Semiconductor Industry Analysis and Insight February 22, 2024

MCHP F3Q: Inventory Correction Amid Macro Weakness

MCHP	20 est.	Microchip Tech		FY24rev:	-9%
Qtr:	F3Q	Grade:	D	Growth	(qtr-qtr)
Rev:	1,765.7	Rev:	-	Rev:	-21.7%
GM:	63.8%	EPS:	+	Fcst:	-31-19%
EPS:	\$1.08	Fcst:		Div:	\$0.45

Microchip Technology (MCHP \$83.90 +0.87 on 2/22/24)

F3Q Earnings: MCHP announced December-ended F3Q earnings on February 1 that missed expectations but was consistent with its January 8 preannouncement warning of broad-based market weakness leading to an expected sales decline of -22%. Original guidance called for a revenue decline of -15-20% and EPS of \$1.09-\$1.17. F4Q guidance reflects a continuation of inventory correcting amid the weakness. While new design activity is robust, management does not yet have backlog or order visibility to a market bottom or recovery.

F3Q Results: The bad news is revenue declined by -21.7% sequentially, gross margin was down by -430bps and operating margin was down by -690bps. The good news is operating cash flow was \$853M, adjusted free cash flow was \$763M, and adjusted EBITDA was \$796M or 45.1% of sales. Inventory at \$1.31B or 185 days was up by 18 and expected to be 225-230 this quarter, while distributor inventory grew by two days to 37 and is expected to decline. Lead-times dropped to 8 weeks from 52 over the last year. The upturn drove customers to build inventory amid supply uncertainty, which then spiked up when business slowed—just like every other business cycle.

Diversification: I am a fan of Steve Sanghi, Executive Chair and former CEO—specifically his management book espousing the inverted pyramid and especially his unsuccessfully incessant rant against revenue recognition changes promoting distributor channel stuffing. As rescuer-in-chief, he originally joined a distressed MCHP and successfully executed on his obsession for diversification after a previous business failure. Much of this has occurred through acquisitions: MCU competitor Atmel, flash memory supplier Silicon Storage Technology, analog/mixed signal suppliers Micrel and Supertex, USB and automotive networker Standard Microsystems, and military device supplier Microsemi (who had previously acquired Vitesse GaAs, Actel FPGAs, PMC-Sierra networking, and Advanced Power Technology).

The company's three product lines now include: Microcontrollers (MCUs) that include general purpose and specialized offerings of 8/16/32-bit processors with a variety of architectures and mixed-signal interfaces; Analog that includes interface, mixed-signal, high-power and timing/clock chips; and Other which is a grab bag of FPGAs, memories, legacy ASICs, royalties, IP sales and engineering and manufacturing services that include frontend wafer foundry and back-end assembly and test subcontracting. The only hint of customer concentration is distributor Arrow Electronics at 10-12%. Even its hybrid manufacturing strategy is diversified with approximately 40% in-house fab, assembly and test and 60% contracted to outside suppliers.

I shied away from formal coverage due to the lack of particular insight MCHP could provide as leverage in my role as an analyst—it just reflects world-wide electronics GDP. And right now, that's looking pretty bad.

Skewed Anyway: While MCHP's business is well diversified across products, markets and geographies, it is still skewed with 55% of sales from MCUs, 40% to consumer appliances and half through distribution channels. FY23 Asian sales of 53% included 21% to China and 14% to Taiwan, down to 18% and 12% for 1HFY24, respectively.

Guidance (non-GAAP): F4Q revenue of \$1,225-1,425M and EPS of \$0.46-0.68 due to continued inventory correction amid a weak macro environment. Gross margin 59.0-61.6%, op ex 26.9-30.7%, op inc 28.3%-34.7%, other expense \$55.5-57.5M, taxes \$40.8-61.2M, net income \$250.4-375.8M on shares between 545.5-546.5M. Operating expenses are going down due to two-week wafer fab shut-downs in both F4Q and F1Q, 10% salary reductions across the board, and 20% cuts for executives—but no layoffs. Underutilization charges will be incurred.

Valuation: I was hoping that current weakness would offer an attractive entry point, but no such luck as solid profitability and cash flow keep dividends increasing while debt is paid down. On a TTM, current and next FY basis, price/sales is at 5.4x, 6.0x and 7.6x, respectively, while price/earnings is at 14.0x, 17.1x and 26.8x as expected sales and earnings decline. Dividend yield is 2.1%, price/book at 6.5x swings negative on a tangible basis, and net cash is negative. While valuation metrics appear consistent with current expectations, improving conditions would likely trigger share price upside—depending on the magnitude of those improvements, in my opinion.

Microchip Financials

F'	ΥF	1	1a	rc	h

FILIVIAICII					FY2023				FY2024	
	FY21	FY22	10	2Q	3Q	4Q	FY23	10	2Q	3Q
Semiconductors	5,335.5	6,698.9	1,925.7	2,028.2	2,124.8	2,199.0	8,277.7	2,254.8	2,227.7	1,741.5
Licensing	102.9	122.0	37.9	45.0	44.4	33.7	161.0	33.8		24.2
Total Revenue	5,438.4	6,820.9	1,963.6	2,073.2	2,169.2	2,232.7	8,438.7	2,288.6	2,254.3	1,765.7
non-GAAP										
Gross Margin	0.0%	65.7%	67.1%	67.7%	68.1%	68.3%	67.8%	68.4%	68.1%	63.8%
Operating Margin	0.0%	43.5%	45.6%	46.9%	47.5%	47.6%	46.9%	48.1%	48.1%	41.2%
EPS (GAAP)		2.27	0.90	0.98	1.04	1.09	4.02	1.21	1.21	0.77
EPS (non-GAAP)		4.61	1.37	1.46	1.56	1.64	6.02	1.64	1.62	1.08
Dividend/share	0.747	0.910	0.276	0.301	0.328	0.358	1.263	0.383	0.410	0.439
Shrs Repurchased		5.600				3.318	12.900	1.810	4.207	1.386
Product Revenue										
Mixed-Signal MCUs	2,961.0	3,814.8	1,063.0	1,179.5	1,221.3	1,291.9	4,755.7	1,301.7	1,280.1	995.2
Analog	1,519.8	1,939.1	580.0	572.5	606.5	617.9	2,376.9	633.6		430.6
Other	957.6	1,067.0	320.6	321.2	341.4	322.9	1,306.1	353.3	351.2	339.9
Total	5,438.4	6,820.9	1,963.6	2,073.2	2,169.2	2,232.7	8,438.7	2,288.6	2,254.3	1,765.7
Product Percent										
Mixed-Signal MCUs	54.4%	55.9%	54.1%	56.9%	56.3%	57.9%	56.4%	56.99	6 56.8%	56.4%
Analog	27.9%	28.4%	29.5%	27.6%	28.0%	27.7%	28.2%	27.79		24.4%
Other	17.6%	15.6%	16.3%	15.5%	15.7%	14.5%	15.5%	15.49	6 15.6%	19.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.09	6 100.0%	100.0%
Product Growth										
Mixed-Signal MCUs		28.8%		11.0%	3.5%	5.8%	24.7%	0.89	6 -1.7%	-22.3%
Analog		27.6%		-1.3%	5.9%	1.9%	22.6%	2.59		-30.9%
Other		11.4%		0.2%	6.3%	-5.4%	22.4%	9.49		-3.2%
Total		25.4%	,	5.6%	4.6%	2.9%	23.7%	2.59		-21.7%
Channel Revenue										
Distributors	2,737.4	3,248.7	913.1	958.3	1,032.3	1,089.9	3,993.6	1,107.9		767.6
Direct Customers	2,598.1	3,450.2	1,012.6	1,069.9	1,092.5	1,109.1	4,284.1	1,146.9		973.9
Licensees	102.9	122.0	37.9	45.0	44.4	33.7	161.0	33.8	3 26.6	24.2
Channel Percent										
Distributors	50.3%	47.6%	46.5%	46.2%	47.6%	48.8%	47.3%	48.49	6 50.0%	43.5%
Direct Customers	47.8%	50.6%	51.6%	51.6%	50.4%	49.7%	50.8%	50.19		55.2%
Licensees	1.9%	1.8%	1.9%	2.2%	2.0%	1.5%	1.9%	1.59	6 1.2%	1.4%
Channel Growth										
Distributors		18.7%		5.0%	7.7%	5.6%	22.9%	1.79	% 1.6%	-31.8%
Direct Customers		32.8%		5.7%	2.1%	1.5%	24.2%	3.49	6 -3.9%	-11.6%
Licensees		18.6%	,	18.7%	-1.3%	-24.1%	32.0%	0.39	6 -21.3%	-9.0%
Region										
Americas		1,659.3	496.2	525.1	567.4	580.3	2,169.0	642.8	655.2	510.2
Europe		1,391.0	397.6	415.8	428.6	532.8	1,774.8	558.5	558.0	414.5
Asia		3,770.6	1,069.8	1,132.3	1,173.2	1,119.6	4,494.9	1,087.3	1,041.1	841.0
Regional Percent										
Americas		24.3%	25.3%	25.3%	26.2%	26.0%	25.7%	28.19	6 29.1%	28.9%
Europe		20.4%	20.2%	20.1%	19.8%	23.9%	21.0%	24.49		23.5%
Asia		55.3%	54.5%	54.6%	54.1%	50.1%	53.3%	47.59	6 46.2%	47.6%
Regional Growth										
Americas				5.8%	8.1%	2.3%	30.7%	10.89	% 1.9%	-22.1%
Europe				4.6%	3.1%	24.3%	27.6%	4.89		-25.7%
Asia				5.8%	3.6%	-4.6%	19.2%	-2.99		-19.2%
			•							
Market Percent Consumer Appliance	۵ ا	40%					41%			
Data Ctr/Compute		18%					19%			
Automotive		17%					17%			
Communication		11%					11%			
Industrial		14%					12%			
-										

LEGEND

+++	exceeded the high-end of the range	Grade	
++	above consensus, within the high-end of the range	Α	all +++
+	slightly above consensus	В	all +
0	met consensus	С	all o/+
-	slightly below consensus	D	mixed -/o/+
	missed consensus, within the low-end of the range	Е	all o/-
	missed the low-end of the range	F	all -

—Dan K. Scovel Semiconductor Analyst

Tokeneke Research LLC Rowayton, CT 06853 dscovel@tokenekeresearch.com www.tokenekeresearch.com

203-554-4621

Copyright © 2024 Tokeneke Research LLC. All rights reserved. This report is for information purposes only and does not constitute a solicitation or an offer to buy or sell any security or to participate in any investment or trading strategy. Opinions expressed in this report reflect the judgment of Tokeneke Research LLC on the topics addressed as of the date of the report, and are subject to change without notice. Tokeneke Research LLC makes every effort to use reliable and comprehensive information but makes no representation that the information in this report is accurate or complete, nor does it undertake to update or revise this report at any time or for any reason. This report contains forward-looking statements that involve risks and uncertainties, both known and unknown, as well as assumptions that, if they do not fully materialize or prove incorrect, could cause actual results to differ materially from those expressed or implied by such forward-looking statements. Actual results and trends may differ materially from historical results or those projected in any such forward-looking statements depending on a variety of factors. This report does not provide individually tailored investment advice and has been prepared without regard to the specific individual financial situation, objectives and needs of those who receive it. Securities discussed in this report may not be suitable for the reader. Tokeneke Research LLC and/or Dan Scovel may have a long or short position in the securities of a company or companies mentioned in this report and, at any time, may change that position. Tokeneke Research LLC accepts no liability whatsoever for any loss or damage of any kind arising out of the use of any part, or all, of this report. All company and product names mentioned in this report may be trademarks or registered trademarks of their respective holders and are used for identification purposes only. Reproduction or distribution of this report, even for internal distribution, is strictly prohibited unless specif