# **First Quarter Fiscal 2018**

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# Sanjay Mehrotra

President and CEO



#### **Executing on FY-18 Strategic Objectives**

Cost Competitiveness	Achieved yield maturity on 1X nm DRAM & 64L 3D NAND
High-Value Solutions	Delivered record SSD revenues, increasing our share
Execution Excellence	Introduced industry's fastest, high-density 32 GB NVDIMM-N
Talent	Announced Manish Bhatia to lead Global Operations
Strengthening Balance Sheet	Retired ~\$2.4B debt, executing our de-leveraging plans

#### **Key Market Trends and Accomplishments**

Datacenter	<ul> <li>Cloud/Enterprise customers driving robust memory &amp; storage demand</li> <li>SSD revenue to Cloud/Enterprise customers up 50% Q/Q</li> <li>DRAM bit shipments to Cloud/Enterprise up &gt;50% Y/Y</li> </ul>
Mobile	<ul> <li>Increasing device functionality driving higher mobile memory &amp; storage content</li> <li>Strengthening portfolio with LPDRAM, MCP and discrete managed NAND</li> <li>Shipped initial samples of 64-layer 3D NAND discrete UFS solution</li> </ul>
Embedded	<ul> <li>Edge devices requiring higher performance memory &amp; managed storage solutions</li> <li>Enhancing Automotive positions with a key autonomous driving platform win</li> <li>Consumer/Industrial strength driven by home automation &amp; edge computing</li> </ul>
Graphics	<ul> <li>Growing demand for graphics products extending beyond gaming</li> <li>Record quarterly revenue fueled by eSports, gaming and cryptocurrency</li> <li>Ramping16 Gb/s GDDR6 in 2018 for Graphics, Automotive &amp; Networking</li> </ul>



#### Manufacturing & Technology - Progressing to Plans

- Successfully deploying advanced technologies into production
  - Achieved mature yields on 1X nm DRAM and 64L 3D NAND
  - Expect to achieve 1X nm DRAM bit crossover exiting CY-18
  - Expect to achieve 64L 3D NAND bit crossover in 2H FY-18
- Focused on driving operational efficiencies and cost competitiveness
  - Expect meaningful output from Taiwan back-end test & assembly facility by end FY-18
  - FY-18 capital investment plans remain on-track
- Development of next generation technologies advancing well
  - Expect initial output on 1Y nm DRAM and 3rd generation 3D NAND by 2H CY-18
  - Resourcing 3D XPoint product development to address future opportunities



#### **Industry Outlook**

DRAM	<ul> <li>Healthy market environment with broad demand drivers</li> <li>CY-18 Industry supply bit growth ~20%</li> <li>FY-18 Micron bit growth slightly below industry</li> </ul>
NAND	<ul> <li>Increasing SSD adoption across client and datacenter</li> <li>CY-18 Industry supply bit growth approaching 50%</li> <li>FY-18 Micron bit growth somewhat above industry</li> </ul>



### **Ernie Maddock**

**Chief Financial Officer** 



#### **FQ1 2018 Financial Results Summary**

- Revenue \$6.80 billion
  - DRAM: 67% of total FQ1 revenue
  - Trade NAND: 27% of total FQ1 revenue
- GAAP results
  - Gross margin: 55%
  - Net income: \$2.68 billion
  - Diluted EPS: \$2.19
- Non-GAAP results
  - Gross margin: 55%
  - Net income: \$2.99 billion
  - Diluted EPS: \$2.45
- Operating expenses of \$612 million

#### **Compute & Networking Business Unit**

	FQ1-18	FQ4-17	FQ1-17	
Revenue	\$ 3.21B	\$ 2.85B	\$ 1.47B	
% of total company revenue	47%	46%	37%	CNBU
Operating income	\$ 1.91B	\$ 1.60B	\$ 204M	
Operating income %	60%	56%	14%	

- Revenue up 13% Q/Q and more than double Y/Y
- Record performance driven by increasing server memory content



#### **Storage Business Unit**

	FQ1-18	FQ4-17	FQ1-17	
Revenue	\$ 1.38B	\$ 1.30B	\$ 860M	
% of total company revenue	20%	21%	22%	SBU
Operating income (loss)	\$ 400M	\$ 250M	\$ (45)M	
Operating income (loss) %	29%	19%	(5)%	

- Revenue increased 61% Y/Y due to increased SSD market share
- Record quarterly sales of SSDs in FQ1-18



#### **Mobile Business Unit**

	FQ1-18	FQ4-17	FQ1-17	
Revenue	\$ 1.37B	\$ 1.18B	\$ 1.03B	
% of total company revenue	20%	19%	26%	MBU
Operating income	\$ 505M	\$ 364M	\$ 89M	
Operating income %	37%	31%	9%	

- Revenue up 16% Q/Q and 32% Y/Y
- Strength from LPDRAM and managed NAND offerings



#### **Embedded Business Unit**

	FQ1-18	FQ4-17	FQ1-17
Revenue	\$ 830M \$	\$ 827M	\$ 578M
% of total company revenue	12%	13%	15%
Operating income	\$ 342M \$	\$ 348M	\$ 178M
Operating income %	41%	42%	31%

- Revenue flat Q/Q and up 44% Y/Y
- Strong demand trends from automotive to edge devices



#### **Other Financial Metrics**

- Operating cash flow
  - \$3.6 billion in FQ1-18
- Capital expenditures, net of partner contributions
  - \$1.9 billion spent in FQ1-18
- Free cash flow\*
  - \$1.7 billion in FQ1-18
- Cash, marketable investments & restricted cash
  - \$6.6 billion at end FQ1-18
- Face value debt
  - \$9.3 billion at end FQ1-18
  - Retired \$2.4B in principal debt in FQ1-18

\* Free cash flow consists of cash provided by operating activities less investments in capital expenditures, net of partner contributions.



#### FQ2 2018 Guidance

Non-GAAP

	FQ2-18 Guidance
Revenue	\$6.80 – \$7.20 billion
Gross margin	54% – 58%
Operating expenses	\$625 – \$675 million
Operating income	\$3.25 – \$3.45 billion
Diluted EPS*	\$2.51 - \$2.65







### **Financial Summary**

Non-GAAP

Dollars in millions, except per share	FQ1-18	% of Sales	FQ4-17	% of Sales	FQ1-17	% of Sales
Net sales	6,803	100%	6,138	100%	3,970	100%
Gross margin	3,769	55%	3,147	51%	1,032	26%
Operating income	3,157	46%	2,546	41%	438	11%
Income tax (provision) benefit	(91)		(60)		(18)	
Net income attributable to Micron	2,994	44%	2,386	39%	335	8%
Diluted earnings per share	2.45		2.02		0.32	
Cash provided by operating activities	3,636		3,203		1,138	
Cash, marketable investments, and restricted cash	6,610		6,152		4,396	



### **Non-GAAP Reconciliations**



#### **Consolidated Results**

#### Non-GAAP Reconciliations

Amounts in millions, except per share amounts	FQ1-18	FQ4-17		FQ1-17
GAAP net income (loss) attributable to Micron	\$ 2,678	\$ 2,368	\$	180
Non-GAAP adjustments:				
Stock-based compensation	51	57	•	46
Flow-through of Inotera inventory step up	—	<b>1</b> 1		—
Restructure and asset impairments	6	(27	)	45
Amortization of debt discount and other costs	29	32	-	32
Loss on debt repurchases and conversions	195	37	,	2
(Gain) loss from changes in currency exchange rates	9	12	-	12
Other	3	3	3	4
Estimated tax effects of above and changes in net deferred income taxes	 23	(107	<u> </u>	14
Total non-GAAP adjustments	316	18	}	155
Non-GAAP net income (loss) attributable to Micron	\$ 2,994	\$ 2,386	\$	335
GAAP shares used in diluted EPS calculations	1,225	1,187	,	1,091
Effect of capped calls and other adjustments	(5)	(6	5)	(29)
Non-GAAP shares used in diluted EPS calculations	 1,220	1,181		1,062
GAAP diluted earnings (loss) per share	\$ 2.19	\$ 1.99	\$	0.16
Effects of above	0.26	0.03	}	0.16
Non-GAAP diluted earnings (loss) per share	\$ 2.45	\$ 2.02	2 \$	0.32



### **Consolidated Statement of Operations**

FQ1 2018 Non-GAAP Reconciliation

Amounts in millions	GAAP	Adjustments		Non-GAAP
Net sales	\$ 6,803	\$ —		\$ 6,803
Cost of goods sold	 3,056	(22)	A,H	 3,034
Gross margin	 3,747	22		3,769
Selling, general, and administrative	191	(18)	В	173
Research and development	448	(14)	C,H	434
Other operating (income) expense	 11	(6)	D	 5
Total operating expenses	 650	(38)		612
Operating income	 3,097	60		3,157
Interest expense, net	(101)	29	Е	(72)
Other non-operating income (expense), net	 (204)	204	F,G	 —
	 2,792	293		 3,085
Income tax (provision) benefit	(114)	23	I	(91)
Equity in net income (loss) of equity method investees	 —	_		 
Net income	 2,678	316		2,994
Net income attributable to noncontrolling interests	 			 
Net income attributable to Micron	2,678	316		2,994

### **Consolidated Statement of Operations** FQ1 2018 Non-GAAP Reconciliation (continued)

#### Amounts in millions Stock-based compensation - cost of goods sold \$ 20 Α Stock-based compensation - sales, general, and administrative 18 В Stock-based compensation - research and development 13 С Restructure and asset impairments 6 D Amortization of debt discount and other costs 29 Е Loss on debt repurchases and conversions 195 F (Gain) loss from changes in currency exchange rates 9 G Other 3 Н Estimated tax effects of above and non-cash changes in net deferred income taxes 23 316 \$



# Summary Key Data



#### **Non-GAAP Financial Data and Guidance**

% of Revenue	FQ1-18	FQ1-17		FQ1-18 Non-GAAP (amounts in millions,	FQ2-18 Non-GAAP Guidance
DRAM	67%	61%		except per share)	
Trade NAND*	27%	32%	Revenue	\$ 6,803	\$6.80 – \$7.20 billion
			Gross margin	55%	54% - 58%
% Sales Volume Change	FQ1-18 Q/Q	FQ1-18 Y/Y	Operating expenses	\$ 612	\$625 – \$675 million
DRAM	increased upper single digit %	increased lower 20% range	Operating income	\$ 3,157	\$3.25 – \$3.45 billion
Trade NAND*	increased mid single digit %	increased upper 40% range	Earnings per share	\$ 2.45	\$2.51 - \$2.65
% ASP Change	FQ1-18 Q/Q	FQ1-18 Y/Y		FQ1-18 Non-GAAP (amounts in millions)	FQ2-18 Non-GAAP Estimates
DRAM	increased mid single digit %	increased upper 50% range	Net interest expense	\$ 72	~\$45 million
Trade NAND*	declined low single digit %	relatively unchanged	Diluted shares	1,220	~1,241 million
	0 0	5	Tax (provision) benefit	\$ (91)	~(\$105 million)
Gross Margin	FQ1-18	FQ1-17	Operating cash flow	\$ 3,636	—
DRAM	62%	28%	Depreciation and amortization	\$ 1,087	—
Trade NAND*	49%	23%	Capital expenditures (Capital cash flow) (a)	\$ 1,921	FY-18: \$7.5 billion +/- 5%

See Non-GAAP reconciliations

\*Trade NAND excludes products sold to Intel through IMFT under a long-term supply agreement at prices approximating cost.

(a) Net of amounts funded by partners



#### **Convertible Notes Dilution Overview**

FQ1 2018 (shares in millions)

Stock Price	\$ 40 \$	41 \$	42 \$	43 \$	44 \$	45 \$	46 \$	47 \$	48 \$	49 \$	50
2032 C Notes	14	14	14	14	14	14	14	14	14	14	15
2032 D Notes	13	13	14	14	14	14	14	14	14	14	14
2033 E Notes	4	4	4	4	4	4	5	5	5	5	5
2033 F Notes	20	20	20	20	20	21	21	21	21	21	21
2043 G Notes	10	10	11	11	12	12	13	13	14	14	15
Total dilutive shares	61	61	63	63	64	65	67	67	68	68	70
Benefit from capped call	(8)	(8)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(6)	(6)
Net dilution	53	53	56	56	57	58	60	60	61	62	64

Note: At the end of FQ1-18 market price of Micron's stock closed at \$42.39/share



