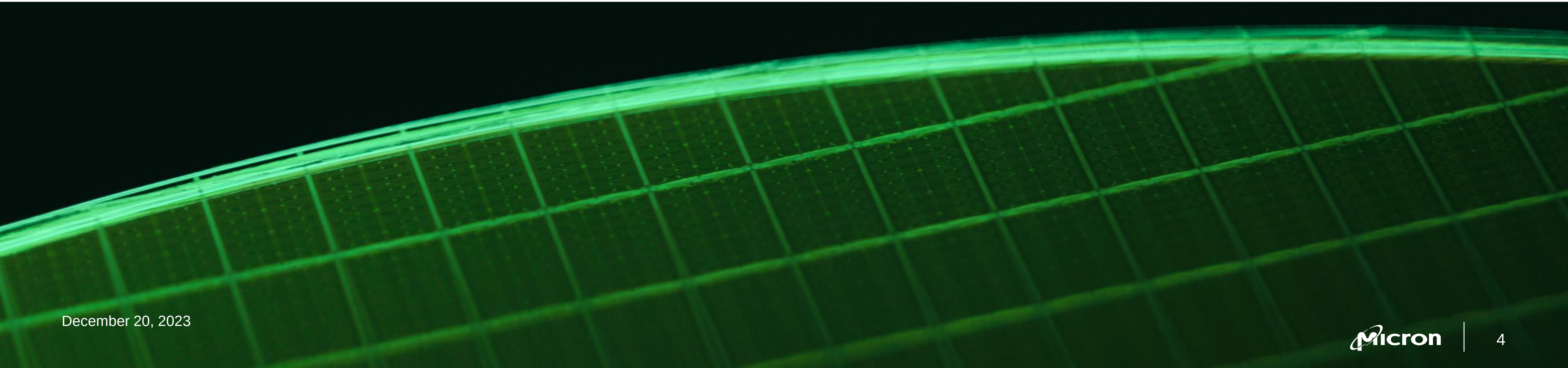
Sanjay Mehrotra

President and CEO

December 20, 2023

Overview

- In fiscal Q1, Micron delivered revenue, gross margin and EPS above the high end of the guidance ranges we provided at the last earnings call, reflecting Micron's strong execution combined with improved pricing.
- We are in the very early stages of a multi-year growth phase catalyzed and driven by generative AI, and this disruptive technology will eventually transform every aspect of business and society.
- We intend to stay very disciplined with our supply and capacity investments as our pricing is still far from levels associated with necessary ROI. We expect our pricing to continue to strengthen through the course of calendar 2024.
- We expect improved margins and financial performance throughout 2024, and record industry TAM in calendar 2025.



Technology

- The vast majority of our bits are on leading-edge nodes: 1-alpha and 1-beta in DRAM and 176-layer and 232-layer in NAND.
- Both 1-beta DRAM and 232-layer NAND nodes have reached mature yields faster than the prior nodes.
- We expect fiscal 2024 front-end cost reductions to track in line with our long-term expectations of mid-to-high single digits in DRAM and low teens in NAND.
- We are on track for volume production in 1-gamma DRAM using EUV in calendar 2025.

End markets overview

- Inventories for memory and storage are at or near normal levels for most customers across PC, mobile, auto and industrial end markets. Data center customer inventory of memory and storage is improving and we expect to approach normal levels sometime in the first half of calendar 2024.
- Across our data center and PC markets we are ahead of the industry in our transition to D5 and we expect to cross over our D5 volume from D4 in early calendar 2024.
- AI market expansion is driving higher capacity, lower power, and increased performance requirements for memory and storage.

End market highlights

Data center

- Total server unit shipments are expected to increase by a mid-single digit percentage in calendar 2024, following a year of low double-digit percentage decline in calendar 2023.
- In response to AI-driven data center demand, several customers have announced aggressive roadmaps for new GPU and AI accelerator ASIC product introductions with increasing requirements for HBM capacity, performance, and power. Micron is addressing these exciting opportunities brought on by the proliferation of AI with an industry-leading portfolio of data center solutions, including HBM3E, D5, several types of high capacity server memory modules, LPDRAM, and data center SSDs.
- **HBM:** We have received very positive customer feedback on our HBM3E, which has approximately 10% better performance and about 30% lower power consumption compared to competitive offerings of HBM3E. In fiscal Q1, we shipped samples of HBM3E to a number of key partners and are making good progress in our qualifications. Micron is in the final stages of qualifying our industry-leading HBM3E to be used in NVIDIA's next generation Grace Hopper GH200 and H200 platforms. In addition, our LP5x is being used for the Grace CPU, driving a new use case for LP memory in the data center for accelerated computing.
- We are on track to begin our HBM3E volume production ramp in early calendar 2024 and to generate several hundred millions of dollars of HBM revenue in fiscal 2024. We expect continued HBM revenue growth in 2025, and we continue to expect that our HBM market share will match our overall DRAM bit share sometime in calendar 2025.
- **128GB Modules**: Last month we introduced the fastest, lowest latency, high-capacity, monolithic-die based 128GB modules based on our industry-leading 1-beta node. Our high-density monolithic dies do not require 3D stacking, enabling a simpler process flow for assembly. Additionally, leading CPU vendors have confirmed validation support for our monolithic-die based 128GB modules on existing platforms released in 2022 and 2023 as well as upcoming new platforms. This ensures that our offering has a significant TAM that we can address immediately. We expect volume production to start next quarter, with significant growth in fiscal 2025 and beyond.
- **Data center SSDs:** Micron ended the third calendar quarter with record-high revenue share in data center SSDs, based on independent industry assessments. This marks the second consecutive quarter of record revenue share in data center SSDs, and we look to build on this revenue momentum through fiscal 2024.

End market highlights

PC

- **PC**: We forecast unit volumes to grow by a low to mid-single digit percentage in calendar 2024, after two years of double digit percentage PC unit volume declines.
- We expect PC OEMs to start ramping AI-on-device PCs in the second half of calendar 2024, with an additional capacity of 4 to 8GB of DRAM per unit, and we see average SSD capacities increasing as well. We also completed qualifications for our industry-leading 1-beta based 16Gb D5 at several PC customers in fiscal Q1.
- In fiscal Q1, we achieved record bit shipments in both client and consumer SSDs, as customers adopted our industry-leading solutions. Building upon our QLC leadership, our client SSD QLC bit shipments also reached a new record in fiscal Q1. QLC now comprises the majority of our bit shipment mix for both client and consumer SSD.
- This month, we also announced we are shipping the Micron 3500 NVMe SSD, the world’s first performance client SSD with 200+ layer NAND. Built on our industry-leading 232-layer NAND, the 3500 will help our customers handle demanding workloads for business applications, scientific computing, gaming and content creation.

Mobile and intelligent edge

- **Mobile**: Smartphone demand is showing signs of recovery, and we forecast smartphone unit shipments to grow modestly in calendar 2024. We expect smartphone OEMs to start ramping AI-enabled smartphones in 2024, with an additional capacity of 4 to 8GB of DRAM per unit. Our new industry-leading 9.6Gbps LP5x will address the bandwidth requirements of the most demanding AI-based mobile applications. We also began sampling our next-generation 232-layer NAND UFS 3.1 and our 1-beta DRAM 24GB LP5x to support the memory needs of emerging AI foundational models.
- **Automotive**: Our automotive business achieved a new quarterly revenue record in fiscal Q1, driven by better demand and volume ramps of new vehicle platforms. Our automotive design win trajectory remains strong.
- **Industrial**: Our industrial business saw double-digit sequential growth in fiscal Q1 as the industrial market continued to recover. Inventory levels for memory and storage continued to improve at distribution partners, and are at normal levels at the majority of our customers. Industry fundamentals remain strong for memory and storage as the widespread adoption of IoT, AI and machine learning solutions create new growth opportunities for us.

Outlook and Capex plan

- **Demand:** We expect calendar 2023 DRAM bit demand to grow in the high-single digit percentage range, up from prior expectations for mid-single-digit growth. In NAND, we continue to expect calendar 2023 bit demand growth in the high-teens percentage range. Looking forward, over the next few years, we expect bit demand growth CAGRs of mid-teens in DRAM and low-20s percentage range in NAND. We forecast calendar 2024 bit demand growth for the industry to be near the long-term CAGR for DRAM and somewhat below the long-term CAGR for NAND.
- **Supply:** Micron's bit supply growth in fiscal 2024 is planned to be well below demand growth for both DRAM and NAND, and we expect to decrease our days of inventory in fiscal year 2024. We expect calendar 2024 industry supply to be below demand for both DRAM and NAND, which will result in a contraction of industry inventory levels.
- The ramp of HBM production will constrain supply growth in non-HBM products and will help improve the overall DRAM industry supply-demand balance. HBM will consume more than two times the wafer supply as D5 to produce a given number of bits.
- In last quarter's earnings call, we communicated that we strategically diverted underutilized equipment toward ramping new technology nodes, which will help us increase leading edge production in a capital efficient manner. Since the number of wafer processing steps is higher for leading-edge nodes, this approach of diverting underutilized tools to the leading edge meaningfully reduces our overall wafer capacity. Thus, underutilization in our fabs early this fiscal year transitions to structurally lower wafer capacity at higher utilization rates as we move through the fiscal year.

Capex plan:

- Micron's fiscal 2024 capex is projected to be between $7.5 billion and $8.0 billion, slightly higher than last year's levels and prior plans, primarily to support the HBM3E production ramp.
- We continue to expect WFE capex in fiscal 2024 to be down year over year.
- We have opened state-of-the-art assembly and test facilities in Malaysia and Taiwan. We are proceeding with our previously announced expansion of our Xi'an facility, having received approval from Chinese authorities for our planned investment.

Mark Murphy

Chief Financial Officer

FQ1-24 revenue

$4.7B

Revenue up 18% Q/Q
and up 16% Y/Y

Performance by technology

DRAM Q1-24

- $3.4 billion, representing 73% of total revenue
- Revenue increased 24% Q/Q
- Bit shipments increased in the low-20s percentage range Q/Q
- ASPs increased in the low-single digit percentage range Q/Q

NAND Q1-24

- $1.2 billion, representing 26% of total revenue
- Revenue increased 2% Q/Q
- Bit shipments decreased in the mid-teens percentage range
- ASPs increased by approximately 20%

Revenue by business unit

Amounts in millions	FQ1-24	FQ4-23	Q/Q % Change	FQ1-23	Y/Y % Change
Compute and Networking (CNBU)	$1,737	$1,200	45%	$1,746	(1%)
Mobile (MBU)	$1,293	$1,211	7%	$ 655	97%
Embedded (EBU)	$1,037	$ 860	21%	$1,000	4%
Storage (SBU)	$ 653	$ 739	(12%)	$ 680	(4%)

FQ1-24
Non-GAAP operating results

Revenue: $4.7 billion

Gross margin: 1%

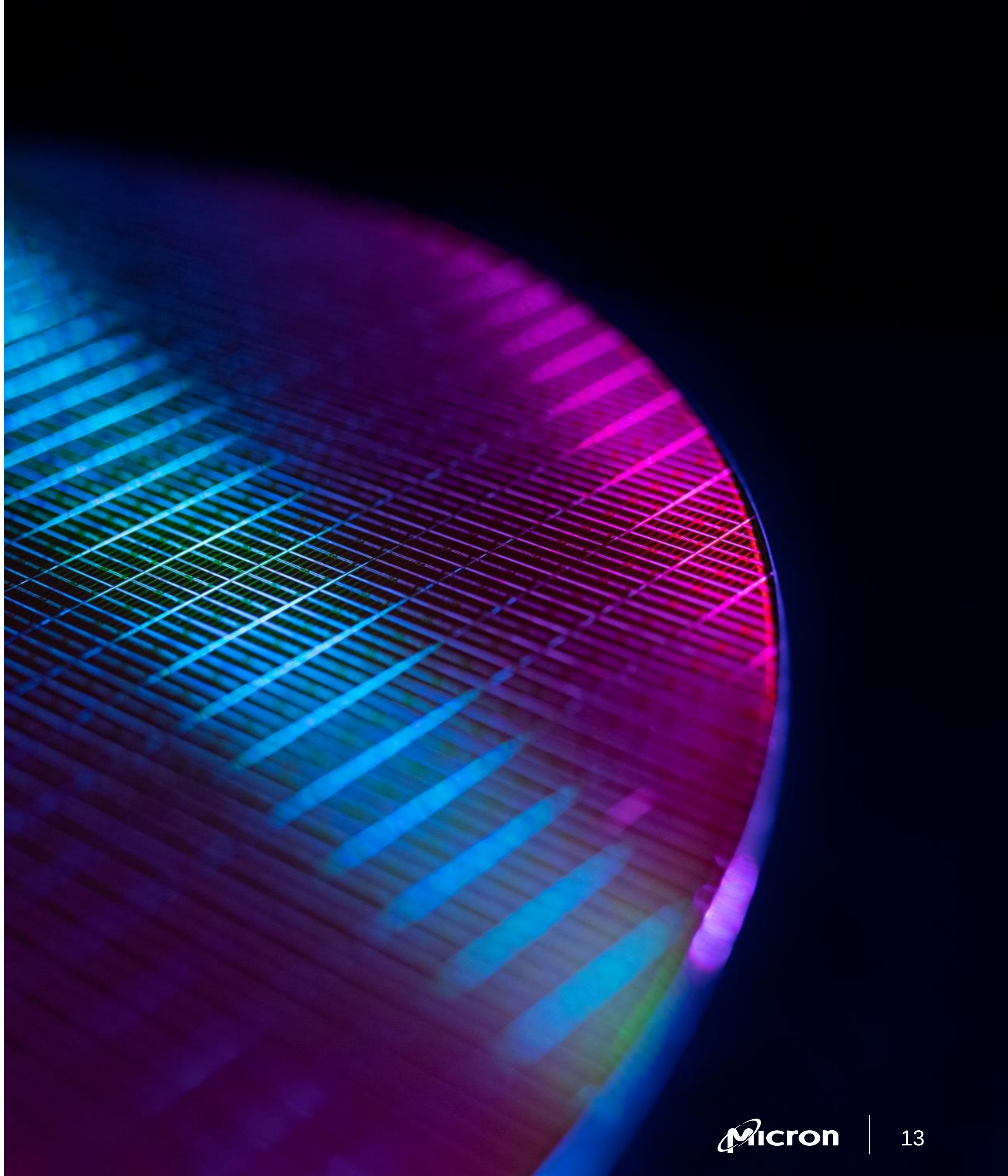
Operating expenses: $992 million

Operating income (loss): ($955 million)

Net income (loss): ($1.0 billion)

Diluted earnings (loss) per share: ($0.95)

Cash from operations (GAAP): $1.4 billion



See non-GAAP reconciliations in Appendix

Cash flow and capital allocation

From FY-21 to FQ1-24:

- $4.1 billion towards repurchasing 60 million shares
- $5.2 billion returned to shareholders from share repurchases and dividends

Cash flow from operations	FQ1-24: $1.4B
Net CapEx[1]	FQ1-24: CapEx of $1.7B FY-24: CapEx guidance between $7.5B and $8.0B
Adjusted FCF*	FQ1-24: Negative $333M
Buybacks	FQ1-24: Temporarily suspended
Dividends	Dividend payment of $0.115 per share will be paid January 18th
Liquidity[2]	$12.3B in liquidity at end of FQ1-24

[1]CapEx net of proceeds from government incentives and proceeds from sales of property, plant, and equipment
[2]Cash, short-term and long-term marketable investments, restricted cash, and undrawn revolver capacity
*Adjusted free cash flow is a non-GAAP measure defined as net cash provided by operating activities less investments in capital expenditures net of proceeds from government incentives and proceeds from sales of property, plant, and equipment.

FQ2-24 guidance
Non-GAAP

Revenue	$5.30 billion ± $200 million
Gross margin	13.0% ± 1.5%
Operating expenses	$950 million ± $15 million
Diluted earnings (loss) per share*	($0.28) ± $0.07

*Based on ~1.10 billion diluted shares
See non-GAAP reconciliations in Appendix

Appendix

Financial summary
Non-GAAP

Amounts in millions, except per share	FQ1-24	% of Revenue	FQ4-23	% of Revenue	FQ1-23	% of Revenue
Revenue	$4,726	100%	$4,010	100%	$4,085	100%
Gross margin	37	1%	(366)	(9%)	934	23%
Operating income (loss)	(955)	(20%)	(1,208)	(30%)	(65)	(2%)
Income tax (provision) benefit	(59)		14		(1)	
Net income (loss)	(1,048)	(22%)	(1,177)	(29%)	(39)	(1%)
Diluted earnings (loss) per share	(0.95)		(1.07)		(0.04)	
Cash provided by operating activities (GAAP)	1,401		249		943	
Cash, marketable investments, and restricted cash (GAAP)	9,839		10,517		12,097	

See non-GAAP reconciliations

Non-GAAP financial data and guidance

% of Revenue	FQ1-24
DRAM	73%
NAND	26%

% Sales Volume Change	FQ1-24 Q/Q
DRAM	Increased in the low-20s percentage range
NAND	Decreased in the mid-teens percentage range

% ASP Change	FQ1-24 Q/Q
DRAM	Increased in the low-single digit percentage range
NAND	Increased by approximately 20 percent

	FQ1-24 Non-GAAP (amounts in millions, except per share)		FQ2-24 Non-GAAP Guidance
Revenue	$	4,726	$5.30 billion ± $200 million
Gross margin		1%	13.0% ± 1.5%
Operating expenses	$	992	$950 million ± $15 million
Diluted earnings (loss) per share	$	(0.95)	($0.28) ± $0.07

	FQ1-24 Non-GAAP (amounts in millions)		FQ2-24 Non-GAAP Estimates
Diluted shares		1,100	~1.10 billion
Income tax (provision) benefit	$	(59)	~($45) million
Cash from operations (GAAP)	$	1,401	—
Investments in capex, net (capital cash flow)	$	(1,734)	FY-24: between $7.5 billion and $8.0 billion

See non-GAAP reconciliations

Revenue by technology

Amounts in millions	FQ1-24	% of Revenue	FQ4-23	% of Revenue	FQ1-23	% of Revenue
DRAM	$ 3,427	73%	$ 2,755	69%	$ 2,829	69%
NAND	1,230	26%	1,205	30%	1,103	27%
Other (primarily NOR)	69	1%	50	1%	153	4%
Total	$ 4,726	100%	$ 4,010	100%	$ 4,085	100%

Percentages of total revenue may not total 100% due to rounding.

Non-GAAP reconciliations

Consolidated results
Non-GAAP reconciliations

Amounts in millions	FQ1-24	FQ4-23	FQ1-23
GAAP gross margin	$ (35)	$ (435)	$ 893
Stock-based compensation	67	64	36
Other	5	5	5
Non-GAAP gross margin	$ 37	$ (366)	$ 934
GAAP operating expenses	$ 1,093	$ 1,037	$ 1,102
Stock-based compensation	(115)	(87)	(90)
Restructure and asset impairments	—	(4)	(13)
Goodwill impairment	—	(101)	—
Other	14	(3)	—
Non-GAAP operating expenses	$ 992	$ 842	$ 999
GAAP operating income (loss)	$ (1,128)	$ (1,472)	$ (209)
Stock-based compensation	182	151	126
Restructure and asset impairments	—	4	13
Goodwill impairment	—	101	—
Other	(9)	8	5
Non-GAAP operating income (loss)	$ (955)	$ (1,208)	$ (65)

Consolidated results
Non-GAAP reconciliations

Amounts in millions	FQ1-24	FQ4-23	FQ1-23
GAAP cost of goods sold	$ 4,761	$ 4,445	$ 3,192
Stock-based compensation	(67)	(64)	(36)
Other	(5)	(5)	(5)
Non-GAAP cost of goods sold	$ 4,689	$ 4,376	$ 3,151
GAAP research and development	$ 845	$ 719	$ 849
Stock-based compensation	(68)	(57)	(53)
Other	14	—	—
Non-GAAP research and development	$ 791	$ 662	$ 796
GAAP selling, general, and administrative	$ 263	$ 219	$ 251
Stock-based compensation	(47)	(30)	(37)
Non-GAAP selling, general, and administrative	$ 216	$ 189	$ 214

Consolidated results
Non-GAAP reconciliations

Amounts in millions		FQ1-24		FQ4-23		FQ1-23
GAAP net income (loss)	$	(1,234)	$	(1,430)	$	(195)
Stock-based compensation		182		151		126
Restructure and asset impairments		—		4		13
Goodwill impairment		—		101		—
Other		(10)		7		10
Estimated tax effects of above and other tax adjustments		14		(10)		7
Non-GAAP net income (loss)	$	(1,048)	$	(1,177)	$	(39)
GAAP income tax (provision) benefit	$	(73)	$	24	$	(8)
Estimated tax effects of non-GAAP adjustments and other tax adjustments		14		(10)		7
Non-GAAP income tax (provision) benefit	$	(59)	$	14	$	(1)

Consolidated results
Non-GAAP reconciliations

Amounts in millions, except per share	FQ1-24	FQ4-23	FQ1-23
GAAP diluted earnings (loss) per share	$ (1.12)	$ (1.31)	$ (0.18)
Effects of non-GAAP adjustments	0.17	0.24	0.14
Non-GAAP diluted earnings (loss) per share	$ (0.95)	$ (1.07)	$ (0.04)
Net cash provided by operating activities	$ 1,401	$ 249	$ 943
Expenditures for property, plant, and equipment	(1,796)	(1,461)	(2,449)
Payments on equipment purchase contracts	(56)	(26)	(47)
Proceeds from sales of property, plant, and equipment	33	18	23
Proceeds from government incentives	85	462	2
Investments in capital expenditures, net	(1,734)	(1,007)	(2,471)
Adjusted free cash flow	$ (333)	$ (758)	$ (1,528)

FQ2-24 guidance
Non-GAAP reconciliations

	GAAP	Adjustments		Non-GAAP
Revenue	$5.30 billion ± $200 million	—		$5.30 billion ± $200 million
Gross margin	12.0% ± 1.5%	1.0%	A	13.0% ± 1.5%
Operating expenses	$1.07 billion ± $15 million	$122 million	B	$950 million ± $15 million
Diluted earnings (loss) per share*	($0.45) ± $0.07	$0.17	A,B,C	($0.28) ± $0.07

Non-GAAP Adjustments (amounts in millions)			
A	Stock-based compensation – cost of goods sold	$	75
A	Other – cost of goods sold		4
B	Stock-based compensation – research and development		77
B	Stock-based compensation – selling, general, and administrative		45
C	Tax effects of the above items and other tax adjustments		(13)
		$	188

*GAAP and non-GAAP earnings (loss) per share based on approximately 1.10 billion diluted shares.
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.