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## **Power Topled now with 80 percent higher output**

New infrared Power Topled with Nanostack technology

**The new Power Topled with lens (SFH 4258S/4259S) from OSRAM Opto Semiconductors has an 80 percent higher optical output than the standard version of the infrared LED – despite the same surface area and the same current. This boost comes from a special thin-film chip which, thanks to Nanostack technology, has not just one but two p-n junctions that are grown one on top of the other. The resultant increased range will above all benefit applications in the security sector and in gesture recognition.**

More light from the same surface area will always be needed if space is tight, if a greater range is required or if light has to be distributed evenly over a greater area. This can be often achieved more flexibly with a large number of small LEDs than with a small number of large LEDs, and price also plays an important role here. Apart from the Nanostack chip and the associated higher output the new infrared Power Topled is the same as the standard version and can therefore be used as a simple direct replacement. The package dimensions (footprint) remain the same so existing designs can continue to be used. Because of the series circuit the voltage is higher by about factor 2.

The infrared Power Topled produces an optical output of 80 mW from an operating current of 70 mA – around 80 percent higher than the standard model from the same current. The new LED emits at a wavelength of 850 nm and is therefore a good compromise between maximum spectral sensitivity for CCD and CMOS cameras and suppressed visibility for the human eye. It is available with beam angles of +/-15° (SFH 4258S) and +/-25° (SFH 4259S) from two different lens types.

The new LED is particularly useful for infrared illumination, especially in security systems. In CCTV applications the range can be increased significantly with the same number of LEDs. The main area of application in the consumer sector involves camera-based gaming as this is where high optical output has the greatest benefit. Dr. Jörg Heerlein, Senior Marketing Manager for the industrial sector said: "This powerful infrared Power Topled is an excellent addition to the portfolio of LEDs with nanostack technology chips. These high-output mid-segment IR LEDs provide greater flexibility in designing

individual customer solutions.” With its infrared Power Topled with lens (SFH 4258S/ 4259S) OSRAM Opto Semiconductors is strengthening its leading position in the mid-range sector.

You can find more technical information about the IR Power Topled in the product catalog: [SFH 4258S](#) and [SFH 4259S](#).



The IR Power Topled with Nanostack technology chips provide high optical output and open up new design options – particularly in the security sector.

Image: OSRAM

<http://www.osram-os.com/press>

#### ABOUT OSRAM OPTO SEMICONDUCTORS

OSRAM AG (Munich, Germany) is a wholly-owned subsidiary of Siemens AG and one of the two leading light manufacturers in the world. Its subsidiary, OSRAM Opto Semiconductors GmbH in Regensburg (Germany), offers its customers solutions based on semiconductor technology for lighting, sensor and visualization applications. OSRAM Opto Semiconductors has production sites in Regensburg (Germany) and Penang (Malaysia). Its headquarters for North America is in Sunnyvale (USA), and for Asia in Hong Kong. OSRAM Opto Semiconductors also has sales offices throughout the world. For more information go to [www.osram-os.com](http://www.osram-os.com).

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