



TWO SIDE INSPECTION ON-LINE AOI







Data sharing

High efficiency

Cost saving

PRODUCT FEATURES

- 5MP high speed Industrial camera & High resolution Lens, to ensure the efficiency and effect of image capture
- Graphic programming, the image information generated by the software is what you see, it's easy to leaning how to programming
- The camera can automatically identify the barcode on both side of the PCB and make the corresponding information storage, easy to save and trace the product information
- SPC can be carried out which can provide data support for the improvement of quality and process improvement
- The machines can real-time monitoring the production line and support offline programming and offline debugging
- The software can central control and manage all the AOI machines in the workshop, remote comprehensive review all the testing information
- Can concentrated collect the inspection information from all the AOI in the production line, to facilitate the comprehensive management of the whole workshop

FUNCTION MODULE

Two synchronous vision systems

The machine has two synchronous vision systems, which can automatically detect the two sides of the both sides of the PCB, and synchronous output inspection results.



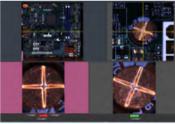
- According to the actual inspection needs to choose the form of machine working, such as the top side and bottom side inspected at the same time, or only inspect the current side.
- The mutual exclusion function of the light source can effectively avoid the mutual interference between the upper and lower pictures at the same time.



A/B face data sharing

Through the intelligent camera barcode recognition system, automatic read the barcode on the TOP side or BOT side, the barcode information can be selected according to requirements and can be shared, and the data maintenance is more convenient.





Multi-level user management

- The security of system uses the multi-level management, ensure the rigor of software operation and modification.
- Fault tracing Program modifications and testers can be traced, strengthen the operation and management of AOI program.



TECHNICAL PARAMETER

CATEGORY	ITEM	TB820	TB820L
Recognition System	Inspection	The vector image algorithms include logic operation, distance of luminance boundary, chip tracing, OCR/OCV, luminance/color template matching, color distance, color extraction (RGB & HSV), value-range of luminance, offset of luminance, the minimum variation span of luminance, etc More than 30 kinds of the most advanced algorithms.	
	Camera	Standard top and bot 5MP, optional either side 12MP or 12MP on both sides	
	Lens	High-resolution Industrial telecentric Lens	
	Resolution	Standard 20μm, optional 25μm (high depth of field application), 15μm, 12μm (recommended for 12MP)	
	FOV	48.96*40.96 mm(5MP & 20μm) ; 36.72*30.72 mm(5MP & 15μm); 50*45mm(12MP & 15μm) ; 40*30mm (12MP & 10μm)	
	Lamp-house	Ring tower structure ,high intensity RGBW flash lighting	
	Per-image Time	220~450ms	
	Inspection Capability	Missing, misaligned, skewed, tombstone, billboard, overturned, polarity, wrong, damaged, insufficient, pasting open, stain	
	Inspection Items	01005 & 0.3mm pitch	
	PCB Conveyor	Bottom to up clamping, Automatic PCB loading and unloading, automatic adjust the conveyor width, SMEMA standard communication protocol. The conveyor height: 900±200mm (750±20mm for option)	
MechanismSystem	PCB Size	50×50mm -400×330mm (Customize to larger dimensions as per client's requirements)	50×50mm –510×460mm (Customize to larger dimensions as per dient's requirements)
	PCB Thickness	0.5mm - 5.0mm	
	PCG Weight	Anti-static belt ≤5kg; Chain conveyor ≤15kg	
	PCB Warp Tolerance	±2mm	
	Component Clearance	Top≤50mm, Bottom≤50mm	
	Driver	AC servo system, Camera moves in the directions of X/Y.	
	Orientation	<10μm	
	Moving Speed	Standard: 500mm/s, Max: 800mm/s	
Soft System	Operation System	Microsoft Windows 10	
	Characteristics	Based on the vector calculation, the integrated use of color extraction (Color Extraction), extraction (Luminance Extraction) brightness and color space distance algorithm (Color Distance), the position and shape of mount components and solder joint positioning and accurate analysis, accurate and eliminate all kinds of bad points	
	Operation	Graphic programming, Chinese, English	
	MES Support	Standard port available	
Network	NG adaptable, check and correct PCBA defects at repair station		
Controller System	Computer	Intel Quad-core I7 CPU, MEMORY:32G, HARDDISK:2TB	
	Display	22 inch TFT	
	Communication	Adapt to TCP/IP and Microsoft network system	
	Central Control	Support central information control, can remote control multiple same type AOI machines	
Others	Machine Dimensions(L×W×H)	1077×1243×1675mm	1187×1419×1675mm
	Weight	~1250kg	~1360kg
	Power Supply	AC220V±10%, single phase 50/60HZ, power consumption 1800W	
	Air Supply	0.5mpa, 70cm³/min	
	Working Environment	Temperature10-40°C, humidity 30-80% RH	