

## **EXALOS Introduces RGB Modules for Augmented Reality and Head-up Display Applications**

Schlieren, Switzerland, May 6<sup>th</sup>, 2019. EXALOS, the world's leading developer of visible Superluminescent Light Emitting Diodes (SLEDs), has expanded its product portfolio with the introduction of a compact RGB SLED module that will enable the advancement of micro-display architectures for augmented reality (AR) and head-up displays (HUDs).

The RGB module constitutes three SLED chips housed in a 14-pin butterfly package (20.8 mm x 1.7 mm) with a total output power of about 30 mW (~ 10 mW/color), which corresponds to a total luminous flux of 5 lm. The individual chips (635 nm (R), 510 nm (G), and 450 nm (B)) are each soldered on submounts and mounted on a ceramic base plate that is temperature stabilized by a high-performance thermo-electric cooler. Integral micro-optical elements ensure the individual SLED beams are spatially combined and delivered as a collimated RGB output. The entire package is assembled to Telcordia standards on EXALOS' robotic hybrid optical packing platform. It is offered as a developer kit with dedicated driver electronics or as a standalone module.

While SLEDs are closely related to their more commonly known relatives, laser diodes (LDs) and light-emitting diodes (LEDs), they are broadband semiconductor devices that offer unique optical performance. SLEDs provide high directionality and high spatial coherence similar to laser diodes (LDs) and low speckle noise and low temporal coherence similar to LEDs. These properties, coupled with their wide color gamut and high efficiency, make SLEDs ideal illumination sources for liquid crystal on silicon (LCOS), digital mirror devices (DMD), holographic spatial modulators and micro electro-mechanical mirror (MEMS) steering engines used in AR and HUD architectures. The new RGB module represents the first device of its kind to offer a full color SLED light source in an integrated package.

EXALOS will be exhibiting these Display Week 2019 in San Jose, CA (booth 1040) from May 14<sup>th</sup> to 16<sup>th</sup>. Please stop by to discuss how these sources can benefit your applications and learn more about other products.

For more information please visit our website at [www.exalos.com](http://www.exalos.com) or email us at [sales@exalos.com](mailto:sales@exalos.com).

Americas: Gene Covell, +1 215 669-4488, [covell@exalos.com](mailto:covell@exalos.com)

Asia: Huang Huang, +86 138 2358 9507, [huang@exalos.com](mailto:huang@exalos.com)

Europe: Kevin Hsu, +41 43 444 65 84, [hsu@exalos.com](mailto:hsu@exalos.com)