

Silicon Austria Labs and EV Group Strengthen Collaboration in Optical Technology Research – November 13, 2023

EV Group (EVG), a supplier of wafer bonding and lithography equipment for the MEMS, nanotechnology and semiconductor markets, and Silicon Austria Labs (SAL), Austria's research center for Electronic Based Systems (EBS), today announced that SAL has received and installed multiple EVG lithography and resist processing systems at its MicroFab R&D cleanroom facility in Villach, Austria. The installations are part of a strengthened collaboration between the two companies to accelerate the development and deployment of advanced optical technologies for heterogeneous integration applications, including wafer-level optics used for micro cameras and micro-mirrors, diffractive optics, and automotive optics used to enable autonomous driving and automotive lighting.

The newly installed EVG systems include the LITHOSCALE maskless exposure system, the EVG 7300 automated SmartNIL® nanoimprint and wafer-level optics system, as well as multiple complementary resist processing systems. These systems join SAL's existing installed base of multiple EVG bonding, mask alignment and lithography systems, including the first installation of the next-generation 200-mm version of the EVG 150 automated resist processing system, which provides significantly higher throughput, increased flexibility and smaller tool footprint compared to the previous-generation platform.

In addition, SAL has been working closely with the technology development and application engineering team at EVG's headquarters, including the NILPhotonics Competence Center, to leverage EVG's equipment and process knowhow and develop processes that are transferrable and scalable to high-volume manufacturing.

According to Dr. Mohssen Moridi, Head of Research Division Microsystems at Silicon Austria Labs, "We have recently been immersed in a range of cutting-edge R&D projects spanning meta-optics, integrated photonics, and MEMS, necessitating the use of advanced lithography and bonding tools. Through our valued partnership with EVG, we have gained access to tools of exceptional reliability and precision, paramount for successful R&D endeavors. Notably, the EVG7300 SmartNIL system has emerged as a pivotal tool, enabling the mass production of nanostructures for emerging photonics and MEMS devices.

Its applications extend to diverse fields such as smart lighting systems, AR/VR, automotive optics, telecommunication, and quantum technology.”



Shannon Davis

Shannon, writes, edits and produces Semiconductor Digest’s news articles, email newsletters, blogs, webcasts, and social media posts. She holds a bachelor’s degree in journalism from Huntington University in Huntington, IN. In addition to her years of freelance business reporting, Shannon has also worked in marketing and public relations in the renewable energy and healthcare industries.

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