Bringing tomorrow's electronics to life

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MRSI MYCRONIC

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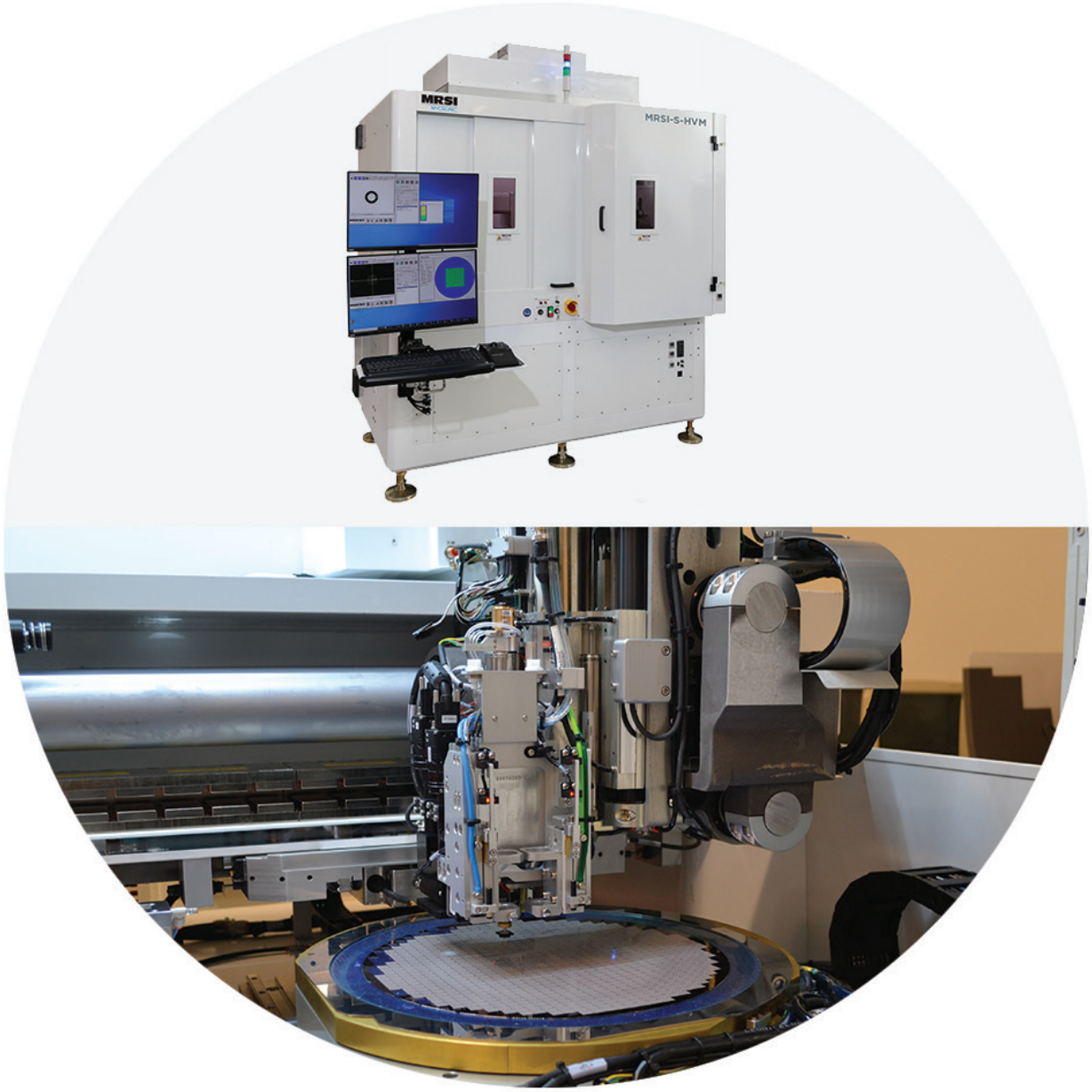
About MRSI Systems
MRSI Systems (a part of Mycronic Group) is the leading manufacturer of fully automated, high-speed, high-precision and flexible eutectic and epoxy die bonding systems. We offer solutions for research and development, low-to-medium volume production, and high-volume manufacturing of photonic devices such as lasers, detectors, modulators, AOCs, WDM/EML TO-Cans, Optical transceivers, LiDAR, VR/AR, sensors, silicon photonics, co-packaging optics, 3-D hybrid packaging, and optical imaging products. With 40+ 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

About Mycronic
Mycronic 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's headquarters are located in Täby, north of Stockholm and the Group has subsidiaries in China, France, Germany, Japan, Mexico, the Netherlands, Singapore, South Korea, United Kingdom, the United States and Vietnam. Mycronic is listed on Nasdaq Stockholm. www.mycronic.com

202410_MRSI-S-HVMV2

MRSI
MYCRONIC

MRSI-S-HVM
0.5 MICRON DIE BONDER



Patented turret for ”on-the-fly” tool change

MRSI Systems has been serving optoelectronic and microelectronic customers for the past 40 years and understands their requirement to scale efficiently in today's fast-paced marketplace.

Applications are found across a wide range of market segments, such as life & health sciences, aerospace, defense, automotive, lighting, communications, and more.

MRSI's die bonding solutions help our customers to enable just-in-time supply and fast-pace innovations of critical components for high-growth market segments. The MRSI-HVM and MRSI-H provide industry leading high-speed for high-volume manufacturing. The MRSI-S-HVM 0.5 micron die bonder provides industry-leading speed and flexibility for integrated photonics application.

These die bonding solutions are built with the same hardware and software platforms configured to minimize process deviations, reduce NPI cost, and increase ROI for customers with MRSI's long proven product reliability and global customer support.

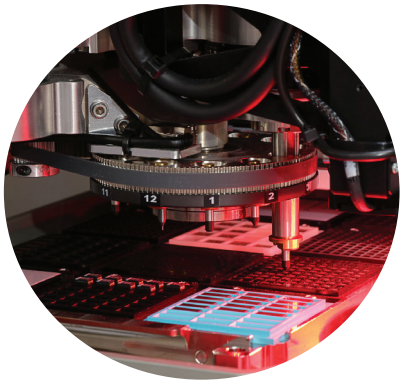
MRSI-S-HVM Applications

Applications & Features

- Designed for integrated photonics volume manufacturing applications, semiconductor wafer level packaging, multi-chips, multi-processes production in one machine.
- Two modes with patented auto-change over: ±0.5μm @ 3σ and ±1.5μm @ 3σ; both with on-axis z-force for die bonding. MRSI proprietary high z-force option available.
- Capable of Chip-on-Wafer (CoW); Chip-on-Interposer (CoI); Silicon photonics; die from III-V wafer (8 inches) picked & placed onto a silicon wafer (12 inches) and mapping.
- Multiple processes, including DAF, eutectic, epoxy stamping and dispensing, thermal heating from top and bottom, and MRSI proprietary bottom laser soldering.
- Flip chip bonding with direct alignment of fiducials on both bonding interfaces without additional reference or calibration required.
- MRSI proprietary wafer table with automated leveling.
- MRSI-S-HVM inherited all of the MRSI-HVM's parallel processes using MRSI patented auto tool change and dual gantry/head.
- Material input methods include wafer, Waffle pack, and Gel-Pak®, as well as customized fixtures.

Value to our Customers

- Industry-leading throughput, superior flexibility, and ultra-high-accuracy in high-volume, high-mix manufacturing, multiple process options.
- Being able to switch between 0.5 micron and 1.5 micron modes allows customers to balance different bonding accuracy requirements in one machine for the best throughput and ROI.
- Easy to use icon-based interface running on a Windows™ platform for easy programming, and low-cost machine maintenance.
- Industry-leading local technical support teams and application expertise.
- 40 years of experiences in the industry with reliable 24/7 field operations.



MRSI-S-HVM
0.5 Micron Die Bonder

CONFIGURATION	STANDARD	S-HVM-C	S-HVM-L
APPLICATIONS			
0.5µm Placement	●	●	
Chip-on-Carrier (CoC)	● (1)	●	●
Chip-on-Submount (CoS)	●	●	●
Chip-on-Baseplate or Board (CoB)	●	●	●
High Density Top Heating Eutectic Bonding	●	●	●
Wafer Level Packaging	●		●
Silicon Photonics	●	●	●
Co-Packaged Optics	●	●	
Multi-chip, Multi-process Production in One Machine	●	●	●
PROCESSES			
Eutectic Bonding	●	●	●
Epoxy Stamping	●	●	●
UV Epoxy Dispensing	●	●	●
Localized Heating	●	●	●
Thermal Compression Bonding	●	●	●
Flip-chip Bonding	●	●	●
Co-planarity Bonding	●	●	●
FEATURES & OPTIONS			
Dual Gantry/Head	●	●	●
0.5µm Alignment Systems	●	●	
Laser Soldering	●		●
Heated Head (R)*	●	●	●
“On-the-fly” Patented Tool Change (L)	●	●	●
Remote Patented Auto Tool Change (R)	●	●	●
Output Stage (R)		●	
8″/12″ Wafer Table for CoW (R)	●		●
Input GP/WP & Wafer	●	●	●
Epoxy Dispensing and Stamping	●	●	●

Note (1) 1.5µm accuracy mode only.

*R=Right Side, L=Left Side