Presse Press

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Intuitive interaction: Ultra-compact infrared LED from Osram enables gesture control in car interiors

Osram's Oslon Piccolo is expanding its photonics portfolio for automotive interior applications

Automotive interior design is currently undergoing a fundamental change. Displays are getting larger, the number of manual controls is decreasing, and customizable lighting solutions are creating a feel-good atmosphere. Advanced driver assistance systems (ADAS) and technologies previously designed for mobile devices – such as facial recognition, eye tracking or gesture control – are increasingly making their way into the automotive sector. These technologies are based on infrared light. The smaller and more powerful the required components, the easier they are to integrate into complex designs. Osram's Oslon Piccolo now offers an extremely compact infrared LED (IRED) that packs enormous power in a small package, making it ideal for customers.

Just as mobility will change in the coming years, so will the purpose of the vehicles themselves. Autonomous driving will lead the way causing cars to be equipped with more and more functions to make the interaction between occupants and vehicles more intuitive. An autonomous vehicle will have a fundamentally different interior design than current models. The classic dashboard will be replaced by other user interfaces and options for communication. Today, drivers can use voice assistants for navigation and control simple functions via gesture control.

Thanks to gesture recognition, completely new ways of using displays were also created. For example, when navigating to a destination, the vehicle displays a map with the corresponding route. At the edges of the image, different menu items for operating the display are often shown in a standardized way – which in turn takes away space from

displaying the map. With the help of gesture recognition, menu items are only shown when the driver moves his hand towards the display, allowing the route to appear full screen.

"The advantages of the Oslon Piccolo really pay off when used in conjunction with indoor displays," explains Walter Rothmund, Marketing Manager for Sensing at Osram Opto Semiconductors. "Thanks to its extremely compact dimensions of only 1.6 mm x 1.6 mm and a package height of only 0.81 mm, the IRED can be installed easily in a small space." With a DC power of 1.15 W at 1 A and very fast switching times of 10 ns, the component is suitable as both a constant light source for a camera-based application and for 3D image acquisition with modulated or fast pulsed light. The automotive-qualified component (AEC-Q102) is available in two different wavelengths: 850 nm (SFH 4170S A01) and 940 nm (SFH 4180S A01).

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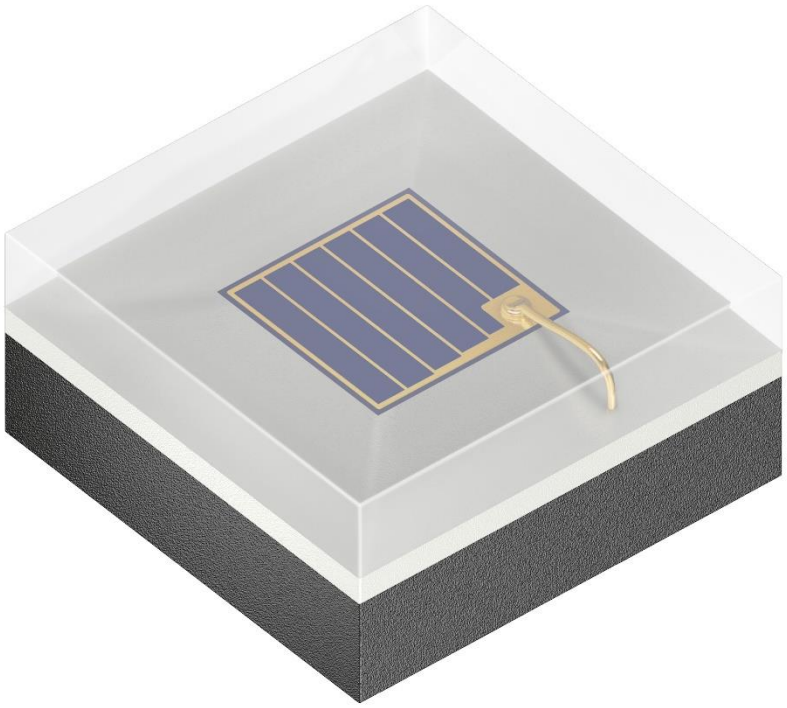
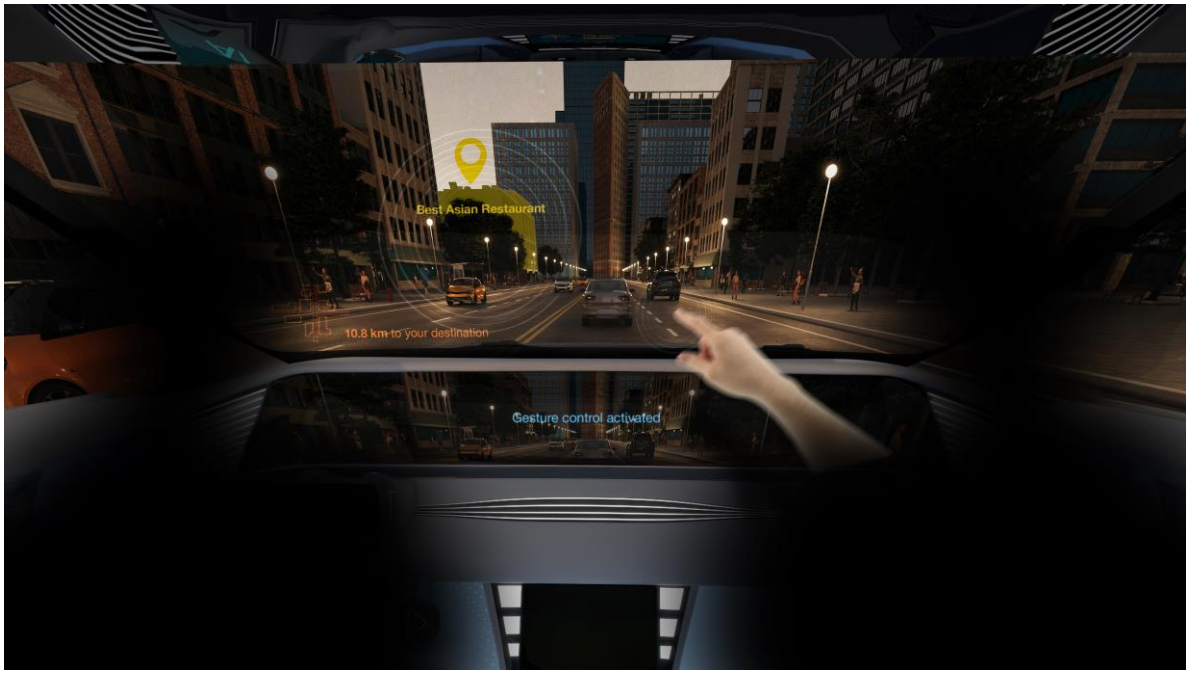


The Oslon Piccolo combines extremely compact dimensions with outstanding brightness values, extending Osram's comprehensive infrared power emitter portfolio for automotive interior applications.
Picture: Osram



Gesture control improves the intuitive interaction between driver and vehicle.
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 23,500 employees worldwide as of end of fiscal 2019 (September 30) and generated revenue of about 3.5 billion euros from continuing activities. The company is listed on the stock exchanges in Frankfurt and Munich (ISIN: DE000LED4000; WKN: LED 400; trading symbol: OSR). Additional information can be found at www.osram.com.