VisionMaster AP212

VisionMaster AP212 incorporates high-resolution PCB positioning with sophisticated, 3-dimensional measurement technology found in ASC Internationals’ popular VisionMaster 150 to provide electronics manufacturers’ with the most automatic and accurate 3-D solder paste measurement tool in its class. The AP212 eliminates operator handling problems associated with other off-line measurement and inspection systems, improving repeatability and reproducibility. This makes the AP212 an exceptional value for the electronics manufacturer concerned with improving production yields.

System Features
- Automatic calculation of 7 different characteristics, including Height, Volume, Area and Standard Deviation
- The best Gage R&R in it’s class (based on the ANOVA GR&R Testing)
- Color 3-D profiles with definable color zones
- Flexible ASCII data output
- One-year, end-user warranty including technical support.

System Includes
- 30cm x 30cm (12”x12”) high-resolution positioning system
- 2.5+ GHz CPU and SVGA monitor
- Fiber optic light source
- Hardware/software reference manuals

Options
- Siemens® SPC Software
- NIST Traceable Standard
- Extended table and stage sizes
- Extended Warranty
- Larger sensor FOV

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 AP212 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
- Skewness, kurtosis and chi-squared for goodness of fit
- Min., max. and median values
- Cr, Cp, Cpk and lower Z values
Automated Measurements

To obtain measurements on the AP212, a board is programmed once for the desired locations. After that, the user only needs to load the program, confirm the fiducial alignment, and click run. Measurements are then automatically taken at all pre-programmed locations.

3D Color Profile Analysis

The AP212 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.

System Specifications

- **Maximum Object Thickness**: 5.1 cm (2.0”)
- **Standard work Surface (L*W)**: 35 cm x 35 cm (14” x 14”)
- **Throat depth (sensor to support)**: 24 cm (12”)
- **System Computer**: 2.5+GHz – 512 MB RAM
- **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)**: 59 Kg (130 lbs)
- **System Weight* (un-crated)**: 43 Kg (95 lbs)

*not including system pc and monitor

Sensor Specifications

- **Measurement Range**: 365 µm (14.4 mils)
- **Resolution**: 1.78 µm (0.07mil)
- **Integral Video Camera**: Solid State Video Camera
- **Field of View (FOV)**: 2.1 mm x 2.8 mm (83 mils x 110 mils)
- **Illumination**: Halogen-based white light

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**For More Information:**

ASC International
1799 County Road 90, Suite 6
Maple Plain, MN  55359 U.S.A.
- Tel: USA  763-479-6210
- Fax: USA  763-479-6206
- E-mail: info@ascinternational.com
- Web: www.ascinternational.com
- Toll Free: 1-888-478-2912 (USA Only)

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A: 56 cm (22”)
B: 61 cm (24”)
C: 43 cm (17”)
D: 36 cm (14”)

![Diagram of system specifications](image)