



PROTEC MEMS TECHNOLOGY ORDERS MASKLESS LITHOGRAPHY SYSTEM FROM EV GROUP FOR ADVANCED MEMORY WAFER PROBE CARD MANUFACTURING – January 25, 2024

PROTEC MEMS Technology Orders Maskless Lithography System from EV Group for Advanced Memory

Wafer Probe Card Manufacturing

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EV Group's LITHOSCALE® maskless exposure solution is ideally suited for fine-pitch probe cards, which involve complex designs and product mixes that drive up mask overhead costs

ASAN-SI, Chungcheongnam-Do, South Korea, January 23, 2024—PROTEC MEMS Technology (PMT), one of the world's leading suppliers of semiconductor wafer probe cards, has ordered a LITHOSCALE®

maskless exposure system from EV Group (EVG), a leading supplier of wafer bonding and lithography equipment for the MEMS, nanotechnology and semiconductor markets. The LITHOSCALE system will be installed at PMT's headquarters in Asan-si, Chungcheongnam-Do, South Korea, where it will be used in the production of next-generation MEMS-based probe cards for wafer-level testing of advanced NAND, DRAM and High Bandwidth Memory (HBM) devices.

"Fine-pitch probe card manufacturing involves many lithographic patterning steps, which can significantly drive up the cost of ownership," stated Dr. Yong-Ho Cho, CEO of PMT. "We can achieve significant cost savings, faster process development, and improved process performance, by switching from traditional lithography to EV Group's LITHOSCALE maskless exposure product. We look forward to future collaborations with EVG leveraging LITHOSCALE and other process solutions for advanced probe card manufacturing."

Incorporating EVG's MLE™ (maskless exposure) technology, LITHOSCALE addresses lithography needs for markets and applications that require a high degree of flexibility or product variation. LITHOSCALE tackles legacy bottlenecks by combining powerful digital processing that enables real-time data transfer and immediate exposure, high structuring resolution, and throughput scalability. It is ideally suited for rapid prototyping, providing fast turnaround and R&D cycle times.

MEMS manufacturing in particular poses challenges for lithography due to its complex product mixes, which drive up mask overhead costs. LITHOSCALE's mask-free approach eliminates mask-related consumables, addressing the demand for low-cost-of-ownership patterning in wafer probe card manufacturing. In addition, LITHOSCALE's high depth of focus and high resolution (sub-2-micron L/S) enables maskless patterning of a dense redistribution layer (RDL) and via connections, which supports technology scaling for fine-pitch probe cards.



EV Group's revolutionary LITHOSCALE
maskless exposure system
addresses the diverse
lithography needs for
applications that require a high
degree of flexibility or product variation.

According to Young-Sik Yun, general manager of EV Group Korea, “Wafer-level testing with probe cards is an essential process for improving device production yields and reducing overall test cost per die.

LITHOSCALE offers a unique combination of high resolution, high flexibility to handle many different product designs, and low cost of ownership, making it an ideal solution for manufacturing fine-pitch wafer probe cards. We are pleased to support PMT in its efforts to expand its product portfolio and shorten its development cycles.

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