Presse Press

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New infrared LED from Osram for 2D facial recognition

Synios P2720 reduces red glow with a wavelength of 940 nm

Smartphones, tablets and the like can now be unlocked in very different ways: with a password, fingerprint scan or even an iris scan. 2D facial recognition is another method and involves illuminating the user's face with an infrared light source and capturing the image with an IR camera. The system then compares the image with the images previously stored for the purposes of identification, focusing on characteristic two-dimensional features. If there is a match for the various data such as the width of the mouth, length of the nasal ridge and distance between the eyes then the device will be unlocked.

By using a wavelength of 940 nm, Synios P2720 reduces the red glow that can occur with infrared light sources in the short-wave infrared range. Up to now, the sensitivity of IR cameras was only good if the light source had a wavelength of 850 nm. The cameras have been further developed to give them greater sensitivity in longer wavelength ranges so 940 nm light sources can now be used – which in turn improves the overall performance of the system.

Bright and uniform illumination of the user's face or eyes is particularly important for facial recognition and also for eye-tracking systems. Synios P2720 offers impressive performance with an output of 1,150 mW at 1 A. Thanks to this high overall output it has a radiant intensity of 360 mW/sr.

The new Synios P2720 has the same footprint as the 850 nm version. Measuring only 2.0 mm x 2.75 mm x 0.6 mm, the IRED is therefore ideal for space-critical applications.

The IRED has no optics. Its compact dimensions mean that customers can install secondary optics in line with their requirements.

“Everyone wants the reassurance that the data on their mobile devices is as secure as possible”, explained Nina Reiser, Marketing Manager for the Emitter Laser Sensor segment at Osram Opto Semiconductors. “Our extremely powerful and bright IRED illuminates the facial characteristics of users perfectly, ensuring that only authorized persons have access to the device.”

This IRED for 2D facial recognition is the latest addition to Osram Opto Semiconductors’ existing portfolio for biometrics. The new Synios P2720 is already available for initial customer projects.

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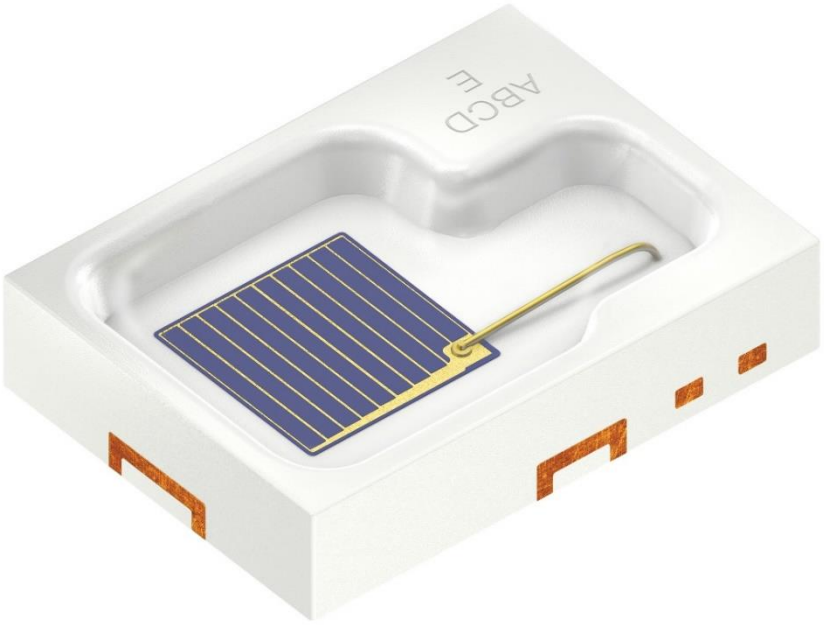
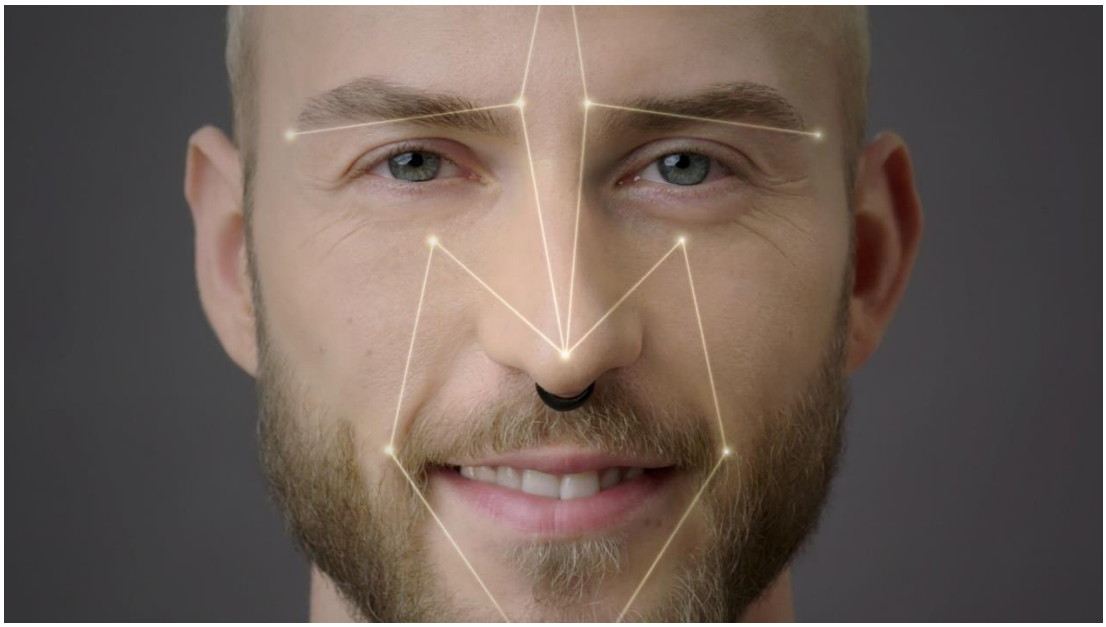


The first infrared LED with 940 nm for 2D facial recognition provides the basis for good quality IR camera images and reduces red glow.
Picture: Osram



Synios P2720 from Osram provides bright and uniform illumination of the user’s face for 2D facial recognition.
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 26,400 employees worldwide as of end of fiscal 2017 (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.