Bringing tomorrow's electronics to life

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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

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

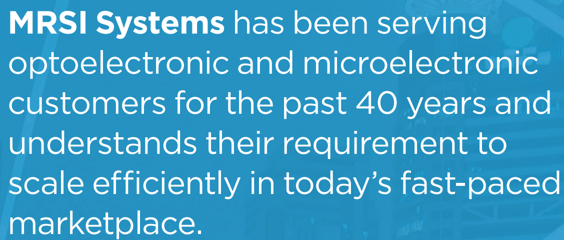
Specifications are subject to change without notice.

202406_MRSI-HVMV2

MRSI
MYCRONIC

MRSI-HVM
1.5 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.

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-HVM Applications

CoS/CoC/CoB

- The MRSI-HVM is designed for specific applications such as: Chip-on-Carrier (CoC), Chip-on-Submount (CoS), and Chip-on-Baseplate (CoB). These assemblies use eutectic and/or epoxy stamping die bonding.

Heated Head (Optional)

- Option for a heated head on the right side, heating at a fixed temperature or pulsed heating. The left side remains the same standard MRSI-HVM head. This heated option is specifically designed for eutectic bonding of multiple die onto a common carrier without reflowing the neighboring solder pads.

AOC/PCB/GOLD-BOX

- The conveyor version is equipped with inline conveyor for single fixture or multiple cassette inputs. Large forms of carriers of the die are automatically transported, for Active Optical Cables (AOC) or similar chip-on-printed circuit board (PCB) applications, gold-box packaging, and CoC in fixture. The process options include eutectic, epoxy stamping, UV epoxy dispensing, and in-situ UV curing.

Conveyor (Optional)

- Equipped with inline conveyor for single fixture or multiple cassette inputs that can automatically transport large forms of carriers of the dies for Active Optical Cables (AOC) or similar chip-on-printed circuit board (PCB) applications, gold-box packaging, and CoC in fixture.

Value to our customers

- Industry leading high-speed for high-volume manufacturing
- Industry leading high-accuracy for better assembly yield and future higher density packaging
- Industry leading high-flexibility for true multi-die multi-process production in high-volume high-mix manufacturing
- Industry leading local technical support teams and application expertise
- 40+ years of experiences in industry with reliable 24/7 field operations

MRSI-HVM
1.5 Micron Die Bonder

HVM				
CONFIGURATION	STANDARD	HEATED HEAD	CONVEYOR	CONVEYOR WITH HEATED HEAD
APPLICATIONS				
CoC/CoS/CoB	●	●	●	●
CoC Silicon Photonics	●	●	●	●
3D Die Stacking	●	●	●	●
Pillar-to-Pillar Bonding	●	●	●	●
AOC/PCB			●	
Gold Box	●		●	
PROCESSES				
Multi-die, Multi-process	●	●	●	●
Eutectic	●	●	●	●
Epoxy Stamping	●	●	●	●
Epoxy Dispensing			●	
UV Curing			●	
Localized Heating		●		●
Flip-chip Bonding	●	●	●	●
Co-planarity Bonding	●		●	
FEATURES & OPTIONS				
Composite Base	●	●	●	●
Dual Gantry/Head	●	●	●	●
Heated Head (R)*		●		●
Dual Ultrafast Eutectic Station	●	●	●	●
“On-the-fly” Patented Tool Change (L)	●	●	●	●
“On-the-fly” Patented Tool Change (R)	●		●	
Remote Patented Auto Tool Change (R)		●		●
Inline Conveyor			●	●
Input GP/WP & Wafer	●	●	●	●
Output Stage (L)	●	●		
Output Stage (R)			●	●

*R=Right Side, L=Left Side