

V310i Optimus API

System Performances	
Inspection Functions	Missing, XY Offset, solder height, solder area, solder volume and bridge.
Height Accuracy (Based on ViTrox Calibration Jig)	1µm
Board & Component Level Traceability	Camera-Read Barcodes; External Barcode Reader

System Hardware	
Operating System	Windows 10 Pro 64 bit
Camera & FOV Size	60x45 mm @ 15µm resolution
Inspection Speed	12 MP @ 15 µm resolution; 45.0 - 77.0 cm <sup>2</sup> /sec
3D Technologies	Phase Shift Profilometry's (PSP) Methodology with 4-way projectors
Lighting Module	Concurrent Lighting Module
X-Y Gantry System	Gantry Robot Systems with Linear Motor and Linear Magnetic Encoders
X-Y Axis Repeatability	< 8µm
X-Y Axis Resolution	1µm
Conveyor Width Adjustment	Auto Width Adjustment; Bottom-Up Clamping; In-line SMEMA

PCB Dimension	
Minimum PCB Size (L x W)	50x50mm (2"x2")
Maximum PCB Size (L x W)	510x510mm (20"x20")
PCB Thickness	0.5mm-4mm (0.02"-0.16")
Maximum PCB Weight	3kg (6.6lb)

Clearance	
Top Side of PCB	50mm (2")
Bottom Side of PCB	70mm (2.76")
Panel Edge	3.5mm (0.14")
Maximum PCB Warpage Compensation	±5mm (0.2")
PCB Transport Height	856mm - 965mm (33.7"x38")

Installation Specification	
<b>Footprint</b>	
Width	1060mm (3.5ft)
Depth	1352mm (4.4 ft)
Height	2028mm (6.7ft)
Weight	~830 kgs
Electrical Supplies	100-120 V, 16A/200-240V, 8A Single Phase

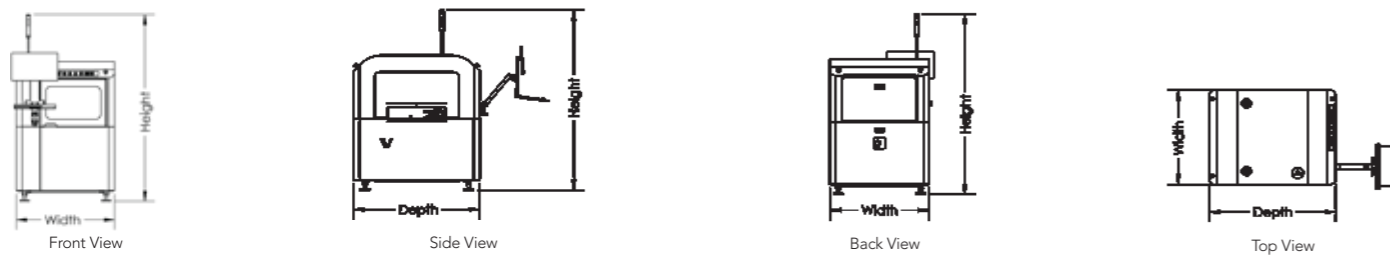
Software Options	
Gerber Conversion tool and V-ONE	

Specifications are subject to change.



# V310i API

Advanced 3D Solder Paste Inspection (API)



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## WHAT IS V310i?

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

## BENEFITS

- Sharable wear and tear spare parts within 3D AOI and 3D API under a machine.
- A single machine with two machine capabilities (SPI & AOI) in SMT line.
- Low ownership cost.

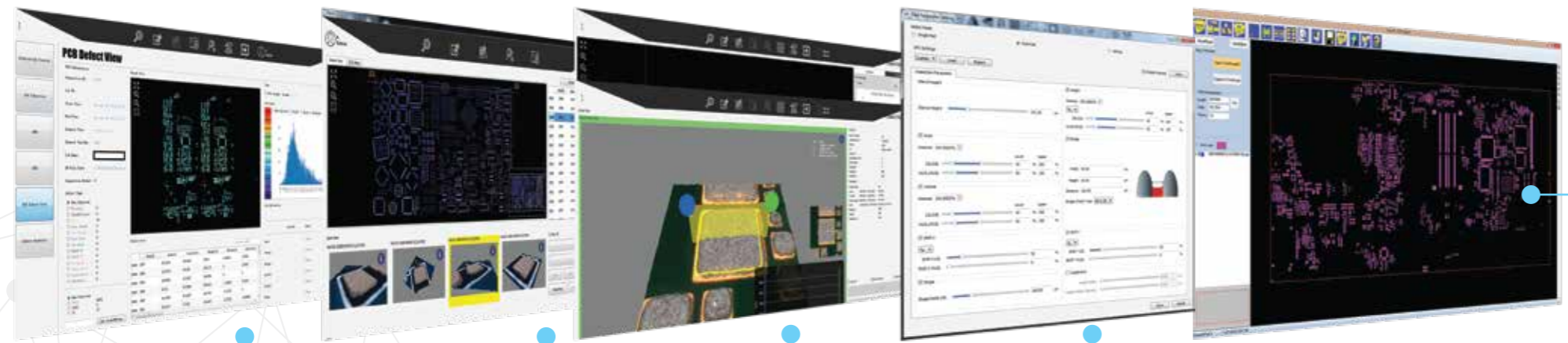
## V310i WITH V-ONE



V-ONE enables customizable data analytics feature to help users monitor process performance and improve production quality.

## COVERAGE

Eligible to various M2M connectivity initiatives such as IPC-CFX, IPC-HERMES-9852, SECS/GEM, CAMX, REST and SMEMA.



## PROGRAMMING FEATURES

- Support direct Import Gerber and CAD format.
- Lightning Programming Speed.
- Predefined IPC Class Parameter.

## SOFTWARE FEATURES

- Multi-Parameter Assignment can ease users in configuring the complex stencil design.
- ViTrox's Feature Extraction Module (FEM) is used to detect low bridges using Solder Paste Color segmentation which are normally unable to be measured by height using color differentiation technique.
- With its powerful and real-time quality information, SPC tools allow users to accurately analyze measurement results with different data format export requirements.

## HARDWARE FEATURES

- To achieve diverse customer requirements, the multi-megapixels camera with ultra-high frame rates ensures excessive detection of tiny component pads and high-density mounting PCB.
- ViTrox's GPU is equipped with 2D/3D parallel algorithms optimizing its high-density PCBs inspection at a rapid rate.
- 95% part similarity between 3D AOI and 3D API which able to co-share same wear and tear spare parts.

## INDUSTRIES

Certified with ISO 9001: 2015, CE, and TUV, ViTrox's products are well designed and manufactured to deliver reliable and high-quality performance to fulfill the stringent requirements in various industries such as Telecommunications, Semiconductor, Automotive, Medical/ Healthcare, and more.

