

EXHIBIT 10

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Micron Technology, Inc. (MU)

Q2 2024 Earnings Call

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MANAGEMENT DISCUSSION SECTION

Operator: Thank you for standing by and welcome to Micron's Second Quarter 2024 Financial Call. At this time all participants are in a listen-only mode. After the speakers' presentation there will be a question-and-answer session. [Operator Instructions] As a reminder, today's program is being recorded.

And now I'd like to introduce your host for today's program, Satya Kumar, Corporate Vice President, Investor Relations and Treasurer (sic) [Treasury]. Please go ahead, sir.

Satya Kumar

Corporate Vice President-Investor Relations & Treasury, Micron Technology, Inc.

Thank you, and welcome to Micron Technology's fiscal second quarter 2024 financial conference call. On the call with me today are Sanjay Mehrotra, our President and CEO, and Mark Murphy, our CFO. Today's call is being webcast from our Investor Relations site at investors.micron.com, including audio and slides.

In addition, the press release detailing our quarterly results has been posted on the website, along with the prepared remarks for this call. Today's discussion of financial results is being presented on a non-GAAP financial basis unless otherwise specified. A reconciliation of GAAP to non-GAAP financial measures can be found on our website. We encourage you to visit our website at micron.com throughout the quarter for the most current information on the company, including information on financial conferences that we may be attending.

You can also follow us on X @MicronTech. As a reminder, the matters we are discussing today include forward-looking statements regarding market demand and supply, market and pricing trends and drivers, our technology, product ramp plans and market position, our expected results and guidance, and other matters. These forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from statements made today. We refer you to the documents we file with the SEC, including our most recent Form 10-Q and upcoming 10-Q, for a discussion of risks that may affect our future results. 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.

I will now turn the call over to Sanjay.

Sanjay Mehrotra

President, Chief Executive Officer & Director, Micron Technology, Inc.

Thank you, Satya. Good afternoon, everyone. I am pleased to report that Micron delivered fiscal Q2 revenue, gross margin and EPS well above the high end of guidance. Micron has returned to profitability and delivered positive operating margin a quarter ahead of expectation. I would like to thank all our Micron global team members for their dedication and excellent execution that made this result possible.

Micron drove robust price increases as the supply-demand balance tightened. This improvement in market conditions was due to a confluence of factors, including strong AI server demand, a healthier demand environment in most end markets, and supply reductions across the industry. AI server demand is driving rapid growth in HBM, DDR5 and data center SSDs, which is tightening leading-edge supply availability for DRAM and NAND. This is resulting in a positive ripple effect on pricing across all memory and storage end markets. We expect DRAM and NAND pricing levels to increase further throughout calendar year 2024 and expect record revenue and much improved profitability now in fiscal year 2025.

Micron is at the forefront of ramping the industry's most advanced technology nodes in both DRAM and NAND. Reinforcing our leadership position, over three quarters of our DRAM bits are now on leading-edge 1-alpha and 1-beta nodes, and over 90% of our NAND bits are on 176-layer and 232-layer nodes. We expect fiscal 2024 front-end cost reductions, excluding the impact of HBM, to track in line with our long-term expectations of mid- to high-single digits in DRAM and low teens in NAND, supported by the continued volume ramp of 1-beta DRAM and 232-layer NAND.

We continue to mature our production capability with extreme ultraviolet lithography, and have achieved equivalent yield and quality on our 1-alpha as well as 1-beta nodes between EUV and non-EUV flows. We have begun 1-gamma DRAM pilot production using EUV and are on track for volume production in calendar 2025. The development of our next-generation NAND node is on track, with volume production planned for calendar 2025. We expect to maintain our technology leadership in NAND.

Now turning to our end markets. Inventories for memory and storage have improved significantly in the data center, and we continue to expect normalization in the first half of calendar 2024. In PC and smartphone, there were some strategic purchases in calendar Q4 in anticipation of a return to unit growth. Inventories remain near normal levels for auto, industrial and other markets. We are in the very early innings of a multiyear growth phase driven by AI as this disruptive technology will transform every aspect of business and society. The race is on to create artificial general intelligence, or AGI, which will require ever-increasing model sizes with trillions of parameters. On the other end of the spectrum, there is considerable progress being made on improving AI models so that they can run on edge devices, like PCs and smartphones, and create new and compelling

capabilities. As AI training workloads remain a driver of technology and innovation, inference growth is also rapidly accelerating.

Memory and storage technologies are key enablers of AI in both training and inference workloads, and Micron is well positioned to capitalize on these trends in both the data center and the edge. We view Micron as one of the biggest beneficiaries in the semiconductor industry of this multiyear growth opportunity driven by AI.

In data center, total industry server unit shipments are expected to grow mid- to high-single digits in calendar 2024, driven by strong growth for AI servers and a return to modest growth for traditional servers. Micron is well-positioned with our portfolio of HBM, D5, LP5, high-capacity DIMM, CXL, and data center SSD products. Delivering improved memory bandwidth, power consumption, and overall performance is critical to enable cost-efficient scaling of AI workloads inside modern GPU or ASIC accelerated AI servers.

Our customers are driving an aggressive AI roadmap on their GPU and ASIC-based server platforms that require significantly higher-content and higher-performance memory and storage solutions. For example, earlier this week, NVIDIA announced its next-generation Blackwell GPU architecture-based AI systems, which provides a 33% increase in HBM3E content, continuing a trend of steadily increasing HBM content per GPU.

Micron's industry-leading high-bandwidth memory, HBM3E, solution provides more than 20 times the memory bandwidth compared to standard D5-based DIMM server module. We are executing well on our HBM product ramp plans and have made significant progress in ramping our capacity, yields, and quality. We commenced volume production and recognized our first revenue from HBM3E in fiscal Q2 and now have begun high-volume shipments of our HBM3E product.

Customers continue to give strong feedback that our HBM3E solution has a 30% lower power consumption compared to competitors' solutions. This benefit is contributing to strong demand. Our HBM3E product will be part of NVIDIA's H200 Tensor Core GPUs, and we are making progress on additional platform qualifications with multiple customers. We are on track to generate several hundred million dollars of revenue from HBM in fiscal 2024 and expect HBM revenues to be accretive to our DRAM and overall gross margins starting in the fiscal third quarter.

Our HBM is sold out for calendar 2024, and the overwhelming majority of our 2025 supply has already been allocated. We continue to expect HBM bit share equivalent to our overall DRAM bit share sometime in calendar 2025.

Earlier this month, we sampled our 12-high HBM3E product, which provides 50% increased capacity of DRAM per cube to 36-gigabyte. This increase in capacity allows our customers to pack more memory per GPU, enabling more powerful AI training and inference solutions. We expect 12-high HBM3E will start ramping in high-volume production and increase in mix throughout 2025. We have a robust roadmap, and we are confident we will maintain our technology leadership with HBM4, the next generation of HBM, which will provide further performance and capacity enhancements compared to HBM3E.

We are making strong progress on our suite of high-capacity server DIMM products. During the quarter, we completed validation of the industry's first mono-die-based 128-gigabyte server DRAM module. This new product provides the industry's highest-bandwidth D5 capability, with greater than 20% better energy efficiency and over 15% improved latency performance compared to competitors' 3D TSV-based solutions.

We see strong customer pull and expect a robust volume ramp for our 128-gigabyte product, with several hundred million dollars of revenue in the second half of fiscal 2024. Additionally, we also started sampling our 256-gigabyte MCRDIMM module, which further enhances performance and increases DRAM content per server.

We achieved record revenue share in the data center SSD market in calendar 2023. During the quarter, we grew our revenue by over 50% sequentially for our 232-layer-based 6500 30 terabytes SSDs, which offer best-in-class performance, reliability, and endurance for AI data lake application.

In PC, after two years of double-digit declines, unit volumes are expected to grow modestly in the low single-digit range for calendar 2024. We are encouraged by the strong ecosystem momentum to develop next-generation AI PCs, which feature high-performance neural processing unit chipsets and 40% to 80% more DRAM content versus today's average PCs. We expect next-generation AI PC units to grow and become a meaningful portion of total PC units in calendar 2025.

At CES, the Consumer Electronics Show in Las Vegas, Micron launched the industry's first low-power compression-attached memory module, or LPCAMM2, for PC applications. LPCAMM2 brings a modular form factor, with a maximum capacity point of 64 gigabyte for PC module and 128 gigabyte for server module, along with a number of benefits such as higher bandwidth, lower power, and smaller form factor.

During the quarter, we launched our 232-layer-based Crucial T705 Gen 5 consumer SSD, which won several editor choice awards and was recognized by a leading publisher as the fastest M.2 SSD ever. We increased our client SSD QLC bit shipments to record levels, with QLC representing nearly two-thirds of our client SSD shipments, firmly establishing Micron as the leader in client QLC SSDs.

Turning to mobile. Smartphone unit volumes in calendar 2024 remain on track to grow low- to mid-single digits. Smartphones offer tremendous potential for personalized AI capabilities that offer greater security and responsiveness when executed on device. Enabling these on-device AI capabilities is driving increased memory and storage capacity needs and increasing demand for new value-add solutions. For example, we expect AI phones to carry 50% to 100% greater DRAM content compared to non-AI flagship phones today.

Micron's leading mobile solutions provide the critical high performance and power efficiency needed to unlock an unprecedented level of AI capability. In DRAM, we are now sampling our second generation, 1-beta LPDRAM LP5X product, which delivers the industry's highest performance at improved power for flagship smartphones. And in NAND, we announced our second generation of 232-layer NAND UFS 4.0 devices, featuring the industry's smallest package and breakthrough features that enable greater reliability and significantly higher real-world performance for complex workloads.

Our mobile DRAM and NAND solutions are now widely adopted in industry-leading flagship smartphones, with two examples being Samsung's Galaxy S24 and the Honor Magic 6 Pro announced this year. The Samsung Galaxy S24 can provide two-way, real-time voice and text translations during live phone calls. The Honor Magic 6 Pro features the Magic LM, a seven-billion parameter large language model, which can intelligently understand a user's intent based on language, image, eye movement and gestures and proactively offer services to enhance and simplify the user experience.

Turning to auto and industrial. The automotive sector continues to experience robust demand for memory and storage as non-memory semiconductor supply constraints have eased and as new vehicle platforms are launched. In the past quarter, we experienced strong growth with partners who are driving the most advanced

capabilities within the automobile's increasingly intelligent and connected digital cockpits. In addition, adoption of Level 2 plus ADAS capabilities continues to gain momentum, further expanding content per vehicle.

The industrial market fundamentals for memory are also healthy, with improving distributor inventory, book to bill and demand visibility improvements, as well as pricing benefits from the tight supply for products, especially those built on leading-edge nodes.

Now, turning to our market outlook. Calendar 2023 DRAM bit demand growth was in the low double-digit percentage range, and NAND bit demand growth was in the low-20s percentage range, both a few percentage points higher than previous expectations. We forecast calendar 2024 bit demand growth for the industry to be near the long-term CAGR for DRAM and around mid-teens for NAND. Given the higher baseline of 2023 demand, these expectations of 2024 bit growth have driven an increase in the absolute level of 2024 bit demand in our model for DRAM and NAND versus our prior expectations. The industry supply demand balance is tight for DRAM and NAND, and our outlook for pricing has increased for calendar 2024. Over the medium term, we expect bit demand growth CAGRs of mid-teens in DRAM and low-20s percentage range in NAND.

Turning to supply. The supply outlook remains roughly the same as last quarter. We expect calendar 2024 industry supply to be below demand for both DRAM and NAND. Micron's bit supply growth in fiscal 2024 remains below our demand growth for both DRAM and NAND, and we expect to decrease our days of inventory in fiscal year 2024.

Micron's fiscal 2024 CapEx plan remains unchanged at a range between \$7.5 billion and \$8.0 billion. We continue to project our WFE spending will be down year-on-year in fiscal 2024. Micron's capital-efficient approach to reuse equipment from older nodes to support conversions to leading-edge nodes has resulted in a material structural reduction of our DRAM and NAND wafer capacity. We are now fully utilized on our high-volume manufacturing nodes and are maximizing output against the structurally lowered capacity. We believe this approach to node migration and consequent wafer capacity reduction is an industry-wide phenomenon.

We project to end fiscal 2024 with low double digit percentage less wafer capacity in both DRAM and NAND than our peak levels in fiscal 2022.

Significant supply reductions across the industry have enabled the pricing recovery that is now underway. Although our financial performance has improved, our current profitability levels are still well below our long-term targets, and significantly improved profitability is required to support the R&D and CapEx investments needed for long-term innovation and supply growth. Micron will continue to exercise supply and CapEx discipline and focus on restoring improved profitability, while maintaining our bit market share for DRAM and NAND.

As discussed previously, the ramp of HBM production will constrain supply growth in non-HBM products. Industrywide, HBM3E consumes approximately three times the wafer supply as D5 to produce a given number of bits in the same technology node. With increased performance and packaging complexity, across the industry, we expect the trade ratio for HBM4 to be even higher than the trade ratio for HBM3E. We anticipate strong HBM demand due to AI, combined with increasing silicon intensity of the HBM roadmap, to contribute to tight supply conditions for DRAM across all end markets.

Finally, as we consider these demand and technology trends, we are carefully planning our global fab and assembly test capacity requirements to ensure a diversified and cost competitive manufacturing footprint. Announced projects in China, India and Japan are proceeding as planned. On potential US expansion plans, we have assumed CHIPS grants in our CapEx plans for fiscal 2024. Our planned Idaho and New York projects

require Micron to receive the combination of sufficient CHIPS grants, investment tax credits and local incentives to address the cost difference compared to overseas expansion.

I will now turn it over to Mark for our financial results and outlook.

Mark Joseph Murphy

Chief Financial Officer & Executive Vice President, Micron Technology, Inc.

Thanks, Sanjay, and good afternoon, everyone. Micron delivered strong results in fiscal Q2 with revenue, gross margin and EPS well above the high end of the guidance ranges provided in our last earnings call. Much-improved market conditions, along with the team's excellent execution on pricing, products and operations, drove the strong financial results.

Total fiscal Q2 revenue was \$5.8 billion, up 23% sequentially and up 58% year over year. Fiscal Q2 DRAM revenue was approximately \$4.2 billion, representing 71% of total revenue. DRAM revenue increased 21% sequentially, with bit shipments increasing by a low single-digit percentage and prices increasing by high teens.

Fiscal Q2 NAND revenue was approximately \$1.6 billion, representing 27% of Micron's total revenue. NAND revenue increased 27% sequentially, with bit shipments decreasing by a low single-digit percentage and prices increasing by over 30%.

Now turning to revenue by business unit. Compute and Networking Business Unit revenue was \$2.2 billion, up 26% sequentially. Data center revenue grew robustly, and cloud more than doubled sequentially. Revenue for the Mobile Business Unit was \$1.6 billion, up 24% sequentially, as an expected decline in volume was more than offset by improved pricing. Embedded Business Unit revenue was \$1.1 billion, up 7% sequentially on solid demand for leading-edge products in the industrial market.

Revenue for the Storage Business Unit was \$905 million, up 39% sequentially with strong double-digit growth across all end markets. Data center SSD revenue more than doubled from a year ago, driven by share gains for Micron's products.

The consolidated gross margin for fiscal Q2 was 20%, up 19 percentage points sequentially driven by higher pricing. Fiscal Q2 gross margins benefited from \$382 million associated with selling the remainder of previously written-down inventories. In the second fiscal quarter, underutilization charges were modest and related to our legacy manufacturing capacity. We expect to sustain these lower levels of underutilization charges moving forward.

Operating expenses in fiscal Q2 were \$959 million, down \$33 million quarter over quarter and in line with our guidance range. OpEx was modestly above the midpoint of our guidance range, as variable compensation expense was higher on an improved fiscal 2024 outlook.

We generated operating income of \$204 million in fiscal Q2, resulting in an operating margin of 4% and turning positive a quarter earlier than originally forecasted. We recognized a net benefit for income taxes in fiscal Q2 of \$294 million. We had previously guided that we would recognize tax expense of \$45 million based on expected quarterly results for fiscal Q2.

With our improved fiscal 2024 outlook, we can now estimate a more reliable annual effective tax rate and have reverted to a global annual effective tax rate method. The second fiscal quarter tax benefit arises from applying this estimated annual effective tax rate to our year-to-date results.

Non-GAAP diluted earnings per share in fiscal Q2 was \$0.42, compared to a loss per share of \$0.95 in the prior quarter and a loss per share of \$1.91 in the year-ago quarter. Fiscal Q2 EPS benefited from the aforementioned favorable income tax effect of approximately \$0.34 per share.

Turning to cash flows and capital spending, our operating cash flows were approximately \$1.2 billion in fiscal Q2, representing 21% of revenue. Capital expenditures were \$1.2 billion during the quarter, and free cash flow was near breakeven. Our fiscal Q2 ending inventory was \$8.4 billion or 160 days, roughly in line with the prior quarter. Finished goods were down in the quarter. Our leading-edge supply, both for DRAM and NAND, is very tight. We expect to reduce inventory levels, and excluding strategic inventory stock, be within a few weeks of our 120 days target by the end of fiscal 2024. We project DIO improvements to continue into fiscal year 2025.

On the balance sheet, we held \$9.7 billion of cash and investments at quarter-end and maintained \$12.2 billion of liquidity, when including our untapped credit facility. During fiscal Q2, we refinanced approximately \$1 billion of existing debt, extending our debt maturities and lowering our near-term borrowing costs. We ended the quarter with \$13.7 billion in total debt, low net leverage, and a weighted average maturity on our debt of 2031.

Now turning to our outlook for the fiscal third quarter. Fiscal Q3 bit shipments are expected to be down modestly for DRAM and up somewhat for NAND, compared to fiscal Q2 levels. While demand continues to improve, supply is constrained, especially at the leading edge. We expect DIO to improve sequentially in fiscal Q3.

Note that fiscal Q2 gross margins had the benefit from previously written-down inventories, which have cleared completely in fiscal Q2. Despite this benefit in fiscal Q2, we expect solid sequential improvement in fiscal Q3 gross margins due to robust price increases across both DRAM and NAND. We forecast operating expenses to increase by approximately \$30 million in the fiscal third quarter, driven by R&D expenses. For the fiscal year, we now project OpEx to be approximately \$4 billion. Having delivered operating profit in fiscal Q2 ahead of prior expectations, we forecast continued improvement in operating income through the remainder of the year.

Based on an improved taxable income outlook, our tax forecast for fiscal year 2024 has increased from our prior projection of over \$300 million to approximately \$400 million. In fiscal 2025, we expect our annual effective tax rate to be in the mid-teens percentage range. We plan fiscal Q3 capital expenditures to be higher than in the second quarter. Our full-year fiscal 2024 CapEx plan is unchanged at a range between \$7.5 billion and \$8 billion. We now expect to generate positive free cash flow in fiscal Q3 and Q4.

With all these factors in mind, our non-GAAP guidance for fiscal Q3 is as follows. We expect revenue to be \$6.6 billion, plus or minus \$200 million; gross margin to be in the range of 26.5%, plus or minus 150 basis points; and operating expenses to be approximately \$990 million, plus or minus \$15 million. We expect tax expenses of approximately \$240 million. Based on a share count of approximately 1.1 billion shares, we expect earnings per share of \$0.45, plus or minus \$0.07.

In closing, with a significantly improved supply/demand balance in the industry, coupled with excellent execution, Micron is driving a strong inflection in pricing and a richer mix of high-value solutions. We remain disciplined with our investments and supply growth and focused on driving efficiency across the company. We expect positive free cash flow for the second half of fiscal 2024 and project record revenue in fiscal 2025.

I will now turn it back over to Sanjay.

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Sanjay Mehrotra

President, Chief Executive Officer & Director, Micron Technology, Inc.

Thank you, Mark.

[Technical Difficulty] (00:34:05-00:37:12)

Satya Kumar

Corporate Vice President-Investor Relations & Treasury, Micron Technology, Inc.

Operator, if you can go ahead and start the Q&A section, please.

QUESTION AND ANSWER SECTION

Operator: Certainly. One moment for our first question. And our first question comes from the line of Toshiya Hari from Goldman Sachs. Your question, please.

Toshiya Hari

Analyst, Goldman Sachs & Co. LLC

Hi. Can you hear me okay?

Q

Sanjay Mehrotra

President, Chief Executive Officer & Director, Micron Technology, Inc.

Yes, we can.

A

Toshiya Hari

Analyst, Goldman Sachs & Co. LLC

Okay. Great. Thank you for taking the question. Sanjay, on HBM, you mentioned that you continue to expect your market position in 2025 or at some point in 2025 to be similar to be in line with your overall position with DRAM. Given your revenue outlook for 2024, that seems to imply, I don't know, a quadrupling or quintupling of your business in HBM year-to-year.

Q

I guess, part one, am I thinking about the trajectory accurately? And then part two, what does that mean for your CapEx over the next 12, 18 months, and more importantly, your wafer capacity? You mentioned fiscal year 2024 you're down low double digits. Is your wafer capacity likely to be down again in fiscal 2025? Thank you.

Sanjay Mehrotra

President, Chief Executive Officer & Director, Micron Technology, Inc.

HBM3E first of all is a great product, as I mentioned. Well received by our customers, high performance and 30% lower power than any other product that's out there. So of course it has strong demand and as we have highlighted, we are sold out for our calendar year 2024 supply and our calendar year 2025 supply is also – vast majority is already allocated.

A

We have just begun production shipments and these will continue to increase through the course of calendar year 2024, as well as continue to increase through calendar year 2025. We are continuing to work on increasing our capacity and making good progress with respect to capacity as well as overall yield and quality.

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So certainly, in calendar year 2025 versus calendar year 2024, given that we are just starting our production here now, will certainly be a significant growth over our calendar year 2024 numbers and you can look at it the same way for fiscal 2024 versus 2025. So it will be definitely a significant increase with us achieving our share in HBM in line with our industry share sometime in calendar 2025.

I'm not in a position to spell it out exactly for you in terms of what is the volume increase, but certainly HBM with our strong product position will be a strong driver of revenue growth fiscal year 2025 over fiscal year 2024.

Regarding the wafer capacity, by end of this fiscal year we have said low double-digit structural reduction in capacity and of course we will be managing this capacity in fiscal year 2024 keeping in mind our focus on supply/demand discipline, staying extremely disciplined with respect to supply growth, staying extremely disciplined with respect to our HBM share as well and managing our technology transitions as we go through the year.

And our CapEx in 2025, in fiscal 2025 will be higher than fiscal 2024. WFE will be higher as well, and of course construction CapEx related to the greenfield that is required for the second half of the decade will contribute to some of the CapEx increase in fiscal 2025. But some of these details we'll provide you as we get closer to fiscal year 2025.

So most important thing is that we will manage our wafer capacity, technology transitions to really maintain our bit share. That is part of our strategy to have stable bit share even with increasing penetration of HBM. And again, just keep in mind that our overall framework of our CapEx being 35% of our revenue across the cycle still applies.

Toshiya Hari*Analyst, Goldman Sachs & Co. LLC*

Q

Thank you for all the details.

Operator: Thank you. One moment for our next question. And our next question comes from the line of Aaron Rakers from Wells Fargo. Your question, please.

Aaron Rakers*Analyst, Wells Fargo Securities LLC*

Q

Yeah, thank you very much for taking the question. I guess two real quick ones. One, I just want to understand or maybe appreciate the context of the accretive nature of the HBM3. I know in the prepared remarks I think or in the slide deck it notes that you'll be accretive gross margin from HBM in the current quarter.

And then I know you talked a little bit about PCs and smartphones. I'm curious what you're seeing in terms of traditional server demand and whether or not your forecast assumes any improvement of shipments in that end market. Thank you.

Sanjay Mehrotra*President, Chief Executive Officer & Director, Micron Technology, Inc.*

A

So with respect to the accretive nature of HBM, HBM carries a higher cost but it also carries significantly higher pricing because it brings such great value in the applications in terms of its performance and power, and we are executing well. Our yield ramp is going to plan. And therefore, we are pleased that in this quarter when we have

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begun our production shipments, we will be having it accretive to our gross margins in the quarter and of course this momentum will continue to build in the quarters ahead.

And regarding the second part of your question on traditional server demand, yes, we do see that in calendar 2025 traditional server demand will grow modestly and of course it's coming after a significant decline in server unit sales in calendar 2023. We are very pleased to see the increasing momentum of content growth in the traditional server demand but also AI server units are going up. And we have said overall server units going up in mid- to high-single digits range with AI server driving a higher growth percentage year-over-year and traditional servers being modest.

And I may have said 2025 here. I just want to clarify that I'm talking about 2024 here. So when I'm talking about modest server unit growth, it's referring to 2024 versus 2023.

Aaron Rakers*Analyst, Wells Fargo Securities LLC*

Q

Thank you.

Sanjay Mehrotra*President, Chief Executive Officer & Director, Micron Technology, Inc.*

A

And we are actually seeing strong demand for both our DRAM products and NAND products in server and actually we are shifting some of our portfolio toward these higher mix solutions. HBM being one of them. High density DIMMs being another one that's in strong demand for server applications, and then data center SSDs, all of this we are seeing healthy demand drivers. And just remember, we had said that for memory and storage, customer inventories in data center market would be largely normalized in first half of 2024 and we are seeing the market play out just as we had predicted several quarters ago.

Aaron Rakers*Analyst, Wells Fargo Securities LLC*

Q

Thank you.

Operator: Thank you. One moment for our next question. And our next question comes from the line of C.J. Muse from Cantor Fitzgerald. Your question, please.

C. J. Muse*Analyst, Cantor Fitzgerald & Co.*

Q

Yeah, good afternoon. Thanks for taking the question. I guess, Sanjay, I would love to hear your thoughts around wafer movement from Big 3 to HBM and what impact that's having on the supply/demand outlook for DDR5 and sort of any context around customer engagement and longer term contracts.

And then more on the gross margin side, you talked about the inventory previously written down now behind us. Can you walk through the moving parts that should dictate what we'll see in gross margins throughout the remainder of calendar 2024? Thanks so much.

Sanjay Mehrotra*President, Chief Executive Officer & Director, Micron Technology, Inc.*

A

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So on your question regarding wafer shift to HBM, as we have highlighted, that HBM3E needs three times more wafers – nearly three times more wafers than DDR5 in the same technology node of the same capacity to produce the same bits, so this is of course a highly silicon intensive technology and this factor of three has a trade ratio between HBM and D5 is really common across the industry.

HBM demand is increasing rapidly. You see all the recent announcements that are only showing you that even greater attach rate of HBM to the latest GPU solutions that were just announced earlier this week, 192 gigabyte in the Blackwell platforms versus 144 gigabyte and of course this is a phenomenon that's occurring across the board. Even today, I think Broadcom talked about how HBM content is going to further increase. So HBM is in a high demand growth phase and this demand growth will continue in terms of bits, in terms of revenue over the course of foreseeable future, and this is putting tremendous pressure on the non-HBM supply.

The trade ratio of three to one, increasing demand in HBM, increased profitability of HBM is putting non-HBM part of the memory in tight supply. This is why we say that leading edge nodes are in very tight supply, and as a result, we would fully expect that D5, as well as other DDR products, will improve in their profitability picture as well, given there's very much a tight supply there.

And of course, HBM being in a strong position, when you look at the LTAs, we have talked to you about our supply already being locked up for 2024 and 2025, and this then increases our confidence in our D5, as well as LP5 with our customers.

Mark Joseph Murphy*Chief Financial Officer & Executive Vice President, Micron Technology, Inc.*

A

Hey, good afternoon, C.J. It's Mark. On the gross margin side, as you mentioned, it's been a tough year-and-a-half on a lot of timing differences, difficult to gauge cost-downs and gross margin progression, underutilization effects, slower node transition, structural capacity reduction and so forth that were contributing to weaker cost-downs.

And as you mentioned, the written-down inventories finally cleared in the second quarter. It was a bit of a headwind actually in the sense that it was less of a benefit than the first quarter, nonetheless, it was a favorable benefit that we will not get in the third quarter. And then the period costs also reduced from first to second quarter, so we're now under \$50 million on period costs related to underutilization. As I mentioned in my comments, that's legacy-related capacity now only, and that would continue going forward.

So now we see more normal conditions on cost-downs and related margin effects. We see node transitions occurring, those are positive. The underutilization effects are fading away as we mentioned. We're getting volume leverage and the associated absorption and then just the business being able to focus on efficiencies. So, as we mentioned before, we're now on the front end, would expect mid- to high-single digit cost-downs as normal.

I think as you look forward, and Sanjay alluded to this, you will begin to see the costs related to HBM weigh on our cost-down performance. Now that's a good trade of course, because the mix is favorable, the price is higher on those products. So, it's an accretive margin trade, but that will impact the cost-downs.

C. J. Muse*Analyst, Cantor Fitzgerald & Co.*

Q

Very helpful. Thank you.

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Operator: Thank you. One moment for our next question. And our next question comes from the line of Timothy Arcuri from UBS. Your question, please.

Timothy Arcuri*Analyst, UBS Securities LLC*

Q

Thanks a lot. Sanjay, I had a question just around the tenor of the discussions that you're having with your customers. I mean, the industry's bigger this year in terms of bits, it sounds like mostly due to a higher baseline coming off last year. But it sounds like supply hasn't really increased to match that higher bits this year, so the balance has gotten even tighter over the past three months. So, how has that changed the dynamics of your discussions with your customers? I know you had a \$600 million prepay last quarter. Did you get any prepays this quarter? Are you talking about new sort of contract structures with customers where they maybe fund some of your CapEx? Can you kind of talk about all that? Thanks.

Sanjay Mehrotra*President, Chief Executive Officer & Director, Micron Technology, Inc.*

A

So, just keep in mind that in fiscal year 2024 or calendar 2024 versus 2023, the shipments will increase substantially. And as you noted, the year-over-year increase in shipments will be substantial. And as you noted, the supply is very tight. Supply is tight due to the factors that we have discussed before.

Due to the downturn that the industry experienced last year, CapEx cuts were made. Utilization cuts were made. Structural shift from traditional older nodes to newer nodes of equipment was made in order to support the leading edge nodes and that resulted in a structural reduction in wafer capacity in the industry as well. And then there is the HBM factor, the trade ratio, three to one that I have discussed today. All of this has contributed to a very tight supply situation, and as I noted earlier in my remarks, non-HBM supply is tight.

So some of our discussions with customers, particularly with respect to HBM, when we talk about that HBM is sold out, those type of contracts have both pricing, as well as volumes, as well as other stricter terms baked in as part of our LTAs. And 2024 volume as well as pricing is all locked up. 2025, as I mentioned, the volumes are largely allocated. A vast majority of our production supply is allocated, and some of the pricing has already firmed up. Keep in mind, this has never happened. That you are talking about 2025, and we are sitting in CQ1 and we already have so much discussion around supply and pricing for 2025 getting locked up here as we speak.

And of course, this is then, as I said earlier, impacting – in a positive way, our discussions with non-HBM part of the market with other customers. This overall tight supply environment bodes well for our ability to manage the pricing increases, as well as keep an eye on demand/supply balance and remain extremely disciplined in driving the growth of our business and revenue and profits while continuing to execute our strategy of maintaining stable bit share.

So leading edge is very tight, and we are continuing to work on maximizing our output, which means leading edge is running at full utilization at this point.

Timothy Arcuri*Analyst, UBS Securities LLC*

Q

Great. Thanks. But I guess, that means that there were no prepays this quarter. Correct?

Sanjay Mehrotra*President, Chief Executive Officer & Director, Micron Technology, Inc.*

A

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We have not commented on that. We have not provided any color on that.

Timothy Arcuri*Analyst, UBS Securities LLC*

Q

Okay. Okay. Thank you, Sanjay.

Operator: Thank you. One moment for our next question. And our next question comes from the line of Joseph Moore from Morgan Stanley. Your question, please.

Joseph Moore*Analyst, Morgan Stanley & Co. LLC*

Q

Great. Thank you. The 128 gig that you talked about getting qualified, it seems like that's a pretty important market in AI and you guys are approaching it monolithically, where I know your competitor has used a stacked approach. Can you talk about the reception to that? And you spoke of several hundred million dollars. How big do you think that opportunity could be?

Sanjay Mehrotra*President, Chief Executive Officer & Director, Micron Technology, Inc.*

A

As I said, in my prepared remarks, that this product has very strong customer pull. This really offers a significantly improved latency as well as energy efficiency and this is simply due to the architecture that we chose to pursue fully focusing on what is ultimately important to our customers. This mono die architecture versus a FET architecture gives you the benefit of a more simplified interconnect which results in power efficiency as well as greater performance advantage.

So, yes, we are seeing strong reception to this product and we have said that this will have a meaningful revenue this fiscal quarter for us and several hundred million dollars of revenue in our fiscal 2024.

So clearly, on a strong growth rate. And our goal, again, would be to continue to manage the mix of our business across our portfolio in a prudent fashion so that we continue to shift the mix of our products toward more profitable parts of the business, particularly like data centers solutions including these high capacity DIMMs that we just discussed, HBM, data center SSDs, so all of this really just shows you how we are continuing to deliver successfully on strengthening our product portfolio and targeting it toward increasing the mix of our business toward more profitable parts of the market.

Joseph Moore*Analyst, Morgan Stanley & Co. LLC*

Q

Great. Thank you.

Operator: Thank you. One moment for our next question. And our next question comes from the line of Brian Chin from Stifel. Your question, please.

Brian Edward Chin*Analyst, Stifel, Nicolaus & Co., Inc.*

Q

Hi. Great. Thanks for taking our questions, and congratulations on the results.

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I guess this is sort of an extrapolation question. But if HBM were 20% of Micron DRAM revenue, and you have said that again at some point next year you think on a bit basis it could be equivalent to your market share, if HBM were 20% of Micron DRAM revenue as opposed to a much lower percentage today, could you maybe help quantify how accretive to gross margins just that richer mix would represent?

Mark Joseph Murphy*Chief Financial Officer & Executive Vice President, Micron Technology, Inc.*

A

Brian, it's Mark. We won't break it out specifically, but maybe just to give you a sense of the trajectory of gross margins. The increase from first quarter of 1% to 20% in the second quarter was dominantly price and obviously a lot of other things going on, but the dominant feature of that increase was price.

Likewise, in the 20% second quarter actuals to the 26.5% guide, price remains the largest contributor and offsetting part of that is of course what CJ mentioned on the benefit of those lower cost inventories fade away. But price is still the largest factor. But what begins to come in are both a resumption of cost-downs and then we're starting to see some favorable mix effects for the products that Sanjay talked about, including HBM.

And then as we move into the fourth quarter, where we would expect a margin increase comparable to the levels that we saw second to third quarter, that becomes more balanced between price effects and product mix effects and cost-downs, and most notably HBM begins to become more material. And that would then proceed into 2025. As we look in 2025, we see continued pricing strength in 2025. We see favorable product mix in 2025, and then our cost-downs excluding the HBM effects we expect to have good cost-downs, all contributing to margin expansion.

Brian Edward Chin*Analyst, Stifel, Nicolaus & Co., Inc.*

Q

Okay. Thank you. Very helpful.

Operator: Thank you. One moment for our next question. And for our last question for today, it comes from the line of Chris Danely from Citi. Your question, please.

Christopher Brett Danely*Analyst, Citigroup Global Markets, Inc.*

Q

Hey, thanks, gang. I guess just another multipart question on margins, like everybody else. So you mentioned that there's still some underutilization charges related to legacy manufacturing capacity. When do those go away?

And then as a follow-up to all these HBM margin questions, can you just talk about the gross margin arc of your HBM products as more competition and capacity comes onto the market? Like, when would the gross margins peak and then start to decline as Samsung starts to increase capacity or capacity goes up, all that stuff. Thanks.

Mark Joseph Murphy*Chief Financial Officer & Executive Vice President, Micron Technology, Inc.*

A

I'll deal with the first question. On the underutilization charges, Chris, I think it was \$165 million in the first quarter down to under \$50 million in the second quarter. We believe they'll stay at low levels, well below \$50 million for the foreseeable future, so we'll no longer comment on those. And, again, as I mentioned in my comments, they're related to the legacy capacity.

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And regarding your question on gross margin projections for HBM, we are not going to do that here. We are totally focused on increasing our production capability and bringing in 2025 our bit share for HBM to be in line with our DRAM share, and of course this will bring about greater profitability opportunities but we are really not projecting pricing of HBM here in the future.

But clearly HBM brings tremendous value in the applications. You are seeing these new platforms that are hungry for more HBM and HBM has been in shortage and we have talked about our 2024 and 2025 supply being spoken for. So all of that I think bodes well for high revenue growth and highly profitable HBM business for us. And of course we will stay extremely focused on maintaining discipline, maintaining our CapEx discipline and maintaining our share target discipline for HBM and really staying very disciplined on overall supply growth being in line with our DRAM share for the whole DRAM part of our business.

So I think these will be key as we continue to look ahead at our execution and driving our opportunities forward.

Christopher Brett Danely*Analyst, Citigroup Global Markets, Inc.***Q**

Got it. Thanks, guys.

Operator: Thank you. This does conclude the question-and-answer session as well as today's program. Thank you, ladies and gentlemen, for your participation. You may now disconnect. Good day.

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