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How Suppliers Rank in Opto, Sensors/Actuators, and Discretes

Weak Japanese yen hits major optoelectronics and discretes companies in Japan and lowers overall O-S-D dollar sales growth in 2013.

Companies selling optoelectronics continue to dominate the top 30 sales ranking of suppliers serving semiconductor markets outside of traditional integrated circuit products, according to IC Insights' *2014 O-S-D Report—A Market Analysis and Forecast for Optoelectronics, Sensors/Actuators, and Discretes*. The new 350-page report shows 26 of the top 30 O-S-D suppliers selling optoelectronics, and among those companies, 16 are shipping light-emitting diodes (LEDs) for high-growth applications in solid-state lighting. The 2014 report also shows 16 of the top 30 O-S-D suppliers selling sensor and actuator products—including those made with microelectromechanical systems (MEMS) technology—and 18 companies offering discrete semiconductors.

MORE INFORMATION CONTACT

Rob Lineback
Sr. Market Research Analyst
Phone: +1-817-731-0424
Email: rob@icinsights.com

The 30 largest O-S-D suppliers accounted for 66% of the total \$58.6 billion in worldwide revenues generated by optoelectronics, sensor/actuator devices, and discretes in 2013, based on IC Insights' estimates and company reports. The new *2014 O-S-D Report* says worldwide optoelectronics sales grew 5% in 2013 to \$29.2 billion, while the sensors/actuators segment was uncharacteristically flat with no growth last year at \$8.7 billion, and the discretes market dropped 5% to \$20.7 billion. In 2013, the top 10 suppliers accounted for 34% of combined O-S-D sales (see Figure 1), but it is also worth noting that these companies collectively lost marketshare in 2013 with the sum of their revenues dropping 2%. Suppliers ranked 11-30th in IC Insights' new report saw combined dollar sales grow 2% in 2013, while the rest of the smaller O-S-D companies collectively gained marketshare last year with a 2% increase in combined sales.

Combined revenues of the top 30 O-S-D companies were flat in 2013 compared to 2012 because of the weak Japanese yen-exchange rate that significantly lowered the dollar-sales value of products sold by semiconductor suppliers based in Japan. The average exchange rate in 2013 was 97.6 yen per U.S. dollar in 2013 versus 79.8 yen/dollar in 2012. Because Japanese companies continue to be major suppliers of O-S-D products worldwide—especially in optoelectronics and discretes—the 18% decline in the 2013 yen exchange rate significantly held down the growth of the entire O-S-D marketplace, when sales are measured in U.S. dollars. If the stronger 2012 yen exchange rate were used, total O-S-D dollar sales in

2013 would have grown 8% to nearly \$52.6 billion instead of the 1% increase to \$58.6 billion when the weaker 2013 yen value is applied.

Top 10 Suppliers of O-S-D Semiconductors (Optoelectronics, Sensors/Actuators, and Discretes)

2013 Rank	2012 Rank	Companies	HQ	2012 (\$M)	2013 (\$M)	13/12 % Change
1	1	Sony	Japan	3,783	3,598	-5%
2	2	Nichia	Japan	2,352	2,295	-2%
3	4	ST	Europe	2,137	2,167	1%
4	3	Toshiba	Japan	2,162	2,090	-3%
5	5	Infineon	Europe	1,850	1,858	0%
6	7	Samsung	S. Korea	1,794	1,858	4%
7	6	Renesas	Japan	1,827	1,570	-14%
8	9	Mitsubishi	Japan	1,690	1,513	-10%
9	13	OmniVision	U.S.	1,211	1,483	22%
10	10	Sharp	Japan	1,505	1,418	-6%
Top 10 Total				20,311	19,850	-2%
Top 11-30 Total				18,105	18,522	2%
Others				19,762	20,186	2%
O-S-D Total				58,178	58,558	1%

Source: IC Insights, company reports

Figure 1

If the stronger 2012 79.8 yen/dollar exchange rate was used in 2013, O-S-D leader Sony—who is the top image sensor supplier—would have recorded a 16% increase in sales to \$4.4 billion (versus a 5% decline to about \$3.6 billion shown in the table above). Other top 10 O-S-D suppliers headquartered in Japan would have seen these improvements in growth using the stronger 2012 exchange rate: LED-leader and major laser maker Nichia (+19% versus -2%); Toshiba (+18% versus -3%); Renesas (+5% versus -14%); Mitsubishi (+9% versus -10%); and Sharp (+15% versus -6%). Figure 2 shows these changes in the top 10 ranking, based on the analysis in the *2014 O-S-D report*, which also provides separate top 10 sales rankings for optoelectronics, sensors/actuators, and discrete semiconductors.

Report Details: *The 2014 O-S-D Report*

In a one-of-a-kind study, IC Insights expands its coverage of the semiconductor industry with detailed analysis of trends and growth rates in the optoelectronics, sensors/actuators, and discretes market segments in its newly revised 350-page *O-S-D Report—A Market Analysis and Forecast for Optoelectronics, Sensors/Actuators, and Discretes*.

How the Weak Yen Impacted Top Japanese O-S-D Suppliers

2013 Rank	2012 Rank	Companies	HQ	2012 (\$M)	2013 (\$M)	13/12 % Change	2013 Sales w/Yen per \$ Adjustment*	13/12 % Change
1	1	Sony	Japan	3,783	3,598	-5%	4,401	16%
2	2	Nichia	Japan	2,352	2,295	-2%	2,807	19%
3	4	ST	Europe	2,137	2,167	1%	2,167	1%
4	3	Toshiba	Japan	2,162	2,090	-3%	2,556	18%
5	5	Infineon	Europe	1,850	1,858	0%	1,858	0%
6	7	Samsung	S. Korea	1,794	1,858	4%	1,858	4%
7	6	Renesas	Japan	1,827	1,570	-14%	1,920	5%
8	9	Mitsubishi	Japan	1,690	1,513	-10%	1,850	9%
9	13	OmniVision	U.S.	1,211	1,483	22%	1,483	22%
10	10	Sharp	Japan	1,505	1,418	-6%	1,734	15%
Top 10 Total				20,311	19,850	-2%	22,634	11%
Top 11-30 Total				18,105	18,522	2%	19,556	8%
Others				19,762	20,186	2%	20,400	3%
O-S-D Total				58,178	58,558	1%	62,590	8%

*Using 2012 Japanese yen per U.S. dollar exchange rate (79.8) for 2013 Japanese company sales

Source: IC Insights, company reports

Figure 2

Now in its ninth annual edition, the *2014 O-S-D Report* contains a detailed forecast of sales, unit shipments, and selling prices for more than 30 individual product types and categories through 2018. Also included is a review of technology trends for each of the segments. The *2014 O-S-D Report*, with more than 230 charts and figures, is attractively priced at \$3,190 for an individual-user license and \$6,290 for a multi-user corporate license.

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About IC Insights

IC Insights, Inc., based in Scottsdale, Arizona USA, is dedicated to providing high-quality, cost-effective market research for the semiconductor industry. Founded in 1997, IC Insights offers coverage of global economic trends, the semiconductor market forecast, capital spending and fab capacity trends, product market details, and technology trends, as well as complete IC company profiles and evaluations of end-use applications driving demand for ICs.

Web Site: www.icinsights.com • **Phone:** +1-480-348-1133 • **E-mail:** info@icinsights.com