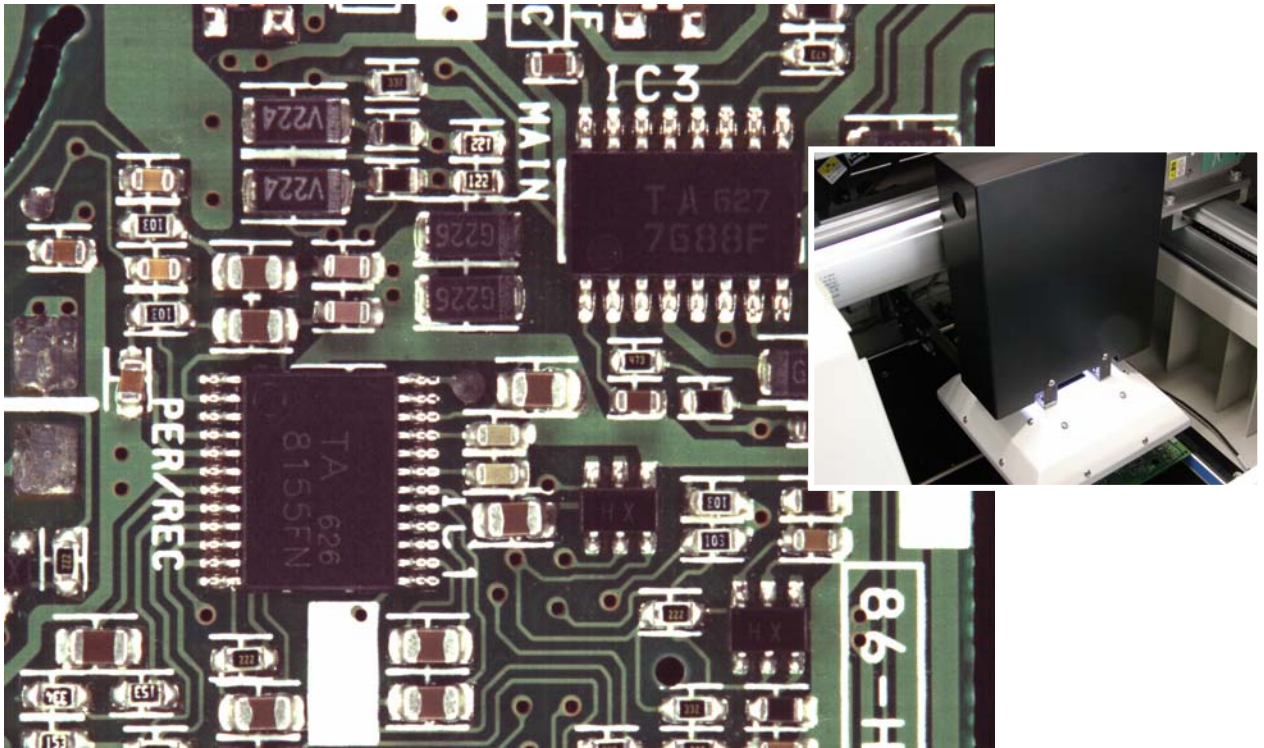


AOI Machine

ESV-505

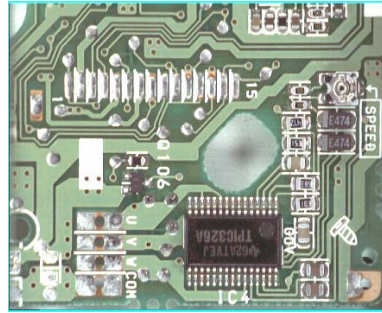


High Speed Optical Inspection System by High Resolution Camera



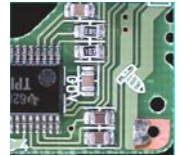
Features

- 1 **3M pixel color camera**
By high resolution camera (17 micron / pixel), gain high speed and good performance.

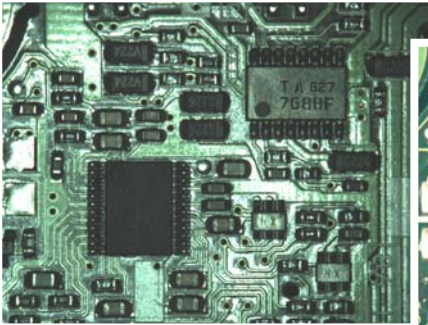


Camera view of ESV-505
35mm × 26mm

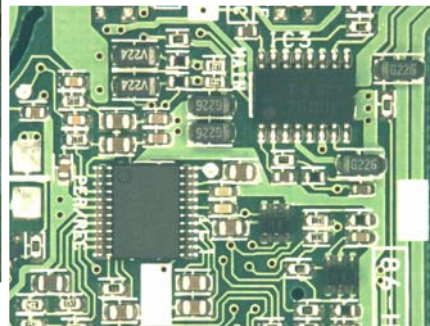
Current model
16mm × 15mm



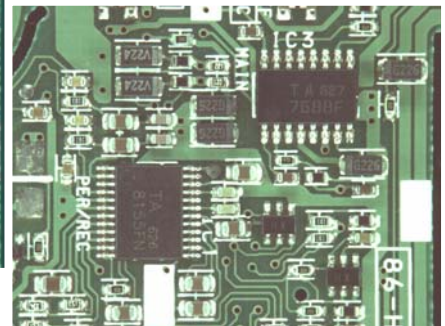
- 2 **3 types of illumination unit**
1) Coaxial top light for solder inspection
2) Middle light for component inspection
3) Side light for component inspection



Coaxial top light



Middle light



Side light

- 3 **Improve the distortion of lens**
ESV-505 has the specially developed lens unit.
This lens unit has improved the distortion of lens.

※PATENT PENDING



- 4 **Conveyer unit**
ESV-505 has conveyer unit as standard, so it is easy to set up the target PCB. (Front loading style)



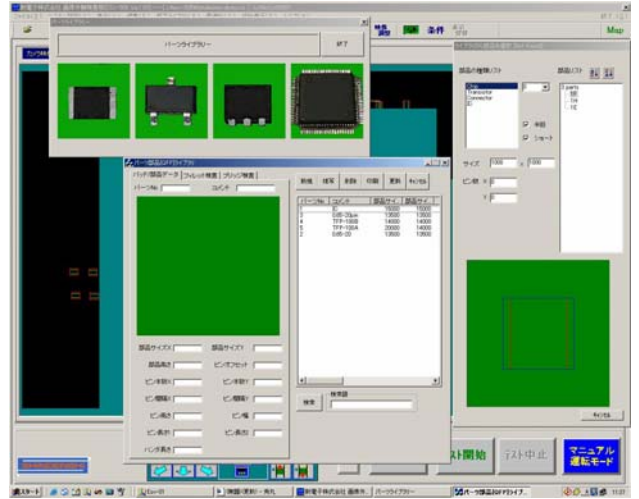
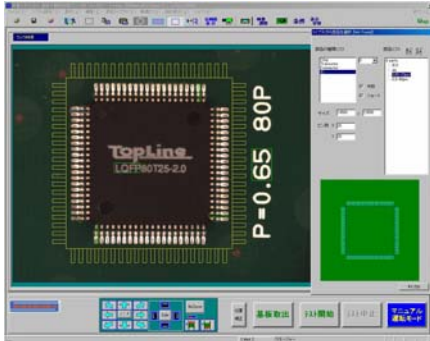
- 5 **Inspection method**

- 1) High speed pattern matching with normalization correlation process → For component check
- 2) Pixel counting at solder area by 2D → For Solder check
- 3) Density inspection by B&W gray scale → For IC lead short check
- 4) Color check → Inspect difference of color depend on the color balance (R, G, B) on the target.

6

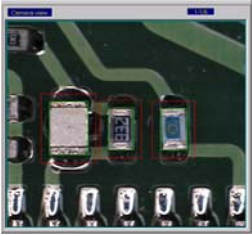
User friendly easy operation

After placing golden board into the machine, just move camera on the target component, then register the target image. This operation is very easy (Familiar operation!). Part Library is also available. By using the part library or existing CAD data, programming time can be shortened greatly.



Target Defects

Missing Component	Wrong part	Part shift	Tombstone & Billboard	Solder short	Color check
Printed mark & Character	Chip component Solder file	Chip component Solder loose	Manual insertion Component Solder area	IC lead Solder area	Lead open



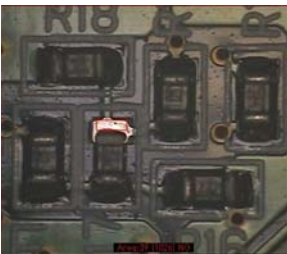
Missing component



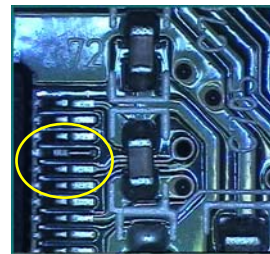
Wrong polarity



Tombstone



Solder inspection



IC lead open

Option

Repair station

Available to confirm the fail data on remote PC through LAN.



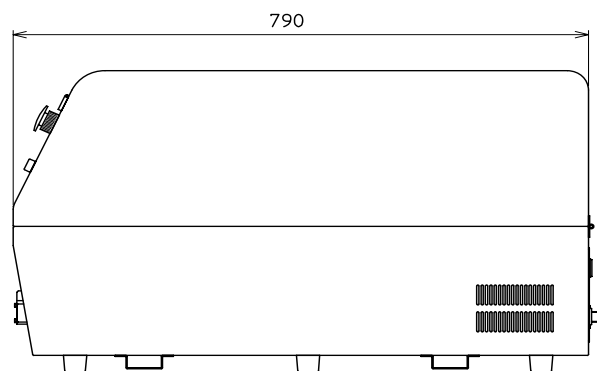
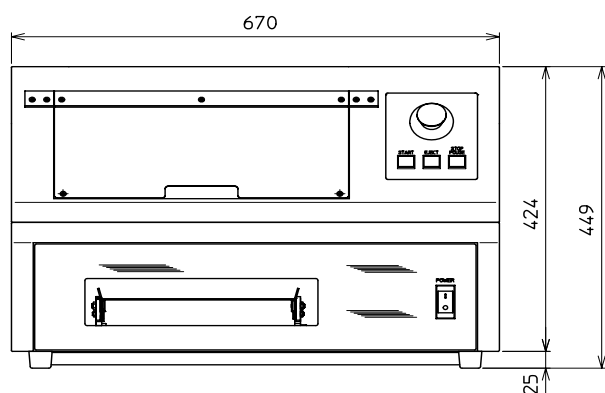
Specification for ESV-505

ESV-505 Specification

Item	ESV-505	ESV-505L	ESV-505XL
Dimension	670(W)×790(D)×449(H)mm	990(W)×990(D)×1090(H)mm	1200(W)×1200(D)×1090(H)mm
Weight	~70kg	~90kg	~110kg
In put	AC 100 V or AC 200V (Note: 1)		
Power consumption	300W (exclude PC & Monitor)	800W (exclude PC & Monitor)	~1000W (exclude PC & Monitor)
Max. driving speed	500 mm / sec		
Repetability	± 25 micron or less		
Max. processing speed	16 ms / part (128 × 128 pixel)		
Max. board size	290× 370 mm	460× 510 mm	580× 630 mm
Max. board clearance	35 mm		
Camera	3M pixel Color camera (2048 x 1536 pixel)		
Light source	Coaxial Top, Side, Middle		
Resolution	17 micron / pixel (with 35mm x 26mm FOV) Standard		
	20 micron / pixel (with 42mm x 31mm FOV) Options		
	11 micron / pixel (with 24mm x 18mm FOV) Options		
Inspection method	Pattern matching, RGB color check, Area, Gray scale		
PC	Windows XP		

Note 1 : Available to select input voltage when making an order.

Overall Dimension (ESV-505)



Above specifications may change without prior notice.



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