

# RESEARCH BULLETIN

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## CMOS Image Sensor Sales Stay on Record-Breaking Pace

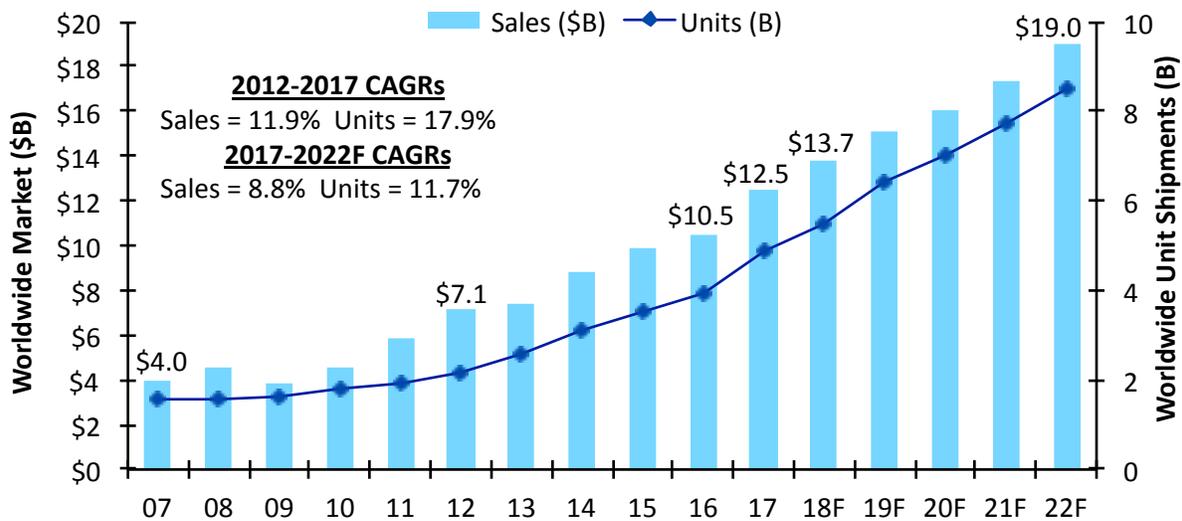
*Embedded imaging applications in cars, security, machine vision, medical, virtual reality, and other new uses will offset slow growth in camera phones, says new report.*

The spread of digital camera applications in vehicles, machine vision, human recognition and security systems, as well as for more powerful camera phones will drive CMOS image sensor sales to an eighth straight record-high level this year with worldwide revenues growing 10% to \$13.7 billion, following a 19% surge in 2017, according to IC Insights' 2018 *O-S-D Report—A Market Analysis and Forecast for Optoelectronics, Sensors/Actuators, and Discretes*. The new 375-page report shows nothing stopping CMOS image sensors from continuing to set record-high annual sales and unit shipments through 2022 (Figure 1).

### MORE INFORMATION CONTACT

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## CMOS Image Sensor Sales March Higher into Next Decade



Source: IC Insights

**Figure 1**

CMOS image sensors continue to take marketshare from charge-coupled devices (CCDs) as embedded digital-imaging capabilities expand into a wider range of systems and new end-use applications, says the *2018 O-S-D Report*. With the smartphone market maturing, sales growth in CMOS image sensors slowed

to 6% in 2016, but strong demand in other imaging applications played a major factor in boosting revenues by 19% to \$12.5 billion last year. Sales of CCD and other image sensor technologies fell 2% in 2017 to about \$1.6 billion after rising 5% in 2016, according to the new IC Insights report.

Overall, CMOS image sensors grabbed 89% of total image sensor sales in 2017 compared to 74% in 2012 and 54% in 2007. Unit shipments of CMOS imaging devices represented 81% of total image sensors sold in 2017 compared to 64% in 2012 and 63% in 2007. New CMOS designs keep improving for a variety of light levels (including near darkness at night), high-speed imaging, and greater resolution as well as integrating more functions for specific applications, such as security video cameras, machine vision in robots and cars, human recognition, hand-gesture interfaces, virtual/augmented reality, and medical systems.

In new smartphones, CMOS image sensors are also seeing a new wave of growth with the increase of dual-lens camera systems (using two sensors) for enhanced photography. Cellular camera phones accounted for 62% of CMOS image sensor sales in 2017, but that marketshare is forecast to slip to 45% in 2022. Automotive CMOS image sensors are projected to grow the fastest among major end-use applications through the five-year forecast shown in the new *O-S-D Report*, rising by a compound annual growth rate (CAGR) of 38.4% to about 15% of total CMOS image sensor sales in 2022 (\$2.8 billion) while camera phone-generated revenues are expected to rise by a CAGR of just 2.2% to \$8.6 billion that year.

### **Report Details: *The 2018 O-S-D Report***

In a one-of-a-kind study, IC Insights continues to expand its coverage of the semiconductor industry with detailed analysis of trends and growth rates in the optoelectronics, sensors/actuators, and discrete market segments in its newly revised **375-page** *O-S-D Report—A Market Analysis and Forecast for the Optoelectronics, Sensors/Actuators, and Discretes*.

Now in its 13th annual edition, the 2018 *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 2022. Also included is a review of technology trends for each of the segments. The 2018 *O-S-D Report*, with more than **260 charts and figures**, is attractively priced at **\$3,790** for an individual-user license and **\$6,890** for a multi-user corporate license.

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