Presse Press

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Osram enters the 3D sensing market with two new VCSELs

The new VCSELs open up numerous applications such as 3D imaging and 3D scanning and are setting new standards in a pioneering technology

Osram Opto Semiconductors has unveiled the PLPVCQ 850 and the PLPVCQ 940, the latest additions to its Bidos product family. Applications for the new Vertical Cavity Surface Emitting Lasers (VCSELs) include machine vision or facial recognition, as well as object or architectural scanning that involves mapping an area in 3D and positioning virtual furniture and other items. The application helps save time and money when designing spaces.

VCSELs combine the high power density and simple packaging of an IRED with the spectral width and speed of a laser. Unlike laser diodes, VCSELs and are much less sensitive to temperature fluctuations. One of the most familiar applications for the technology is facial recognition for mobile devices. VCSELs illuminate the face with infrared light for cameras. The image captured by the camera is then compared to the image stored on the device. If they match, the device is unlocked. These 3D sensing applications now possible use PLPVCQ 850 and PLPVCQ 940 for Time of Flight (ToF) measurements.

The new VCSELs come with a compact black package measuring only 2.40 mm x 3.30 mm x 1.20 mm. Depending on the application, the customer can select the 2 W component with the appropriate wavelength – either 850 nm (PLPVCQ 850) or 940 nm (PLPVCQ 940). The infrared beam is formed with the aid of a special micro lens array to achieve exceptionally homogeneous illumination of the field of view (FOV). Another benefit of the VCSEL chip from the Osram subsidiary Vixar is the ease of installation.

“We are delighted to add these highly innovative products to our VCSEL family. With these products we are setting new standards in emerging applications such as 3D sensing, and

with our know-how we are looking to gain significant influence in this market", said Nina Reiser, Marketing Manager at Osram Opto Semiconductors.

The two new products will be available in the first half of 2019. For more information on VCSELs at Osram Opto Semiconductors go to:
https://www.osram.com/os/products/product-promotions/vcsel/bidos-family.jsp

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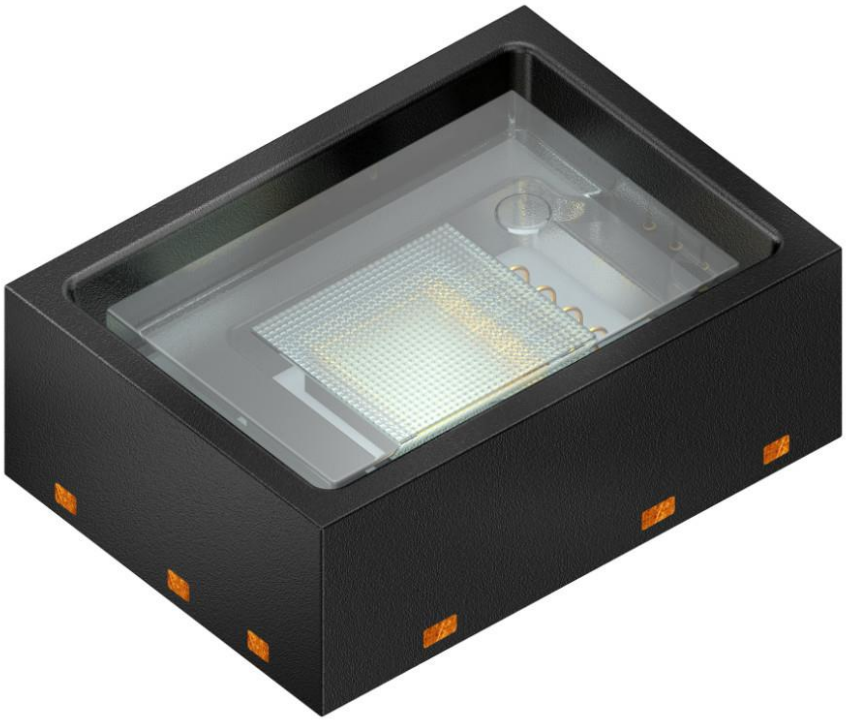

The compact dimensions of the two new VCSELs make them an ideal solution for space-critical applications in the mobile and industrial sectors.
Picture: Osram

VCSELs provide the basis for architectural scanning in which a 3D image is created and then virtually populated.
Picture: Osram

ABOUT OSRAM

OSRAM, based in Munich, is a leading global high-tech company with a history dating back more than 110 years. Primarily focused on semiconductor-based technologies, our products are used in highly diverse applications ranging from virtual reality to autonomous driving and from smartphones to smart and connected lighting solutions in buildings and cities. OSRAM uses the endless possibilities of light to improve the quality of life for individuals and communities. OSRAM's innovations enable people all over the world not only to see better, but also to communicate, travel, work and live better. OSRAM has approximately 27,400 employees worldwide as of end of fiscal 2018 (September 30) and generated revenue of more than €4.1 billion. The company is listed on the stock exchanges in Frankfurt and Munich (ISIN: DE000LED4000; WKN: LED 400; trading symbol: OSR). Further information can be found at www.osram.com.