VisionMaster HSi LineMaster

World Leader in Solder Paste Inspection

LineMaster HSi incorporates high-speed and high-resolution **HSi** positioning, with the sophisticated, ULTRA high speed, 3-dimensional measurement technology found in ASC Internationals' popular **RX** sensor. This provides electronics manufacturers' with the lowest priced, most repeatable, **In Line 3-D** solder paste measurement tool in its class. The **LineMaster HSi**, eliminates operator handling problems associated with off-line measurement and inspection systems, improving repeatability and reproducibility. This makes the **LineMaster HSi** an exceptional value for the electronics manufacturer concerned with improving production yields at an affordable price point.

SPC Software (Optional)

The optional Siemens® Criterion SPC software is a powerful tool that helps operators control the critical stencil printing process. Data collected by the HSi is instantly charted by the Criterion Software. Calculations crucial to understanding printing performance are reported, including:

- X and Moving Range

- X-Bar and Sigma

- X-Bar and Range

- Histograms

- P Chart, np chart, c chart and u chart

- Pareto, weighted pareto for defects and corrective actions

- Variance and standard deviation

- Corrective Actions Logging

- Customizable User Reports

- Cr, Cp, Cpk and lower Z values

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System Features

- Automatic calculation of 7 optional charachteristics
- Best in class encoded linear motion motors

- Off-line ROI component wizard programming (CAD or Gerber File)

- The best Gage R&R in it's class (based on ANOVA GR&R Testing Standards)

- Color 3-D profiles with definable color zones

- Flexible ASCII data output

- Pass/ Fail and defect recognition

- SMEMA ready conveyor system

- Gerber file "hover and see" profile viewing and data re-call

System Includes

- 350mm x 450mm (14"x16") high speed /high-resolution positioning system

- Powerful CPU, Windows XP/7 user interface and SVGA monitor

- On Board SPC charts and data reporting

Options

- Siemens® SPC Analysis Software

- NIST traceable calibration standard

- Extended board sizes up to 560mm x 660mm (21.5" x 26")
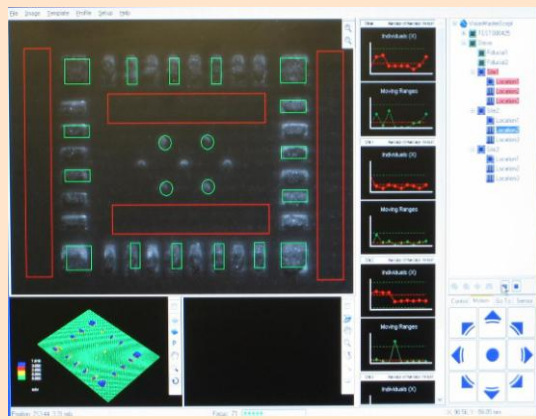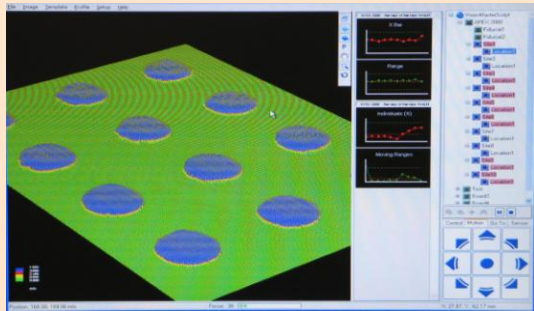
- Factory installation and training packages

Automated Measurements

To obtain measurements on the Linemaster HSi, a board is programmed once for the desired locations. After that, the user only needs to re-call the program for the board to be measured, and click run. The SMEMA Conveyor system automatically loads the board into the proper position, aligns the fiducials, and takes the measurements while collecting the data, at all pre-programmed locations, insuring precise consistency and outstanding x-y accuracy.

3D Color Profile Analysis

The Linemaster HSi allows operators to obtain 3D color profiles for fast and accurate paste analysis. Operators may use these profiles to help them determine what corrections are needed in their solder paste printing process, thereby reducing down time while improving yields.

System Specifications

- **Maximum Object Thickness**   5.1 cm (2.0")

- **Max Board Size**   350mm x 450mm (14" x 16")
  Large Configuration   560mm x660mm(21.5" x 26")

- **System Computer**   Windows XP/ 7 OS

- **Electrical Requirements**   100-240 VAC, 50-60 Hz, 2 Amps

- **Ambient Operating Temperature** 15° - 28° C (60° - 82° F)

- **Ambient Operating Humidity**   <90% non-condensing

- **System Weight*** (crated)   367 Kg (810 lbs)

- **System Weight*** (un-crated)   331 Kg (730 lbs)

Sensor Specifications

- **Measurement Range**   429 μm (16.9 mils)

- **Accuracy**   1.0 μm (0.04mil) on calibration target

- **Repeatability**   GR&R<10% on paste (+/- 50% Tolerance)

- **Integral Video Camera**   High resolution Megapixel Camera

- **Field of View (FOV)**   24 mm x 26 mm 0.33 seconds per FOV

- **Illumination**   LED-based white light

H =108cm (42.5")
W=76cm (29.9")
L =138cm(54.3")   CE/UL Approved

For More Information:

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