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## For slim display designs – ams Osram expands portfolio for facial recognition

- SFH 4171S and SFH 4181S enable biometric identification in laptops
- ams Osram expand portfolio with two extremely space-saving IREDs with primary optics
- Compact dimensions allow laptop displays with slim frame

**For many of us, working on mobile devices and laptops is part of our everyday business life. While facial recognition on smartphones and tablets is already widely used to protect sensitive data, our portable computers are often still only password-protected. Two new infrared LEDs (IREDs) from ams Osram now not only enable user identification via facial recognition in laptops, but also allow particularly slim display designs thanks to their extremely compact dimensions. Similar to smartphones, laptop manufacturers are also working on displays with ever narrower bezzels. As a result, components such as webcam that include lighting, can take up less and less space - a clear advantage for miniaturized components such as the SFH 4171S and SFH 4181S.**

"With the help of our two new infrared LEDs, we are simplifying the integration of security applications in laptops and giving manufacturers new design options for future models," said Bianka Schnabel, Product Manager at ams Osram. Unlocking laptops via biometric identification eliminates the need to enter passwords and ensures that users can quickly and easily access their laptops after a break. The two IREDs were developed specifically for 2D facial recognition systems. Here, the user's face is illuminated with an infrared light source, an infrared camera records the image, and if the captured image matches the one stored in the system, the device is unlocked. In this case, the security system pays attention to two-dimensional features of the user, such as the distance between the eyes and the length of the bridge of the nose.

ams Osram offers the IREDs in two wavelengths - 850 nanometers (SFH 4171S) and a 940 nanometer version (SFH 4181S). With the SFH 4171S, the customer benefits from the high sensitivity of the infrared cameras in this range. The SFH 4181S avoids the so-called "red glow," which the human eye perceives as red flickering. Both products are installed in the extremely compact Oscon P1616 package. Even with a lens, the product requires very little installation space, measuring only 1.6 mm x 1.6 mm x 1.71 mm. Despite their small size, the two IREDs deliver an outstanding optical

power of 1150 mW at 1 ampere and a beam intensity of 680 mW/sr. The special primary optics bundle the light at a beam angle of 35°, improving performance values and making it easier for the infrared camera to take high-quality images.

[Further information about biometric identification](#) can be found on our website.

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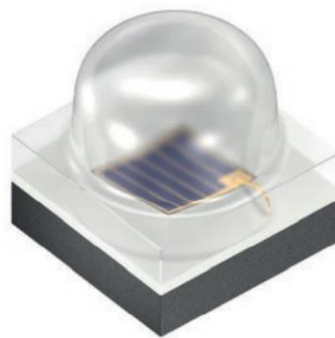
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The primary optics of the SFH 4171S and SFH 4181S focus the infrared light into a very narrow beam, enabling high-quality images for the infrared camera.  
Image: Osram



In addition to unlocking laptops via facial recognition, the two compact IREDs enable particularly slim display designs.

Image: Osram

### About ams and OSRAM

The ams OSRAM Group, including the listed companies ams AG as parent company and OSRAM Licht AG, is a global leader in optical solutions. By adding intelligence to light and passion to innovation, we enrich people's lives. This is what we mean by Sensing is Life.

With over 110 years of combined history, our core is defined by imagination, deep engineering expertise and the ability to provide global industrial capacity in sensor and light technologies. We create exciting innovations that enable our customers in the consumer, automotive, healthcare and industrial sectors maintain their competitive edge. We thereby drive innovation that meaningfully improves the quality of life in terms of health, safety and convenience, while reducing impact on the environment.

Our around 30,000 employees worldwide focus on innovation across sensing, illumination and visualization to make journeys safer, medical diagnosis more accurate and daily moments in communication a richer experience. Our work creates technology for breakthrough applications, which is reflected in over 15,000 patents granted and applied. Headquartered in Premstaetten/Graz (Austria) with a co-headquarter in Munich (Germany), the group achieved well over USD 5 billion combined revenues in 2020 (pro-forma).

ams AG is a listed company on the SIX Swiss Exchange (ISIN: AT0000A18XM4). OSRAM Licht AG remains a listed company on the XETRA market in Germany (ISIN: DE000LED4000).

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