



Multi Line SPI Solder Paste Inspection



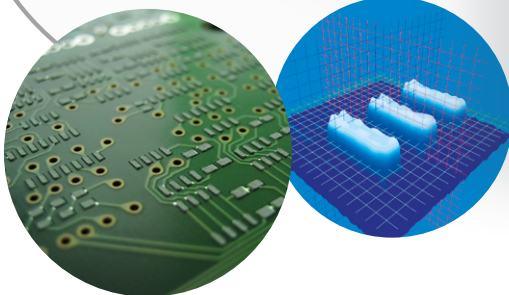
- precise three-dimensional measurement of the solder paste
Measurements: shape, area, volume, co-planarity, height, bridges, X/Y offset
- high-precision 3D image capturing using fringe projection technology
- double-sided projection for 100% shadow-free measurement
- test program generation in less than 10 minutes
- closed-loop interface to solder paste printer
- connection of SPI and AOI/AXI data at verify station



Parameter	
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

Effective 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