

**MRSI launches submicron die bonding solution for silicon photonics, co-packaging, and wafer-level packaging**

At CIOE 2020 MRSI Systems will introduce a new product, MRSI-S-HVM high-speed, flexible 0.5 micrometer die bonder for silicon photonics, co-packaging electronic and photonic chips, and wafer-level packaging.

This advanced die bonder is based upon MRSI's field proven high-speed HVM die bonder platform for high-volume manufacturing of integrated photonics that requires ultimate accuracy at the submicron level. It has inherited the speed using multiple levels of parallel processing from the HVM platform. It also has the HVM's high level of flexibility for multiple die applications using auto-tool changing and multiple process applications with eutectic, epoxy stamping and dispensing in one machine.

The MRSI-S-HVM flexibility is elevated to another level with the capability to switch automatically between two modes of accuracies - 0.5 micrometer and 1.5 micrometer. The 0.5 micrometer mode uses a real-time alignment mechanism facilitated by the on-axis z-force bonding for the best possible co-planarity and final accuracy. For flip-chip bonding, it aligns the features on the bonding surfaces of the die and the carrier. This eliminates the expensive step for the customer to make alignment fiducials on both top and bottom sides of a chip during wafer fabrication, and it also eliminates the subsequent die bonder alignment step in order to calibrate the top and bottom surface of the chip. All these advantages are essential for volume manufacturing capability for those emerging applications.

The MRSI-S-HVM die bonder is capable of chip-on-wafer (CoW) process with dies from III-V wafer being picked, placed, and bonded onto a silicon wafer (12 inches) including fine lateral motions. It can also be applied to chip-on-interposer (CoI) and chip-on-substrate (CoS). Three heating options are available including high-density top heating eutectic bonding, bottom thermal heating, and MRSI's proprietary bottom laser soldering solution, avoiding secondary reflow of adjacent chips, and improving UPH.

"The addition of this new submicron die bonder product family re-enforces MRSI's industry-leading position in the field of manufacturing automation for advanced optoelectronics devices. We look forward to working with customers to help them to scale at this improved level of accuracy without compromising speed or flexibility," said Dr. Yi Qian, VP & GM MRSI Systems, Mycronic.

To schedule an appointment and discuss a prototype demonstration, please contact us at [sales.mrsi@mycronic.com](mailto:sales.mrsi@mycronic.com).

**For additional information, please contact:**

Dr. Limin Zhou

Senior Director, Strategic Marketing, MRSI Systems

Tel: +86 135 0289 9401, e-mail: [limin.zhou@mycronic.com](mailto:limin.zhou@mycronic.com)

Time Zone: CST – China Standard Time

**About MRSI Systems**

MRSI Systems, part of Mycronic Group, is the leading manufacturer of fully automated, high-speed, high-precision and flexible eutectic and epoxy die bonding systems. We offer "one-stop-shop" solutions for research and development, low-to-medium volume production, and high-volume manufacturing of photonic devices such as lasers, detectors, modulators, AOCs, WDM/EML TO-Cans, Optical transceivers, LiDAR, VR/AR, sensors, and optical imaging products. With 30+ years of industry experience and our worldwide local technical support team, we provide the most effective systems and assembly solutions for all packaging levels including chip-on-wafer (CoW), chip-on-carrier (CoC), PCB, and gold-box packaging. For more information visit [www.mrsisystems.com](http://www.mrsisystems.com)



**About Mycronic**

Mycronic AB is a Swedish high-tech company engaged in the development, manufacture and marketing of production equipment with high precision and flexibility requirements for the electronics industry. Mycronic headquarters are located in Täby, north of Stockholm and the Group has subsidiaries in China, France, Germany, Japan, Singapore, South Korea, the Netherlands, United Kingdom and the United States. Mycronic AB (publ) is listed on NASDAQ Stockholm.

[www.mycronic.com](http://www.mycronic.com)