

Volume XII

Solutions Newsletter

For Dispense and Assembly

Welcome to 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.

In This Issue

[Global and Local Alignments](#)

[Trade Shows](#)

[Customer Service](#)

[Click Here to See a Full List of Shows and Events](#)

Achieving Accurate Global and Local Alignments

Key Elements in Achieving Accurate Local and Global Alignments

Having a proven ultra-accurate machine platform that is mechanically and thermally stable, with no cantilevered parts, is a baseline to achieve accurate device placement. In addition, the accurate alignment of device fiducials is required to achieve micron level accuracies. Many other key features are required for accurate final placement.

Alignment Software

Local and global vision alignment is used for nested substrates and feature alignment. The software must allow the user to align die relative to substrate fiducials, die edges, or features of previously placed die. The alignment of the laser chip to photo diode or a lens to a VCSEL are common photonic examples. Another example is the alignment of critical die such as MMICs and beam lead diodes. This capability ensures repeatability and precise alignment of optical and microwave devices.

Programmable Multi-color Lighting

Multi-colored lighting is required to successfully vision process a wide range of materials. Tri color; red, green and blue programmable lighting provides the capability for processing challenging alignment surfaces, such as gold traces on alumina. Lighting intensity must be programmable and include both ring and collimated lights for a complete lighting solution. It must be possible to individually program optimal light settings for each die and substrate fiducial alignment.

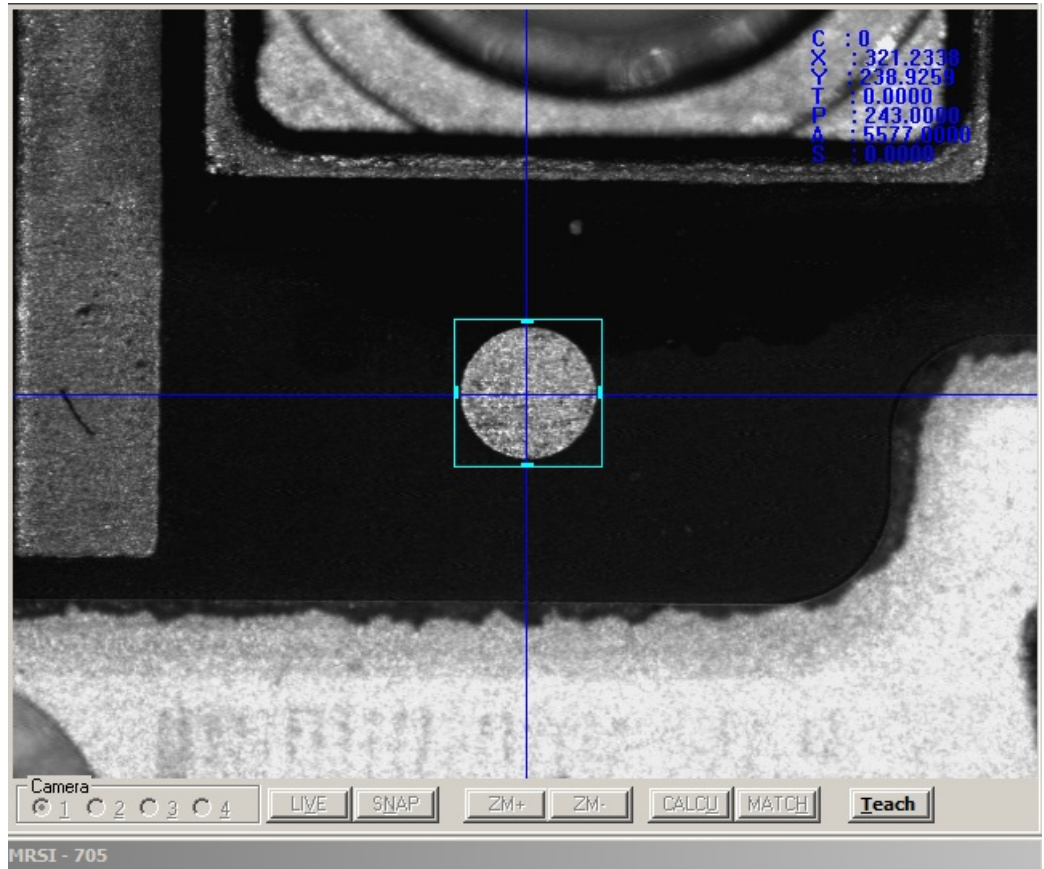
Advanced Machine Vision

Advanced vision must rapidly perform robust substrate fiducial alignment regardless of material contrast and detect and orient die over a full 360°. Both pattern recognition and boundary trace tools provide a complete solution to locate the die center, edges, or application-critical features. This enables fast, error-free processing of complex assemblies.

Optics and Camera System

The optics and camera system must include multiple magnifications for both upward and downward facing cameras. The upward-facing camera is used for processing flip chip devices and other components with bottom features and bumps. High resolution cameras ensure a quality vision image for processing.

If you have similar challenges, give our application experts a call.



Please Join us at iMAPS and Productronica

Come see us in Orlando, Florida and Munich, Germany!

Thanks to our loyal customers and our Chinese representative CYCAD for making the China International Optoelectronic Exposition at Shenzhen Conference & Exhibition Center such a major success. Once again the show machine is heading directly to a customer site to fill an order!

We are gearing up for two major shows. October 26th - 29th we will be exhibiting at iMAPS - 48th International Symposium on Microelectronics 2015, Rosen Center Hotel, Orlando, FL, booth number 400 and Productronica 2015, Messe Munich, November 10th - 13th, Hall B3, Stand 401. We hope to see you there!

You are always welcome to come visit us at our Billerica factory. Contact us with your dispensing and assembly challenges. Chances are we have already solved them!



Service Contracts, PM and Training Programs

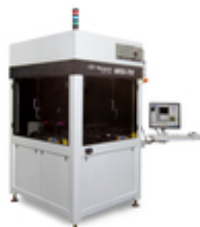
Customer Support and Service

MRSI Systems offers a variety of service contract options to provide fixed cost material, labor and expenses for machine repairs. In addition, we offer preventative maintenance and calibration programs to ensure your machines are operating at top efficiency. Our comprehensive training programs are targeted to the audience including: operator, programming and maintenance training. Contact our service department at service@mrsisystems.com for details on spare parts and these programs.

MRSI - M3
Assembly Work Cell



MRSI-705
Assembly Work Cell



MRSI-175Ag
Epoxy Dispenser



Need More Information, Please Contact us at:
+1.978.667.9449
sales@mrsisystems.com