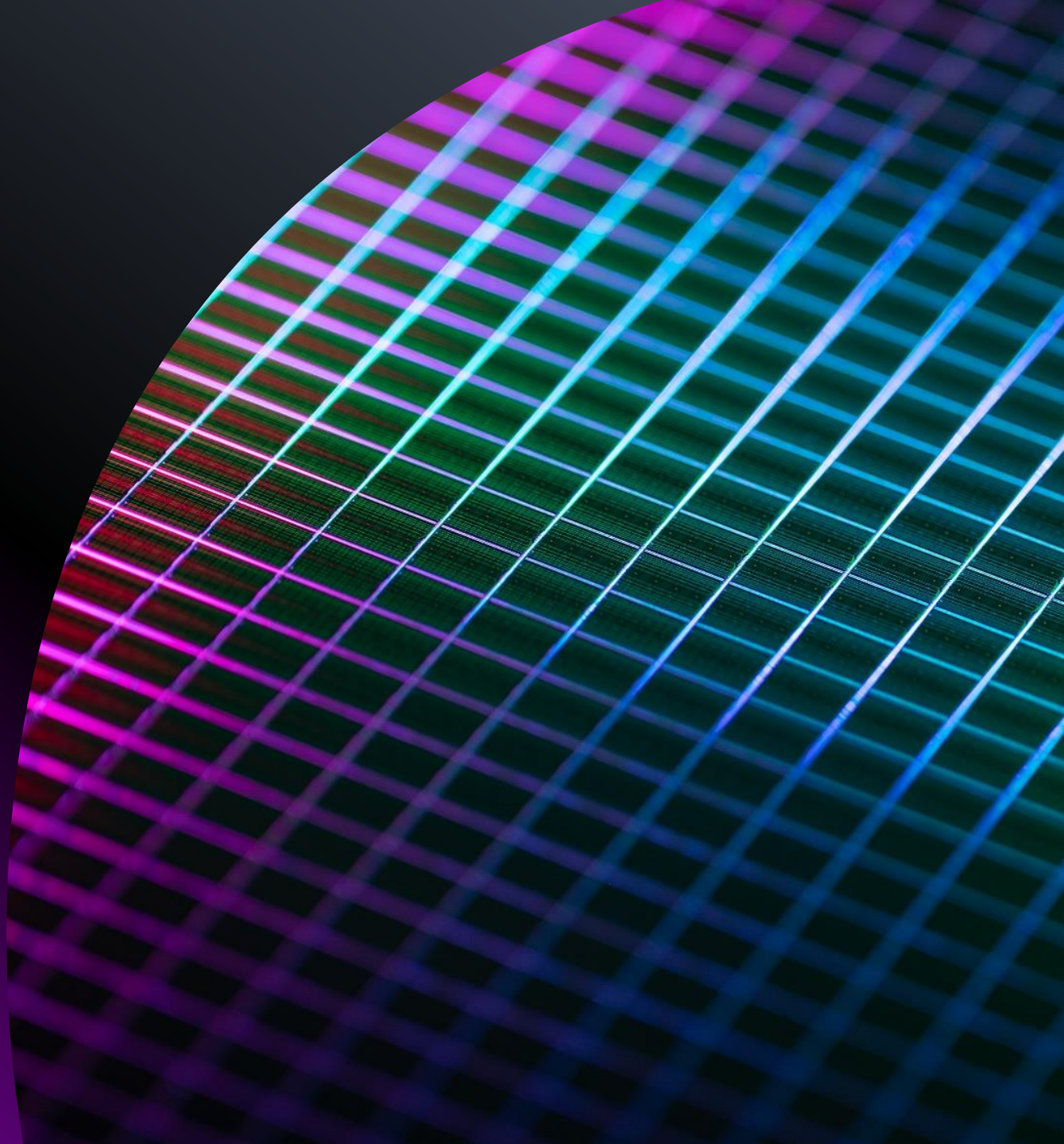
Financial results

FQ1 2025



Safe harbor statement

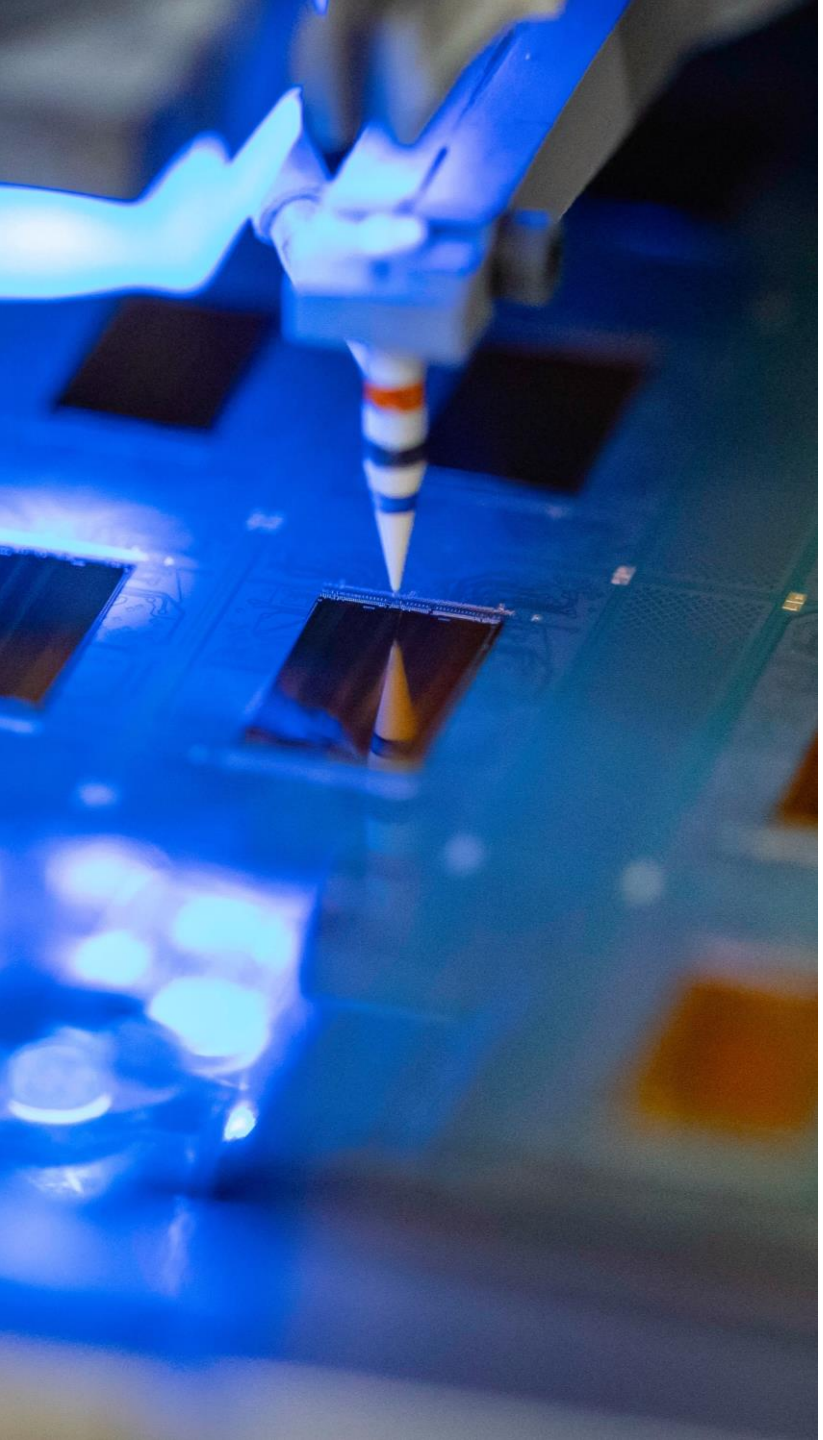
During the course of this meeting, we may make projections or other forward-looking statements regarding market demand and supply, market and pricing trends and drivers, the impact of technologies such as AI, cost reductions, expected product volume production, our market position, expected product announcements, capabilities of our future products, 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 Form 10-K, Forms 10-Q and other reports and filings. 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

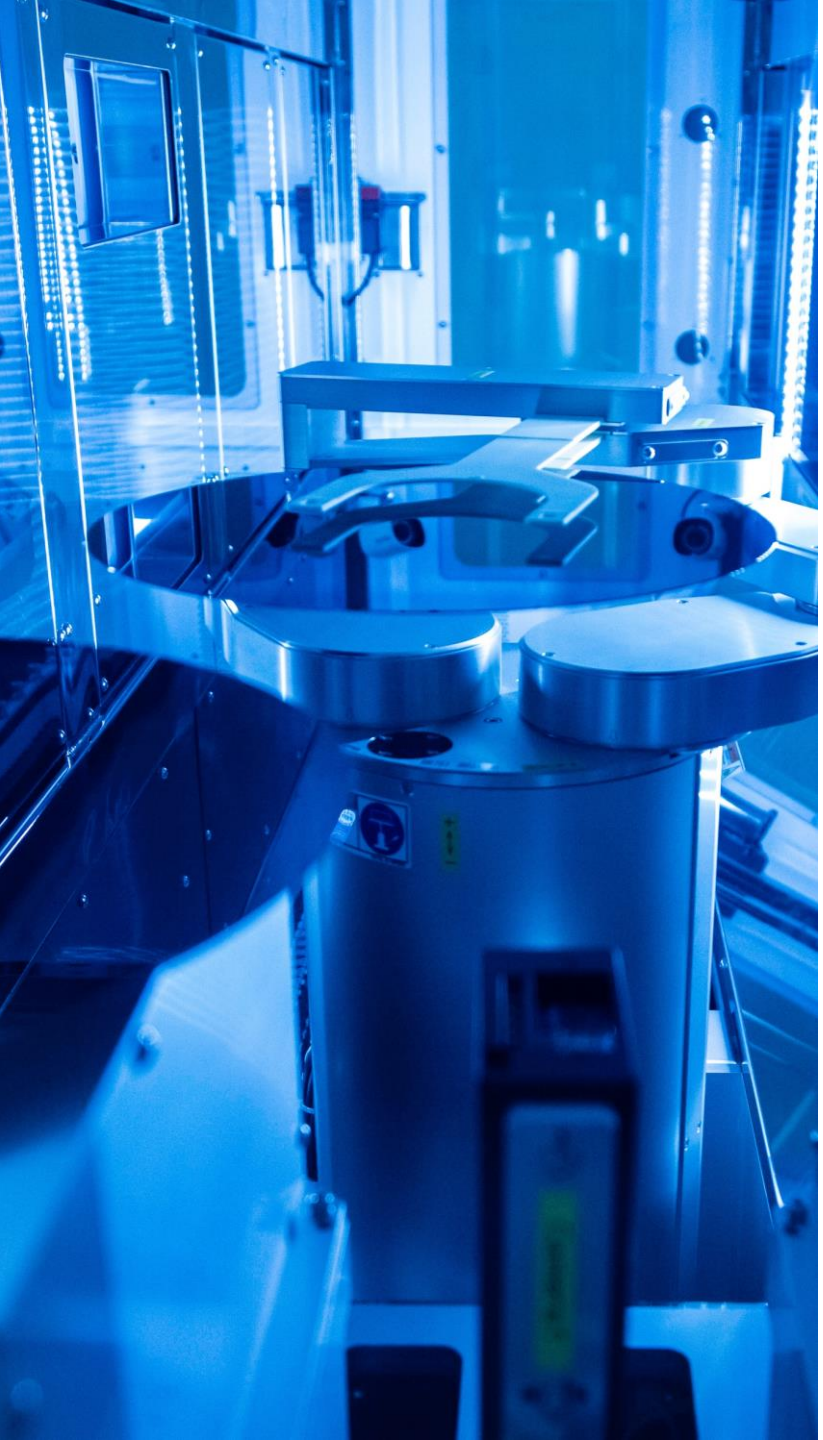
President and Chief Executive Officer

December 18, 2024



Overview

- Micron achieved record revenue in fiscal Q1, with revenue, gross margins and earnings per share (EPS) all at or above the midpoint of our guidance range.
- Data center revenue grew over 400% year over year and 40% sequentially, reaching a record level, with data center revenue mix surpassing 50% of Micron’s revenue for the first time.
- We delivered record revenue in data center SSDs and achieved new records in market share for data center SSDs and overall SSDs.
- Our high-bandwidth memory (HBM) shipments were ahead of plan, and we achieved more than a sequential doubling of HBM revenue.
- Revenue from our largest data center customer was approximately 13% of total company revenue.
- In 2028, we expect HBM total addressable market (TAM) to grow four times from the $16 billion level in 2024 and to exceed $100 billion by 2030.

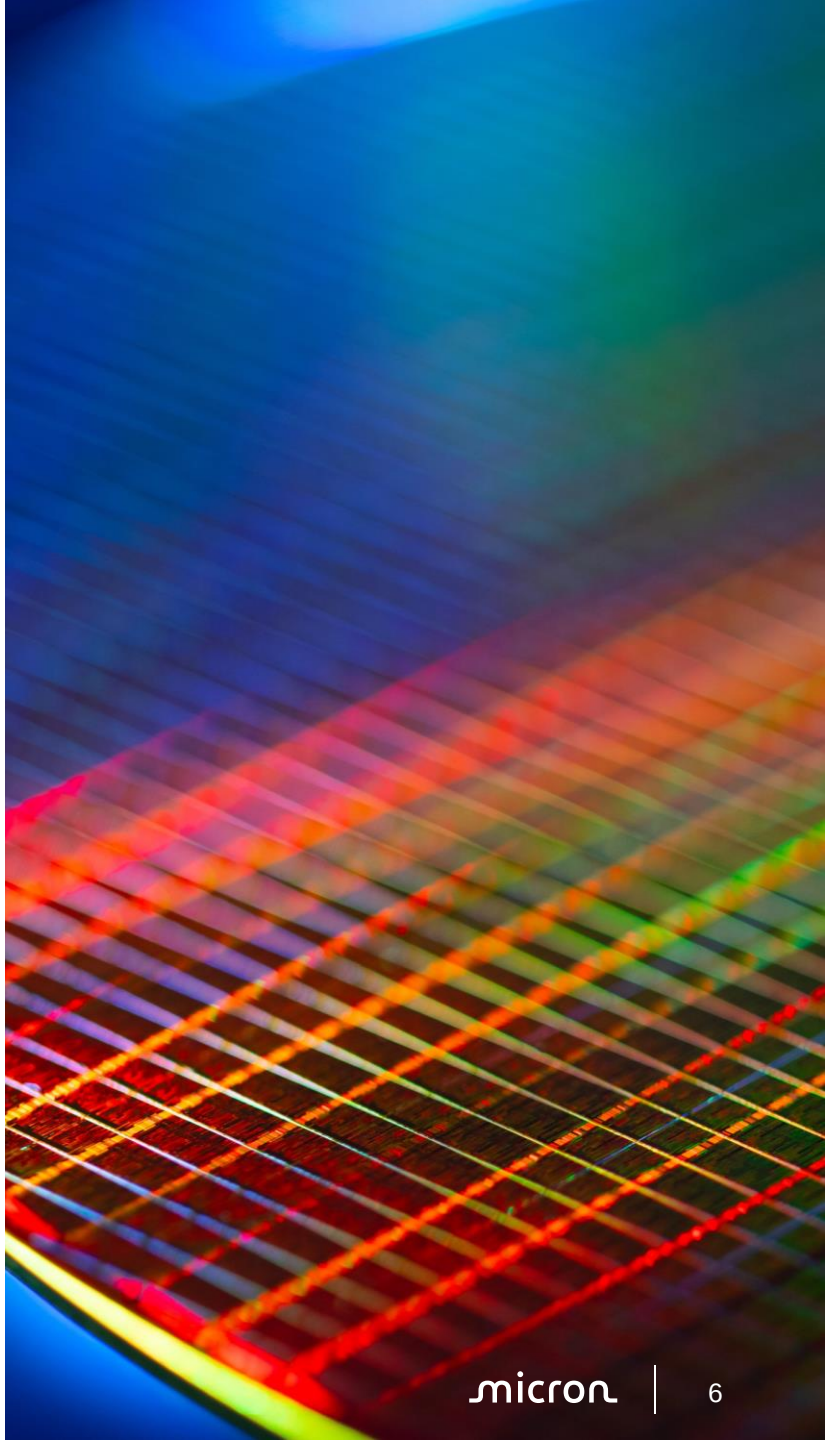


Overview

- Leading-edge DRAM supply remains tight, driven by robust demand in data center DRAM, including HBM, which will underpin our business results throughout fiscal and calendar 2025.
- We had previously shared our expectation that customer inventory reductions in the consumer-oriented segments and seasonality would impact fiscal Q2 bit shipments.
- We are now seeing a more pronounced impact of customer inventory reductions; fiscal Q2 bit shipment outlook is weaker than we previously expected.
- We expect this adjustment period to be relatively brief and anticipate customer inventories reaching healthier levels by spring, enabling stronger bit shipments in the second half of fiscal and calendar 2025.
- We are on track to achieve our HBM targets and also deliver a substantial record in Micron revenue, significantly improved profitability, and positive free cash flow in fiscal 2025.

Technology and operations

- We are in production with the industry's most advanced DRAM and NAND nodes.
- We continue to ramp our 1β (1-beta) technology node, which supports HBM3E, and we are preparing to ramp our 1γ (1-gamma) technology node using extreme ultraviolet (EUV) in calendar 2025.
- In NAND, we are maintaining technology leadership with our industry-leading G8 and G9 nodes and managing the ramp of these nodes consistent with our demand.
- We expect fiscal 2025 DRAM front-end cost reductions, excluding HBM, to be in the mid- to high-single-digits percentage range.
- We expect fiscal 2025 NAND front-end cost reductions to be in the low-teens percentage range.



Manufacturing update

- Earlier this month, we finalized an agreement with the U.S. Department of Commerce for an award of up to $6.1 billion under the CHIPS and Science Act to support advanced DRAM manufacturing fabs in Idaho and New York.
- Additionally, we have entered into a preliminary memorandum of terms with the U.S. Department of Commerce for an award of up to $275 million for our Virginia fab that supports production of long-lifecycle chips in areas such as automotive, industrial, aerospace and defense and enables efficiencies across our global fab network.
- With the support of the Singapore government, we have finalized plans to expand our manufacturing footprint in Singapore, starting with an investment for a new HBM advanced packaging facility. This investment allows us to meaningfully expand our total advanced packaging capacity beginning in calendar 2027 to support AI-driven demand and will be synergistic with our existing operations in Singapore.
- These plans also include support for our long-term manufacturing requirements for NAND.

Impact of AI on end markets

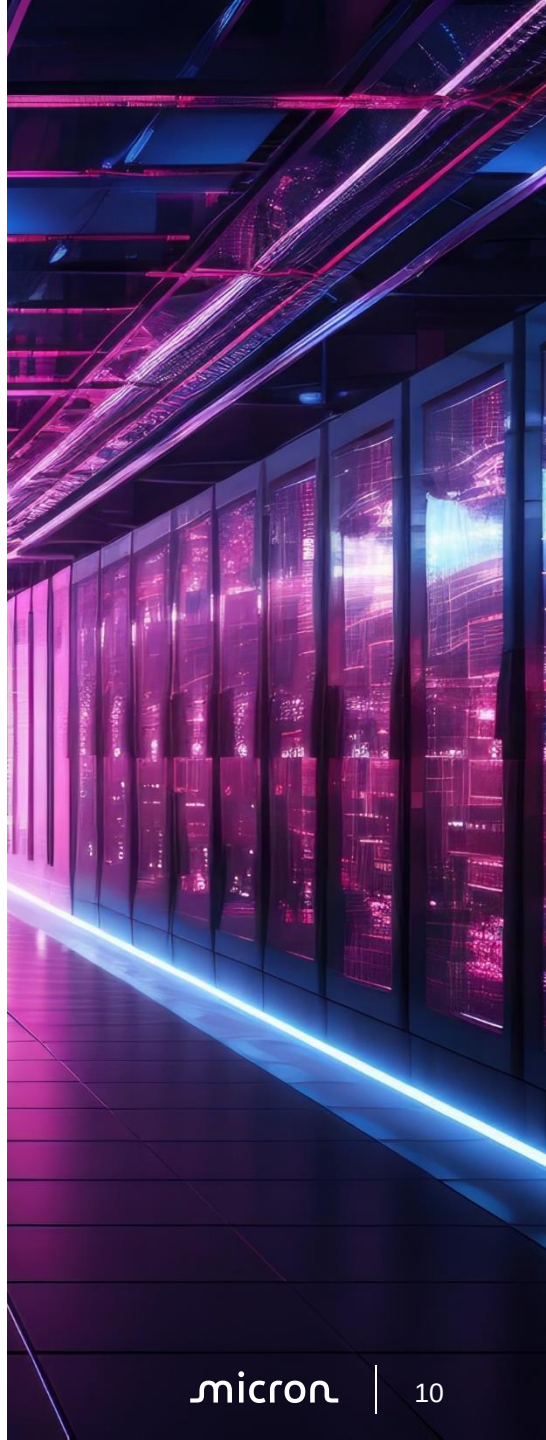
- Multimodal models, post-training and chain-of-thought inferencing represent new frontiers of innovation, all of which are memory intensive and can benefit from higher memory bandwidth and capacity.
- AI agents will become ever more capable and address vertical market consumer and enterprise use cases, driving accelerating monetization of AI.
- Micron is extraordinarily well positioned to leverage this long-term growth opportunity, which has the potential to transform the dynamics of our business.

Data center

- We have upgraded our view of server unit percentage growth and now expect it to reach low teens in calendar 2024, fueled by strong AI demand as well as a robust traditional server refresh cycle. We also anticipate server unit growth to continue in 2025.
- Micron achieved new records in both total data center revenue and the revenue mix for data center in fiscal Q1.
- Our portfolio of high-capacity DRAM products, including monolithic die-based 128GB DIMMs and LP5-based server DRAM products, continues to see robust demand and remains on track to generate multiple billions of dollars in revenue in fiscal 2025.
- We made excellent progress on HBM, more than doubling our revenue sequentially during the quarter and exceeding our plans as a result of solid execution on yield and capacity ramps.
- In fiscal Q1, our HBM gross margins were significantly accretive to both DRAM and overall company gross margins.
- Micron's HBM3E 8H is designed into NVIDIA’s Blackwell B200 and GB200 platforms. Micron’s HBM3E operates at full speed while maintaining leadership in power efficiency.

Data center (continued)

- This month, we commenced high-volume shipments to our second large HBM customer and will start high-volume shipments to our third large customer in CQ1, expanding our HBM customer base.
- We continue to receive positive feedback from our leading customers for Micron’s HBM3E 12H best-in-class power consumption, which is 20% lower than the competition's HBM3E 8H, even as the Micron product delivers 50% higher memory capacity and industry-leading performance.
- We have increased our HBM market TAM estimate to now exceed $30 billion in 2025. As we have said before, our HBM is sold out for calendar 2025, with pricing already determined for this time frame.
- In fiscal 2025, we expect to generate multiple billions of dollars of HBM revenue.
- We expect Micron’s HBM4 will maintain time to market and power efficiency leadership while boosting performance by over 50% over HBM3E. We expect HBM4 to ramp in high volume for the industry in calendar 2026.
- Development work is well underway with multiple customers on HBM4E. HBM4E will introduce a paradigm shift in the memory business by incorporating an option to customize the logic base die for certain customers using an advanced logic foundry manufacturing process from TSMC. We expect this customization capability to drive improved financial performance for Micron.



Data center (continued)

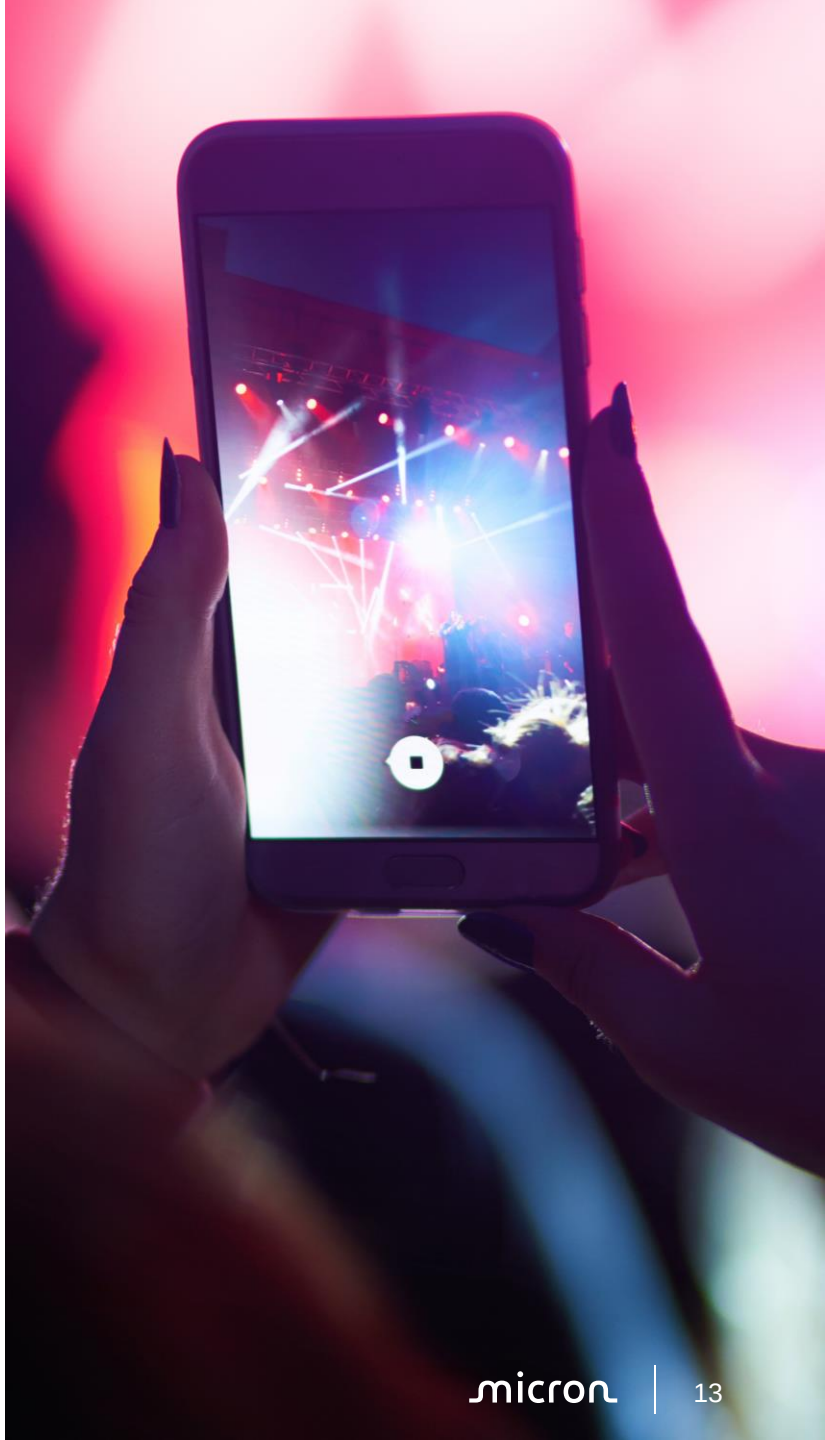
- Micron’s LP5X provides >500GB of capacity and memory bandwidth of >540 GB/s, thus delivering attractive performance per watt for AI platforms.
- NVIDIA’s Grace CPU uses Micron’s LP5X to provide systems with additional cache coherent memory to supplement HBM for the ever-growing memory needs of AI workloads.
- Overall SSD and data center SSD revenue reached new quarterly revenue records in fiscal Q1, and we are on track to deliver another year of share gains in calendar 2024.
- Compared to the competition, Micron's 6550 ION SSD delivers 20% lower power while providing 60% better performance and better data center footprint efficiency with up to 67% more density per rack for exascale data centers.
- Our 9550 PCIe Gen5 data center SSDs were qualified for the recommended vendor list for NVIDIA’s GB200 NVL72 system and offer a 34% higher throughput and over 80% lower energy per terabyte of data transfer versus the competition.
- We continue to expect to generate multiple billions of dollars in data center SSD revenue in fiscal 2025 and to grow our market share once again in calendar 2025.

PC

- The PC refresh cycle is unfolding more gradually, and we expect PC unit volume growth to be flattish in calendar 2024, slightly below prior expectations.
- AI PCs will require additional DRAM content, with a minimum of 16GB of DRAM for entry level PCs and 24GB and above for higher-end segments, versus 12GB average PC content last year.
- Windows 10 end-of-life in October 2025 and an aging installed base will provide a catalyst for PC market growth in 2025.
- We expect PC market units to grow in the mid-single-digit percentage range in calendar 2025, with growth weighted toward the second half of the calendar year.

Mobile

- Smartphone unit volumes in calendar 2024 remain on track to grow in the mid-single-digit percentage range, and we expect low-single-digit percentage growth in 2025.
- AI adoption continues to be a strong driver for mobile DRAM content growth, where we see the technology used in applications such as local search and contextually aware user interfaces increasing over time.
- DRAM content growth remained robust in CQ3, with the mix of smartphones with 8GB or greater growing to over 60%, significantly higher than a year ago.
- Smartphone customer inventory dynamics continue to play out as expected, and we expect bit shipments to be weighted to the second half of our fiscal year. Micron remains focused on the high end of the mobile market.
- We are leveraging our industry-leading portfolio of DRAM and NAND products to support the most demanding applications, which will require increased content, high performance and power efficiency.

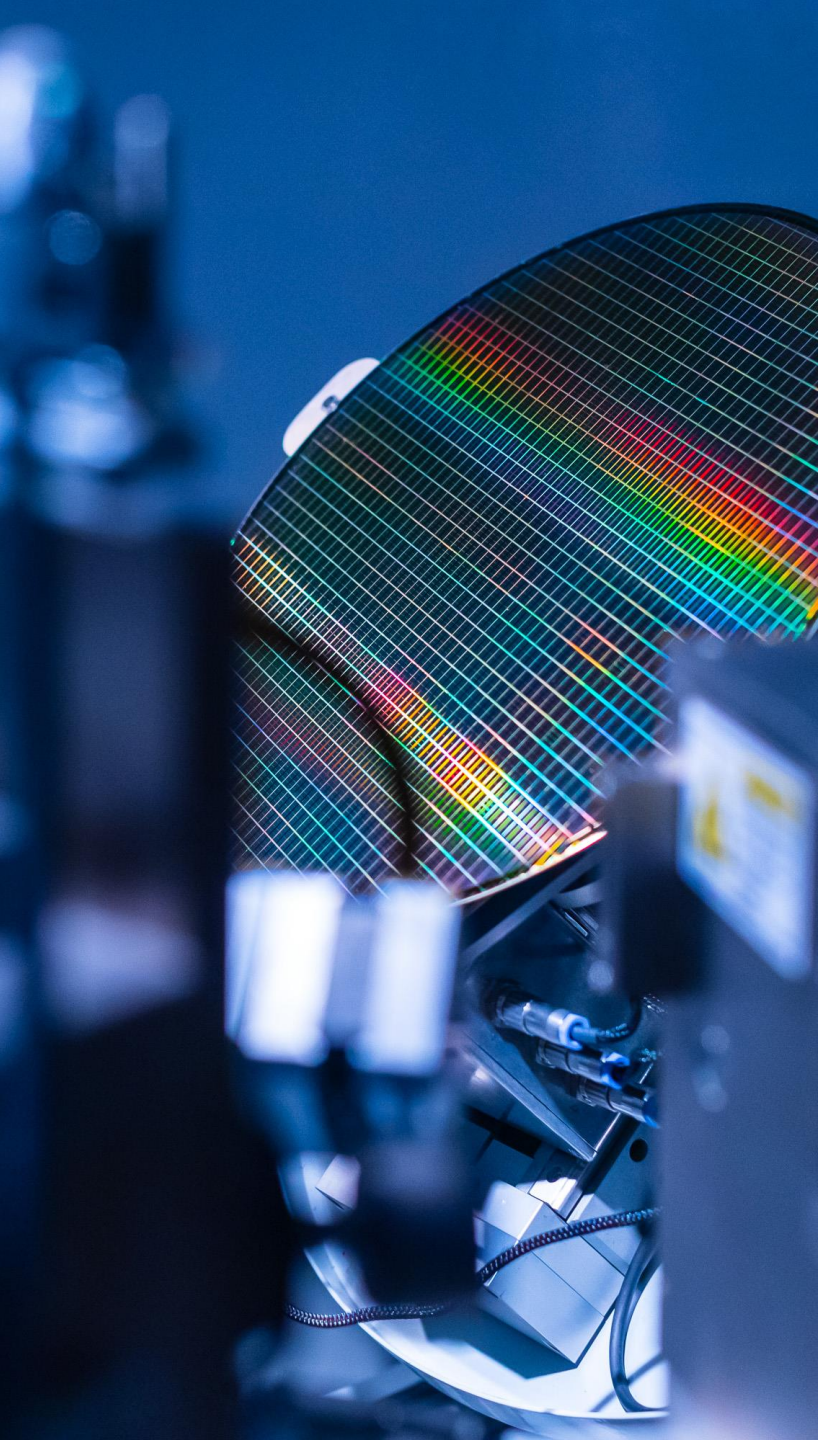


Automotive

- Lower than expected automotive unit production, combined with a shift toward value-trim vehicles from premium models and electric vehicles (EVs), has slowed memory and storage content growth and resulted in inventory adjustments at OEMs.
- Longer term, we remain optimistic that advanced driver-assistance systems (ADAS), infotainment and AI adoption across auto will drive long-term memory and storage content growth.
- Industrial market demand continues to be impacted by inventory adjustments, and we expect a recovery in this market later in calendar 2025.

Demand outlook

- We expect industry DRAM bit demand growth to be in the high-teens percentage range in calendar 2024 and in the mid-teens percentage range in calendar 2025.
- We see overall calendar 2025 DRAM industry bit supply growing roughly in line with bit demand, with tightness in leading-edge nodes driven by HBM supply ramp in the industry.
- Our outlook for industry NAND bit demand growth in both calendar 2024 and 2025 is now in the low-double-digits percentage range, which is lower than our prior expectations.
- Key drivers include slower growth in NAND content in consumer devices, ongoing inventory adjustments and demand dynamics in different end markets as outlined earlier and a temporary moderation in near-term data center SSD purchases by customers after several quarters of very rapid growth.
- In the next few years, we also expect high-capacity NAND SSDs to start displacing capacity HDDs in the data center, an inflection that will drive long-term NAND demand growth.



Supply outlook

- The decline in 2024 and 2025 industry NAND demand growth outlook implies that supply actions will be necessary to achieve balance.
- Since NAND technology transitions provide a significant increase in overall bit output, the pace of technology transitions will also need to slow in order to align supply to industry demand. We have reduced NAND capital expenditures (capex) versus prior plan and have slowed the pace of technology node transitions. In addition, we are reducing NAND wafer starts by a mid-teens percentage versus prior levels.
- CY24 analyst reports indicate that China-based supply will represent a mid-single-digit percentage of industry bit supply for DRAM, and a high-single-digit percent of supply for NAND. Competition from China supply is focused on China market demand — in DRAM with DDR4 and LP4 products and in NAND with consumer, client and lower-performance mobile products.
- We expect Micron’s worldwide revenue related to LP4 and D4 DRAM products for the remainder of fiscal 2025 to be approximately 10%. We expect Micron’s sales of products to China-headquartered customers to be concentrated in the high-end of our customers’ portfolio, leveraging our technology and product leadership and the performance and quality requirements of our customers.

Mark Murphy

Chief Financial Officer

December 18, 2024

FQ1-25 revenue

$8.7B

Revenue up 12% Q/Q
and up 84% Y/Y

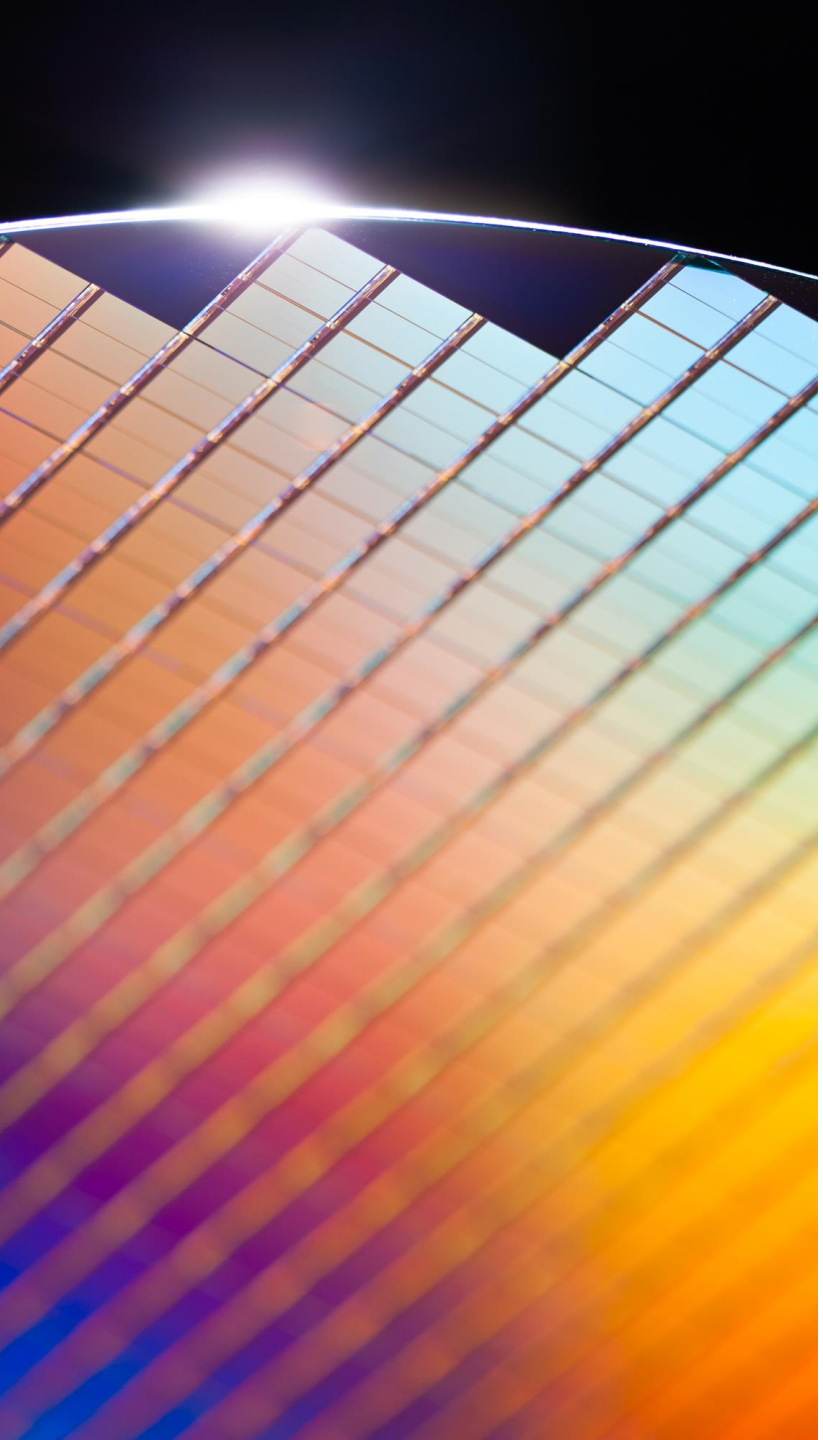
Performance by technology

DRAM FQ1-25

- $6.4 billion, representing 73% of total revenue in FQ1-25
- Revenue increased 20% Q/Q
- Bit shipments increased in the low-double-digit percentage range Q/Q
- ASPs increased in the high-single-digit percentage range Q/Q

NAND FQ1-25

- $2.2 billion, representing 26% of total revenue in FQ1-25
- Revenue decreased 5% Q/Q
- Bit shipments decreased in the low-single-digit percentage range Q/Q
- ASPs decreased in the low-single-digit percentage range Q/Q



Revenue by business unit

- Compute and Networking Business Unit revenue was up 46% sequentially to $4.4 billion and now represents over half of our total revenue. CNBU revenue reached a new quarterly record, driven by cloud server DRAM demand, as well as HBM revenues, which more than doubled sequentially in the quarter.
- Mobile Business Unit revenue was $1.5 billion, down 19% sequentially. As our mobile customers focused on improving their inventory health, we shifted supply to meet data center demand.
- Embedded Business Unit revenue was $1.1 billion, down 10% sequentially. Auto, industrial and consumer customers continue to manage their inventories lower.
- Revenue for the Storage Business Unit was $1.7 billion, up 3% sequentially. SBU revenue reached a new quarterly record, driven by record revenue in the data center SSD segment.
- In fiscal 2025, we expect Micron’s revenue mix with companies headquartered in mainland China and Hong Kong, including direct sales as well as indirect sales through distributors, to be approximately mid-teens percent of our worldwide revenue. This mix is impacted by market factors described earlier as well as by the China CAC actions announced in May 2023.

FQ1-25
Non-GAAP operating results

Revenue: $8.7 billion

Gross margin: 39.5%

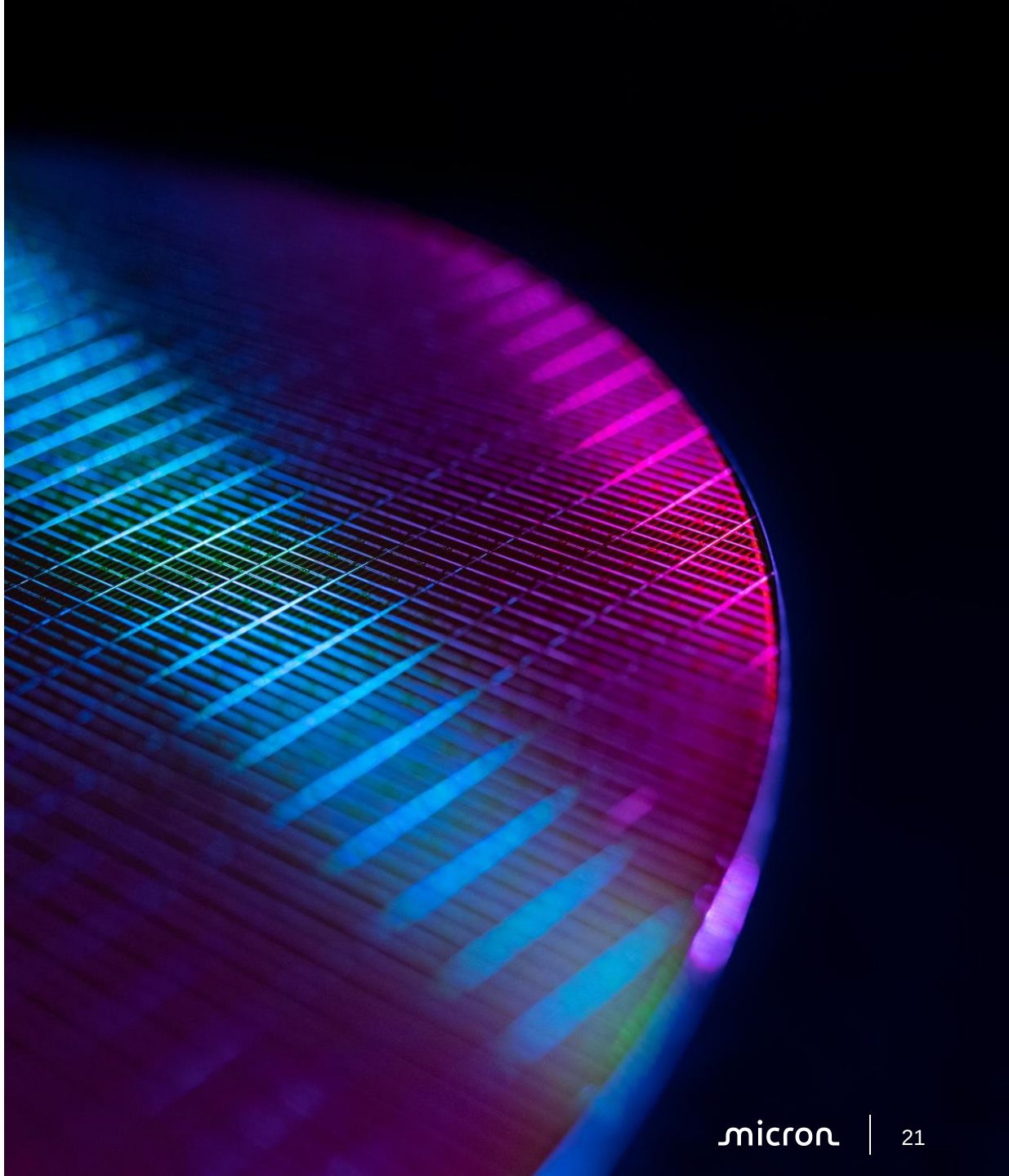
Operating expenses: $1.05 billion

Operating income: $2.4 billion

Net income: $2.0 billion

Diluted earnings per share: $1.79

Cash from operations (GAAP): $3.2 billion



See non-GAAP reconciliations in Appendix

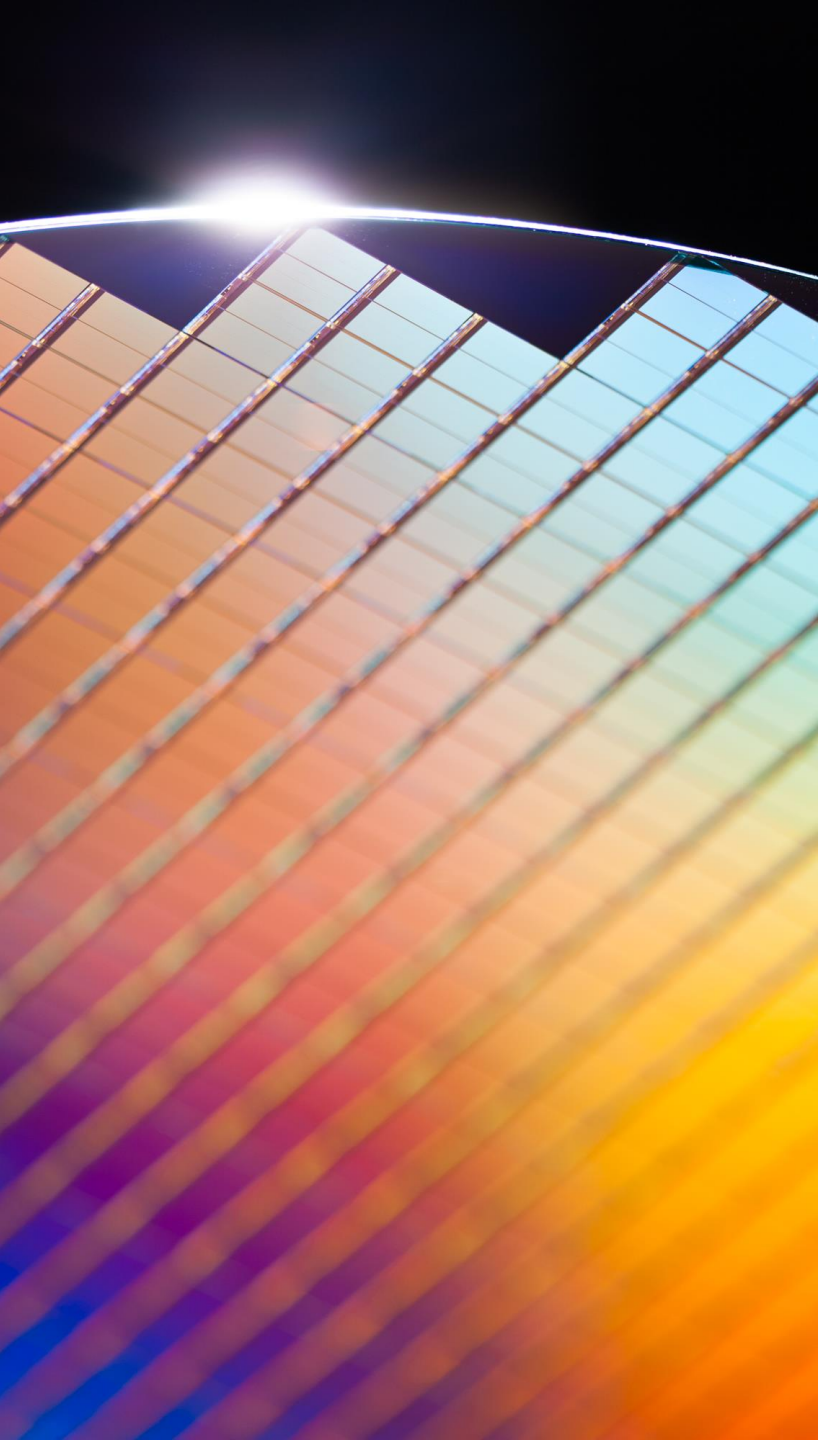
Cash flow and capital allocation

From FY-22 to FQ1-25

- $3.2 billion toward repurchasing 47 million shares
- $1.6 billion towards dividends paid
- $4.8 billion returned to shareholders from share repurchases and dividends

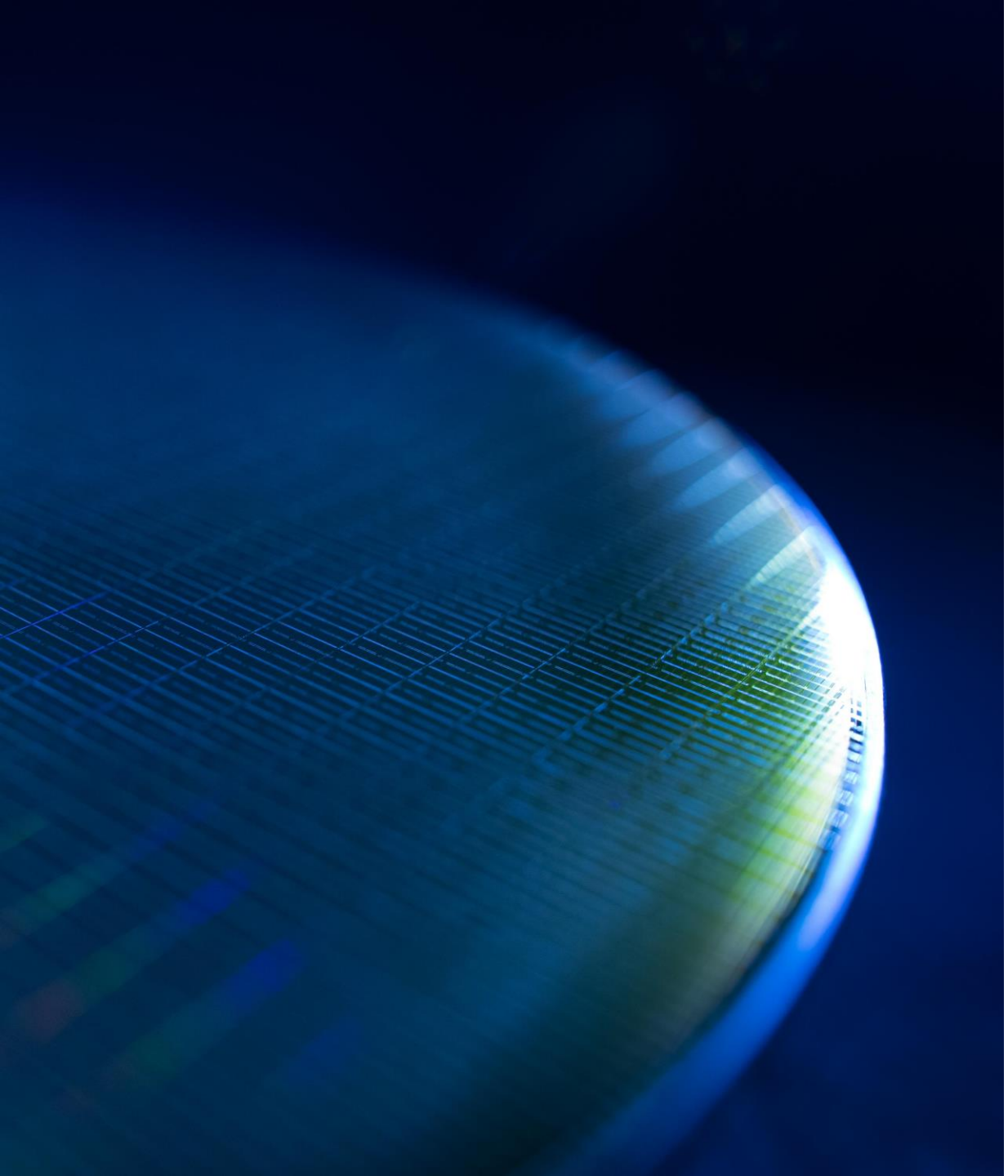
Cash flow from operations	FQ1-25: $3.2 billion (37% of revenue)
Net Capex[1]	FQ1-25: $3.1 billion
Adjusted FCF*	FQ1-25: $112 million
Buybacks	FQ1-25: None
Dividends	Dividend of $0.115 per share will be paid on January 15th
Liquidity[2]	$11.2 billion in liquidity at end of FQ1-25

[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.
*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.
See non-GAAP reconciliations in Appendix.



Capex plan

- In fiscal Q2, we forecast net capex to be approximately $3 billion.
- For fiscal 2025, we are prioritizing our investments to ramp 1β and 1γ technology nodes, as well as greenfield fab investments for DRAM, which will help us support HBM and long-term DRAM demand.
- We have cut our NAND capex and are prudently managing the pace of our NAND technology node ramps to manage our supply.
- We expect overall capex spending in fiscal 2025 to be approximately $14 billion, plus or minus $500 million.
- The overwhelming majority of the fiscal 2025 capex is to support HBM, as well as facility, construction, back-end manufacturing and R&D investments.



FQ2-25 guidance
Non-GAAP

Revenue	$7.90 billion ± $200 million
Gross margin	38.5% ± 1.0%
Operating expenses	$1.10 billion ± $15 million
Diluted earnings per share*	$1.43 ± $0.10

*Based on ~1.14 billion diluted shares.
See non-GAAP reconciliations in Appendix.

Appendix

Financial summary
Non-GAAP

Amounts in millions, except per share	FQ1-25	% of Revenue	FQ4-24	% of Revenue	FQ1-24	% of Revenue
Revenue	$8,709	100%	$7,750	100%	4,726	100%
Gross margin	3,441	39.5%	2,826	36.5%	37	0.8%
Operating income (loss)	2,394	27.5%	1,745	22.5%	(955)	(20.2%)
Income tax (provision) benefit	(333)		(387)		(59)	
Net income (loss)	2,037	23.4%	1,342	17.3%	(1,048)	(22.2%)
Diluted earnings (loss) per share	1.79		1.18		(0.95)	
Cash provided by operating activities (GAAP)	3,244		3,405		1,401	
Cash, marketable investments, and restricted cash (GAAP)	8,748		9,163		9,839	

See non-GAAP reconciliations.

Non-GAAP financial data and guidance

% of Revenue	FQ1-25
DRAM	73%
NAND	26%

% Sales Volume Change	FQ1-25 Q/Q
DRAM	Increased in the low-double-digit percentage range
NAND	Decreased in the low-single-digit percentage range

% ASP change	FQ1-25 Q/Q
DRAM	Increased in the high-single-digit percentage range
NAND	Decreased in the low-single-digit percentage range

	FQ1-25 Non-GAAP (amounts in millions, except per share)	FQ2-25 Non-GAAP guidance
Revenue	$8,709	$7.90 billion ± $200 million
Gross margin	39.5%	38.5% ± 1.0%
Operating expenses	$1,047	$1.10 billion ± $15 million
Diluted earnings per share	$1.79	$1.43 ± $0.10

	FQ1-25 Non-GAAP (amounts in millions)	FQ2-25 Non-GAAP estimates
Diluted shares	1,138	~1.14 billion
Income tax (provision) benefit	($333)	mid-teens percentage range
Cash from operations (GAAP)	$3,244	—
Investments in capex, net (capital cash flow)	$3,132	FQ2-25: ~ $3.0 billion FY-25:$14.0 billion ± $500 million

See non-GAAP reconciliations.

Revenue by technology

Amounts in millions	FQ1-25	% of Revenue	FQ4-24	% of Revenue	FQ1-24	% of Revenue
DRAM	$6,400	73%	$5,326	69%	$3,427	73%
NAND	2,241	26%	2,365	31%	1,230	26%
Other (primarily NOR)	68	1%	59	1%	69	1%
Total	$8,709	100%	$7,750	100%	$4,726	100%

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

Non-GAAP reconciliations

Consolidated results

Non-GAAP reconciliations

Amounts in millions	FQ1-25	FQ4-24	FQ1-24
GAAP gross margin	$3,348	$2,737	($35)
Stock-based compensation	90	85	67
Other	3	4	5
Non-GAAP gross margin	$3,441	$2,826	$37
GAAP operating expenses	$1,174	$1,215	$1,093
Stock-based compensation	(127)	(128)	(115)
Other	—	(6)	14
Non-GAAP operating expenses	$1,047	$1,081	$992
GAAP operating income (loss)	$2,174	$1,522	($1,128)
Stock-based compensation	217	213	182
Other	3	10	(9)
Non-GAAP operating income (loss)	$2,394	$1,745	($955)

Consolidated results

Non-GAAP reconciliations

Amounts in millions	FQ1-25	FQ4-24	FQ1-24
GAAP cost of goods sold	$5,361	$5,013	$4,761
Stock-based compensation	(90)	(85)	(67)
Other	(3)	(4)	(5)
Non-GAAP cost of goods sold	$5,268	$4,924	$4,689
GAAP research and development	$888	$903	$845
Stock-based compensation	(77)	(74)	(68)
Other	—	—	14
Non-GAAP research and development	$811	$829	$791
GAAP selling, general, and administrative	$288	$295	$263
Stock-based compensation	(50)	(54)	(47)
Non-GAAP selling, general, and administrative	$238	$241	$216

Consolidated results

Non-GAAP reconciliations

Amounts in millions	FQ1-25	FQ4-24	FQ1-24
GAAP net income (loss)	$1,870	$887	($1,234)
Stock-based compensation	217	213	182
Other	—	6	(10)
Estimated tax effects of above and other tax adjustments	(50)	236	14
Non-GAAP net income (loss)	$2,037	$1,342	($1,048)
GAAP income tax (provision) benefit	($283)	($623)	($73)
Estimated tax effects of non-GAAP adjustments and other tax adjustments	(50)	236	14
Non-GAAP income tax (provision) benefit	($333)	($387)	($59)

Consolidated results

Non-GAAP reconciliations

Amounts in millions	FQ1-25	FQ4-24	FQ1-24
GAAP net income (loss)	$1,870	$887	($1,234)
Interest (income) expense, net	11	5	—
Income tax provision (benefit)	283	623	73
Depreciation expense and amortization of intangible assets	2,030	1,986	1,915
Non-GAAP adjustments			
Stock-based compensation	217	213	182
Other	—	6	(14)
Adjusted EBITDA	$4,411	$3,720	$922

Consolidated results

Non-GAAP reconciliations

Amounts in millions, except per share	FQ1-25	FQ4-24	FQ1-24
GAAP shares used in diluted EPS calculations	1,122	1,125	1,100
Adjustment for stock-based compensation	16	12	—
Non-GAAP shares used in diluted EPS calculations	1,138	1,137	1,100
GAAP diluted earnings (loss) per share	$1.67	$0.79	($1.12)
Effects of non-GAAP adjustments	0.12	0.39	0.17
Non-GAAP diluted earnings (loss) per share	$1.79	$1.18	($0.95)
Net cash provided by operating activities	$3,244	$3,405	$1,401
Expenditures for property, plant, and equipment	(3,206)	(3,120)	(1,796)
Payments on equipment purchase contracts	—	(22)	(56)
Proceeds from sales of property, plant, and equipment	9	12	33
Proceeds from government incentives	65	48	85
Investments in capital expenditures, net	(3,132)	(3,082)	(1,734)
Adjusted free cash flow	$112	$323	($333)

FQ2-25 guidance

Non-GAAP reconciliations

	GAAP Outlook	Adjustments		Non-GAAP Outlook
Revenue	$7.90 billion ± $200 million	—		$7.90 billion ± $200 million
Gross margin	37.5% ± 1.0%	1.0%	A	38.5% ± 1.0%
Operating expenses	$1.24 billion ± $15 million	$140 million	B	$1.10 billion ± $15 million
Diluted earnings per share*	$1.26 ± $0.10	$0.17	A, B, C	$1.43 ± $0.10

Non-GAAP Adjustments (amounts in millions)		
A	Stock-based compensation – cost of goods sold	$78
B	Stock-based compensation – research and development	85
B	Stock-based compensation – selling, general, and administrative	55
C	Tax effects of the above items and other tax adjustments	(24)
		$194

*GAAP earnings per share based on approximately 1.12 billion diluted shares and non-GAAP earnings per share based on approximately 1.14 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.