INTELLIGENT COMPONENT INSERTION SYSTEM AI-606

Description

AI-606 Standard Insertion platform with various component feeder which can easily help you realize insertion automation especially for combined standard and odd shape componentsto 450°C
Automatic cleaning of soldering iron
Repeatability<0.06mm

Features

- Standard equipped with EPSON LS6-602S 4 axis SCARA robot.
- Cutomized clamping head , maximum 6 clamping jaw avilable .
- Various feeders can meet standard and odd shape component automatic feeding requirement.
- Applicable PCB size: Max. 250(W)* 350(L)mm Applicable component size :Max. 30(W)*
- 45(L) * 45(H)mm
- Insertion speed: 1.8 S/ pcs to 2.4pcs
- Insertion accuracy: ±50µm.
- Machine size: L1250*W1200*H1800mm

General

1. Modular design with compact machine size , can be easliy intergrated into production line help you realize insertion automation especially for combined standard and odd shape components.

2. Standard equipped with High quality EPSON LS6-602S 4 axis SCARA robot which ensures the high precision insertion.

3. Cutomized clamping head can install maximum 6 clamping jaws satisfy multiple odd shape components insertion requirement.

4. Various feeder type even with forming funciton can meet mutiple component feeding require-ment and easily help you realize high insertion automation.

5. 3 section conveying system with motorized width adjustment and clamping mechanism is applicable for max L 350*W250mm PCB.

6. Insertion abnoramal detect function can realize machine alarm ,by pass and immediate re-insertion function.

7. Optional clamping jaw changing function is available.

8. Optional intelligent support pin changing funciton greatly decrease positioning mistake and save chaning time.

9. Extraordinary vision system realize ±0.05mm insertion accuracy.

10.Windows based software , easy to operate.

Specifications

| MACHINE SPECIFICATION		TECHNICAL PARAMETER	
Pcb Dimension	PCB Size	Max Size	standard :(L)350 x (W)250mm , option: (L)300 x (W)300mm
		Min Size	(L)70 x (W)50mm
	PCB Transport Direction	Left to right ,3 section conveyor	
SCARA ROBOT	Model	LS6-602S (EPSON) , 4 axis SCARA robot	
Insertion Parameter	Insertion Speed	Theoretical Speed	1800 CPH
		Actual Speed	1.8 s/pcs without vision , 2.4 s/pcs with vision
	Insertion Accuracy		±0.05mm
	Insertion Species	resistor , capacitor , diode , triode ,fuse ,connector , relay, inductor , network connector,and other odd shape components etc	
Clamping Head	Picking Method	clamping jaw /suction nozzle	
	Clamping Jaw Quantity	4/6 pcs	
	Max Component Size	W 30 *L 45*H45 mm	
	Insertion Angle	flat ,0 degree.	
Feeder	Feeder Type	tape feeder , tube feeder , tray feeder , vibration feeder and other customized feeder	
	Feeder Quantity	Max 10 feeders	
Utility	Working Power Supply	1 Phase AC220V, 50HZ	
	Rated Power	2KW	
	Work Pressure	80 psi(0.5 Mpa)	
	Machine Size	Std with L 350* 250mm PCB size :(L)1250 x (W1200 x (H)1800 mm Optwith L 300* 300mm PCB size :(L)1250 x (W1300 x (H)1800 mm	
	Machine Weight	About 950 KG	

Sturcture

Modular design with compact machine size , can be easliy intergrated into production line help you realize insertion automation.
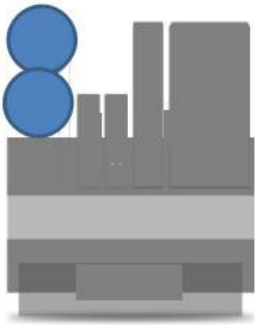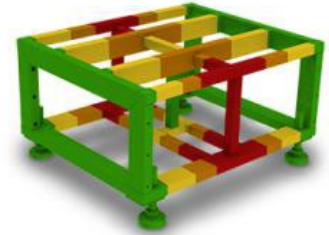
Modular design
Main machine+ intelligent feeder
Up to 10 feeders per machine
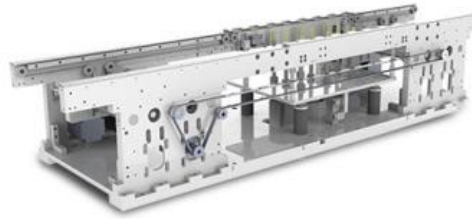
Modular 3 section conveyor Aduetsomigan
Aduetsomigantic width mechanism, Motorized PCB clamping mechanism

High-strength base structure
Finite-element analysis, design of high-strength welding, providing a solid base for the equipment

Standard equipped with High quality EPSON LS6-602S 4 axis SCARA robot which ensures the high precision insertion.

Clamping head

Multi functional clamping Heads with optional automatic changing function:
Leading performance, an abundant choices of clamping jaws and suction cups to offer protection for complicated plug-in work

- Large choice of clamping jawss and suction cups
- Insertion abnoramal detect function can realize machine alarm, by pass and immediate re-insertion function
- Optional clamping jaw changing function is available

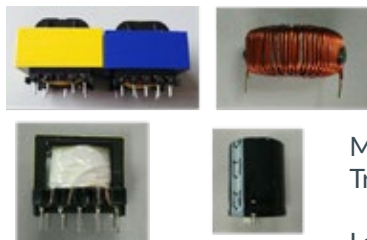Optional clamping jaw changing function is available

Customized Clamping Jaw Is Available

Feeders

Various feeder type even with forming funciton can meet mutiple component feeding requirement an automation.

Max: 8 trays
Tray size: Max L350*W250*H55mm

Lead reshaping function is optional.

Various feeder type even with forming funciton can meet mutiple component feeding requirement and easily help you realize high insertion automation.
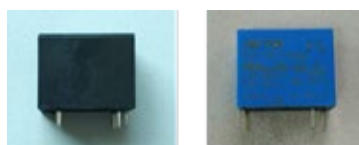

IGBT

Max: 9 tubes
Tray size: L450*W20*H45mm
Lead forming function is optional

Mulit layer tube feeder

Applicable parts

Max: 8 trays
Tray size: Max L350*W250*H55mm

Lead reshaping function is optional.

Compact mulit layer tube feeder

Applicable parts

Vertical vibration feeder
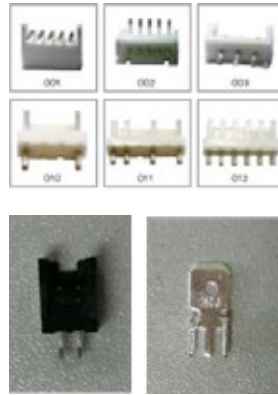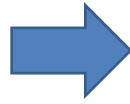
Applicable parts

Customized according to component, lead reshaping function is optional.
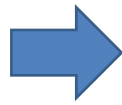

Compact Vibration feeder
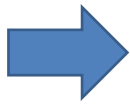
Applicable parts

Customized vibraton feeder for small batch without lead reshaping function.
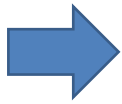

Radial tape feeder

Applicable parts

Suited for radial tape component with tape hole pitch of 12.7mm lead forming function is optional.
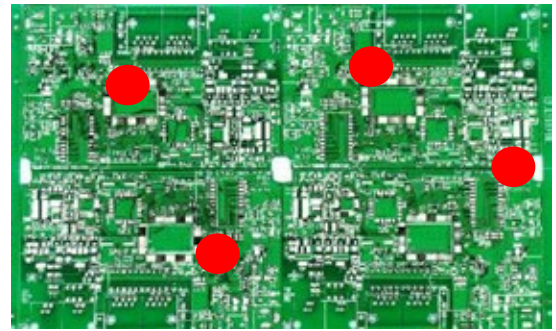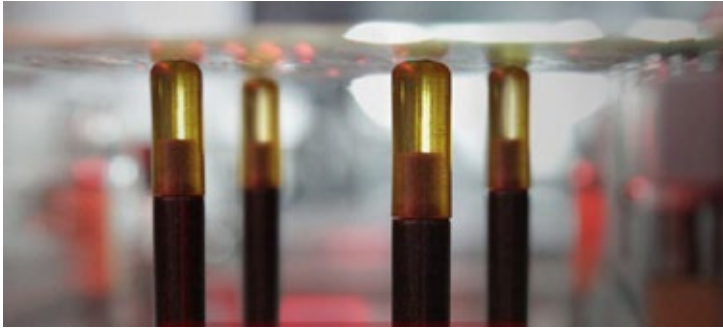

Axial tape feeder

Applicable parts

Suited for axial tape component with lead pitch of 5 or 10mm with lead cutting and bending function.

Software

Easy to Program and Operate

- Graphical User Interface
- CAD and CSV Import fucntion
- English interface available

pcbunlimited.com   (800) 348 9250   support@pcbunlimited.com

Optional intelligent support pin changing funciton greatly decrease positioning mistake and save chaning time..

Extraordinary vision system realize ±50µm insertion accuracy

- Head CCD vision system recognize fiducial and accurately position the PCB.
- Bottom CCD vision system recognize component and accurately insert it into PCB.
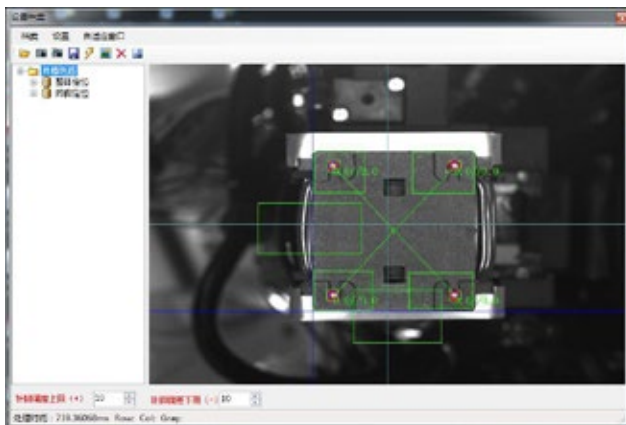
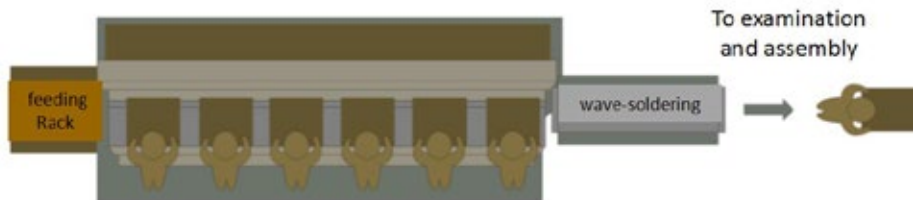Lead and component recognition for precise alignment and placement
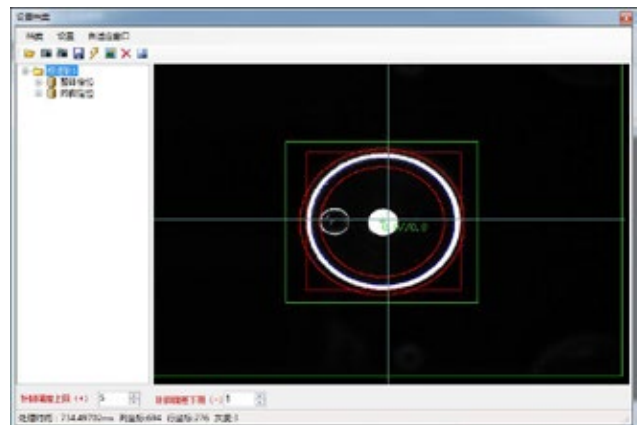
Verification and positioning of fiducials for precise PCB alignment and placement

Application

Insertion automation on site case (for a World's Top 500 Corporate)
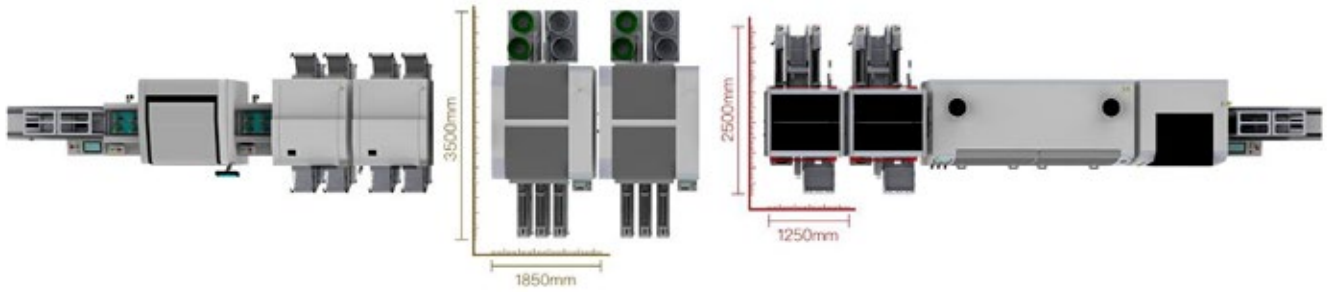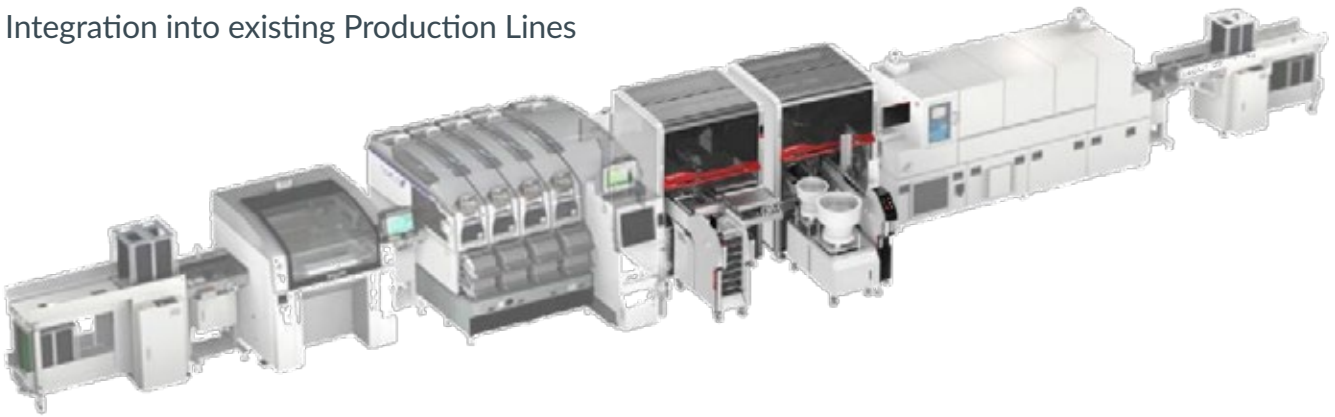

Manual insertion

Automatic insertion

Space Savings and Line integration

Saves 30% over traditional THT Insertion Systems

Integration into existing Production Lines

Application from our customers

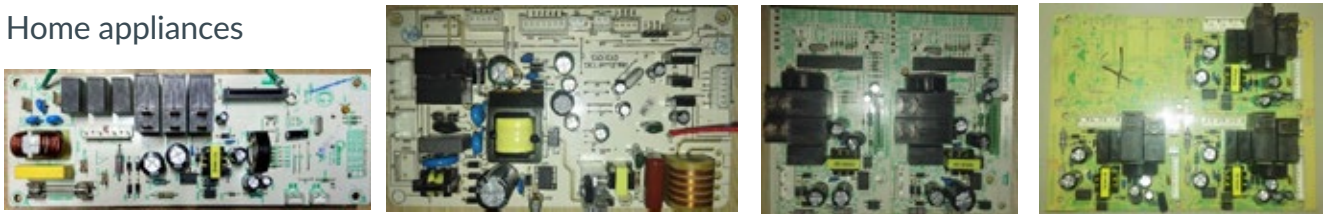### Air conditioner

Home appliances

Industry applications

Examples of possible Components

连接器

中续器

IC

变压器线圈

端口插座

开关按钮