

Presse Press

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More light on the road: New generation of Osram LEDs ensures greater safety when driving

Successor generation of the Oslon Compact PL and new versions of the Oslon Black Flat S increase market penetration of LEDs in headlights even further

In a few years, LEDs will be the predominant light source in car headlights. Their compactness and energy efficiency in particular are major advantages over conventional technologies. LEDs also make it easy to achieve the brightness values required by today's manufacturers. Osram Opto Semiconductors is constantly working to further optimize high-quality LED solutions for the automotive sector. With significant leaps in performance in the Oslon Black Flat and Oslon Compact product families, the company shows where developments are headed in the coming years, and what other benefits headlight manufacturers can expect. The products are designed for use in high and low beam solutions.

In recent years, technological advances have contributed to the increasing popularity of LED-based headlamp solutions. The advantages of light-emitting diodes are obvious: thanks to their compact dimensions, they allow enormous freedom in design and achieve outstanding brightness values. Now LED manufacturers are looking to improve the already very high level of quality, in terms of brightness, energy efficiency and thermal performance.

Osram Opto Semiconductors is launching a new generation of 1 to 4-chip versions in the Oslon Compact PL product family. Like their predecessors, the ceramic components have an electrically insulated pad that makes it much easier to dissipate heat from the package. As a result, a higher current is possible, which allows the 1-chip version to achieve an outstanding brightness value of 395 lumens at 1A with a chip area of 1mm². Thanks to the very small dimensions of 1.9mm x 1.5mm x 0.73mm, the product is ideal for ADB (Adaptive Driving Beam) systems and in extremely space-saving system designs.

In addition, the Oslon Black Flat S family expands to include a 1 and a 2-chip version. The special lead-frame-based components feature highest contrast values (>1:200) and very

low thermal resistance – which allows for higher currents. The 1-chip variant reaches 395lm at 1A. The square lighting surface of the UX:3 chip makes optical design particularly easy for headlight manufacturers. The different technology concepts of the Oslon Black Flat S and Oslon Compact PL enable customers to choose the best possible combination of LED and PCB for their systems. Due to the product family's outstanding efficiency values of up to 130lm/W at 1A, headlights with smaller or even without heatsinks are conceivable in the future – leading to a potential reduction in system costs.

"LEDs such as the Oslon Compact PL and the Oslon Black Flat S will lead to an increasingly high penetration rate in vehicles, including small and mid-sized cars," explains Florian Fink, Marketing Manager Automotive Exterior at Osram Opto Semiconductors. "We always work in close cooperation with our customers to constantly improve our established product families and to push the limits of achievable brightness values even further in future".

The package dimensions remain the same in the new product generations of the Oslon Compact PL and Oslon Black Flat S, which allows headlamp manufacturers to easily exchange the products.

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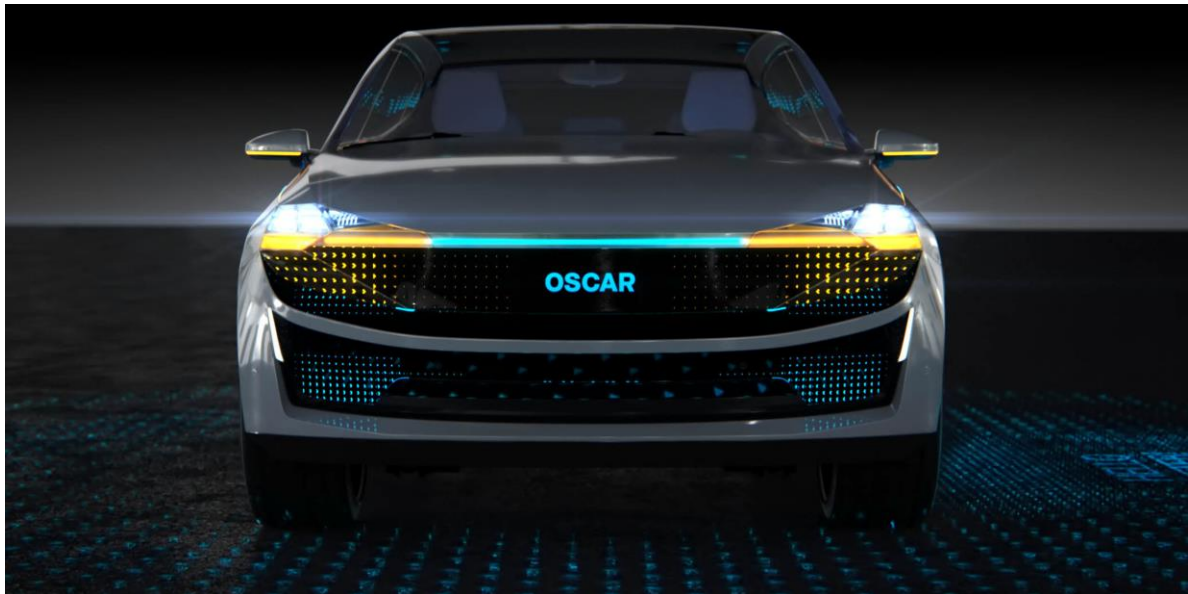
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The 1-chip version of the Oslon Compact PL delivers an outstanding brightness value of 395 lumens at 1A.
Picture: Osram



Product families such as the Oslon Compact or Oslon Black Flat ensure that LEDs become increasingly popular for front lighting solutions. In addition to top values in energy efficiency and brightness, the compact light sources enable individual headlight designs.
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.