

Presse Press

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Osram enables projections with the smartphone

Laser technology from Osram transforms smartphones into beamers

Green lasers for projector applications need to have not only outstanding beam characteristics but also a high optical performance in order to deliver sharp and bright images. Although a projector also needs red and blue lasers, green is the crucial color in RGB solutions – and also the color that poses the greatest challenges in production. PLT3 520D continues Osram’s success story with green lasers. At 140 mW it achieves an unprecedented high pulse output for direct green laser diodes. In addition, the efficiency of the laser has been increased to a typical value of 8%. Thanks to these improvements, it is now possible to turn a smartphone into a small cinema projector. The small display of the device can be enlarged several times over.

Up to now, RGB laser projections for smartphones, based on a red, green and blue laser, often had brightness problems. The reason was the often insufficient brightness of the green laser. Green light has a special importance in RGB applications because the human eye is most sensitive in the green spectral range. The brighter the green laser shines on a surface, the brighter and stronger the projected image appears to the viewer. With its PLT3 520D now offering 140 mW at 300 mA in pulsed mode (50% duty cycle), Osram has achieved unprecedented performance for a green single-mode laser. So far, the limit for these components was 80 mW. A further advantage of the diode is its compact and space-saving TO38 metal housing with a diameter of only 3.8 mm. The laser diode with a wavelength of 520 nm has been specially developed for laser projection applications that use a MEMS scanner as the image encoder.

“Thanks to OSRAM’s long tradition and expertise in the laser sector, we have succeeded in driving forward developments in this key technology,” explained Pedro Muñoz, Marketing

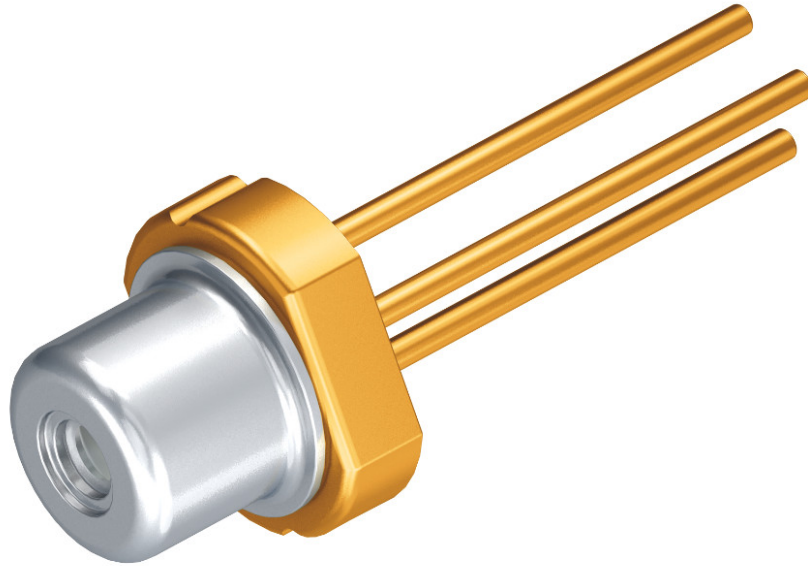
Manager at Osram Opto Semiconductors. “Based on our quality promise, users can be confident that this technology will open up additional functions on smartphones in the medium term.”

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With 140 mW at 300 mA in pulsed mode the single-mode laser diode has achieved unprecedented performance for a green laser.
Picture: Osram



In addition to playing smartphone videos on a flat surface, RGB laser projection can be used, for example, for large-scale projection of holiday memories.

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.