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3D-MICROMAC INTRODUCES SELECTIVE LASER ANNEALING SYSTEM FOR SEMICONDUCTOR, POWER DEVICE AND MEMS MANUFACTURING

microPRO RTP leverages state-of-the-art optics, line scan and step-and-repeat spot options, and multiple wavelengths to provide highly versatile laser platform

Chemnitz, Germany, September 18, 2017—3D-Micromac AG, the industry leader in laser micromachining and roll-to-roll laser systems for the photovoltaic, medical device and electronics markets, today unveiled the microPRO RTP—its new laser annealing system designed to enable several key process steps in semiconductor, power device and MEMS manufacturing.

Combining a state-of-the-art laser optic module with 3D-Micromac’s highly modular semiconductor wafer dicing platform, the microPRO RTP provides selective annealing with high repeatability and high throughput. The system features a line scan option for vertical selective annealing and a step-and-repeat spot option for horizontal selective annealing, as well as three optional wavelength lasers (near infrared, green and ultraviolet), resulting in a highly flexible, high-quality laser annealing platform.

The microPRO RTP has demonstrated the ability to address a wide variety of existing and emerging applications, including:

- Dopant activation for insulated gate bipolar transistors (IGBT) and backside illuminated (BSI) CMOS image sensors
- Ohmic contact formation in silicon carbide (SiC) power devices to improve resistance
- The manufacture of certain types of MEMS devices such as semiconductor magnetic field sensors

The microPRO RTP provides numerous advantages compared to existing annealing methods, including:

- High precision in both X and Y directions
- High selectivity to different substrates and films, with multiple options for pulse length, pulse energy and overlap to ensure no damage to the area surrounding the target site
- Very high energy homogeneity
- Precise monitoring of both the laser and process

3D-Micromac is currently taking orders for the microPRO RTP.

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3D-Micromac will showcase its portfolio of laser systems, including the new microPRO RTP, at the 2017 International Conference on Silicon Carbide and Related Materials (ICSCRM) being held September 17-22 at the Wardman Park Marriott in Washington, D.C. Attendees interested in learning more about 3D-Micromac's products are invited to visit the company's booth #207. In addition, 3D-Micromac will present on its TLS-Dicing™ (Thermal Laser Separation) for SiC wafer dicing applications at ICSCRM on Tuesday, September 19 during the Manufacturing Innovations session.

About 3D-Micromac

Founded in 2002, 3D-Micromac AG is the industry leader in laser micromachining, delivering powerful, user-friendly and leading edge processes with superior production efficiency. We develop processes, machines and turnkey solutions at the highest technical and technological level. 3D-Micromac systems and services have been successfully implemented in various high-tech industries worldwide including photovoltaic, semiconductor, glass and display industries, micro diagnostics, and medical technology. For more information, visit the company's website at <http://www.3d-micromac.com>.

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