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Release Summary

IMS and JEOL partner to provide
world's 1st production Multi-Beam Mask Writer



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VIENNA--([BUSINESS WIRE](#))--IMS Nanofabrication AG (“IMS”) and JEOL Ltd. (“JEOL”) announced today they have reached a long term agreement to extend their business partnership for the production of the IMS MBMW-101, the world’s first commercial high volume manufacturing Multi-Beam Mask Writer (MBMW). IMS manufactures a multi-beam write engine providing 262-thousand programmable beams of 50keV energy. JEOL provides a novel platform with an air-bearing vacuum stage for writing most advanced patterns on 6-inch mask blanks. Together, IMS and JEOL will supply the MBMW-101 to the industry’s leading edge photomask manufacturers.

“This long term agreement solidifies our commitment to IMS and the industry as leading-edge lithography equipment suppliers. JEOL is proud to play an integral part in the introduction of the multi-beam technology to the semiconductor industry”

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With the introduction of the 7 nanometer (nm) node, device manufacturers need to implement very aggressive Optical Proximity Correction and curvilinear Inverse Lithography Technology, where the designers often run into Mask Rule Check violations and throughput restrictions. Multi-beam mask writing technology enables these new techniques by eliminating the write time constraints due to the job-deck complexity and facilitates the use of low sensitive resist materials which greatly improve resolution and line edge/width roughness.

The MBMW-101 has demonstrated production capability with sub 30nm resolution and very challenging Critical Dimension Uniformity and Image Placement specifications. The MBMW-101 supports these increasingly demanding requirements of mask manufacturing while maintaining a write time of < 10 hours for 100mm x 130mm mask layout fields.

Ultimately, the MBMW-101 is the key which will provide the device manufacturers with the freedom to tackle the design challenges of the next sub 10nm technology generation. IMS is actively booking MBMW-101 orders for delivery in 2017/18 to meet the aggressive needs of the industry.

“The partnership with JEOL was essential in the realization of the MBMW Alpha and Beta systems. We are happy to further extend our collaboration in providing MBMW tools to the industry”, said Elmar Platzgummer, CEO of IMS Nanofabrication.

“This long term agreement solidifies our commitment to IMS and the industry as leading-edge lithography equipment suppliers. JEOL is proud to play an integral part in the introduction of the multi-beam technology to the semiconductor industry”, said Yasutoshi Nakagawa, Executive Officer, JEOL Ltd.

About IMS Nanofabrication AG

IMS Nanofabrication AG (“IMS”) is an Austrian based high-tech company with more than 160 coworkers that was founded in December 2006. IMS is focused on the multi-beam mask writer tool development and commercialization. For more information on IMS, visit: www.ims.co.at

About JEOL Ltd.

JEOL Ltd. is a world leader in electron optical equipment and instrumentation for high-end scientific and industrial research and development. Core product groups include electron microscopes (SEMs and TEMs), instruments for the semiconductor industry (electron beam lithography and a series of defect review and inspection tools), and analytical instruments including mass spectrometers, NMRs and ESRs. For more information on JEOL Ltd. visit: www.jeol.co.jp/en/

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