

OVTI F1Q Miss on Smartphone Slowdown

... and Competitive Price Pressure. Lowering Estimates, Reiterate Buy.

Diluted Shares(mil):	57.5	<u>Closing Price 8/29/13</u>	<u>FTE April</u>	<u>FY13 act</u>	<u>FY14</u>	<u>FY15</u>
Market Cap(\$mil):	\$1,059	\$18.41	Revenue(\$mil)	\$1,407.9	\$1,503.4	\$1,584.3
Avg Volume(,000):	1,345		EPS	\$1.41	\$1.79	\$1.89
Net Cash/Share:	\$3.50	<u>Recommendation/Target</u>	Price/Sales	0.8	0.7	0.7
Tangible Book/Share:	\$14.25	Buy/\$30	Price/EPS	13.1	10.3	9.7

OmniVision is a fables semiconductor company that is the leading supplier of CMOS image sensors.

Summary: OVTI missed F1Q expectations on an adjusted basis as slowing smartphone growth impeded sales and triggered increasing competitiveness at the low-end which stalled ASP and margin expansion. Nevertheless: tablet growth remains strong; smartphones continue to grow; automotive, security and emerging markets remain promising; and the company remains profitable and highly competitive amid persistent revenue growth. Gross margin remains subdued and I have lowered my expectations, but I continue to believe earnings will disproportionately benefit from an eventual recovery. I am lowering my estimates but continue to recommend OVTI as a Buy with a 12-month target price of \$30 based on just under 1.2x FY14 sales.

F1Q Review: Revenue grew by +11% sequentially to \$374M on tablet and smartphone strength, but fell short of consensus as smartphone strength faded during the second half of the quarter. Pro forma gross margin was flat at 17.7% but did not improve as anticipated due to incremental smartphone weakness leading to increased competitiveness by lower-end suppliers in China, as well as lingering effects of higher-cost OmniBSI-2 technology-based device inventory. Gross margin was negatively impacted by -230 basis points due to obsolete inventory write-offs, up from -170 basis points the prior quarter. Pro forma EPS of \$0.55 included a one-time tax benefit of \$0.18. Adjusting for the tax benefit, EPS fell short of my estimate by nine-cents and consensus by six-cents primarily due to gross margin weakness. Cash increased by +\$28M to \$240.5M mostly due to operating cash flow.

<i>FYE April</i> <i>pro forma, millions</i>	Estimate	Actual	EPS Impact	F1Q		
				Guidance	Consensus	Range
Revenue	\$375.0	\$373.7		\$355-390	\$376.6	372-392.1
Revenue Growth	11.5%	11.1%		+5.6+16%	12.0%	+10.6+16.6%
Gross Margin	19.5%	17.7%	(\$0.11)			
Op Expense	\$44.1	\$40.7	\$0.06			
Interest/Other Inc	\$0.8	(\$0.6)	(\$0.03)			
Taxes	12.0%	(\$6.9)	\$0.18	12%		
Shares	56.81	57.51	(\$0.01)			
Diluted EPS	\$0.46	\$0.55	\$0.09	\$0.14-\$0.29	\$0.43	\$0.40-\$0.47

Unit shipments grew to 208M from 188M the prior quarter, ASPs were flat at \$1.79, and OEM sales expanded to 81.6% from 78.4%. 2Mp+ sensors accounted for 47% of units down from 50% with growth from 8- and 12Mp and the introduction of 10Mp, while 5Mp was flat; 1.3Mp increased to 39% from 33%; and VGA fell to 14% from 17%. Mobile phones accounted for 63% of sales down from 65%, entertainment (tablets) grew to 22% from 17%, and notebook PCs/webcams edged down to 7% from 8%.

Marginal Weakness amid Bigger-Picture Strength: Fading smartphone expansion impeded revenue growth and deferred margin expansion as lower-end, Chinese suppliers increased their competitiveness. Nevertheless: tablet markets remain very strong; smartphones continue to grow—and will benefit from new platform introductions this quarter; the company continues to gain design wins in automotive applications in US, Europe and Japan; is well positioned with emerging market opportunities for wearable and gesture recognition applications; and remained the world's largest supplier of image sensors last year for the sixth consecutive year, according to TSR. OVTI sells a broad offering of 10/8/5/3/2/1.3Mp parts to handset makers in North America, China, Taiwan and Japan at various price/performance segments and top Chinese smartphone OEMs are now exporting to Asia, Africa and Latin America. OVTI's competitive position remains very strong with higher performance and resolution offerings.

Gross Margin Opportunity: OVTI's second-generation, back-side illumination pixel technology, OmniBSI-2, offers high-quality image capture in very thin form factors that is clearly appreciated by customers given the

company's sales growth over the last year. Longer-term, the technology offers less expensive and higher-volume manufacturing by avoiding the cost of SOI wafers and embracing 65nm process technology on 300mm wafers. Unfortunately, near-term it is a gross margin problem and a significant portion of current inventory. This inventory will likely be flushed over this fiscal year, the company continues to generate profits at the current gross margin level of 17.7%, and I expect significant earnings leverage as margins expand with the depletion of this inventory.

Management Guidance: For F2Q: sales of \$375-410M; R&D up +10%; SG&A up slightly (on the full effect of annual salary increases); GAAP tax high-teens/pro forma 10%; GAAP EPS of \$0.21-\$0.38/pro forma \$0.36-\$0.53.

Lowering Estimates: My F2Q estimate is slightly above the mid-point of management guidance, and lower revenue and gross margin trickle through my model over the next two years. Quarter seasonality is retained.

FYE April <i>pro forma, millions</i>	F2Q		FY14		FY15	
	Previous	Update	Previous	Update	Previous	Update
Revenue	\$412.5	\$395.0	\$1,550.6	\$1,503.4	\$1,635.3	\$1,584.3
Revenue Growth	10.0%	5.7%	10.1%	6.8%	5.5%	5.4%
Gross Margin	20.0%	18.7%	20.4%	18.7%	22.7%	20.8%
Op Expense	\$43.4	\$43.5	\$186.5	\$176.2	\$217.9	\$202.6
Interest/Other Inc	\$0.8	\$0.0	\$3.2	(\$0.6)	\$3.2	\$0.0
Taxes	12.0%	10.0%	12.0%	1.0%	12.0%	12.0%
Shares	57.08	57.66	57.22	57.85	58.32	58.93
Diluted EPS	\$0.58	\$0.47	\$2.04	\$1.79	\$2.37	\$1.89

Still Very Attractive Valuation: Valuation tables for OVTI 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 are unrealistically high given the nature of equity markets at this time. The top table, Relative Valuation, measures OVTI against a set of peers in the current equity market environment and is considerably more relevant, in my opinion.

My first preference would be to choose a set of fabless, ASSP (application-specific standard product) semiconductor companies with roughly comparable sales, margin, market cap, and historical average price-sales ratios that would look very much like the peer group I chose for SIMG that includes AMCC, ENTR, OVTI, POWI, SIMO and VLTR. This would support an argument to value OVTI at 2-times sales and price target of \$50. Unfortunately, I don't think most investors would buy such an argument primarily due to the depressed gross margin level at OVTI, but also due to the extreme magnitude of potential share price upside. Nevertheless, I reserve the right to introduce such a methodology in the future when OVTI's gross margin—and, quite possibly its share price—recover to higher levels.

Instead, I compiled a set of comparable peers whose current numerical magnitudes of sales, gross margin, market cap, and historical average price-sales ratios are more closely aligned. This was not a trivial exercise, and I could not come up with any peers that satisfied more than three out of those four criteria. The set of peers I generated as noted on Page 7 includes CODE, CY, DIOD, IRF, MX, RFMD and TQNT. I can justify this group on a quantitative basis at a very robust level. However, qualitatively I doubt I could dream up a more eclectic and motley crew in terms of product offerings, business models, corporate strategies, and corporate and product evolutionary lifecycles.

OVTI remains inexpensive any way that I look at it: price-sales, price-earnings, and even price-book where it is currently trading at 1.2-times book value. It is trading among the lowest price-earnings ratios of its peers across all four years identified in the table, and has the lowest or second lowest price-sales ratio of all its peers in terms of trailing, current and future years. My 12-month target price of \$30 is based on just under 1.2-times FY14 sales which is consistent with the average for the next fiscal year of its peers. Upside potential significantly exceeds downside risk at current price levels, in my opinion, and I continue to recommend OVTI as a Buy.

<i>pro forma EPS</i>	F2Q	FY14	FY15	<i>Revenue (12 est)</i>	F2Q	FY14	FY15
<i>Tokeneke-revised</i>	\$0.47	\$1.79	\$1.89	<i>Tokeneke-revised</i>	\$395.0	\$1,503.3	\$1,584.3
<i>Tokeneke-previous</i>	\$0.58	\$2.04	\$2.37	<i>Tokeneke-previous</i>	\$412.5	\$1,550.6	\$1,635.3
Consensus-previous	\$0.49	\$1.73	\$1.83	Consensus-previous	\$406.6	\$1,560.0	\$1,640.0
Highest Est-previous	\$0.55	\$2.00	\$2.24	Highest Est-previous	\$429.2	\$1,610.0	\$1,780.0
Lowest Est-previous	\$0.44	\$1.61	\$1.45	Lowest Est-previous	\$390.0	\$1,520.0	\$1,440.0

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Income Statement

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

	FY2012			FY2013 act					FY2014 est					FY2015				
	FY2010	FY2011	FY2012	Q1	Q2	Q3	Q4	FY2013	Q1A	Q2	Q3	Q4	FY2014	Q1	Q2	Q3	Q4	FY2015
Revenue	602,991	956,476	897,730	258,064	390,137	423,513	336,215	1,407,929	373,688	395,000	395,000	339,700	1,503,388	322,715	403,394	463,903	394,317	1,584,329
COGS	454,936	676,494	646,782	207,789	324,476	351,113	276,615	1,159,993	307,555	321,135	319,950	273,459	1,222,099	258,172	320,698	366,483	309,539	1,254,892
Gross Profit	148,055	279,982	250,948	50,275	65,661	72,400	59,600	247,936	66,133	73,865	75,050	66,242	281,290	64,543	82,696	97,420	84,778	329,437
R&D	67,078	78,964	97,368	24,096	26,248	23,712	22,945	97,001	23,908	26,299	27,614	28,994	106,815	30,009	31,060	32,147	33,272	126,487
SG&A	51,025	54,491	52,858	15,012	14,787	15,015	14,648	59,462	14,470	14,904	15,202	15,506	60,083	15,971	16,451	16,944	17,452	66,818
Stk Crg/Write-off	-	774	9,286	2,321	2,322	2,321	2,322	9,286	2,321	2,321	2,321	2,321	9,284	2,321	2,321	2,321	2,321	9,284
Operating Expenses	118,103	134,229	159,512	41,429	43,357	41,048	39,915	165,749	40,699	43,524	45,137	46,822	176,181	48,302	49,831	51,412	53,045	202,590
Operating Income	29,952	145,753	91,436	8,846	22,304	31,352	19,685	82,187	25,434	30,341	29,913	19,420	105,108	16,241	32,865	46,008	31,733	126,847
Interest/Other	3,801	2,768	(1,107)	(664)	686	203	123	348	(608)	-	-	-	(608)	-	-	-	-	-
Pre-tax Income	33,753	148,521	90,329	8,182	22,990	31,555	19,808	82,535	24,826	30,341	29,913	19,420	104,500	16,241	32,865	46,008	31,733	126,847
Taxes	2,789	151	4,464	(2,239)	4,439	97	2,348	4,645	(6,901)	3,034	2,991	1,942	1,066	1,949	3,944	5,521	3,808	15,222
Minority Interest	321	32	9,643	1,140	0	0	0	1,140	0	0	0	0	0	0	0	0	0	0
Net Income	31,285	148,402	95,508	11,561	18,551	31,458	17,460	79,030	31,727	27,307	26,922	17,478	103,434	14,292	28,921	40,487	27,925	111,625
EPS-basic	\$0.59	\$2.68	\$1.69	\$0.22	\$0.35	\$0.58	\$0.32	\$1.48	\$0.58	\$0.50	\$0.49	\$0.32	\$1.88	\$0.26	\$0.52	\$0.72	\$0.49	\$1.99
Shares-basic	52,856	55,324	56,667	52,830	53,514	53,830	53,943	53,529	54,611	54,884	55,158	55,434	55,022	55,711	55,990	56,270	56,551	56,131
EPS-diluted	\$0.59	\$2.49	\$1.60	\$0.21	\$0.33	\$0.56	\$0.31	\$1.41	\$0.55	\$0.47	\$0.46	\$0.30	\$1.79	\$0.24	\$0.49	\$0.69	\$0.47	\$1.89
Shares-diluted	52,765	59,664	59,510	55,186	56,211	56,453	56,525	56,094	57,509	57,684	57,958	58,234	57,846	58,511	58,790	59,070	59,351	58,931
GAAP EPS	\$0.13	\$2.11	\$1.13	\$0.04	\$0.19	\$0.40	\$0.17	\$0.71	\$0.42	\$0.29	\$0.28	\$0.13	\$1.11	\$0.08	\$0.30	\$0.48	\$0.28	\$1.14
Margin Analysis																		
Gross Margin	24.6%	29.3%	28.0%	19.5%	16.8%	17.1%	17.7%	17.6%	17.7%	18.7%	19.0%	19.5%	18.7%	20.0%	20.5%	21.0%	21.5%	20.8%
R&D	11.1%	8.3%	10.8%	9.3%	6.7%	5.6%	6.8%	6.9%	6.4%	6.7%	7.0%	8.5%	7.1%	9.3%	7.7%	6.9%	8.4%	8.0%
SG&A	8.5%	5.7%	5.9%	5.8%	3.8%	3.5%	4.4%	4.2%	3.9%	3.8%	3.8%	4.6%	4.0%	4.9%	4.1%	3.7%	4.4%	4.2%
Stk Chrg/Write-off	0.0%	0.1%	1.0%	0.9%	0.6%	0.5%	0.7%	0.7%	0.6%	0.6%	0.6%	0.7%	0.6%	0.7%	0.6%	0.5%	0.6%	0.6%
Operating Income	5.0%	15.2%	10.2%	3.4%	5.7%	7.4%	5.9%	5.8%	6.8%	7.7%	7.6%	5.7%	7.0%	5.0%	8.1%	9.9%	8.0%	8.0%
Pre-tax Income	5.6%	15.5%	10.1%	3.2%	5.9%	7.5%	5.9%	5.9%	6.6%	7.7%	7.6%	5.7%	7.0%	5.0%	8.1%	9.9%	8.0%	8.0%
Tax Rate	8.3%	0.1%	4.9%	-27.4%	19.3%	0.3%	11.9%	5.6%	-27.8%	10.0%	10.0%	10.0%	1.0%	12.0%	12.0%	12.0%	12.0%	12.0%
Net Income	5.2%	15.5%	10.6%	4.5%	4.8%	7.4%	5.2%	5.6%	8.5%	6.9%	6.8%	5.1%	6.9%	4.4%	7.2%	8.7%	7.1%	7.0%
Qtr-to-Qtr Growth																		
Revenue				18.1%	51.2%	8.6%	-20.6%		11.1%	5.7%	0.0%	-14.0%		-5.0%	25.0%	15.0%	-15.0%	
Operating Expenses				7.3%	4.7%	-5.3%	-2.8%		2.0%	6.9%	3.7%	3.7%		3.2%	3.2%	3.2%	3.2%	
Operating Income				-22.6%	152%	40.6%	-37.2%		29.2%	19.3%	-1.4%	-35.1%		-16.4%	102.4%	40.0%	-31.0%	
Pre-tax Income				-29.8%	181%	37.3%	-37.2%		25.3%	22.2%	-1.4%	-35.1%		-16.4%	102.4%	40.0%	-31.0%	
Net Income				6.4%	60.5%	69.6%	-44.5%		81.7%	-13.9%	-1.4%	-35.1%		-18.2%	102.4%	40.0%	-31.0%	
EPS				5.6%	57.5%	68.8%	-44.6%		78.6%	-14.2%	-1.9%	-35.4%		-18.6%	101.4%	39.3%	-31.4%	
Year-to-Year Growth																		
Revenue	18.9%	58.6%	-6.1%	-6.5%	79.0%	128.7%	53.8%	56.8%	44.8%	1.2%	-6.7%	1.0%	6.8%	-13.6%	2.1%	17.4%	16.1%	5.4%
Operating Expenses	-4.9%	13.7%	18.8%	-1.2%	5.5%	8.4%	3.4%	3.9%	-1.8%	0.4%	10.0%	17.3%	6.3%	18.7%	14.5%	13.9%	13.3%	15.0%
Operating Income	-1008%	387%	-37.3%	-80.7%	-15.2%	301%	72.3%	-10.1%	188%	36.0%	-4.6%	-1.3%	27.9%	-36.1%	8.3%	53.8%	63.4%	20.7%
Pre-tax Income	-867%	340%	-39.2%	-82.0%	-11.0%	326%	69.9%	-8.6%	203%	32.0%	-5.2%	-2.0%	26.6%	-34.6%	8.3%	53.8%	63.4%	21.4%
Net Income	-896%	374%	-35.6%	-75.5%	-38.3%	325%	60.7%	-17.3%	174%	47.2%	-14.4%	0.1%	30.9%	-55.0%	5.9%	50.4%	59.8%	7.9%
EPS	-863%	320%	-35.5%	-71.9%	-31.3%	340%	55.6%	-12.2%	163%	43.4%	-16.6%	-2.8%	26.9%	-55.7%	3.9%	47.6%	56.8%	5.9%

OmniVision Technologies

Financial Summary

(dollars in thousands)

Fiscal year ends April

	FY10	FY11	FY12	FY13	1QF13	2QF13	3QF13	4QF13	1QF14
Assets									
Cash and equivalents	234,023	379,379	290,492	190,171	191,786	115,511	194,841	190,171	196,748
Short-term investments	99,555	87,505	40,515	22,164	44,779	24,096	25,460	22,164	43,773
Net accounts receivable	<u>74,261</u>	<u>142,606</u>	<u>107,793</u>	<u>166,517</u>	<u>142,687</u>	<u>249,283</u>	<u>171,926</u>	<u>166,517</u>	<u>174,529</u>
Quick Assets	407,839	609,490	438,800	378,852	379,252	388,890	392,227	378,852	415,050
Inventories	133,993	106,873	291,340	430,315	403,201	398,694	373,335	430,315	426,556
Other	<u>11,370</u>	<u>14,608</u>	<u>12,625</u>	<u>16,010</u>	<u>24,629</u>	<u>14,122</u>	<u>11,759</u>	<u>16,010</u>	<u>9,874</u>
Current Assets	553,202	730,971	742,765	825,177	807,082	801,706	777,321	825,177	851,480
Property, plant and eqt, net	121,547	115,446	144,792	160,630	151,905	154,045	162,182	160,630	160,310
Long-term investments	92,121	104,616	128,940	139,746	119,198	127,178	132,866	139,746	145,066
Goodwill and intangibles	5,330	71,014	79,255	67,031	76,050	73,527	70,264	67,031	63,860
Other assets	<u>25,493</u>	<u>12,111</u>	<u>7,205</u>	<u>34,430</u>	<u>19,138</u>	<u>16,951</u>	<u>21,901</u>	<u>34,430</u>	<u>37,397</u>
Total Assets	797,693	1,034,158	1,102,957	1,227,014	1,173,373	1,173,407	1,164,534	1,227,014	1,258,113
Liabilities and Shareholders Equity									
Current portion of long-term debt	4,286	4,323	3,146	3,769	2,383	2,141	3,739	3,769	3,791
Accounts payable	85,487	102,519	159,860	188,261	222,185	193,608	152,347	188,261	180,858
Deferred revenue	10,661	16,594	10,115	15,493	10,053	14,094	16,199	15,493	24,399
Other liabilities	<u>19,506</u>	<u>25,483</u>	<u>36,403</u>	<u>43,178</u>	<u>36,192</u>	<u>40,367</u>	<u>35,660</u>	<u>43,178</u>	<u>43,662</u>
Current Liabilities	119,940	148,919	209,524	250,701	270,813	250,210	207,945	250,701	252,710
Long-term debt	45,428	41,916	39,337	35,709	39,071	39,008	35,735	35,709	35,652
Deferred tax liability/other	<u>95,353</u>	<u>91,998</u>	<u>93,217</u>	<u>95,395</u>	<u>89,467</u>	<u>90,146</u>	<u>90,529</u>	<u>95,395</u>	<u>86,558</u>
Total Liabilities	260,721	282,833	342,078	381,805	399,351	379,364	334,209	381,805	374,920
Minority interest	3,390	0	0	0	0	0	0	0	0
Common stock	441,142	533,847	578,978	620,406	587,810	596,717	614,444	620,406	630,894
Retained earnings	270,253	394,735	460,584	503,486	462,911	473,256	494,564	503,486	526,547
Other/Treasury Stock	<u>(177,813)</u>	<u>(177,257)</u>	<u>(278,683)</u>	<u>(278,683)</u>	<u>(276,699)</u>	<u>(275,930)</u>	<u>(278,683)</u>	<u>(278,683)</u>	<u>(274,248)</u>
Total Shareholders Equity	533,582	751,325	760,879	845,209	774,022	794,043	830,325	845,209	883,193
Total Liabilities and Equity	797,693	1,034,158	1,102,957	1,227,014	1,173,373	1,173,407	1,164,534	1,227,014	1,258,113
Sales and Income									
Revenue	602,991	956,476	897,736	1,407,929	258,064	390,137	423,513	336,215	373,688
COGS	457,646	678,459	649,719	1,163,815	208,849	325,453	352,027	277,486	308,527
Net income	6,724	124,482	65,849	42,902	2,327	10,345	21,308	8,922	23,061
Other									
Capital Expenditures	13,516	10,313	24,186	35,323	11,446	8,265	10,197	5,415	
Depreciation and Amortization	6,403	20,564	29,771	32,524	8,524	8,771	8,463	6,766	
Shares (weighted average diluted)	53,002	59,664	58,233	53,671	55,186	56,211	53,930	54,061	57,509
Employees (units)	1,450	1,465	1,796	2,057					
Stock Repurchased				0					
Ratios									
Liquidity									
Quick Ratio	3.40	4.09	2.09	1.51	1.40	1.55	1.89	1.51	1.64
Current Ratio	4.61	4.91	3.55	3.29	2.98	3.20	3.74	3.29	3.37
Leverage									
Debt Ratio	0.33	0.27	0.31	0.31	0.34	0.32	0.29	0.31	0.30
Long-term Debt/Capital	0.18	0.13	0.12	0.11	0.11	0.11	0.11	0.11	0.10
Asset Management									
Fixed Asset Turnover	5.01	8.07	6.90	9.22	6.96	10.20	10.71	8.33	9.31
Total Asset Turnover	0.82	1.04	0.84	1.21	0.91	1.33	1.45	1.12	1.20
Receivables DSO	44	54	43	43	50	58	37	45	42
Inventory Days	105	57	161	133	174	110	95	140	124
Inventory Turnover	3.83	5.63	3.26	3.23	2.41	3.25	3.65	2.76	2.88
Revenue/Employee	434	656	551	731					
Profitability									
Gross Margin	24.1%	29.1%	27.6%	17.3%	19.1%	16.6%	16.9%	17.5%	17.4%
Net Margin	1.1%	13.0%	7.3%	3.0%	0.9%	2.7%	5.0%	2.7%	6.2%
Return on Assets	0.9%	13.6%	6.2%	3.7%	0.8%	3.5%	7.3%	3.0%	7.4%
Return on Equity	1.3%	19.4%	8.7%	5.3%	1.2%	5.3%	10.5%	4.3%	10.7%
Per Share Data									
Book Value/Share	\$10.07	\$12.59	\$13.07	\$15.75	\$14.03	\$14.13	\$15.40	\$15.63	\$15.36
Tangible Book/Share	\$9.97	\$11.40	\$11.71	\$14.50	\$12.65	\$12.82	\$14.09	\$14.39	\$14.25
Cash/Share	\$6.29	\$7.83	\$5.68	\$3.96	\$6.45	\$4.75	\$6.55	\$6.51	\$6.70
Net Cash/Share	\$5.36	\$7.05	\$4.95	\$3.22	\$3.54	\$1.75	\$3.35	\$3.20	\$3.50
Earnings/Share	\$0.13	\$2.09	\$1.13	\$0.80	\$0.04	\$0.18	\$0.40	\$0.17	\$0.40

OmniVision Technologies

Sales Analysis

	FY08	FY09	FY10	FY11	FY12	FY13	FY2011				FY2012				FY2013				FY14	
							1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	
Product Metrics																				
Units Shipped (mil)	425.0	327.0	475.0	682.0	614.0	855.0	134.0	185.0	194.0	169.0	171.0	153.0	143.0	147.0	166.0	249.0	252.0	188.0	208.0	
Unit growth (calculated)	70.0%	-23.1%	45.3%	43.6%	-10.0%	39.3%	7.2%	38.1%	4.9%	-12.9%	1.2%	-10.5%	-6.5%	2.8%	12.9%	50.0%	1.2%	-25.4%	10.6%	
ASP	\$1.88	\$1.55	\$1.27	\$1.40	\$1.46	\$1.65	\$1.44	\$1.29	\$1.37	\$1.53	\$1.61	\$1.42	\$1.29	\$1.48	\$1.55	\$1.56	\$1.68	\$1.79	\$1.79	
ASP change		-17.5%	-18.2%	10.5%	4.3%	12.6%	14.3%	-10.4%	6.2%	11.7%	5.2%	-11.8%	-9.2%	14.7%	4.7%	0.6%	7.7%	6.5%	0.0%	
VGA and smaller		71.5%	66.6%	54.6%	52.6%	20.8%	57%	60%	56%	45%	45%	53%	59%	55%	32%	21%	16%	17%	14%	
1.3-megapixel		12.8%	9.9%	12.8%	18.5%	40.5%	10%	12%	11%	18%	18%	23%	19%	14%	31%	48%	45%	33%	39%	
2-megapixel and greater		17.8%	23.2%	32.6%	28.8%	38.7%	33%	28%	33%	37%	37%	24%	22%	31%	37%	31%	39%	50%	47%	
By Market																				
Cell Phone				65.0%	56.0%	59.0%	66%	66%	72%	65%	62%	60%	52%	52%	48%	59%	61%	65%	63%	
Digital Camera																				
Security/Surveillance																				
Entertainment							6%	11%	10%	11%	14%	20%	28%	28%	27%	29%	26%	17%	22%	
PC Camera/notebook							19%	15%	11%	15%	15%	9%	8%	11%	15%	6%	7%	8%	7%	
PDA																				
Automotive/other							9%													
<i>Total</i>							100%	92%	93%	91%	91%	89%	88%	91%	90%	94%	94%	90%	92%	
By Territory																				
Hong Kong																				
Taiwan	55,924	41,154					4,582	8,391	11,035		6,348	4,719	2,984		6,218	7,474	6,210			
Japan	4,686	4,410	7,961	11,546	46,108	57,604				12,895					13,796	18,626	15,246	9,936		
China	666,344	383,875	504,940	614,891	520,452	955,378	127,452	166,421	166,706	154,312	159,276	137,387	112,079	111,710	175,106	265,433	278,923	235,916		
Korea	3,125	4,670	5,406	199,747	147,390	275,105	36,698	42,642	55,116	65,291	69,252	22,016	12,659	43,463	48,819	64,954	96,163	65,169		
Malaysia	55,015	36,358	21,890	66,827	50,887	60,243	19,175	14,927	19,793	12,932	13,940	15,106	12,895	8,946	7,858	27,839	15,364	9,182		
US	12,810	33,912	3,513	16,203	61,766	3,997	1,231	731	6,686	7,555	1,231	731	6,686	7,555	1,231	731	6,686	7,555	3,997	
ROW	1,634	2,937	59,283	47,262	71,127	55,602	3,933	6,348	6,341	18,178	14,360	25,241	21,930	28,758	6,267	5,811	11,607	31,917		
<i>Total (.000)</i>	799,538	507,316	602,993	956,476	897,730	1,407,929	193,071	239,460	265,677	258,268	276,071	217,919	185,193	218,547	258,064	390,137	423,513	356,117		
By Channel																				
OEM & VARs	66.8%	58.0%	51.5%	75.3%	78.1%	81.2%	68.4%	73.9%	80.2%	76.9%	77.2%	79.0%	79.2%	77.4%	72.5%	85.2%	85.2%	78.4%	81.6%	
Distributors	33.2%	42.0%	48.5%	24.7%	21.9%	18.8%	31.6%	26.1%	19.8%	23.1%	22.8%	21.0%	20.8%	22.6%	27.5%	14.8%	14.8%	21.6%	18.4%	
By Customer																				
LG Innotec				17.6%	15.2%	18.0%	15.1%	13.6%	17.6%		23.0%	11.9%	11.8%		17.2%	15.8%	21.8%			
WPI (HK distributor)	19.9%	22.4%	27.0%	13.8%	13.5%	11.7%	16.5%	14.5%	11.1%		14.0%		13.7%		16.0%					
unidentified OEM							12.9%					11.0%				14.7%	13.9%			
unidentified OEM													10.2%		12.6%	12.2%				
unidentified Disti													11.6%							
Nam Tai (cell)																				
Primax (Motorola cell)																				
X-10 (security)																				
Creative Labs (PC)																				
Concord (DSC)																				
Aiptek (DSC)																				
Foundate/Lite-On (cell)																				
unidentified (cell)																				
unidentified (cell)																				
Foxconn	15.0%	10.4%	11.2%			10.7%														
Cowell						10.3%														
Sanshin (OEM)																				
SiDa (distributor)																				
Top 5		59.5%	60.0%	55.0%	52.0%	57.7%										58.6%				

8/30/13

OmniVision Technologies

Company Summary

Products			Technology	Markets		Suppliers	Competitors
CMOS Image Sensors			<u>Pixel Generation</u>	<u>Market</u>	<u>CY11 Share</u>	<u>Image Sensor Fabs</u>	<u>CMOS</u>
<u>Resolution</u> <i>(megapixels)</i>	<u>Optical Format</u> <i>(in inches)</i>	<u>Pixel Size</u> <i>(in microns)</i>	OmniBSI-2	PC/webcams	44%	TSMC	Aptina
			OmniBSI	Camera Phones	21%	Powerchip	Samsung
Native HD	1/18"	1.1	OmniPixel3-HS	Security	47%		Sharp
High Res HD	1/13"	1.34	<i>(HS = high-sensitivity)</i>	Automotive	23%	<u>Color Filter</u>	Sony
16 Mp	1/10"	1.4	OmniPixel3	Medical	44%	VisEra (TSMC joint vent.)	STMicro
14 Mp	1/9"	1.75	OmniPixel2	<u>Entertainment*</u>	<u>57%</u>		Toshiba
12 Mp	1/7"	2.0	OmniPixel	<u>Total CMOS:</u>	<u>25%</u>	<u>Wafer Probe</u>	
10 Mp	1/6"	2.2	CameraCubeChip			KYEC	<u>CCD</u>
9 Mp	1/5"	2.5		<u>Applications</u>		THEPI	Panasonic
8 Mp	1/4"	3.0	<u>Wafer Fab Line-Widths</u>	Cell Phone Handsets			Sharp
5 Mp	1/3"	3.18	65 nm	Digital Still Cameras		<u>Package Assembly</u>	Sony
3 Mp	1/2.3"	3.6	0.11-micron	Security Cameras		Lingsen (ceramic)	
2 Mp (1080)		4.2	0.13-micron	Surveillance Cameras		Tong Hsing (ceramic)	
1.3 Mp (720)		6.0	0.18-micron	PC Cameras		XinTec (investment)(CSP)	
VGA			0.25-micron	Video Games*		OSC (OVTI-owned)	
CIF				Toys*			
analog				Automobiles			
				Tablets*			
				Digital TVs			
				Portable Media Players*			
				Camcorders			
				Medical			
CameraCubeChip							
Companion Chips							
USB controllers							
Host Processors							
image processing/compression							

OmniVision

Valuation

Relative Valuation

Company	Ticker	Price 8/29/13	52-Week		CY EPS				CY P/E				Shares (mil)	CAP (\$ mil)	Price-Sales			FY Ends	
			Low	High	2011	2012	2013	2014	2011	2012	2013	2014			TTM	Cur FY	Nxt FY		
OmniVision *	OVTI	18.41	12.06	20.48	2.03	1.30	1.79	1.72	9.1	14.2	10.3	10.7	58	1,059	0.7	0.7	0.7	Apr	
Spansion	CODE	10.48	9.96	14.54	0.85	0.99	0.81	1.57	12.3	10.6	12.9	6.7	59	614	0.7	0.6	0.4	Dec	
Cypress Semiconductor	CY	11.60	8.70	13.41	1.25	0.55	0.54	0.85	9.3	21.1	21.5	13.6	160	1,854	2.5	2.4	2.2	Dec	
Diodes	DIOD	25.18	12.95	28.46	1.25	0.56	1.19	1.74	20.1	45.0	21.2	14.5	48	1,196	1.7	1.4	1.3	Dec	
International Rectifier	IRF	24.38	14.32	25.96	1.24	-0.98	0.04	1.02	19.7	NM	NM	23.9	70	1,702	1.7	1.6	1.4	Jun	
MagnaChip	MX	20.80	10.85	21.10	1.68	2.23	2.49	2.91	12.4	9.3	8.4	7.1	37	772	0.9	0.9	0.8	Dec	
RF Micro Devices	RFMD	5.10	3.50	5.75	0.29	0.10	0.38	0.53	17.6	51.0	13.4	9.6	287	1,464	1.4	1.2	1.1	Mar	
TriQuint	TQNT	7.79	4.30	8.29	0.51	0.18	0.05	0.51	15.3	43.3	NM	15.3	159	1,241	1.5	1.4	1.2	Dec	
Average									15.2	30.0	15.5	13.0				1.5	1.3	1.2	

* Tokeneke estimate

Source: consensus as of 8/29/13

Historical Valuation

Company	Ticker	Price 8/29/13	Trailing 12-month					
			Price/Earnings		Price/Sales		Price/Book	
			Current	Historical*	Current	Historical*	Current	Historical*
OmniVision	OVTI	\$18.41	10.5		0.7		1.2	
			Average	62.0	Average	2.5	Average	2.6
			High	1129.0	High	8.2	High	12.2
			Low	4.6	Low	0.5	Low	0.5

* 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

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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.

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