

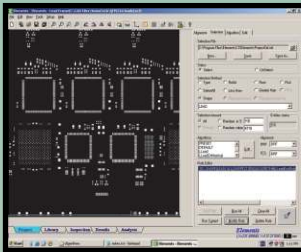
Solder Paste MEASUREMENT MODULE

Automated inspection of solder paste deposits without programming



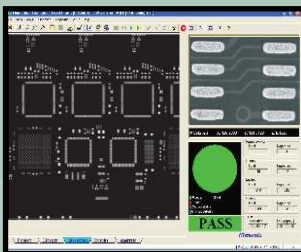
Elements Solder Paste Module is simple to set up and operate. No programming is required. Simply load the CAD file, select two fiducials for orientation, and press GO.

STEP 1: Import the CAD file (Gerber or .DXF format)



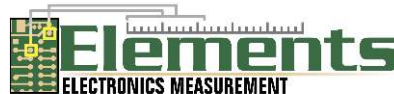
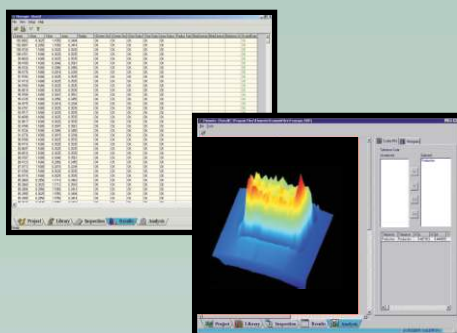
STEP 2: Measure the paste pads or glue dots

Select all features, specific areas, or a random selection. Real-time dashboard provides inspection details and cycle-time.



STEP 3: Review the automatic results

Comprehensive data and summary graphical analysis are generated automatically.



Self-Programming, NIST traceable measurement of solder paste location, height, area and volume. VIEW inspection systems with Elements software allow measurement and qualification of solder paste automatically by comparing deposits to their original CAD file.

Features:

- CAD based set-up (*no programming needed*)
- Measure X, Y size, location, area and volume of solder paste deposits
- Measurement range up to 900 mm x 1500 mm
- Convenient graphical analysis of results and automatic data upload

Benefits:

- NIST traceable measurements — very high accuracy and repeatability
- Fast set-up time (*less than five minutes*) ideal for high-mix environments
- Measure size and position of 15,000 paste deposits or glue dots in 30 minutes
- Paste height & volume measurements repeat to less than 2.5 microns, and correlate with scanning electron microscope analysis
- Graphic analysis tools provide real-time feedback for process control

The VIEW Elements™ Software Suite is made up of five separate software modules, each targeting a specific measurement need within the electronic assembly process.

VIEW metrology systems combine advanced optics, lighting, image processing, and high speed stage motion to provide feedback for screen printing process control.

The Benchmark and Summit systems with Elements Software provide the ultimate results in automated inspection of solder paste features by comparing them to their original CAD-based data.

Advanced metrology for leading technologies

Elements Software Modules:



Component Placement

- Slugs on glass (IPC-9850)
- Components on glass
- Components on board
- Missing components



Leadframe

- Lead position
- Angle
- Z-height
- Twist and tilt
- Co-planarity



Printed Circuit Board

- Artwork
- Drilled holes and vias
- Layer registration
- Pad location and size
- Profiles



Solder Paste

- Paste and glue dots
- Registration and size
- Height, area and volume



Stencils

- Aperture location and size
- Blockage
- Missing holes
- Stencil thickness
- 3D aperture geometry

System Configurations For Solder Paste Measurement



Benchmark 300

VIEW Benchmark 300 — high precision in a benchtop configuration

- 300 x 150 x 150 mm measurement range
- 2.0 + 5L/1000 micron accuracy
- 1.0 + 5L/1000 micron Z-axis accuracy
- Optional thru-the-lens (TTL) laser for 3D profile measurements
- Optional patented multi-color Programmable Ring Light (PRL) for surface feature measurements
- Versatile platform for stencil, board, and paste measurement



Summit 600

VIEW Summit Series 450/600/800 — high accuracy, throughput and large measurement area

- Three measurement ranges:
 - 450 x 450 x 150 mm
 - 450 x 600 x 150 mm
 - 760 x 800 x 150 mm
- 1.5 + 5L/1000 micron accuracy
- 400 mm/sec linear motor stage drives for high throughput *
- Optional thru-the-lens (TTL) laser for 3D profile measurements
- Optional patented multi-color Programmable Ring Light (PRL) for surface feature measurements
- Versatile platform for stencil, board, paste and component placement verification

Technical Specifications

System Requirements	Benchmark, Pinnacle or Summit Systems with VMS version 7.01 or higher Additional upgrade packages are available to bring Bazic or Voyager systems up to current hardware and software levels compatible with Elements
Computer	Intel® Pentium® Processor, 1 GB RAM, and Windows® XP operating system
Metrology Software	View Metrology Software™ (VMS) version 7.01 or higher
CAD Import	Gerber, .DXF file format

* Not available with the Summit 800

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