

LaserVision Mini SP3D

The LaserVision Mini SP3D system combines laser measurement accuracy with Automatic Data Collection (ADC) for real-time control of the SMT stencil printing process. With its Windows® XP Pro OS and service free USB interface, the Mini SP3D system is easy to learn and operate, making it the most cost effective SPI solution for the SMT manufacturer concerned with improving printing quality and production yields.



Automated 3D Solder Paste Inspection

System Features

- Accurate and Repeatable Measurements of Solder Paste, Adhesives, Grease and Other Applications
- Automatic Calculation of Height, Area, Width and Volume Measurements
- Fully Integrated Real Time SPC Run Charts and Histograms
- Customized Data Reports with Data Tag Traceability
- 4 Unique and Flexible Operating Modes
- Simple USB Interface for Service Free Maintenance
- One-year warranty

System Includes

- Anti-static work surface
- High Resolution Color CMOS Camera and Class II Laser
- Hardware / Software Reference Manuals **Options**
- Win XP Pro 2.5+ GHz CPU with Flat Panel Monitor
- Siemens® Criterion SPC Software for Advanced Data Collection and Analysis
- Extended Warranty
- Manual X-Y Stage
- 3D Laser Scanning Module
- Large FOV System(see back for specs)

Intuitive User Interface



Automated Measurements

To obtain automated measurements on the SP3D, position the circuit board under the system's laserbased vision sensor to the desired location. Simply click the green run button to automatically calculate the solder paste height, width, area and volume. Automated measurements reduce the errors associated with operator to operator variations.

Excellent 3D Graphics



3D Scanning Laser

The SP3D's optional laser scanning feature provides 3D profiling capabilities along with added accuracy and repeatability due to increased data acquisition. This feature also provides a second layer of analysis to establish proper corrective actions based upon qualitative defect attributes and 3 dimensional renderings that can be manipulated, tilted and viewed from multiple angles.



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Customized Data Reports

The onboard SPC software is a powerful tool that helps operators control the critical stencil printing process. Data collected by the SP3D is instantly charted by the integrated SPC software. Calculations crucial to the printing performance are managed by the following information:

- User Defined LSL, Target and USL
- X-bar / R and Histogram Charting
- Min / Max / Median Values
- Cp / Cpk / Cr and Lower Z Values



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System Specifications

- Maximum Object Thickness 3.8 cm (1.5")
- Standard work Surface (W*L) 61 cm x 61 cm (24" x 24")
- Throat depth (laser to rear support) 22 cm (8.5") Can be Increased
- System Computer (Optional) 2.5+ GHz 64+ MB RAM
- Electrical Requirements 100-240 VAC, 50-60 Hz, 2 Amps
- Ambient Operating Temperature +5° to +38° C (+40 to 100 F)
- Ambient Operating Humidity <90% non-condensing
 - System Weight* (crated) 40 Kg (88 lbs)
- System Weight* (un-crated) 18 Kg (40 lbs) *not including system pc and monitor

Sensor Specifications

Laser Type 1 mW, 670 nm laser diode Resolution 2.54 µm (0.10mil) Integral Video Camera **CMOS Color Camera** Field of View (Standard View) 4.7 mm x 3.6 mm 186 mils x 142 mils 2.4 mm x 1.8 mm (Zoom View) 96 mils x 72 mils **FOV Size** 25 mm x 17.9 mm Resolution 4 um (0.17mil) CMOS Color Camera Camera 10Mp LaserVision SP3D O 61cm (24") 61cm (24") Safety Consi CAUTION The SP3D system complies with all applicable. LASER RADIATION DO NOT STARE for the manufacture of laser devices. This system * SP3D Base System Displayed INTO BEAM lactified as a Class II later device by the Center for

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CE

Devices and Radiological Health (CDRH). This

assification requires two safety precautions. D

not state directly into the laser source and do i

point the laser at anyone else's eye

1.0 MW max power

670 rw wavelength

CLASS II LASER PRODUCT