EULITHA INTRODUCES PhableX™ LINE OF PHOTOLITHOGRAPHY SYSTEMS FOR VOLUME PRODUCTION OF PHOTONIC PRODUCTS

The newly launched platform based on Eulitha's proprietary Displacement Talbot Lithography technology enables low-cost, high-volume production of photonic devices such as waveguides for Augmented Reality (AR) or Distributed Feedback Lasers.

Kirchdorf, Switzerland, July 15, 2020

EULITHA, a Swiss company offering innovative lithography equipment and services for the nanotechnology, photonics and optoelectronic markets, announced today that it has launched a new line of photolithography systems to address growing needs of customers for volume production of photonic devices. The systems operate on the same Displacement Talbot Lithography (DTL) principle/technology as Eulitha's existing PhableR line, but they are based on a completely newly developed platform which enables high-throughput, automatic operation.

Many new photonic devices such as waveguides in AR/VR glasses, DFB lasers, telecom gratings or optical biosensors require production of periodic features with dimensions in the sub-micrometer range. Eulitha addresses this growing need with its proprietary DTL technology that enables low-cost lithographic printing of the required patterns. DTL is particularly suited to tackle the needs of the photonics industry thanks to its ability to print stitching-free patterns over large-areas. The patented focus-free imaging of the technology enables uniform printing on non-flat substrates. Unlike the competing nanoimprint lithography technology, DTL is a non-contact method which greatly reduces process complexity, device defectivity and yield loss.

The new PhableX platform is offered with industry standard light sources, including i-line, KrF (248 nm) and ArF (193 nm) sources, depending on resolution requirements of the application. Feature sizes between 60 nm to several microns can be printed using the same state-of-the-art photoresist products developed for manufacturing of semiconductor devices. The platform is currently available for wafer sizes between 100 mm to 200 mm. Photomasks developed for the specific needs of the DTL technology are available from major mask

manufacturers. The platform features automatic frontside and backside overlay alignment and cassette-to-cassette fully automatic operation.

Rene Wilde, Sales Director of Eulitha said, “This represent a big step in industry wide acceptance of our revolutionary nanolithography technology. Much feedback from our customer base who have been using our PhableR lithography systems for a number of years as well as the results of our own R&D efforts have been instrumental in the development of the new platform. We expect both our industrial customers and major R&D institutions to benefit from the availability of these unique tools. First examples of the PhableX model have been delivered to selected customers and orders received for more installations.”

Eulitha AG is a spin-off company of the Paul Scherrer Institute, Switzerland. It specializes in the development of lithographic technologies for applications in optoelectronics and photonics. In addition to photolithographic exposure machines, it produces and markets nano-patterned substrates and templates. PHABLE is a registered trademark and the brand name of Eulitha's proprietary photolithography platform, which includes exposure tools and wafer patterning services.

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