

	Fiscal Years			FY 2016				FY 2017				FY 2018				FY 2019		
	2016	2017	2018	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17	Q1'18	Q2'18	Q3'18	Q4'18	Q1'19	Q2'19	Q3'19
Net Revenues																		
Products	\$ 185,066	\$ 214,877	\$ 275,286	\$ 39,214	\$ 47,445	\$ 49,631	\$ 48,776	\$ 48,175	\$ 53,576	\$ 45,571	\$ 67,555	\$ 71,019	\$ 76,704	\$ 63,798	\$ 63,765	\$ 53,855	\$ 52,541	\$ 60,102
Service	36,063	43,744	49,237	8,275	8,322	9,083	10,383	11,139	10,851	11,104	10,650	11,294	11,900	12,792	13,251	13,245	15,079	13,023
Total revenues	221,129	258,621	324,523	47,489	55,767	58,714	59,159	59,314	64,427	56,675	78,205	82,313	88,604	76,590	77,016	67,100	67,620	73,125
Costs of revenues																		
Cost of products	\$ 85,391	\$ 100,683	\$ 112,166	18,079	21,736	22,810	22,766	25,401	25,337	21,276	28,669	28,593	31,235	25,589	26,749	24,941	23,757	26,743
Cost of service	20,160	20,627	27,290	4,484	5,164	5,066	5,446	5,278	5,364	4,549	5,436	6,154	6,422	7,332	7,382	6,948	7,683	7,257
Subtotal cost of revenues	\$ 105,551	\$ 121,310	\$ 139,456	22,563	26,900	27,876	28,212	30,679	30,701	25,825	34,105	34,747	37,657	32,921	34,131	31,890	31,440	34,000
Non-GAAP gross profit	115,578	137,311	185,067	24,926	28,867	30,838	30,947	28,635	33,726	30,850	44,100	47,566	50,947	43,669	42,885	35,211	36,180	39,125
Severance included in cost of revenues	-	404	21	-	-	-	-	136	53	138	77	-	21	-	-	-	162	-
Acquisition & merger related charges	-	-	668	-	-	-	-	-	-	-	-	-	-	-	668	957	375	-
Amortization of intangible assets included in cost of product revenues	1,454	206	284	435	442	434	143	52	52	52	50	35	35	35	179	466	471	449
Total cost of revenues	107,005	121,920	140,429	22,998	27,342	28,310	28,355	30,867	30,806	26,015	34,232	34,782	37,713	32,956	34,978	33,312	32,448	34,449
Gross profit	114,124	136,701	184,094	24,491	28,425	30,404	30,804	28,447	33,621	30,660	43,973	47,531	50,891	43,634	42,038	33,788	35,172	38,676
Operating expenses																		
Research and development	31,443	36,494	48,180	8,068	7,511	7,868	7,996	8,600	9,089	8,825	9,980	10,202	12,483	12,717	12,778	12,987	14,098	13,779
Selling	30,181	30,491	37,352	7,249	7,823	7,495	7,614	7,884	7,169	7,553	7,885	9,024	9,975	8,902	9,451	9,282	8,130	8,465
General and administrative	23,381	25,710	29,603	5,420	5,755	5,975	6,231	6,307	6,361	6,605	6,437	7,319	7,074	7,508	7,702	7,292	7,613	7,644
Non-GAAP operating expenses	85,005	92,695	115,135	20,737	21,089	21,338	21,841	22,791	22,619	22,983	24,302	26,545	29,532	29,127	29,931	29,561	29,840	29,888
Non-GAAP income (loss) from operations	30,573	44,616	69,932	4,189	7,778	9,500	9,106	5,844	11,107	7,867	19,798	21,021	21,415	14,542	12,954	5,650	6,340	9,237
Amortization of intangible assets included in operating expenses	24	-	96	24	-	-	-	-	-	-	-	-	-	-	96	289	289	289
Acquisition & merger related charges	-	-	903	-	-	-	-	-	-	-	-	-	-	-	903	164	1,015	2,424
Restructuring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Severance Costs	-	845	339	-	-	-	-	148	120	68	509	-	339	-	-	260	128	-
Executive transition & search costs	-	355	1,134	-	-	-	-	-	230	125	-	422	236	236	240	190	151	140
Total operating expenses	85,029	93,895	117,607	20,761	21,089	21,338	21,841	22,939	22,969	23,176	24,811	26,967	30,107	29,363	31,170	30,463	31,423	32,741
Income (loss) from operations	29,095	42,806	66,487	3,730	7,336	9,066	8,963	5,508	10,652	7,484	19,162	20,564	20,784	14,271	10,868	3,325	3,749	5,935
Other Income (expense)	40	492	1,037	117	(449)	149	223	(42)	258	36	240	259	(214)	218	774	179	813	219
Gain on sale of Property	-	-	(874)	-	-	-	-	-	-	-	-	-	-	-	(874)	-	(837)	-
Other Discrete Items	-	-	89	-	-	-	-	-	-	-	-	-	-	-	89	-	-	-
Non-GAAP income (loss) before income taxes	30,589	45,108	70,184	4,282	7,329	9,649	9,329	5,802	11,365	7,903	20,038	21,280	21,201	14,760	12,943	5,829	6,316	9,456
Income (loss) before income taxes	29,095	43,298	67,524	3,847	6,887	9,215	9,186	5,466	10,910	7,520	19,402	20,823	20,570	14,489	11,642	3,504	3,725	6,154
Provision (benefit) for income taxes	(14,900)	13,096	9,876	380	856	1,332	(17,468)	114	2,622	1,756	8,604	4,442	2,895	2,921	(382)	531	632	1,943
Net income (loss)	\$ 43,996	\$ 30,202	\$ 57,648	\$ 3,467	\$ 6,031	\$ 7,883	\$ 26,654	\$ 5,352	\$ 8,288	\$ 5,764	\$ 10,798	\$ 16,381	\$ 17,675	\$ 11,568	\$ 12,024	\$ 2,973	\$ 3,093	\$ 4,211
Valuation allowance on deferred tax assets and other adjustments	(18,443)	-	-	-	-	-	(18,443)	-	-	-	-	-	-	-	-	-	-	-
Tax Reform	-	2,569	-	-	-	-	-	-	-	-	2,569	-	-	-	-	-	-	-
Adj. to tax provision: discrete tax items and tax effect of non-GAAP adjustments	-	(2,772)	(1,983)	-	-	-	-	(901)	(948)	(491)	(432)	(344)	(912)	(448)	(279)	(612)	(367)	(69)
Non-GAAP net income (loss)	\$ 27,071	\$ 31,809	\$ 58,325	\$ 3,926	\$ 6,473	\$ 8,317	\$ 8,354	\$ 4,787	\$ 7,795	\$ 5,656	\$ 13,571	\$ 16,494	\$ 17,394	\$ 11,391	\$ 13,046	\$ 4,686	\$ 5,316	\$ 7,444
Earnings per share																		
Basic	\$ 1.79	\$ 1.19	\$ 2.39	\$ 0.14	\$ 0.25	\$ 0.32	\$ 1.07	\$ 0.21	\$ 0.33	\$ 0.23	\$ 0.43	\$ 0.68	\$ 0.74	\$ 0.48	\$ 0.50	\$ 0.12	\$ 0.13	\$ 0.17
Diluted	\$ 1.75	\$ 1.17	\$ 2.34	\$ 0.14	\$ 0.24	\$ 0.31	\$ 1.04	\$ 0.21	\$ 0.32	\$ 0.22	\$ 0.42	\$ 0.67	\$ 0.72	\$ 0.47	\$ 0.49	\$ 0.12	\$ 0.12	\$ 0.17
Non-GAAP EPS	\$ 1.08	\$ 1.23	\$ 2.37	\$ 0.16	\$ 0.26	\$ 0.33	\$ 0.33	\$ 0.19	\$ 0.30	\$ 0.22	\$ 0.53	\$ 0.67	\$ 0.71	\$ 0.47	\$ 0.53	\$ 0.19	\$ 0.21	\$ 0.30
Shares used in EPS calculation																		
Basic	24,655	25,334	24,120	24,308	24,524	24,826	24,949	25,133	25,307	25,494	25,378	24,063	23,953	24,059	24,131	24,474	24,525	24,529
Diluted	25,153	25,919	24,600	24,597	24,927	25,282	25,514	25,833	25,906	25,932	25,819	24,483	24,442	24,466	24,481	24,798	24,843	24,783
Income Statement Metrics As a % of Revenue																		
Product revenue	83.7%	83.1%	84.8%	82.6%	85.1%	84.5%	82.4%	81.2%	83.2%	80.4%	86.4%	86.3%	86.6%	83.3%	82.8%	80.3%	77.7%	82.2%
Service revenue	16.3%	16.9%	15.2%	17.4%	14.9%	15.5%	17.6%	18.8%	16.8%	19.6%	13.6%	13.7%	13.4%	16.7%	17.2%	19.7%	22.3%	17.8%
Product Gross Margin (non-GAAP)	53.9%	53.1%	59.3%	53.9%	54.2%	54.0%	53.3%	47.3%	52.7%	53.3%	57.6%	59.7%	59.3%	59.9%	58.1%	51.9%	54.1%	55.5%
Service Gross Margin (non-GAAP)	44.1%	52.8%	44.6%	45.8%	37.9%	44.2%	47.5%	52.6%	50.6%	59.0%	49.0%	45.5%	46.0%	42.7%	44.3%	47.5%	49.0%	44.3%
Other Costs Included in GAAP Cost of Revenues	0.7%	0.2%	0.1%	0.9%	0.8%	0.7%	0.2%	0.3%	0.2%	0.3%	0.2%	0.0%	0.1%	0.0%	0.2%	0.7%	0.9%	0.6%
Non-GAAP Gross Margin	52.3%	53.1%	57.0%	52.5%	51.8%	52.5%	52.3%	48.3%	52.4%	54.4%	56.4%	57.8%	57.5%	57.0%	55.7%	52.5%	53.5%	53.5%
GAAP Gross Margin	51.6%	52.9%	56.7%	51.6%	51.0%	51.8%	52.1%	48.0%	52.2%	54.1%	56.2%	57.7%	57.4%	57.0%	54.6%	50.4%	52.0%	52.9%
Non-GAAP Operating Expenses	38.4%	35.8%	35.5%	43.7%	37.8%	36.3%	36.9%	38.4%	35.1%	40.6%	31.1%	32.2%	33.3%	38.0%	38.9%	44.1%	44.1%	40.9%
GAAP Operating Expenses	38.5%	36.3%	36.2%	43.7%	37.8%	36.3%	36.9%	38.7%	35.7%	40.9%	31.7%	32.8%	34.0%	38.3%	40.5%	45.4%	46.5%	44.8%
Non-GAAP Operating Income	13.8%	17.3%	21.5%	8.8%	13.9%	16.2%	15.4%	9.9%	17.2%	13.9%	25.3%	25.6%	24.2%	19.0%	16.8%	8.5%	9.4%	12.6%
GAAP Operating Income	13.2%	16.6%	20.5%	7.9%	13.2%	15.4%	15.2%	9.3%	16.5%	13.2%	24.5%	25.0%	23.5%	18.6%	14.1%	5.0%	5.5%	8.1%
Non-GAAP income (loss) before income taxes	13.8%	17.4%	21.6%	9.1%	13.1%	16.4%	15.8%	9.8%	17.6%	13.9%	25.6%	25.9%	23.9%	19.3%	16.8%			

	Fiscal Years			FY 2016				FY 2017				FY 2018				FY 2019		
	2016	2017	2018	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17	Q1'18	Q2'18	Q3'18	Q4'18	Q1'19	Q2'19	Q3'18
Cash Flow Metrics																		
Cash Flow from Operations	\$ 45,685	\$ 20,603	\$ 103,336	\$ 499	\$ 12,721	\$ 20,881	\$ 11,584	\$ 3,075	\$ 7,183	\$ 5,126	\$ 5,219	\$ 32,714	\$ 26,257	\$ 24,437	\$ 19,928	\$ (856)	\$ (1,447)	\$ 1,168
Capital Expenditures	\$ (3,999)	\$ (5,204)	\$ (7,486)	\$ (610)	\$ (1,918)	\$ (821)	\$ (650)	\$ (47)	\$ (1,489)	\$ (806)	\$ (2,862)	\$ (1,319)	\$ (442)	\$ (1,181)	\$ (4,544)	\$ (4,132)	\$ (4,182)	\$ (1,629)
Free Cash Flow	\$ 41,686	\$ 15,399	\$ 95,850	\$ (111)	\$ 10,803	\$ 20,060	\$ 10,934	\$ 3,028	\$ 5,694	\$ 4,320	\$ 2,357	\$ 31,395	\$ 25,815	\$ 23,256	\$ 15,384	\$ (4,988)	\$ (5,629)	\$ (461)
Stock-Based Compensation Expense	\$ 7,666	\$ 8,819	\$ 11,382	\$ 1,689	\$ 1,743	\$ 2,000	\$ 2,234	\$ 2,164	\$ 2,163	\$ 2,447	\$ 2,044	\$ 2,338	\$ 2,679	\$ 3,212	\$ 3,153	\$ 3,114	\$ 3,200	\$ 3,399
Depreciation and Amortization	\$ 8,295	\$ 6,920	\$ 6,847	\$ 2,176	\$ 2,129	\$ 2,135	\$ 1,855	\$ 1,854	\$ 1,698	\$ 1,667	\$ 1,701	\$ 1,724	\$ 1,603	\$ 1,635	\$ 1,885	\$ 2,406	\$ 2,654	\$ 2,652
Adjusted EBITDA (1)	\$ 45,057	\$ 60,149	\$ 87,781	\$ 7,595	\$ 11,209	\$ 13,201	\$ 13,052	\$ 9,810	\$ 14,916	\$ 11,929	\$ 23,493	\$ 25,048	\$ 25,662	\$ 19,354	\$ 17,717	\$ 10,415	\$ 11,434	\$ 14,550
as a % of Revenue	20%	23%	27%	16%	20%	22%	22%	17%	23%	21%	30%	30%	29%	25%	23%	16%	17%	20%
Balance Sheet Metrics																		
Cash, cash equivalents and marketable securities	\$ 129,961	\$ 117,029	\$ 151,791	\$ 83,344	\$ 95,984	\$ 118,527	\$ 129,961	\$ 132,096	\$ 135,693	\$ 140,356	\$ 117,029	\$ 123,887	\$ 148,702	\$ 172,938	\$ 151,791	\$ 148,062	\$ 144,982	\$ 144,110
A/R	\$ 39,457	\$ 62,458	\$ 50,854	\$ 44,482	\$ 54,099	\$ 41,182	\$ 39,457	\$ 48,419	\$ 46,966	\$ 41,261	\$ 62,458	\$ 59,034	\$ 54,623	\$ 50,349	\$ 50,854	\$ 45,252	\$ 51,602	\$ 56,969
Inventories	\$ 41,293	\$ 54,394	\$ 62,095	\$ 54,031	\$ 50,705	\$ 43,676	\$ 41,293	\$ 44,824	\$ 50,536	\$ 58,341	\$ 54,394	\$ 54,603	\$ 56,093	\$ 60,742	\$ 62,095	\$ 63,820	\$ 67,640	\$ 69,808
A/P	\$ 11,342	\$ 13,858	\$ 16,540	\$ 13,212	\$ 11,004	\$ 8,562	\$ 11,342	\$ 18,614	\$ 14,926	\$ 17,180	\$ 13,858	\$ 18,492	\$ 18,976	\$ 20,870	\$ 16,540	\$ 18,901	\$ 19,459	\$ 17,541
Working capital	\$ 174,353	\$ 196,019	\$ 211,106	\$ 140,423	\$ 150,468	\$ 163,316	\$ 174,353	\$ 183,752	\$ 196,871	\$ 205,805	\$ 196,019	\$ 196,554	\$ 216,232	\$ 231,980	\$ 211,106	\$ 213,962	\$ 221,224	\$ 228,454
Tangible book value	\$ 234,421	\$ 249,945	\$ 259,153	\$ 182,729	\$ 193,331	\$ 206,423	\$ 234,421	\$ 244,325	\$ 255,062	\$ 262,128	\$ 249,945	\$ 246,945	\$ 263,737	\$ 279,361	\$ 259,153	\$ 267,442	\$ 276,859	\$ 284,384
Cash per share	\$ 5.18	\$ 4.75	\$ 6.23	\$ 3.42	\$ 3.89	\$ 4.76	\$ 5.18	\$ 5.24	\$ 5.33	\$ 5.49	\$ 4.75	\$ 5.19	\$ 6.18	\$ 7.14	\$ 6.23	\$ 6.03	\$ 5.84	\$ 5.80
TBV per share	\$ 9.35	\$ 10.15	\$ 10.63	\$ 7.50	\$ 7.83	\$ 8.29	\$ 9.35	\$ 9.68	\$ 10.01	\$ 10.25	\$ 10.15	\$ 10.34	\$ 10.96	\$ 11.54	\$ 10.63	\$ 10.90	\$ 11.15	\$ 11.45
Days sales outstanding (DSO)	72	67	59	84	87	63	60	73	66	66	72	65	55	59	61	69	70	
Inventory turns	2.2	2.4	2.2	1.7	2.1	2.6	2.7	2.7	2.4	1.8	2.5	2.5	2.7	2.2	2.0	1.9	1.9	
Shares outstanding at end of period (per share calcs)	25,070	24,629	24,372	24,372	24,692	24,898	25,070	25,228	25,474	25,567	24,629	23,891	24,066	24,216	24,372	24,535	24,828	24,843
Headcount (ending)	532	592	701	519	520	527	532	534	559	570	592	593	629	637	701	698	685	696
Revenue segmentation by product/service																		
Products	84%	83%	83%	83%	85%	85%	82%	81%	83%	81%	86%	86%	86%	83%	83%	80%	78%	82%
Service	16%	17%	17%	17%	15%	15%	18%	19%	17%	20%	14%	14%	13%	17%	17%	20%	22%	18%
Total Revenues	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Revenue segmentation by geography																		
North America	14%	13%	*	15%	16%	14%	*	23%	13%	11%	*	*	*	11%	*	25%	14%	19%
South Korea	20%	36%	34%	18%	*	20%	34%	31%	49%	39%	28%	46%	35%	31%	21%	21%	19%	14%
China	20%	12%	22%	14%	23%	27%	14%	11%	11%	*	16%	*	32%	19%	28%	21%	38%	28%
Taiwan	12%	*	*	11%	*	11%	17%	20%	*	*	*	*	*	*	12%	17%	*	12%
EMEA	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Japan	12%	16%	20%	15%	12%	*	14%	*	14%	*	31%	16%	17%	26%	21%	*	*	15%
Singapore	*	*	*	21%	30%	13%	*	*	*	17%	12%	15%	*	*	*	*	13%	*
Remainder of world	22%	23%	24%	6%	19%	16%	21%	15%	12%	32%	13%	23%	16%	14%	18%	16%	16%	11%
Total Revenues	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Product Revenues by end market																		
DRAM	19%	14%	30%	20%	12%	23%	22%	13%	21%	15%	9%	39%	33%	22%	25%	20%	32%	19%
NAND	51%	51%	52%	52%	67%	42%	43%	40%	52%	36%	67%	50%	57%	58%	44%	30%	37%	41%
Total Memory	70%	65%	82%	72%	79%	65%	65%	53%	73%	50%	76%	89%	90%	80%	69%	50%	69%	60%
Total Foundry/IDM/Other	30%	35%	18%	28%	21%	35%	35%	47%	27%	49%	24%	11%	10%	20%	31%	50%	31%	40%
Total Product Revenues	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
10% Customers																		
Samsung	*	26%	●	*	*	*	15%	22%	30%	32%	22%	●	●	●	*	*	*	●
Intel	18%	11%	●	16%	24%	19%	14%	16%	*	14%	*	*	●	●	●	●	●	●
SK Hynix	15%	13%	●	17%	*	19%	19%	14%	23%	*	*	●	*	●	●	●	●	●
Micron	20%	12%	*	26%	36%	15%	*	*	*	19%	15%	*	*	*	*	*	*	*
Toshiba	*	11%	●	12%	*	*	*	*	10%	*	24%	●	●	●	*	*	*	●
TSMC	10%	*	*	10%	*	10%	16%	17%	*	*	*	*	*	*	●	*	*	●
YMTC	*	*	*	*	*	*	*	*	*	*	*	*	●	●	*	*	*	*

* Comprised less than 10% of revenues or otherwise not broken out separately

(1) Adjusted EBITDA is defined as non-GAAP operating income plus depreciation and stock-based compensation expense.

NOTE: Beginning in Q1 2016, sales of upgrades were reported in Product Revenues, instead of Service Revenues. All prior periods presented herein have been revised to include upgrade sales in Product Revenue, and the cost of upgrade sales in Cost of Product Revenue.

Percentages may not add up to 100%, as they are rounded to the nearest percent.

NOTE: Q1 2018 Revenue segmentation by geography was adjusted in July 2018 to reflect the correct distribution by geography.