AUTOMATED OPTICAL INSPECTION

VCTA S1PL

In-line THT component AOI before wave soldering (VCTA Z1P / Z1PL series)

No line stop | 20MP / 25MP colour camera | DIP components checked before wave | Barcode traceability | SPC reports in Excel



OVERVIEW

The **VCTA S1PL** (manufacturer series Z1P / Z1PL) is an in-line AOI for THT (DIP) components, placed before wave soldering. It inspects while the board passes, so the line does not stop, and detects wrong, missing, shifted and reversed-polarity components.

Two versions: the compact Z1P with a 20MP colour camera for PCBs up to 380 × 250 mm, and the Z1PL with a 25MP camera for PCBs up to 450 × 450 mm. The structure can be adapted to the customer's production line.

A barcode reader stores every product with its barcode information, and boards without a barcode are recognised and inspected automatically. SPC statistics, graphic programming and central server management support quality and process improvement.

KEY FEATURES

High-resolution camera
20MP industrial colour camera (25MP option), high-resolution lens

Real-time inspection
no need to stop the line, inspection finished when the board passes

DIP component check
wrong, missing, shifted and reversed-polarity components (distinct polarity on the top side)

Barcode traceability
built-in barcode reader; fixed 1D and 2D barcode recognition as an option

Boards without barcode
recognised and inspected automatically

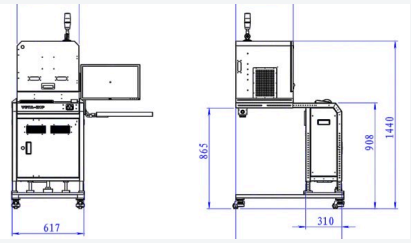
SPC
statistics and analysis of the test data, reports in Excel format

Graphic programming
English operating interface, easy programming

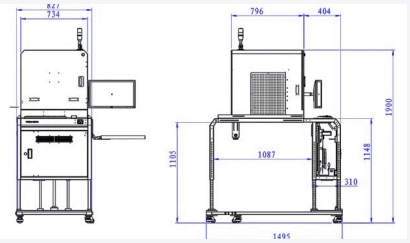
Central server
all line equipment managed centrally, test data collected for the whole line



Z1P version



Z1P dimensions (mm)



Z1PL dimensions (mm)

TECHNICAL SPECIFICATIONS

	Z1P	Z1PL
Algorithms	MIDM, colour image contrast, colour extraction, similarity, binarisation and other algorithms	
Camera	20MP colour industrial camera (25MP option)	25MP colour industrial camera
Lens	industrial lens	
FOV / Cycle Time	FOV adjusted to the application; cycle time < 3 s	
Lighting	white LED	
Inspection Items	DIP component wrong, missing, shift, reversed polarity (distinct polarity on the top side)	
Barcode Reader	fixed 1D and 2D barcode recognition (option)	
PCB Size	50 × 50 to 380 × 250 mm	50 × 50 to 450 × 450 mm
Component Clearance	top ≤ 50 mm	
Software	Microsoft Windows 10, English graphic programming, SPC report in Excel format	
Computer / Display	industrial computer, Intel quad-core i7, 16 GB RAM, 2 TB HDD / 22-inch TFT	
Dimensions (L × W × H)	617 × 912 × 1440 mm	827 × 1495 × 1900 mm (adjustable to the line)
Weight	approx. 150 kg	approx. 250 kg
Power Supply	AC 220 V ±10%, single phase, 50/60 Hz, 600 W	

Configuration, demo and quotation

InterElectronic supplies VCTA inspection systems in Hungary and Central Europe: application advice, installation, training and service.

InterElectronic Hungary, H-2461 Tárnok, Pacsírtamező street 3 D/1 · +36 30 296 45 05 · info@interelectronic.com · www.interelectronic.com

Specifications according to VCTA (ZhenHuaXing Technology, Shenzhen). Subject to change without notice.