*V*310*i* SPI

Advanced 3D Solder Paste Inspection (SPI)

V310i Series
Advanced 3D Solder Paste Inspection (SPI)

Designed for paste inspection to increase high throughput productivity in SMT production line.

Key Benefits

High Speed performance SPI system in market

Powerful reporting for data analysis and performance monitoring

4.0 Smart Manufacturing Ready

Preferred choice by consumer, automotive, and telecommunication sectors

95% Shareable wear & tear spare parts between 3D AOI and 3D SPI under one similar machine
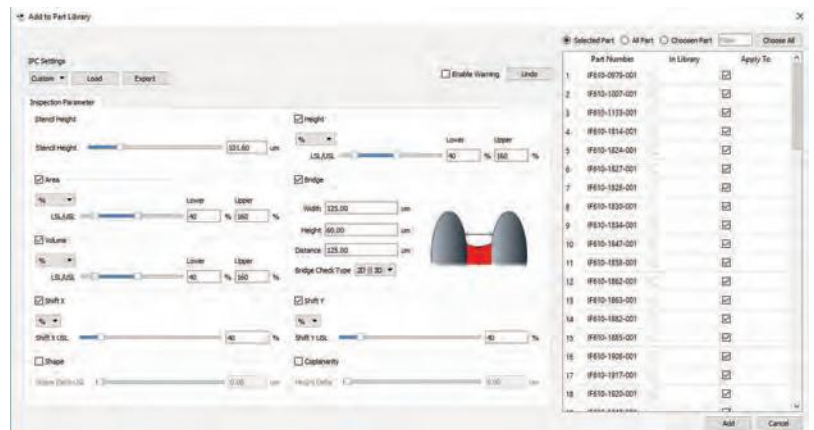
Competitive Cost of Ownership



Breakthrough Technologies

1 Ultra Smart AI Programming

Access the Gerber file of the stencil and start inspection immediately without the need for parameter setting and learning.

2 Advanced Process Optimization

Collaborate with market known printer and pick & place partners. ViTrox AI profiles out the best printer settings for each production model. This is achieved through continuous data collection on printer optimization activities.
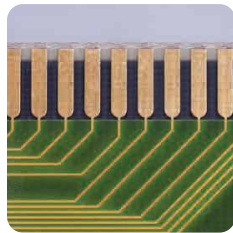

Feedback   Feedforward
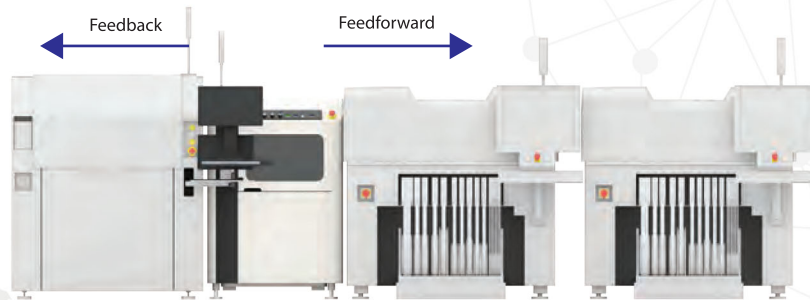
Interconnection between Printer, SPI & SMT
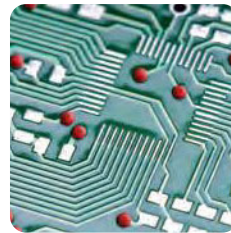
3 Unique Inspection Coverage

Cater to various inspection coverages within a modified machine platform including gold finger, distance measurement, gold pads, red glue by using ViTrox generic programming platform.
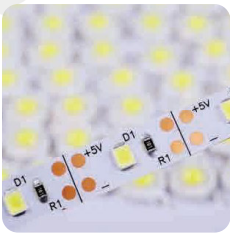
| LED | Gold Finger | Red Glue | Gold Pads |
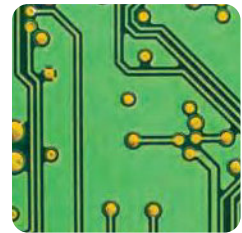
4 Real-Time Closed Loop System Connectivity

Integrate with all ViTrox family inspection systems to create a closed-loop communicated ecosystem to maintain and improve production process efficiency, yield, and quality. Achieved through model parameter sharing and single-learning -multiple-machine linkages to minimize programming time.

SPI

AOI

AXI
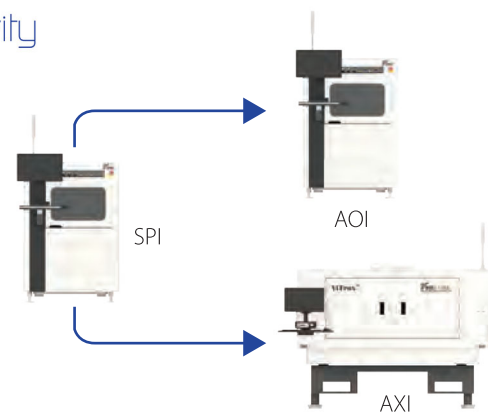
5 Powerful PCB Analysis

Analyze board warpages and prevent it from flowing through to the next process to achieve optimum quality with no rework cost.
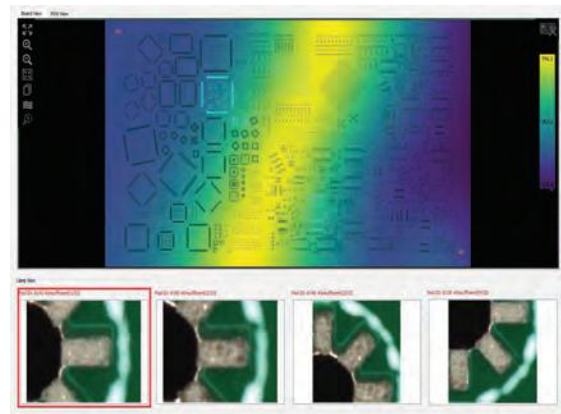
System Performances

Inspection Functions	Missing, XY Offset, Solder Height, Solder Area, Solder Volume and Bridge.
Board & Component Level Traceability	Camera-Read Barcodes; External Barcode Reader Configured

System Hardware	12MP	4MP
Operating System	Windows 10 (64-bit)	
Optical Resolution & FOV Size	Default: 60mmx45mm @ 15µm telecentric lens* Option: 52mmx39mm @ 13µm telecentric lens* 40mmx30mm @ 10µm telecentric lens* 32mmx24mm @ 8µm telecentric lens*	Default: 40mmx40mm @ 20µm telecentric lens
Inspection Speed	12MP CoaXPress @ 15µm Resolution: Up to 94cm²/sec 12MP CameraLink @ 15µm Resolution: Up to 60cm²/sec	4MP CameraLink @ 20µm Resolution: Up to 55cm²/sec
3D Technologies	Phase Shift Profilometry's (PSP) Methodology	
Lighting Module	Concurrent RGB Lighting Module	
Conveyor Width Adjustment	Auto Width Adjustment; Bottom-Up Clamping; In-line SMEMA	

PCB Dimension	Standard	FDL
Maximum PCB Size (L x W)	510mmx540mm (20"x21.2")	DL Equal: 510mmx250mm (20"x9.8") Single Lane: 510mmx450mm (20"x17.7")
Minimum PCB Size (L x W)	50mmx50mm (2"x2")	50mmx50mm (2"x2")
Maximum PCB Inspectable Area (L x W)	510mmx533mm (20"x20.9")	DL Equal: 510mmx243mm (20"x9.5") Single Lane: 510mmx443mm (20"x17.4")
Maximum PCB Thickness	4mm (0.16")	
Minimum PCB Thickness	0.5mm (0.02")	
Maximum PCB Weight	3kg	
Top Clearance of PCB	50mm	
Bottom Clearance of PCB	100mm	
Panel Edge Clearance	3.5mm	
PCB Transport Height	875mm - 965mm	
PCB Temperature	Ambient operating temperature is ~5⁰C to 40⁰C, maximum PCB temperature 80⁰C	

Based on system configuration.   Specifications are subject to change.

Installation Specification

System footprint (Width X Depth X Height)	1060mmx1303mmx2000mm
Weight	~830kgs
Electrical Supplies	100-120 V, 16A/200-240V, 8A Single Phase
Air Requirement	N/A

Front View

Back View

Side View

Top View