Multi Line SPI

Solder Paste Inspection

· precise three-dimensional measurement of the solder paste

  Measurements: shape, area, volume, co-planarity, height, bridges, X/Y offset

· high-precision 3D image capturing using fringe projection technology

· double-sided projection for 100% shadow-free measurement

· test program generation in less than 10 minutes

· closed-loop interface to solder paste printer

· connection of SPI and AOI/AXI data at verifiy station



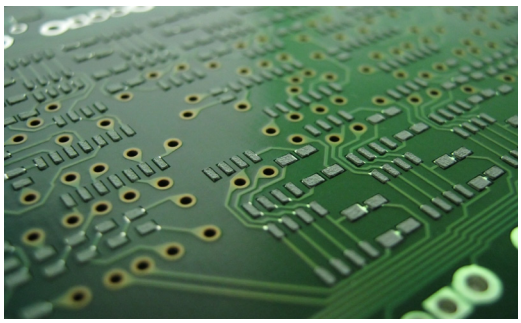
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Technical specifications

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



Multi Line platform	
max. inspection area	540 mm x 450 mm
max. carrier size	up to 620 mm x 510 mm
max. transport weight	15 kg
energy requirement	230 VAC / 2 kVA, compressed air 6 bar, consumption < 20 l/h
transport system	conveyor belt for PCBA with or without carriers
transport direction	left-right, right-left, left-left, right-right
inline interface	SMEMA, HERMES, Siemens, Sensor
dimensions (w x d x h)	1150 mm x 1300 mm x 1800 mm
weight	approx. 800 kg

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