

Vario Line · 3D SPI

3D Solder Paste Inspection System

- precise three-dimensional solder paste printing measurement
- form · bridges · X/Y offset · surface area
- height · volume · coplanarity
- camera head optimised for speed
- 180 images per second at 4 megapixel resolution
- highly precise 3D image capturing based on fringe projection technology
- operating without moving parts
- double-sided projection for 100% shadow-free measurement
- touchscreen interface
- program generation in less than 10 minutes

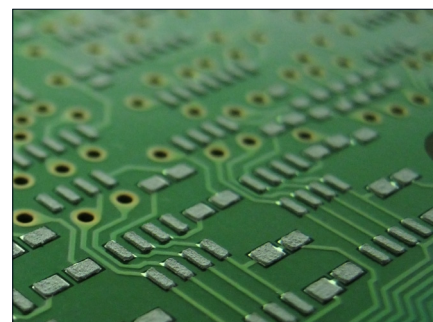
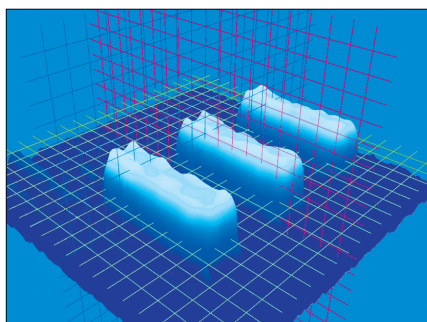


Technical specifications

Parameters	
measurements	shape, area, volume, coplanarity, height, bridges, X/Y offset
smallest solder depot	01005
camera/projector	8 megapixel, 180 frames/s, double-sided projection
x/y resolution	15 µm
z resolution	0.2 µm
z axis measuring accuracy (on target, up to)	1 µm
z measuring range	1000 µm
inspection speed (up to)	51 cm ² /s
repeatability of volume (on calibration target)	< 0,5 % at ± 3σ
repeatability of volume (on PCB)	< 2 % at ± 3σ
gage R&R	< 10 % at 6σ
illumination	flexible multispectral, multidirectional illumination for fiducial and barcode/2D code recognition
max. board deflection	± 5 mm
test program generation	typically <10 minutes
offline programming	yes
data import	Gerber data import (RS-274-X, RS-274-D), CAD, ODB++
closed Loop	to paste printer

Process optimization

- repeatable measuring
- statistical process control
- closed loop to printer
- link to AOI / AXI repair station



System specifications	Data
inline interface	SMEMA, Siemens, Hermes
assembly transport	1 segment / 3 segments (optional)
transport direction	left-right, right-left, left-left, right-right
max. PCB width	510 mm
min. PCB width	80 mm (50 mm optional)
power requirement	230 V AC / 1.2 kVA; 6 bar compressed air, consumption < 20l/h
dimensions (WxDxH)	1200 mm x 1450 mm x 1650 mm
weight	approx. 950 kg