



June 27, 2013

Welcome to MRSI Solutions Newsletter. This periodic newsletter provides information on our latest happenings and product updates.

Many thanks to our loyal customers for their continued interest in our products.

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MRSI Solutions

For Dispense and Assembly

Newport Corporation Announces Joint Development with IBM for 2.5D/3D Thermo Compression Bonder

The following press release announcing exciting news was recently distributed:

North Billerica, Massachusetts, June 25, 2013 -- Newport Corporation (NASDAQ: NEWP) announced today that they have entered into a joint development agreement with International Business Machines Corporation (NYSE: IBM), to collaborate on the development of automated systems and processes for thermo compression bonding that will enable new methods of assembling semiconductor devices utilizing advanced electronics packaging technologies (including 2.5D/3D).

Under the agreement, Newport's MRSI business unit will, with IBM Microelectronics, jointly develop optimal tool designs and process requirements for achieving successful (defect free) bonding conditions. The companies will jointly develop prototype tooling and processes for fluxless thermo compression bonding of flip chip die, as well as capillary underfill dispensing.

Newport's MRSI unit, located in North Billerica, Massachusetts, is a leading supplier of high-performance, high-accuracy die bonding and dispensing systems to the microelectronics industry. MRSI is now applying its deep expertise in these areas to address the significant technological challenges of sub-3 micron thermo compression bonding of 2.5D and 3D devices.

"The increasing complexity and decreasing feature sizes of advanced semiconductor devices present significant challenges in the packaging process," said Larry Parson, Senior Vice President and General Manager of Newport's Optics Group. "IBM has been a technology leader at the forefront of this emerging market, and has developed deep process expertise in thermo compression bonding techniques, while Newport-MRSI has been a leader in high precision die bonding and dispensing technology. By entering into this joint development program, we will be able to develop advanced

automated systems and processes to meet the cost, performance and form factor needs of the 2.5D/3D assembly market much more quickly and effectively than working separately."

The work will be conducted both at Newport MRSI's facility in North Billerica, Massachusetts and at IBM's state-of-the-art Semiconductor Research and Development Center in East Fishkill, N.Y.

Upcoming Events:

Follow Newport



Applications Corner

Newport's MRSI-705 Assembly Workcell continues to set new industry standards for ultra-precise, high-speed component assembly. The first half of 2013 has been an exciting time for the product introduction. The MRSI-705 AP is specifically designed and configured for optimum performance in advanced packaging applications, including semiconductor packaging, life & health sciences, aerospace, defense, automotive, lighting, communications, and more.

A solid granite platform supports the placement head from above, so that no mechanisms are cantilevered. The major system axes use ironless, actively cooled linear motors with high resolution linear encoders for fast, precise, closed-loop positioning. All of this makes the MRSI-705 AP thermally and mechanically stable with extremely fast settling times and ± 8 microns or better placement accuracy, a requirement for critical applications.



Assembly Solutions Update - See us at Semicon West 2013 Booth # 1507

See the MRSI-M5 Assembly Work Cell at Semicon West

Please take the opportunity to join us and see the MRSI-M5 at the Newport Corporation booth #1507 at SEMICON West 2013. SEMICON West is the flagship annual event for the global microelectronics industry. More than semiconductors, SEMICON West is also a showcase for emerging markets and technologies born from the microelectronics industry, including 2.5D/3D packaging, micro-electromechanical systems (MEMS), photovoltaics (PV), flexible electronics and displays, nano-electronics, and solid state lighting (LEDs).

MRSI - M3
Assembly Work Cell



MRSI - M5
Assembly Work Cell



MRSI-705
Assembly Work Cell



MRSI-175Ag
Epoxy Dispenser



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