RMA ELECTRONICS, INC.

Welcome To Our January Newsletter

Visit Emberion at SPIE Photonics West 2025 Showcasing Their Latest Visible-SWIR Cameras

SPIE. PHOTONICS WEST

Emberion, a leading innovator in quantum dot based shortwave infrared (SWIR) sensing technology, will be exhibiting at SPIE Photonics West from January 28th to 30th, 2025 in San Francisco, CA. Emberion will showcase various new unique capabilities, including an industry leading high speed quantum dot camera, thermal measurement capability, and extended sensitivity range.

Unique capability to create spectral range variants:

Emberion will be showcasing at Photonics West its latest spectral range variant Emberion VS17. Emberion VS17 is optimized for the atmospheric window between 1500nm and 1750nm - which is most relevant for demanding surveillance applications, but is also ideal for machine vision such as optical sorting of plastics.

Emberion VS17 underlines the company's capability to create various spectral range variants beyond the flagship product Emberion VS20 which offers extended SWIR spectral range to over 2000nm. Beyond the VS17, Emberion is also working on other variants, including one reaching wavelengths up to 2500nm.

Record high speed and duty cycle make Emberion the prime provider for optical sorting:

Emberion offers the highest speed quantum dot cameras on market with 400 fps (VGA) but beyond that has demonstrated the capability to reach speeds up to 1900 fps. Emberion is also introducing IWR (integrate-while-read) mode into its cameras in addition to the current ITR (integrate-then-

read) mode which respectively brings the camera's duty cycle to >99 %.

Enhanced temperature measurement for process control:

Emberion is introducing to its cameras optical power measurement capability that enables features such as thermography & laser beam profiling. As the first concrete solution in this area, Emberion has developed a tailored solution for remote temperate measurement to be deployed at metal or glass foundries for temperatures above 300 °C.

The key value of SWIR in high temperature measurement is the capability to position the camera behind normal protective window and being able to image the process through glass which is not the case for thermal cameras which require more complicated enclosures in hostile environments. Also, Emberion's wide spectral range allows measurement of lower temperatures than standard InGaAs cameras.

Meet Emberion in San Francsico at Finnish Pavilion:

Emberion will be demonstrating selected capabilities at SPIE Photonics West exhibition (Photonics Finland pavilion 4119) and visitors are encouraged to share their imaging challenges for the Emberion team to solve! For those not able to join in person at the show, please contact our sales team (**sales@rmaelectronics.com**) and we will be happy to elaborate more or set up a call.

About Emberion:

Emberion produces high performance visible to short wavelength (VIS-SWIR) infrared cameras with its in-house developed unique nanomaterial-based sensor solution and in-house designed CMOS read out integrated circuit. Emberion cameras provide a wide spectral range (400–2000nm) with high dynamic range capabilities and high speed. The cameras and Emberion's unique imaging sensors enable various applications within machine vision, defense, medical imaging, automotive, consumer and other areas where both visible and infrared capabilities are utilized.

Emberion Cameras

Thank you for being a subscriber to our monthly newsletter.

Please reach out if you have any questions and/or need further information. Thank you.

Sincerely,

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