

Micron F1Q Exceeds on Pricing and DRAM Strength

MU	26 est.	Micron Tech		FY24rev:	41%
Qtr:	F1Q	Grade:	B	Growth (qtr-qtr)	
Rev:	4,726	Rev:	+	Rev:	17.9%
GM:	0.8%	EPS:	+	Fcst:	+8+16%
EPS:	(\$0.95)	Fcst:	+	Div:	\$0.115

Micron Technology (MU \$83.45 +0.74)

F1Q Earnings: MU announced November-ended F1Q24 quarter results slightly above expectations on December 20 after pre-announcing expected upside on November 28 due to favorable market pricing. Original guidance called for revenue of \$4.4B +/- 200M and a non-GAAP loss of (\$1.07) +/- \$0.07 with gross margin at negative (4%) +/- 2%, while the preannouncement called for \$4.7B and a loss of (\$1.00) with break-even gross margin that ended up improving by 10 percentage points sequentially due to increasing memory prices and a richer mix of DRAMs.

DRAM was 73% of revenue and increased by 24% sequentially, with bit shipments up in the low-20% range and prices increasing in the low-single-digits. Previous strategic bookings limited even greater price strength. DDR5 volume is expected to cross over DDR4 early this year and DRAM front-end cost reduction for FY24 is expected in the mid-to-high single digits percentage, consistent with longer-term expectations. The vast majority of current bits are built on leading-edge 1 α (1-alpha) and 1 β (1-beta) nodes, while volume production of 1 γ (1-gamma) using extreme ultraviolet lithography (EUV) is expected in 2025.

AI servers use gobs of High-Bandwidth Memory (HBM). Last quarter Micron sampled its HBM3E offering, expects volume production this quarter, several hundred millions of dollars of sales this fiscal year, and market share consistent with its overall DRAM share sometime during 2025. Industry-wide, the HBM3E die is twice the size of DDR5; includes a logic interface chip; and has a complex packaging stack that hurts yields. This means the ramp of HBM will constrain overall industry DRAM bit supply and improve the supply-demand balance. Alternatively, in November Micron introduced high-performance 128GB modules built on 1 β with monolithic die but without costly 3D stacking whose volume production is expected F3Q with significant growth in FY25.

NAND was 26% of revenue and increased by 2% sequentially as a reduction in bit shipments in the mid-teens percentage were more than offset by a 20% increase in pricing—assisted by an improving mix. The vast majority of bits are on leading-edge 176-layer and 232-layer nodes. FY24 NAND front-end cost reduction is expected in the low-teens percentage, also consistent with longer-term expectations.

Compute and Networking Business Unit (CNBU) was 37% of total sales, growing by +45% with a non-GAAP operating loss of (23%) vs (34%) the prior quarter. Data center and client bit shipments strengthened in the quarter as AI grew and PC inventory normalized. Client and graphics approximated 20% of total sales and servers 15%. **Mobile** (MBU) was 27% of sales, up by +7% with an operating loss of (53%) vs (61%) as ASPs increased while smartphone inventory normalized and units and content per phone increased. Mobile revenue nearly doubled over last year. **Embedded** (EBU) was 22% of sales, up by +21% with an operating profit of 1% vs 4%. Growth was strong across most end markets that include automotive, industrial and consumer (less so). **Storage** (SBU) was 14% of sales, down by -12% with an operating loss of (75%) from (91%) as increasing prices and strong SSD growth only partially offset sharply lower consumer component sales.

Guidance: F2Q non-GAAP revenue at \$5.3B +/-200M; gross margin of 13% +/-150 basis points on higher prices, less underutilization charges, and clearing the balance of previously written-down inventories; operating expenses of \$950M +/-15M on lower R&D and certain asset sales that were expected last quarter; tax expense of \$45M; flat cap ex around \$1.73B; and a loss of (\$0.28) per share +/- \$0.07 based on 1.1B shares. Leading-edge inventory is tight and growth will come from pricing strength since both DRAM and NAND bit shipments are expected to decline.

Micron expects industry supply to be below demand for both DRAM (mid-teens percentage growth) and NAND (just under 20%) for 2024, which will lower inventories and increase prices throughout the year. The company's own leading-edge nodes are already oversubscribed for the period. Expectations for FY24 include: op ex over \$3.9B; taxes over \$300M heavily skewed to F4Q; cap ex slightly higher at \$7.5-8B to support the HBM3E ramp (although fab equipment will be down); a return to operating income in F3Q and positive free cash flow F4Q.

Marginal Upside—Maybe: MU's business continues to be highly leveraged to DRAM market dynamics which appear to have troughed, and is well positioned for significant—and profitable—growth over the next several quarters. Unfortunately, much of this is already priced into the shares at the current price level, in my opinion. It won't recover profitability for at least another couple of quarters and the shares are already trading at just over 2-times book value, 3-times FY25 sales (after two years of over 40% expected growth), and 14-times FY25 earnings that consensus estimates have approaching \$6 per share.

LEGEND

		Grade	
+++	exceeded the high-end of the range	A	all +++
++	above consensus, within the high-end of the range	B	all +
+	slightly above consensus	C	all o/+
o	met consensus	D	mixed -/o/+
-	slightly below consensus	E	all o/-
--	missed consensus, within the low-end of the range	F	all -
---	missed the low-end of the range		

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