



FQ3 2020 FINANCIAL RESULTS

Farhan Ahmad, Senior Director, Investor Relations

Thank you, and welcome to Micron Technology's fiscal third quarter 2020 financial conference call. On the call with me today are Sanjay Mehrotra, President and CEO, and Dave Zinsner, Chief Financial Officer.

Today's call will be approximately 60 minutes in length. This call, including the audio and slides is also being webcast from our Investor Relations website at investors.micron.com. In addition, our website contains the earnings press release, and the prepared remarks filed a short while ago.

SAFE HARBOR STATEMENT

Today's discussion of financial results will be presented on a non-GAAP financial basis unless otherwise specified. A reconciliation of GAAP to non-GAAP financial measures may be found on our website. As a reminder, a webcast replay will be available on our website later today.

We encourage you to monitor our website at micron.com throughout the quarter for the most current information on the company, including information on the various financial conferences that we will be attending. You can follow us on Twitter at [MicronTech](https://twitter.com/MicronTech).

As a reminder, the matters we will be discussing today include forward-looking statements. 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, specifically our most recent Form 10-K and 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 after today's date to conform these statements to actual results.

I'll now turn the call over to Sanjay.

SANJAY MEHROTRA, PRESIDENT AND CHIEF EXECUTIVE OFFICER

Thank you, Farhan.

Good afternoon, everyone.

I hope that you, your family and your colleagues are safe and healthy. Along with Dave and Farhan, I am doing this call from Micron's offices.



FQ3 HIGHLIGHTS

Micron's strong execution in the fiscal third quarter drove solid sequential revenue and EPS growth. We are ramping the industry's most advanced DRAM node and increasing our mix of high-value NAND. Our strong competitive position and diversified product portfolio put Micron in an outstanding position for the many exciting growth opportunities in the memory and storage markets.

OPERATIONS UPDATE

I'll start with an update on our operations:

Due to the excellent work of Micron's operations team, most of our fab and assembly sites operated at full production throughout the quarter, with our Singapore and Taiwan assembly and test facilities achieving record production. COVID-19's impact to our production early in our third quarter was limited to our back-end assembly and test sites in Muar and Penang, Malaysia, and we quickly offset this impact with production adjustments at our other facilities. All our production facilities are operating normally at this time.

We continue to prioritize the health and safety of all team members and contractors and have strong COVID-19 safety measures in place at all our sites worldwide. We are taking a conservative, phased and site-specific approach to returning our team members on-site, prioritizing our manufacturing workforce and engineering teams.

MARKET ENVIRONMENT

Now turning to the market environment:

The pandemic has impacted the cyclical recovery in DRAM and NAND, causing stronger demand in some segments and weaker demand in others.

Market segments driven primarily by consumer demand have seen a negative impact. Calendar 2020 analyst estimates for end-unit sales of autos, smartphones and PCs are meaningfully lower than pre-COVID-19 levels, even though estimates for enterprise laptops and Chromebooks have increased. The reduced level of global economic activity has also curtailed near-term demand.

The pandemic is driving rapid change in consumer and corporate practices around the world. Consumers are significantly increasing online activity, including e-commerce, gaming and video streaming, all of which drive additional data center capacity requirements. Trends like working-from-home and online learning are likely to drive long-term changes in how we think about workforce flexibility and education. Several governments around the world are considering ways to ensure a level playing field by considering significant programs that provide Chromebooks or tablets to students who cannot afford them, as online



learning becomes a necessity in these times. Additional government fiscal stimulus programs are also supportive of economic activity and will accelerate trends like electric vehicle production. Emerging technologies such as drone-based deliveries and the increased use of robotics across many applications are now being pursued with urgency. Technology solutions are rapidly helping society adapt and manage the temporary and permanent changes stemming from this pandemic. Clearly, certain trends that would have taken 2 to 4 years to develop have been accelerated into months. It is easy to see how these changes will drive higher consumption of memory and storage in the long term. The faster pace of digital transformation in the economy is here to stay.

Looking ahead to the second half of calendar 2020, let me discuss certain key market trends. First, we expect the data center outlook to remain healthy. Second, we expect smartphone and consumer end-unit sales to continue to improve, accelerating inventory consumption across the supply chain. And third, new gaming consoles will drive stronger DRAM and NAND demand.

Despite these trends, our short-term visibility across end markets remains limited due to COVID-19, macro and trade uncertainties, as well as customer inventory changes. The recent restrictions on Huawei are also impacting our opportunity in the near term. As these risks recede, we expect a resumption of industry growth, with a long-term bit growth CAGR of mid to high teens for DRAM and approximately 30% for NAND. This growth will be supported by powerful secular technology trends ranging from AI and machine learning to cloud computing, 5G and the growth in edge computing, and the industrial IoT economy.

Turning to industry supply, second-half 2020 supply growth may be somewhat muted compared to pre-COVID-19 expectations. Some suppliers have commented about delays in equipment deliveries, which can result in slower node transitions and lower bit growth.

Specific to Micron, we are proactively aligning our bit supply to market demand. Our FY20 front-end equipment CapEx is down more than 40% from FY19 and is at its lowest level in the last 5 years. While we expect to increase FY21 CapEx to support high ROIC node transitions, this capex will be meaningfully lower than our pre-COVID-19 plan. We have also made changes to our DRAM utilization to align with the current lower demand in the automotive market. As end-market conditions evolve, we will remain flexible to make any needed adjustments to our supply.

STRONG TECHNOLOGY AND ROADMAP EXECUTION

Since 2016, Micron has made tremendous progress narrowing the competitive gap on leading-edge technology nodes.

In DRAM, we are ramping 1z technology, which is the industry's most advanced node, and achieving yield improvements that reduce our cost. We have several customer qualifications underway for this technology.



Our 1y and 1z nodes together now make up more than 50% of our bit production. We continue to make progress on our 1-alpha node, which we expect to introduce in FY2021. We have begun sampling our first high-bandwidth DRAM memory product, which is competitive with the industry's most advanced products, and will expand our AI data center opportunity. We are excited about entering this new high-value segment of the DRAM market and look forward to ramping this product after it is qualified with our customers.

In NAND, our 128-layer first-generation RG NAND technology entered volume production in FQ3, and we are pleased to announce that we have recently initiated customer shipments. We are also making good progress on our second-generation RG node, which will be deployed broadly across our product portfolio. We remain on track for RG production to make up a meaningful portion of our NAND output by the end of calendar 2020.

Micron also continues to make progress with QLC. QLC bits now represent more than 10% of Micron's overall NAND production, contributing to our NAND cost improvements. Fiscal 2020 has been a year of extraordinary gains in the mix of our high-value solutions in NAND, which now make up over 75% of our quarterly NAND bits. We remain on target to increase this to 80% for FY2021.

The new Micron is undergoing a dramatic transformation to combine product leadership with technology, manufacturing and supply chain excellence. Across our entire portfolio of DRAM and NAND products, we will continue to focus on product differentiation and portfolio expansion to grow our share of industry profits while maintaining stable bit share.

Turning to end markets:

END MARKET HIGHLIGHTS

SSD

We had record quarterly revenue in solid state drives, as cloud SSD revenue more than doubled quarter-over-quarter. We continue to introduce new NVMe products in our SSD portfolio, while maintaining our leadership in the enterprise SATA market. Customer qualifications are progressing well for our next-generation products for both NVMe and SATA markets. Our client NVMe SSDs have also contributed to our SSD growth. In May, we announced a TLC client SSD and our first QLC client SSD, both using next-generation 96-layer NAND technology.

DATA CENTER & NETWORKING

As the only company with a portfolio of DRAM, NAND and 3D XPoint technologies, Micron is uniquely positioned to benefit from the secular data growth that is driving the cloud, enterprise and networking markets. Our cloud DRAM sales grew significantly quarter over quarter, with strong demand due to the



work-from-home and e-learning economy and significant increases in e-commerce activity around the world. This quarter, we started early sampling of 1z DDR5 for enterprise applications. Additionally, we also started sampling our higher-frequency DDR4 modules for Intel's Ice Lake server platform, which we expect to drive server DRAM content growth.

In networking, our DRAM bit shipments expanded significantly on a sequential basis, driven by rapid work-from-home infrastructure deployment, as well as increased 5G deployments, particularly in Asia.

MOBILE

Despite demand headwinds in the smartphone market due to COVID, our mobile business delivered healthy sequential and year-over-year growth due to continuing momentum of our DRAM and NAND solutions. The outlook for calendar 2021 is promising, with 5G expected to drive a resumption in smartphone unit sales growth, with the multiplier effect of higher memory and storage content. 5G phones will have greater content than 4G phones, and we can see this already in the phones being introduced in calendar 2020. We see the strongest memory and storage content growth in the low-to-midrange part of the smartphone market, which is also the largest segment in terms of units. In this part of the market, 5G phones have 6GB of DRAM and 64 and 128GB of NAND versus 4G phones with 2 to 4GB of DRAM and 32 to 64GB of NAND. We are encouraged to see sub-\$250 5G phones, which make 5G accessible to a broader market. This lower price point has been enabled by BOM cost reductions in semiconductor content outside of memory and storage. Micron is well-positioned to help our customers win in the 5G era, with an industry-leading product portfolio, including low-power DRAM and multichip packages (MCP). We continue to achieve design-ins for LP4 and LP5 5G platforms, and our most advanced managed NAND products based on UFS 3.1 are now sampling at several major Android OEMs.

PC

In PC, our bit shipments declined modestly as we strategically moved supply of compute DRAM to address demand in the data center market. Demand was strong for certain PC subsegments that are supporting increased work-from-home and remote learning activities, and our PC DRAM revenue was up sequentially as ASPs increased. While certain parts of the PC market have strengthened, overall PC unit shipments are expected to decline this year due to weakness in desktop PCs.

GRAPHICS

In graphics, we have started shipping GDDR6 DRAM for next-generation gaming consoles, and we expect strong demand in the second half of calendar 2020.



AUTO

In auto, revenue declined significantly from the previous quarter due to broad auto supply chain disruptions. Despite auto unit weakness, secular content growth from ADAS and autonomous driving platforms resulted in record LP4 DRAM revenue for our auto business in FQ3. As automotive production rates improve around the world, our auto business should return to a growth trajectory.

I'll now turn it over to Dave to provide our financial results and guidance.

DAVE ZINSNER, SENIOR VICE PRESIDENT AND CHIEF FINANCIAL OFFICER

Thanks Sanjay.

Despite COVID-19, we achieved strong results, thanks to resilient execution from our team members across the globe.

REVENUE

Total FQ3 revenue was approximately \$5.4 billion, up 13% sequentially and 14% percent year-over-year. Sequential revenue growth was led by the data center and mobile markets.

PERFORMANCE BY TECHNOLOGY

FQ3 DRAM revenue was \$3.6 billion, representing 66% of total revenue. DRAM revenue increased 16% sequentially and 6% year-over-year. Bit shipments were up by approximately 10% sequentially. ASPs were up sequentially in the mid-single-digit percentage range.

FQ3 NAND revenue was approximately \$1.7 billion, representing 31% of total revenue. NAND revenue increased 10% sequentially and was up over 50% year-over-year. Bit shipments increased in the lower-single-digit percentage range sequentially. ASPs increased sequentially in the upper-single-digit percentage range.

BUSINESS UNIT RESULTS

Now turning to our revenue trends by business unit.

Revenue for the Compute & Networking Business Unit was \$2.2 billion, up 13% sequentially and up 7% year-over-year. CNBU sequential growth was driven by double-digit, quarter-over-quarter pricing improvements and stronger demand for data center products. We were supply-constrained for certain compute DRAM products, which limited our ability to meet some demand upside from customers.



Revenue for the Mobile Business Unit was \$1.5 billion, up 21% sequentially and up 30% year-over-year. The sequential growth was primarily driven by strong growth in our LPDRAM bit shipments. MCP revenue remained strong and was up significantly year-over-year.

Revenue for the Storage Business Unit in FQ3 was \$1 billion, up 17% from FQ2 and up 25% year-over-year. SBU operating margins increased dramatically to 17%, up from a break-even level last quarter. This significant sequential improvement in operating margins was driven by improved pricing, stronger data center SSD mix and overall record SSD revenue.

Finally, revenue for the Embedded Business Unit was \$675 million, down 3% sequentially and down 4% year-over-year, primarily from a reduction in automotive demand.

FQ3-20 NON-GAAP OPERATING RESULTS

GROSS MARGIN

The consolidated gross margin for FQ3 was 33.2%. Sequential gross margin improvement was driven by pricing improvements in both DRAM and NAND, as well as our ongoing improvements in product mix that continue to underpin our financial performance. The impact of underutilization at our Lehi fab was approximately \$155 million or 285 basis points in FQ3. We expect underutilization to be approximately \$135 million in FQ4 and expect gradual declines in underutilization through FY2021.

OPEX

Operating expenses were \$823 million in FQ3. As we said on last quarter's call, we've taken several actions to control our operating expenses, given the increased uncertainty surrounding COVID-19. As a result, we continue to expect favorable underlying OpEx trends to continue into FQ4.

OPERATING INCOME

FQ3 operating income was \$981 million, resulting in an operating margin of 18%, compared to 11% in the prior quarter and 23% in the prior year.

NET INTEREST EXPENSE

Net interest expense increased to \$24 million, compared to \$6 million of net interest expense in the prior quarter. This increased expense was primarily driven by the drawdown of our revolver and subsequent \$1.25 billion investment-grade note issuance in the quarter. We expect net interest expense will be approximately \$30 million in FQ4, due to the decline in interest income because of lower interest rates.



TAXES

Our FQ3 effective tax rate was 3%, which benefited from approximately \$19 million of one-time items. We expect our tax rate in the fourth quarter to be approximately 6%.

Going forward into FY2021, we expect our tax rate to be in the high single-digit to low double-digit range.

EARNINGS PER SHARE

Non-GAAP earnings per share in FQ3 were \$0.82, up from \$0.45 in FQ2 and down from \$1.05 in the year-ago quarter. FQ3 non-GAAP EPS was approximately \$0.02 higher due to the tax benefits reported in the quarter.

OPERATING CASH FLOW

Turning to cash flows and capital spending, we generated \$2 billion in cash from operations in FQ3, representing 37% of revenue.

CAPITAL ALLOCATION

CAPEX

During the quarter, net capital spending was approximately \$1.9 billion, approximately flat quarter-over-quarter.

As we enter the final quarter of FY2020, we are projecting FY2020 CapEx to be approximately \$8 billion. Our FY2020 front-end equipment CapEx will still be down more than 40% from last year. However, back-end CapEx and building CapEx, neither of which add to bit supply growth, are up from last year.

FREE CASH FLOW

Free cash flow in the quarter was \$101 million, compared to \$63 million in the prior quarter. This represents the 14th consecutive quarter of positive free cash flow, reflecting the structurally improved profitability and working capital improvements of the new Micron.

SHARE REPURCHASE

We repurchased approximately 929,000 shares for \$40 million in FQ3, at an average price of \$43.54. In the nine months of FY2020, we've returned \$134 million of capital through repurchases and paid \$266 million to settle conversion of convertible notes. Combining the convert premiums and share repurchases, we have used \$338 million or 135% of FY2020 FCF toward reducing the share count.



INVENTORY

Ending FQ3 inventory was \$5.4 billion or 131 days versus 134 days last quarter. Our overall days of inventory are above our approximately 110-day target level, partly due to elevated NAND inventory as we transition to replacement gate. We are also carrying higher raw material levels as a precaution, given the increased supply chain uncertainty due to the pandemic.

TOTAL CASH/DEBT

We ended the quarter with total cash of \$9.3 billion and total debt of \$6.7 billion. Total liquidity was approximately \$11.8 billion, up from \$10.6 billion at the end of the second quarter.

In the quarter, we issued \$1.25 billion of investment-grade notes, and those proceeds, together with \$1.25 billion of cash on hand, was used to repay the \$2.5 billion revolving credit facility we drew at the beginning of FQ3.

OUTLOOK

Prior to providing our outlook and guidance, we'd like to remind everyone that our FQ4 is a 14-week quarter.

Now turning to our outlook. As Sanjay mentioned, while visibility remains limited overall, data center trends are strong, and new gaming consoles will be a tailwind to demand in the second half of the calendar year. While end-unit sales of consumer devices such as smartphones have started to recover, we are seeing an impact from the recent restrictions imposed on Huawei. It is also important to remember that we are a lagging indicator relative to the end demand. In addition, the risk of a second wave of COVID-19 infections is continuing to drive greater uncertainty for the economic recovery and our business. Lastly, inventory strategies of our customers are difficult to predict. We continue to closely monitor market conditions and respond to changes in the market environment in a timely and disciplined manner.

GUIDANCE

With all these factors in mind, our non-GAAP guidance for FQ4 is as follows. We expect revenue to be \$6 billion, plus or minus \$250 million; gross margin to be in the range of 35.5% plus or minus 150 basis points; and operating expenses to be approximately \$850 million, plus or minus \$25 million. Finally, based on a share count of approximately 1.14 billion fully diluted shares, we expect EPS to be \$1.05, plus or minus \$0.10.



CLOSING

In closing, we are extremely proud of Micron's performance in this unprecedented period of market uncertainty and operational challenges. The tenacity, creativity and dedication of our team members around the world drove strong results that surpassed our initial expectations. Micron remains on very solid footing with an investment-grade balance sheet, ever-strengthening product portfolio and secular industry trends that will continue to drive long-term demand.

I'll now turn the call over to Sanjay for closing remarks.

Sanjay Mehrotra, President and Chief Executive Officer

Thank you, Dave.

The pandemic has impacted our financial performance trajectory, which was shaping up for a robust outcome this calendar year. Nevertheless, we have moved with agility to leverage the new opportunities in the marketplace and have further strengthened our product portfolio. Micron's portfolio is now dramatically better positioned from a competitive perspective, and we have driven a tremendous transformation here over the last three years. In the coming quarters and years, we will continue to strengthen our business foundation. And as the industry environment improves, Micron is exceptionally well-positioned to take advantage of long-term trends and drive superior returns for our shareholders.

Of course, preparing Micron for a bright future has to be about more than just quarterly business performance. We also have to be leaders in creating positive outcomes for all of our stakeholders. In that context, there are two topics that I would like to touch upon before we move to Q&A.

First, earlier this month, we issued our fifth annual sustainability report. This year, we set challenging new goals for energy use, emissions, water use and waste generation that aim to dramatically improve the environmental sustainability of our operations worldwide over the years ahead. We also established an aspirational future vision that will drive us to achieve even more. Reaching our goals will require investment, and we plan to devote approximately 2% of annual capital expenditures to environmental sustainability initiatives, amounting to about \$1 billion over the next five to seven years. These initiatives underpin our commitment to achieve significantly higher standards and help create a better planet.

Second, I'd like to address the social unrest and racial division that have gripped our country. The senseless and tragic deaths of people in our Black community in the U.S. must be addressed with real and lasting reforms. Hate, racial discrimination, violence and social injustice have no place in our society. Micron is committed to creating a welcoming and safe work environment for everyone, and we are taking concrete actions to increase technical training, career preparedness and opportunities for underserved



populations. We are also actively engaging and investing in community programs that aim to create a more just and fair society for everyone. There is much work to do, and we look forward to being part of the solution.

We will now open for questions.