

## 2Q Shortfall Due to Major Customer Smartphones HDMI License Fee Hiccup as well. Lowering Estimates, Reiterate Buy.

Diluted Shares(mil):	80.1	<u>Closing Price 7/8/14</u>	<u>fye Dec</u>	<u>2013 act</u>	<u>2014</u>	<u>2015</u>
Market Cap(\$mil):	\$400	\$4.99	Revenue(\$mil)	\$276.4	\$273.4	\$319.4
Avg Volume(,000):	542.9		EPS (pf)	\$0.29	\$0.28	\$0.39
Net Cash/Share:	\$1.72	<u>Recommendation/Target</u>	Price/Sales	1.4	1.5	1.3
Tangible Book/Share:	\$2.05	Buy/\$8	Price/EPS	17.2	17.8	12.8

*Silicon Image provides discrete ICs and IP for HDMI, MHL and WirelessHD high-definition video display communication standards.*

**Summary:** SIMG preannounced an expected shortfall to 2Q expectations late-yesterday due to fewer smartphone shipments from its major customer and delays in collecting HDMI licensing fees. While the HDMI licensing fees will be recovered after an updated three-year agreement with the standard's founding partners is finalized, we expect only a partial recovery to the smartphone shortfall with favorable seasonality this quarter. Revenue guidance for 2Q was revised down to a sequential decline of -5% to -2% from a gain of +15% to +24%, although gross margin was boosted and operating expense growth was curtailed. I am lowering my estimates but maintain my Buy recommendation and 12-month target price of \$8 based on 2-times forward sales. The big picture of the company's HD video 'Standards Plus' strategy and technology refresh remains intact, in my opinion, as MHL extends down to mid-range and low-end smartphones in emerging markets and 60GHz WirelessHD adoption commences.

**Smartphone Shortfall, HDMI Delay:** Over half of the expected revenue shortfall is due to fewer than expected MHL smartphone shipments from the company's major customer. Samsung is SIMG's largest customer and accounted for over 28% of total sales during 1Q, most of which was for MHL-based smartphones but also included MHL and HDMI TVs and other consumer electronics devices. While the balance of SIMG's MHL smartphone business is growing as expected as MHL permeates down-market, Samsung is being squeezed by market saturation at the high-end and fierce Chinese competition at the low-end and mid-range. While I expect some of this inventory correction to be alleviated with the support of favorable seasonality 3Q, it appears that previous expectations for MHL shipments into smartphones this year continue to be negatively impacted by an accelerating market shift to low-end and mid-range smartphones. SIMG is participating in this market transition, although it is not seamless.

The balance of last quarter's expected shortfall is due to HDMI license fees. The founding partners of the HDMI standard are renegotiating a three-year licensing agreement, and license fees will not be collected or recognized until the agreement is finalized over the next couple of months. We expect the vast majority of SIMG's previous license fee expectations for 2014 to be preserved.

**Guidance Lowered:** Revenue guidance for 2Q has been lowered to \$58.5-60.5M from \$71-76M, or a sequential decline of -5%-1.7% from a gain of +15+23.5% due to the reasons noted above; gross margin has been raised to 59-60% due to revenue mix and manufacturing cost reductions; pro forma operating expenses have been lowered to \$30-32M from \$32.5M on delays; and pro forma EPS is expected in the \$0.03-\$0.04 range. Management expects to update annual revenue and EPS guidance during its 2Q earnings announcement, although preliminarily indicated that both are likely to be flat or slightly down compared to last year compared to previous expectations for similar revenue growth in the +9.5% range. Previous guidance called for a pro forma tax rate of 30% and diluted shares of 80.5M. Long-term, pro forma targets call for revenue growth of +15+20% at 15-20% license revenue, gross margin of 55%, product gross margin of 45%, op ex at 35-40%, operating profit at 15-20%, and DSOs at 50-55 days. Seasonality tracks to consumer markets: 2Q is sequentially up, 3Q is a peak, 4Q is down, and 1Q is a trough.

**Lowering Estimates:** My revised 2Q estimate is slightly above the mid-point of revenue guidance and detailed in the table below. I am assuming that previous license revenue and operating expenses will be preserved for this year, although shifted into the second-half, while the expected product revenue shortfall from its major customer will only be partially offset by seasonal 3Q strength and then trickle through the next several quarters. The good news is that I expect product gross margin strength to persist due to a combination of on-going manufacturing cost reductions and leaner major customer concentration.

FYE Dec, in millions	2Q14		2014		2015	
	Previous	Update	Previous	Update	Previous	Update
Product Revenue	\$60.8	\$51.0	\$246.3	\$220.2	\$286.1	\$265.6
Product Gross Margin	47.8%	52.0%	47.5%	48.9%	46.3%	46.7%
License Revenue	\$12.7	\$8.7	\$53.5	\$53.2	\$54.0	\$53.8
License Revenue %	17.3%	14.6%	17.8%	19.5%	15.9%	16.9%
Total Revenue	\$73.5	\$59.7	\$299.7	\$273.4	\$340.1	\$319.4
Revenue Growth	19.4%	-3.0%	8.4%	-1.1%	13.5%	16.9%
Gross Margin	56.5%	58.7%	56.6%	58.5%	54.5%	55.3%
Operating Expenses	\$32.5	\$31.0	\$128.6	\$127.7	\$131.7	\$132.3
Restruct/Amortization	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interest/Other	\$0.3	\$0.3	\$0.1	\$0.1	\$0.1	\$0.1
Tax Rate	30.0%	30.0%	29.9%	29.9%	30.0%	30.0%
Diluted Shares	80.5	80.5	80.4	80.4	80.5	80.5
EPS ( <i>pro forma</i> )	\$0.08	\$0.04	\$0.36	\$0.28	\$0.46	\$0.39

**Strategy Intact:** This negative preannouncement is clearly a disappointment and I am lowering my estimates. The major customer smartphone shortfall is troublesome, to say the least. Nevertheless, I believe the big picture remains favorable as management sticks to its strategy pursuing growth of MHL into mid-range and low-end smartphones to emerging markets and the roll-out of its 60GHz WirelessHD offering. Consumer markets are benefiting from recent HDMI 2.0 and MHL 3.0 revision upgrades to the standards as support for 4K UltraHD video and HDCP 2.2 content protection is embraced by TVs and AV receivers. Mobile markets are also embracing MHL 3.0 at the high-end for the same reasons, while the existing MHL 2.0 standard is moving down to mid-range and low-end smartphone offerings for China, India and other emerging markets with reference designs at Qualcomm and MediaTek. SIMG also claims a number of MHL design wins for automotive applications. The UltraGig 6400 transmitter—a 60GHz wireless offering targeted at mobile applications that includes the transceiver, broadband and antenna in a single IC package—boasts a Gen-3 product design win in a Sony headset application, and revenue in the low-double-digit millions is expected 2H14 as the product ramps into gaming, home theater, and wireless backhaul applications.

**Attractive Valuation:** Valuation tables for SIMG are shown on Page 7 of this report. The bottom table, Historical Valuation, captures the weekly averages since its IPO of trailing 12-month price-earnings, price-sales, and price-book ratios. Unfortunately, these historical averages remain unrealistically high for equity markets at this time. The top table, Relative Valuation, is considerably more relevant. I have chosen a peer group of fables, ASSP (application-specific standard product) semiconductor companies that includes AMCC, ENTR, LSCC, MCRL, PLXT and SIMO. Products, markets, and financial metrics among this set of comparables does vary, but I consider it a relevant set whose composite average provides a meaningful baseline of targets.

SIMG is attractive compared to its peers in terms of price-earnings and price-sales ratios where it ranks below average. In fact, it remains the second lowest among its peers across the board. The peer-average price-sales ratio of 2x forward sales is consistent with my previous valuation methodology and I am maintaining my 12-month target price for SIMG of \$8 based on it. However, note that my previous target price would have rounded closer to \$8.50 than \$8, and that valuation inflation has increased peer-average price-sales to 2.2x from 2.0x, thereby rendering my \$8 target price similarly conservative. The big picture of SIMG's HD video 'Standards Plus' strategy, new management, and technology refresh remains intact, in my opinion. I continue to believe that upside potential significantly exceeds downside risk at the current price level and reiterate my Buy recommendation on the shares.

<i>pro forma EPS</i>	2Q14	2014	2015
<i>Tokeneke-revised</i>	\$0.04	\$0.28	\$0.39
Tokeneke-previous	\$0.08	\$0.36	\$0.46
Consensus-previous	\$0.08	\$0.35	\$0.43
Highest Est-previous	\$0.08	\$0.40	\$0.50
Lowest Est-previous	\$0.08	\$0.31	\$0.36

<i>Revenue (5 est)</i>	2Q14	2014	2015
<i>Tokeneke-revised</i>	\$59.7	\$273.4	\$319.4
Tokeneke-previous	\$73.5	\$299.7	\$340.1
Consensus-previous	\$75.6	\$301.3	\$333.9
Highest Est-previous	\$80.9	\$305.0	\$350.0
Lowest Est-previous	\$71.9	\$294.9	\$301.3

—Dan K. Scovel  
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**Income Statement**

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dollars in thousands, except per share data  
fiscal year ends December

				2013 act				2013	2014 est				2014	2015				2015
	2010	2011	2012	Q1	Q2	Q3	Q4		Q1A	Q2	Q3	Q4		Q1	Q2	Q3	Q4	
Product Revenue	152,841	174,234	203,487	50,341	63,681	66,337	46,949	227,308	46,766	51,000	61,200	61,200	220,166	55,080	66,096	76,010	68,409	265,596
License Revenue	38,506	46,775	48,877	11,698	9,998	12,974	14,428	49,098	14,795	8,700	16,500	13,200	53,195	12,804	12,804	13,444	14,789	53,841
Total Revenue	191,347	221,009	252,364	62,039	73,679	79,311	61,377	276,406	61,561	59,700	77,700	74,400	273,361	67,884	78,900	89,455	83,198	319,437
Product COGS	76,922	89,365	102,622	25,413	30,620	33,769	23,061	112,863	24,397	24,480	31,824	31,824	112,525	28,917	35,031	40,666	36,941	141,554
Product Gross Profit	75,919	84,869	100,865	24,928	33,061	32,568	23,888	114,445	22,369	26,520	29,376	29,376	107,641	26,163	31,065	35,345	31,468	124,041
License COGS	269	794	626	267	162	185	267	881	20	174	330	264	788	256	256	269	296	1,077
R&D	52,682	62,759	73,787	17,540	19,398	17,545	18,935	73,418	16,044	16,044	16,846	17,352	66,286	17,352	17,352	17,352	17,352	69,406
SG&A	42,558	50,201	52,350	14,631	14,659	14,751	14,359	58,400	14,914	14,914	15,660	15,973	61,461	15,973	15,653	15,653	15,653	62,933
Amortization	-	-	(201)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Restructuring	-	(814)	(3,056)	-	-	-	(1,000)	(1,000)	-	-	-	-	-	-	-	-	-	-
Total Opn Exp	172,431	202,305	226,128	57,851	64,839	66,250	55,622	244,562	55,375	55,612	64,660	65,412	241,059	62,498	68,292	73,939	70,242	274,971
Operating Income	18,916	18,704	26,236	4,188	8,840	13,061	5,755	31,844	6,186	4,088	13,040	8,988	32,302	5,386	10,608	15,515	12,956	44,466
Interest/Other	3,624	1,918	1,661	391	500	168	144	1,203	18	25	25	25	93	25	25	25	25	100
Pre-tax Income	22,540	20,622	27,897	4,579	9,340	13,229	5,899	33,047	6,204	4,113	13,065	9,013	32,395	5,411	10,633	15,540	12,981	44,566
Taxes	3,827	3,597	7,949	1,374	2,802	3,950	1,748	9,874	1,828	1,234	3,920	2,704	9,685	1,623	3,190	4,662	3,894	13,370
Minority Interest	(1,366)	(630)	(1,401)	(64)	(64)	(64)	(74)	(266)	(110)	(50)	(50)	(50)	(260)	(50)	(50)	(50)	(50)	(200)
Net Income	17,347	16,395	18,547	3,141	6,474	9,215	4,077	22,907	4,266	2,829	9,096	6,259	22,449	3,738	7,393	10,828	9,037	30,996
EPS-basic	\$0.23	\$0.20	\$0.23	\$0.04	\$0.08	\$0.12	\$0.05	\$0.30	\$0.05	\$0.04	\$0.12	\$0.08	\$0.29	\$0.05	\$0.09	\$0.14	\$0.12	\$0.40
Shares-basic	76,957	80,603	81,872	77,421	77,245	77,530	77,417	77,399	77,858	78,247	78,247	78,247	78,150	78,247	78,247	78,247	78,247	78,247
EPS-diluted	\$0.22	\$0.20	\$0.22	\$0.04	\$0.08	\$0.12	\$0.05	\$0.29	\$0.05	\$0.04	\$0.11	\$0.08	\$0.28	\$0.05	\$0.09	\$0.13	\$0.11	\$0.39
Shares-diluted	78,277	83,195	82,477	78,433	78,713	78,995	78,990	79,065	80,100	80,487	80,487	80,487	80,390	80,487	80,487	80,487	80,487	80,487
EPS-GAAP	\$0.10	(\$0.14)	(\$0.14)	(\$0.01)	\$0.05	\$0.11	(\$0.01)	\$0.15	\$0.00	\$0.01	\$0.08	\$0.05	\$0.14	\$0.02	\$0.06	\$0.11	\$0.08	\$0.27
<b>Margin Analysis</b>																		
Product Gross Margin	49.7%	48.7%	49.6%	49.5%	51.9%	49.1%	50.9%	50.3%	47.8%	52.0%	48.0%	48.0%	48.9%	47.5%	47.0%	46.5%	46.0%	46.7%
Total Gross Margin	59.7%	59.2%	59.1%	58.6%	58.2%	57.2%	62.0%	58.8%	60.3%	58.7%	58.6%	56.9%	58.5%	57.0%	55.3%	54.2%	55.2%	55.3%
License Revenue %	20.1%	21.2%	19.4%	18.9%	13.6%	16.4%	23.5%	17.8%	24.0%	14.6%	21.2%	17.7%	19.5%	18.9%	16.2%	15.0%	17.8%	16.9%
R&D	27.5%	28.4%	29.2%	28.3%	26.3%	22.1%	30.9%	26.6%	26.1%	26.9%	21.7%	23.3%	24.2%	25.6%	22.0%	19.4%	20.9%	21.7%
SG&A	22.2%	22.7%	20.7%	23.6%	19.9%	18.6%	23.4%	21.1%	24.2%	25.0%	20.2%	21.5%	22.5%	23.5%	19.8%	17.5%	18.8%	19.7%
Operating Income	9.9%	8.5%	10.4%	6.8%	12.0%	16.5%	9.4%	11.5%	10.0%	6.8%	16.8%	12.1%	11.8%	7.9%	13.4%	17.3%	15.6%	13.9%
Pre-tax Income	11.8%	9.3%	11.1%	7.4%	12.7%	16.7%	9.6%	12.0%	10.1%	6.9%	16.8%	12.1%	11.9%	8.0%	13.5%	17.4%	15.6%	14.0%
Tax Rate	17.0%	17.4%	28.5%	30.0%	30.0%	29.9%	29.6%	29.9%	29.5%	30.0%	30.0%	30.0%	29.9%	30.0%	30.0%	30.0%	30.0%	30.0%
Net Income	9.1%	7.4%	7.3%	5.1%	8.8%	11.6%	6.6%	8.3%	6.9%	4.7%	11.7%	8.4%	8.2%	5.5%	9.4%	12.1%	10.9%	9.7%
<b>Qtr-to-Qtr Growth</b>																		
Revenue				4.1%	18.8%	7.6%	-22.6%		0.3%	-3.0%	30.2%	-4.2%		-8.8%	16.2%	13.4%	-7.0%	
Operating Expenses				12.9%	12.1%	2.2%	-16.0%		-0.4%	0.4%	16.3%	1.2%		-4.5%	9.3%	8.3%	-5.0%	
Operating Income				-49.9%	111%	47.7%	-55.9%		7.5%	-33.9%	219%	-31.1%		-40.1%	96.9%	46.3%	-16.5%	
Pre-tax Income				-48.7%	104%	41.6%	-55.4%		5.2%	-33.7%	218%	-31.0%		-40.0%	96.5%	46.1%	-16.5%	
Net Income				-49.7%	106%	42.3%	-55.8%		4.6%	-33.7%	222%	-31.2%		-40.3%	97.8%	46.5%	-16.5%	
EPS				-48.4%	105%	41.8%	-55.8%		3.2%	-34.0%	222%	-31.2%		-40.3%	97.8%	46.5%	-16.5%	
<b>Year-to-Year Growth</b>																		
Revenue	27.1%	15.5%	14.2%	12.8%	15.4%	7.3%	3.0%	9.5%	-0.8%	-19.0%	-2.0%	21.2%	-1.1%	10.3%	32.2%	15.1%	11.8%	16.9%
Operating Expenses	-1.4%	17.3%	11.8%	2.8%	12.8%	8.4%	8.6%	8.2%	-4.3%	-14.2%	-2.4%	17.6%	-1.4%	12.9%	22.8%	14.4%	7.4%	14.1%
Operating Income	-177.8%	-1.1%	40.3%	-435%	39.6%	2.1%	-31.2%	21.4%	47.7%	-53.8%	-0.2%	56.2%	1.4%	-12.9%	159%	19.0%	44.2%	37.7%
Pre-tax Income	-205.7%	-8.5%	35.3%	-744%	42.0%	0.9%	-33.9%	18.5%	35.5%	-56.0%	-1.2%	52.8%	-2.0%	-12.8%	159%	18.9%	44.0%	37.6%
Net Income	-184.2%	-5.5%	13.1%	-481%	51.2%	4.2%	-34.7%	23.5%	35.8%	-56.3%	-1.3%	53.5%	-2.0%	-12.4%	161%	19.0%	44.4%	38.1%
EPS	-180.6%	-11.1%	14.1%	-502%	60.2%	9.9%	-33.5%	28.8%	33.0%	-57.3%	-3.1%	50.7%	-3.6%	-12.8%	161%	19.0%	44.4%	37.9%

## Silicon Image

## Balance Sheet

(dollars in thousands)

Fiscal year ends December

	2010	2011	2012	2013	1Q13	2Q13	3Q13	4Q13	1Q14
<b>Assets</b>									
Cash and equivalents	29,942	37,125	29,069	82,220	45,964	75,946	79,283	82,220	84,980
Short-term investments	160,538	124,301	78,398	56,003	70,522	56,229	54,801	56,003	53,154
Net accounts receivable	<u>22,598</u>	<u>27,368</u>	<u>37,936</u>	<u>34,729</u>	<u>40,515</u>	<u>27,228</u>	<u>41,407</u>	<u>34,729</u>	<u>37,128</u>
<b>Quick Assets</b>	213,078	188,794	145,403	172,952	157,001	159,403	175,491	172,952	175,262
Inventory	10,212	10,062	11,268	11,727	14,281	16,002	14,001	11,727	15,325
Other	<u>7,523</u>	<u>9,809</u>	<u>8,946</u>	<u>7,924</u>	<u>7,657</u>	<u>7,409</u>	<u>8,844</u>	<u>7,924</u>	<u>6,348</u>
<b>Current Assets</b>	230,813	208,665	165,617	192,603	178,939	182,814	198,336	192,603	196,935
Property, plant and eqt, net	11,404	12,772	14,840	14,676	14,125	14,231	14,381	14,676	14,016
Goodwill and intangibles	0	30,561	33,098	31,994	32,396	33,984	32,764	31,994	31,246
Deferred Tax	4,795	4,706	4,144	4,368	4,144	4,144	4,144	4,368	1,300
Other	<u>3,607</u>	<u>9,369</u>	<u>9,043</u>	<u>8,498</u>	<u>10,625</u>	<u>7,549</u>	<u>8,596</u>	<u>8,498</u>	<u>8,319</u>
<b>Total Assets</b>	250,619	266,073	226,742	252,139	240,229	242,722	258,221	252,139	251,816
<b>Liabilities and Shareholders Equity</b>									
Accounts payable	10,615	10,133	10,690	12,894	19,826	15,383	18,721	12,894	13,441
Accrued and other liabilities	17,771	26,116	19,600	20,622	16,605	16,470	20,259	20,622	18,641
Deferred distribution margin	13,484	7,809	10,340	9,634	13,215	13,407	10,245	9,634	8,700
Deferred license revenue	<u>4,197</u>	<u>2,684</u>	<u>2,185</u>	<u>2,742</u>	<u>2,310</u>	<u>2,183</u>	<u>2,579</u>	<u>2,742</u>	<u>1,417</u>
<b>Current Liabilities</b>	46,067	46,742	42,815	45,892	51,956	47,443	51,804	45,892	42,199
Long-term debt	0	0	0	0	0	0	0	0	0
Deferred licenses, other	<u>13,356</u>	<u>14,815</u>	<u>16,827</u>	<u>16,522</u>	<u>17,024</u>	<u>17,553</u>	<u>16,918</u>	<u>16,522</u>	<u>14,303</u>
<b>Total Liabilities</b>	59,423	61,557	59,642	62,414	68,980	64,996	68,722	62,414	56,502
Common stock	476,898	505,165	511,804	536,925	520,745	529,015	534,037	536,925	543,337
Retained earnings	(177,957)	(189,600)	(200,792)	(189,302)	(201,373)	(197,044)	(188,388)	(189,302)	(189,401)
Treasury stock	<u>(107,745)</u>	<u>(111,049)</u>	<u>(143,912)</u>	<u>(157,898)</u>	<u>(148,123)</u>	<u>(154,245)</u>	<u>(156,200)</u>	<u>(157,898)</u>	<u>(158,622)</u>
<b>Total Shareholders Equity</b>	<u>191,196</u>	<u>204,516</u>	<u>167,100</u>	<u>189,725</u>	<u>171,249</u>	<u>177,726</u>	<u>189,449</u>	<u>189,725</u>	<u>195,314</u>
<b>Total Liabilities and Equity</b>	250,619	266,073	226,742	252,139	240,229	242,722	258,171	252,139	251,816
<b>Sales and Income</b>									
Revenue	191,347	221,009	252,364	276,406	62,039	73,679	79,311	61,377	61,561
COGS	78,109	90,829	110,441	113,821	26,065	31,185	33,407	23,164	24,815
Net income	8,182	(11,643)	(11,192)	11,490	(581)	4,329	8,965	(964)	(99)
<b>Other</b>									
Capital Expenditures	4,666	7,821	8,885	5,762	835	1,631	1,609	1,687	1,256
Depreciation	7,674	6,416	6,107	6,270	1,573	1,554	1,565	1,578	1,573
Shares (weighted average diluted)	78,277	80,603	81,872	79,065	78,433	78,713	78,995	78,990	80,100
Employees (units)	432	521	623	640	643	650	643	640	622
Stock Repurchased, \$	0	0	39,684	2,983	0	0	1,383	1,600	0
Shares Repurchased (,000)	0	0	2,222	1,614	750	300	256	308	0
<b>Ratios</b>									
<b>Liquidity</b>									
Quick Ratio	4.63	4.04	3.40	3.77	3.02	3.36	3.39	3.77	4.15
Current Ratio	5.01	4.46	3.87	4.20	3.44	3.85	3.83	4.20	4.67
<b>Leverage</b>									
Debt Ratio	0.24	0.23	0.26	0.25	0.29	0.27	0.27	0.25	0.22
Long-term Debt/Capital	0.05	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.06
<b>Asset Management</b>									
Fixed Asset Turnover	14.80	18.28	18.28	18.73	17.13	20.79	22.18	16.90	17.16
Total Asset Turnover	0.80	0.86	1.02	1.15	1.06	1.22	1.27	0.96	0.98
Receivables DSO	43	45	54	45	59	33	47	51	54
Inventory Days	47	40	37	37	49	46	38	46	56
Inventory Turnover	8.70	8.96	10.36	9.90	8.16	8.24	8.91	7.20	7.34
Revenue/Employee	399	464	441	438	392	456	491	383	390
<b>Profitability</b>									
Gross Margin	59.2%	58.9%	56.2%	58.8%	58.0%	57.7%	57.9%	62.3%	59.7%
Net Margin	4.3%	-5.3%	-4.4%	4.2%	-0.9%	5.9%	11.3%	-1.6%	-0.2%
Return on Assets	3.4%	-4.5%	-4.5%	4.8%	-1.0%	7.2%	14.3%	-1.5%	-0.2%
Return on Equity	4.5%	-5.9%	-6.0%	6.4%	-1.4%	9.9%	19.5%	-2.0%	-0.2%
<b>Per Share Data</b>									
Book Value/Share	\$2.44	\$2.54	\$2.04	\$2.40	\$2.18	\$2.26	\$2.40	\$2.40	\$2.44
Tangible Book Value/Share	\$2.44	\$2.16	\$1.64	\$1.99	\$1.77	\$1.83	\$1.98	\$2.00	\$2.05
Cash/Share (gross)	\$2.43	\$2.00	\$1.31	\$1.75	\$1.49	\$1.68	\$1.70	\$1.75	\$1.72
Cash/Share (net)	\$2.43	\$2.00	\$1.31	\$1.75	\$1.49	\$1.68	\$1.70	\$1.75	\$1.72
Earnings/Share	\$0.10	(\$0.14)	(\$0.14)	\$0.15	(\$0.01)	\$0.05	\$0.11	(\$0.01)	(\$0.00)



**Silicon Image**

**Company Summary**

Standard	Other <i>legacy</i>	DVI <i>legacy</i>	HDMI <i>current</i>	MHL <i>ramping</i>	Wireless HD <i>in development</i>	Intellectual Property	
<b>Organizations</b>	<u>Serial ATA (SATA)</u>	<u>DDWG/DVI lead by:</u> Intel Fujitsu Hewlett-Packard IBM NEC Silicon Image	<u>HDMI Consortium</u> Hitachi Matsushita (Panasonic) Philips Sony Technicolor (Thomson) Toshiba Silicon Image  Simplay Labs testing (SIMG)	<u>MHL Consortium</u> Nokia Samsung Sony Toshiba Silicon Image  Simplay Labs testing (SIMG)	<u>Wireless HD Consortium</u> Broadcom Intel LG Electronics NEC Panasonic Philips Samsung Sony Toshiba SIBEAM (Silicon Image)	<u>SPMT Consortium</u> ARM Hynix LG Electronics Samsung Marvell Silicon Image (mobile DRAM technology) SPMT LLC (SIMG)	<u>WISA Advisory Board</u> Aperion Audio DEI Holdings (Polk Audio) Hansong Klipsch Meilon Pioneer Sharp Summit Semiconductor Silicon Image (wireless audio technology)
<b>Product Offering</b>	<u>TV Processors</u> port processors <u>Storage Products</u> bridges parallel ATA controllers SATA controllers SATA port multiplier RAID storage processors	DVI transmitters DVI receivers iTMDS transmitters iTMDS receivers LCD panel controllers	HDMI transmitters HDMI receivers HDMI port processors iTMDS transmitters iTMDS receivers LCD panel controllers InstaPrevue InstaPort ViaPort ClearView (UltraHD 4Kx2K) HDMI Licensing, LLC (SIMG)	MHL transmitters MHL port processors MHL bridges (to HDMI)  MHL Licensing, LLC (SIMG)	Network processors Wireless video-area network --transmitters --receivers	Camera processor IP cores DVI cores HDMI IP cores and PHY RAID controller IP cores SATA cores and PHY Digital video decoder IP cores MHL cores and PHY Digital video processing IP cores	
<b>Markets</b>	<u>Primary:</u> <u>Secondary:</u> <u>Legacy:</u> <u>Future:</u>		Consumer Mobile PC	Mobile Consumer	Consumer and Mobile	Consumer Mobile PC	
<b>Competitors</b>	Acaro Atmel J-Micron Marvell <u>Integrated Chipsets</u> AMD Intel NVIDIA SIS VIA	DisplayPort/VESA (STMicro)  <u>PC Processors and Chipsets</u> AMD NVIDIA	DisplayPort/VESA (STMicro)  <u>Discrete HDMI</u> Analog Devices Analogix Parade Explore NXP <u>Integrated HDMI</u> Broadcom Intel MediaTek MStar Marvell Trident STMicroelectronics in-house electronics OEMs	USB 3.0, WiFi, WiGig, Bluetooth, AirPlay, DisplayPort  <u>MHL Discrete and/or Integrated</u> Explore Parade MediaTek Qualcomm Texas Instruments NVIDIA STEricsson in-house electronics OEMs			
<b>Customers</b>	legacy	legacy	1,166 companies adopted over 2.4 billion units installed	(over 90 adopters, see table)	Various Applications Smartphones DTVs/DVRs Pico Projectors Home Theaters Roku Streaming Stick DVDO		
<b>Primary Markets</b>		PC	Consumer	Mobile			
<b>Applications</b>		Desktop PCs Notebook PCs Flat Panel Monitors Storage other	DVD players Blu-Ray players Settop Boxes (STB) Digital TVs (DTV) Audio-Video Receivers (AVR) Digital Video Recorders (DVR) Home Theaters Projectors Video Games	Smartphones Tablets Pico-Projectors Digital Still Cameras (DSC) Camcorders		<u>Home Theaters</u> Onkyo Sony Denon Sharp	

<u>Smartphones</u>	<u>DTVs/AVRs</u>
Acer	Acer
Asus	Best Buy
Fujitsu	Insighia
Google	LG
HTC	Philips
Huawei	Samsung
Lenovo	Sharp
LG	Sony
Meizu	Toshiba
Pantec	
Samsung	
Sharp	<u>Pico Projectors</u>
Sony	Samsung
TCL	3M
ZTE	Aiptek
Xaomi	

## Silicon Image

## Valuation

## Relative Valuation

Company	Ticker	Price 7/8/2014	52-Week		CY EPS				CY P/E				Shares (mil)	CAP (\$ mil)	Price-Sales			FY Ends	
			Low	High	2012	2013	2014	2015	2012	2013	2014	2015			TTM	Cur FY	Nxt FY		
Silicon Image*	SIMG	4.99	4.71	7.16	0.23	0.29	0.28	0.39	21.7	17.2	17.8	12.8	80	400	1.4	1.5	1.3	Dec	
Applied Micro	AMCC	10.40	8.32	15.09	-0.54	0.07	0.10	0.55	NM	NM	NM	18.9	77	803	3.7	3.5	2.6	Mar	
Entropic Communications	ENTR	3.25	3.05	5.12	0.38	-0.11	-0.47	-0.11	8.5	NM	NM	NM	90	291	1.2	1.4	1.2	Dec	
Lattice Semiconductor	LSCC	7.98	4.17	9.19	-0.08	0.16	0.34	0.40	NM	49.9	23.5	20.0	119	949	2.7	2.4	2.3	Dec	
Micrel	MCRL	11.42	8.60	11.68	0.41	0.38	0.32	0.53	27.9	30.1	35.7	21.5	57	653	2.8	2.6	2.3	Dec	
PLX Technology	PLXT	6.49	4.78	6.91	0.11	0.26	0.28	0.45	59.0	25.0	23.2	14.4	47	306	3.0	2.7	2.2	Dec	
Silicon Motion	SIMO	21.80	10.38	22.99	1.73	1.06	1.17	1.46	12.6	20.6	18.6	14.9	34	740	3.4	2.9	2.6	Dec-ADR	
Average									27.0	31.4	25.2	18.0				2.8	2.6	2.2	

\* Tokeneke estimate

Source: consensus as of 7/8/14

## Historical Valuation

Company	Ticker	Price 7/8/2014	Trailing 12-month					
			Price/Earnings		Price/Sales		Price/Book	
			Current	Historical*	Current	Historical*	Current	Historical*
Silicon Image	SIMG	\$4.99	16.6		1.4		2.0	
			<b>Average</b>	98.5	<b>Average</b>	3.7	<b>Average</b>	6.2
			<b>High</b>	885.0	<b>High</b>	27.0	<b>High</b>	53.3
			<b>Low</b>	13.9	<b>Low</b>	0.7	<b>Low</b>	0.6

\* weekly since 2000

### **The Company**

Tokeneke Research is an independent research firm specializing in semiconductor industry business issues, providing fundamental research focused on US equities across all market capitalizations within the sector to investors. The company was founded in 2005 and is based in Connecticut.

### **The Offering**

- *Monthly Newsletter:* A summarized review of noteworthy industry business developments, sales statistics, and sector equity market performance, as well as a near-term and annual outlook for sector business fundamentals and share prices. This report typically includes two pages of text and a handful of recurring charts and tables. It is intended for relatively broad-based distribution.
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### **My Background**

I have an electrical engineering background, nearly 12 years of semiconductor industry experience, and was on Wall Street for nearly eight years where I was selected as the Best On The Street semiconductor analyst for 2002 by The Wall Street Journal, and third-rated Best of the Best across all sectors.

I obtained my undergraduate BS degree in electrical engineering from the University of Washington, and my MBA from Santa Clara University. My industry experience consists of nearly 12 years in various technical sales and marketing roles at four different semiconductor firms located in Silicon Valley beginning with Advanced Micro Devices in 1984, followed by two small start-up companies, and ending at Cirrus Logic where I supported the firm's Japanese market development. I joined Fahnstock & Co. as a senior semiconductor analyst in 1996 and was recruited by Needham & Co. in April 2000.

My formal coverage list as a sell-side analyst included the following equities: AMD, ALSC, ALTR, ARTI, ATML, CUBE, CY, ESST, GNSS, INTC, ISSI, LSI, MOSY, MU, OIIM, OVTI, RMTR, SIII, SMSC, STEC, SVTG, TDFX, TSRA, TXN, and ZRAN.

**—Dan K. Scovel**  
*Semiconductor Analyst*

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