VIEWZOOM

SPI

SOLDER PASTER INSPECTION



Solucinde

VIEWZOOM

3D Inline Solder Paste Inspection System

Ican Series Inline 3D SPI



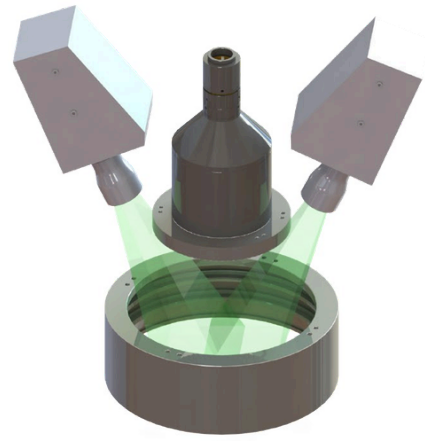
- AI one-click programming, no files required
- Combine traditional calculation with AI algorithms leads to a low false rate
- Rotational calibration system enables refined inspection
- Dual moiré projection perfectly solves all kinds of shadows
- Ultra-high inspection range easily handles colloid inspection
- Freely connect to MES for fully detailed SPC reports

Projector Collaboration with Machine

Perfect imaging, the slightest defects are visible

Perfectly extract solder paste 3D image

By using RGB (red, green and blue) + W (white light) composite light source technology independently developed by Viewzoom, combined with a dual moiré fringe projection system and high-speed imaging technology, we are able to accurately measure the shape and size of solder paste without shadows. This technology significantly improves the accuracy and reliability of solder paste inspection, meeting the strict requirements of the electronics manufacturing industry for solder paste quality inspection. In addition, the system ensures quality control during the soldering process by accurately measuring the area, height and volume of solder paste, thereby improving the overall reliability and performance of electronic products.

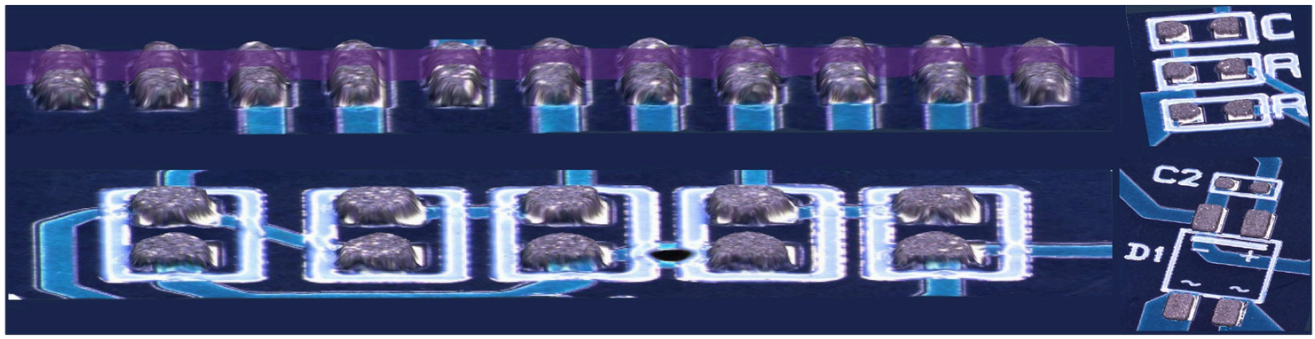


Z-axis auto focus to achieve dynamic board bending compensation (option)

Ican series is equipped with a high-precision telecentric lens, which is designed to reduce distortion during the imaging process and ensure the accuracy of the inspect results. Combined with the algorithm independently developed by Viewzoom, these machines can automatically compensate for the bending of the PCB (printed circuit board), thereby maintaining the consistency of inspection under different production conditions. In addition, Ican series also has an optional Z-axis auto focus function, which allows the machine to automatically adjust the focal length during the inspection process to adapt to the bending of the PCB and achieve more accurate inspection.

Comprehensive cover of all of components, professional response to diverse product inspecting needs

Ican series machine is highly compatible and can be used with a variety of lens specifications to meet a wide range of inspection needs. Our team of optical experts will recommend the most suitable lens configuration for you based on the specific needs of your production line. While ensuring inspection efficiency and quality, it can flexibly adapt to changing product inspection needs and accurately inspect tiny component defects. With our independently developed SPI imaging technology and AI algorithms, Ican series provides innovative solutions to the challenges faced in the SPI inspection field, ensuring inspection results.



Graphical and digital interactive interface

Users can directly view all key data clearly on the graphical and digital interactive interface. Our system supports intuitive parameter adjustment, making machine operation easier. All parameter adjustments are visualized to ensure that what users see is what they get, and the display results are updated in real time to improve operation efficiency and accuracy.

AI Innovation

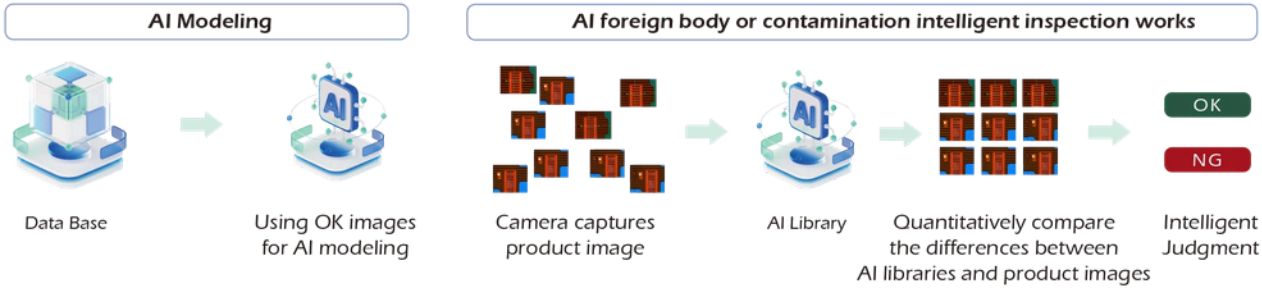
Assist products achieve zero defects and zero threshold operation

Full line cooperates to comprehensively improve the inspection efficiency

Ican series 3D SPI machine from Viewzoom focuses on the inspection of solder paste effects after printing. It can accurately and efficiently analyze various potential problem points, including the measurement of solder paste area height and volume. It can inspect defects such as insufficient solder, excessive solder, missing printing, offset, bad shape, bridging, board surface contamination, error angles, board surface contamination and foreign body, and ensure BGA coplanarity and compliance. Ican works in collaboration with printers and placement machines to improve the quality of the entire production line.

AI integrates traditional algorithms to make inspection more powerful

Compared with traditional SPI machines that require algorithm processing and recognition of each image, Ican series machines use advanced AI models to significantly improve inspection efficiency. This series of machines can process a large amount of image data and quickly output inspection results in batches, thereby greatly improving inspection speed and shortening inspection time.
In addition, with the help of Viewzoom self-built AI model and rich data analysis capabilities, Ican series machines can efficiently and accurately identify various mainstream defects. This technological advancement not only greatly improves product inspection efficiency, but also provides a solid foundation for achieving the goal of zero product defects.



AI intelligent programming can be performed without any files

The entire Ican series has a built-in intelligent programming system driven by AI, which completely abandons the traditional file dependence, operators with zero programming knowledge can quickly get started through simple board scanning operations. Model change programming can be implemented in as quickly as 1 minutes, easily adjust and set parameters.



Model Change Process

Outstanding machine stability ensures inspection reliability

Ican series machine, based on excellent assembly technology and strict assembly requirements, is equipped with unique algorithms and functions, which significantly reduces the differences between machines, thereby enabling the same algorithms program to be used by multiple machines, greatly increasing the replicability of the algorithm program and scalability. With the self – developed calibration system, Ican can easily achieve consistent operation of all machines entering the factory, ensuring a high degree of uniformity in all inspecting standards and results.

Ican Series Specifications

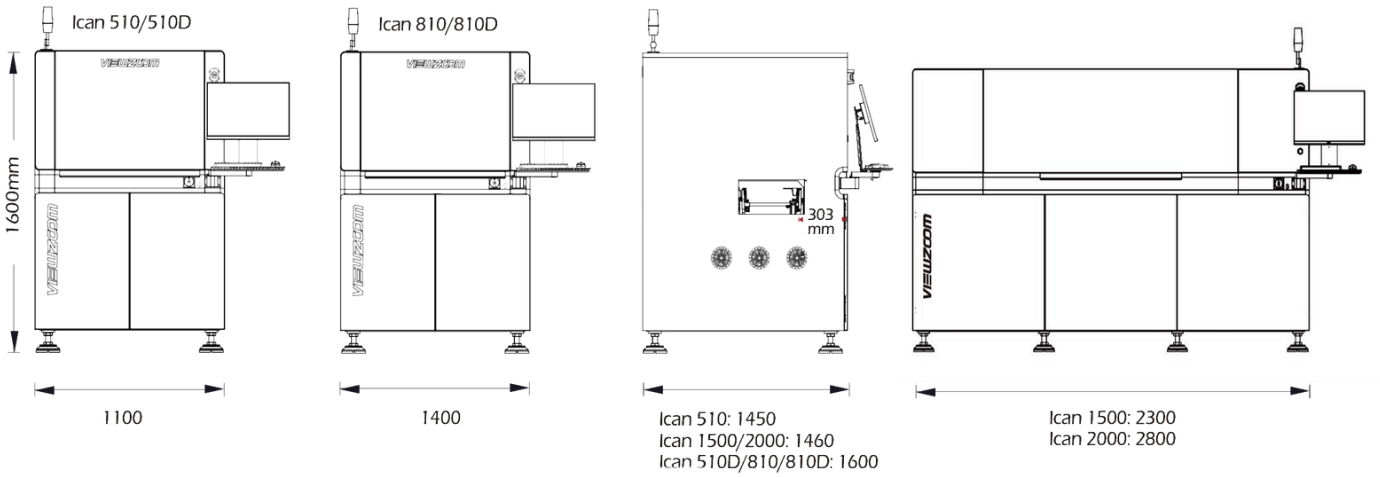
Category	Ican 510	Ican 810	Ican 510D	Ican 810D	Ican 1500	Ican 2000
Dimension Size (mm)	1100 * 1450 * 1600	1400 * 1600 * 1600	1100 * 1600* 1600	1400 * 1600 * 1600	2300 * 1460 * 1600	2800 * 1460 * 1600
Weight	1100kg	1400kg	1250kg	1450kg	2000kg	2200kg
Power Consumption	Standard 500W, Max. 800W		Standard 600W, Max. 850W		Standard 800W, Max. 1.2KW	
PCB Size L*W (mm)	50 * 50 ~ 510 * 510 Max. Thickness 6mm	50 * 50 ~ 810 * 690 Max. Thickness 6mm	Same PCB: 50 * 50 ~ 510 * 320 Different PCB: 50 * 50 ~ 510 * 590 Max. Thickness 6mm	Same PCB: 50 * 50 ~ 810 * 320 Different PCB: 50 * 50 ~ 810 * 590 Max. Thickness 6mm	50 * 50 ~ 1550 * 510 Max. Thickness 10mm	50 * 50 ~ 2050 * 510 Max. Thickness 10mm
Transport System	Single track transport system (front track is fixed, rear track L2 can be adjusted)		Dual track transport system (front track is fixed, L2 & L3 & L4 can be adjusted)		Single track (front track is fixed, rear track L2 can be adjusted)	Single track (front track is fixed, rear track L2 can be adjusted), three stages stopping process (PCB Length >850mm will automatically adjust to single stage)

Ican Series Machine General Specifications

Inspection Defects	Sufficient / Insufficient Solder、Miss Printing、Offset、Bad Shape and Bridging、Rusty Board、Angle、Foreign Body					
Inspection Items	Height、Area、Volume、Displacement、Shape			PCB Flow	Left to Right, Right to Left, Left to Left, Right to Right (Adjust in programming)	
Main Camera's Resolution	Standard 15um (Option 12um、10um、7um、5um)			Max. Transport Clearance	Top 50mm, Bottom 50mm	
Camera Performance	5MP、36.7*30.7 mm (15um)、280ms/FOV			Max. PCB Bending Adjustment	±4mm	
Motion Mechanism Precision	XY ±1um, Z±1um (Option)			Repeat Precision	Volume Area (3σ) < 1%、Height ±1um	
Numbers of 3D Projector	Standard 2	Inspection Height	5mm	Minimum Solder Point Spacing	80 um	Minimum Measurable Solder Point	80um * 80 um
Power Requirements	200-240V AC 50/60Hz			Light Source	Coaxial Light + RGBW	Operating System	Windows 11
Options	MES Connection、SPC Analysis、Offline Programming、7um Camera Lens、12MP Camera、Feedback to Printer					

Ican Series Dimension Size

Unit: mm



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CONTACT

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