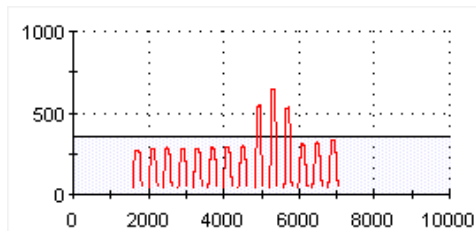
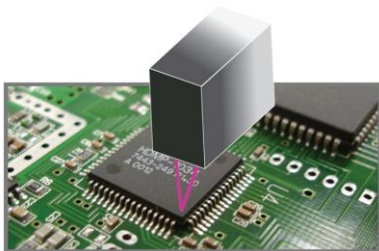


# TECHNOLOGICALLY ADVANCED

## MV-7 Series

# MIRTEC

- Five Camera In-Line AOI System
- Exclusive **TEN MEGA PIXEL ISIS** Vision System
- Precision **TELECENTRIC COMPOUND LENS** Design
- 9.8 Micron / Pixel Resolution
- Extremely Simple Programming and Operation
- Superior Defect Detection / Lowest False Call Rate!
- "World Class" Global Customer Support



- Integrated **INTELL-SCAN** Laser Inspection System
- Superior Lifted Lead Detection For Gull Wing Devices
- Four Point Height Measurement For Co-Planarity Testing Of BGA and CSP Devices
- Enhanced 3D Solder Paste Measurement Capability



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# MV-7 Series Features and Specifications

## Standard Features:

- Intel® Core™2 Duo PC, 24" Flat Screen LCD Monitor, Windows 7™ OS, HDD, Mouse & Keyboard, Network LAN Card.
- Three (3) Stage High Speed Conveyor System with Programmable Width Control and Automatic PCB Support.
- Three (3) Layer Programmable LED Light Source (Horizontal, Vertical, Coaxial).
- Pre and Post Reflow Inspection Capability.
- Automatic Teaching Software w/ Comprehensive Package Type Library for Simple "Drag and Drop" Programming.
- Local Software: Repair Plus Software, Statistical Process Control (SPC) Software.

## Options:

- Five or Ten Mega Pixel Top-Down View Digital Color Camera System (See Specifications).
- Side View Camera System - Quantity (4) Five or Ten Mega Pixel Side View Digital Color Cameras (See Specifications).
- Intelli-Scan Laser System - Superior Lifted Lead Detection for Gull Wing Devices; Z-Height Measurement for BGA's Devices.
- Intelli-Beam Laser System - Z-Height Measurement Capability for BGA and CSP Devices.
- NG Marking System - Clearly Marks Position of Defects with a Water Soluble Ink Dot.
- 2D Bar Code Reader - Gun Type - 2D Bar Code Reading Capability Using Handheld Gun Type Reader.
- 2D Bar Code Reader - Camera Type - 2D Bar Code Reading Capability Using the Top Down Camera System.
- Remote Software (PC Required): Off Line Programming, Remote Repair Plus, Remote SPC, Remote Management.

## System Specifications:

| Top-Down View Camera Options              | Field Of View                   | Resolution                     |
|---|---------------------------------|--------------------------------|
| 5M Pixel (2,456 x 2,058) Camera Option 1  | 44.7mm x 37.4mm (1.76" x 1.48") | 5 Mega Pixels @ 18.2 um/pixel  |
| 5M Pixel (2,456 x 2,058) Camera Option 2  | 32.9mm x 27.5mm (1.30" x 1.08") | 5 Mega Pixels @ 13.4 um/pixel  |
| 5M Pixel (2,456 x 2,058) Camera Option 3  | 24.0mm x 20.1mm (0.94" x 0.79") | 5 Mega Pixels @ 9.80 um/pixel  |
| 10MP ISIS (3,664 x 2,736) Camera Option 1 | 66.6mm x 49.7mm (2.62" x 1.56") | 10 Mega Pixels @ 18.2 um/pixel |
| 10MP ISIS (3,664 x 2,736) Camera Option 2 | 49.0mm x 36.6mm (1.93" x 1.44") | 10 Mega Pixels @ 13.4 um/pixel |
| 10MP ISIS (3,664 x 2,736) Camera Option 3 | 35.9mm x 26.8mm (1.41" x 1.05") | 10 Mega Pixels @ 9.8 um/pixel  |

|  |  |
|--|--|
| <b>Side View Camera System</b>           | 5 MEG: Quantity (4) Five Mega Pixel (2,576 x 1,968) Digital Color Cameras<br>10 MEG: Quantity (4) Ten Mega Pixel (3,664 x 2,736) Digital Color Cameras |
| <b>Intelli-Scan Laser Specifications</b> | Z-Height Measurement Accuracy: +/- 10 um<br>Resolution: 1 um / point<br>Inspection Speed: 0.5 sec / point  |
| <b>Intelli-Beam Laser Specifications</b> | Z-Height Measurement Accuracy: +/- 20 um<br>Resolution: 15 um / point<br>Inspection Speed: 0.5 sec / point   |
| <b>Top-Down Camera Lens</b>              | Precision Telecentric Compound Lens Design   |
| <b>Top Side Clearance</b>                | Standard - 45mm (1.77"); Optional - 25mm (0.98")   |
| <b>Bottom Side Clearance</b>             | 50.8mm (2.0") From Bottom of PCB Surface   |
| <b>Minimum Component Inspection</b>      | 01005 Chip Component.  |
| <b>Robot Positioning System</b>          | Closed Loop AC Servo Drive System  |
| <b>Resolution</b>                        | 6 um (.000236 in.)   |
| <b>Repeatability</b>                     | ±15 um (± 0.000591 in.)  |
| <b>Maximum Inspection Speed</b>          | 0.37sec / frame - 8,946 mm <sup>2</sup> / sec (11.046 in <sup>2</sup> / sec)   |
| <b>Power Requirements</b>                | Single Phase 208 VAC ± 10%; 50/60 Hertz; 5 Amps  |
| <b>Air Requirements</b>                  | 0.5Kqf / cm <sup>2</sup> (7 PSI)   |

| Model Number | PCB Size Range  |
|--------------|---|
| MV-7xi       | 50mm x 50mm to 510mm x 460mm (2.0"x2.0" to 20.1" x 18.1") |
| MV-7U        | 50mm x 50mm to 660mm x 610mm (2.0"x2.0" to 26.0" x 24.1") |

| Model Number                               | Machine Dimensions  |
|--|---|
| MV-7xi                                     | 1,100mm W x 1,530mm D x 1,500mm H (43.3" x 60.2" x 59.1") |
| MV-7xi w/ 350mm Side Rails and Light Tower | 1,800mm W x 1,530mm D x 1,985mm H (70.9" x 60.2" x 78.2") |
| MV-7U                                      | 1,270mm W x 1,680mm D x 1,500mm H (50.0" x 66.2" x 59.1") |
| MV-7U w/ 500mm Side Rails and Light Tower  | 2,270mm W x 1,680mm D x 1,985mm H (89.4" x 66.2" x 78.2") |

| Model Number | Weight               |
|--------------|----------------------|
| MV-7xi       | 1,000 kg (2,204 lbs) |
| MV-7U        | 1,050 kg (2,314 lbs) |