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广东正业科技股份有限公司
GUANGDONG ZHENGYE TECHNOLOGY CO.,LTD.



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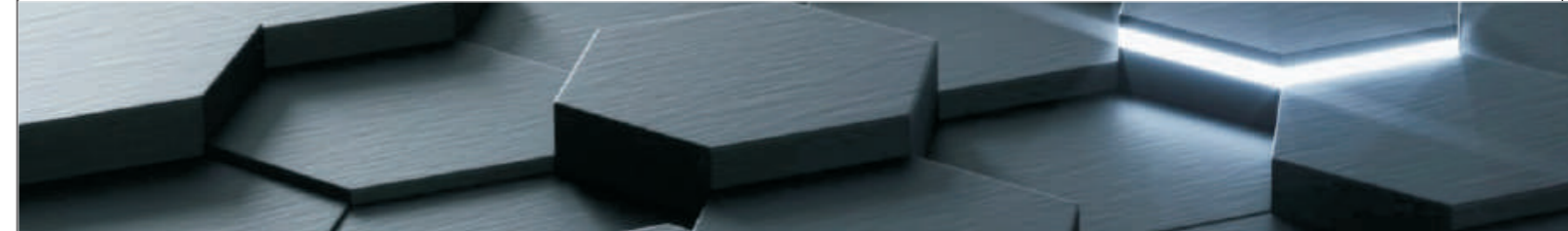
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INTRODUCTION



R&D CAPABILITY



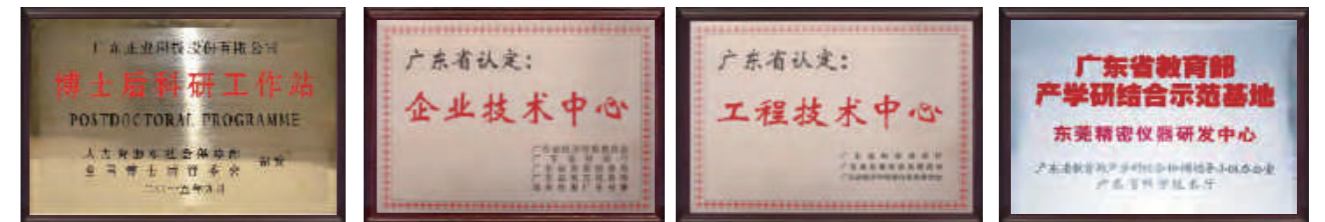
R&D ability Four major research and development platform

- More than 700 professionals in multidisciplinary integrated technology innovation fields such as light, machine, electricity, computing and materials, accounting for 35% of the total number of companies, and with Tsinghua University, Zhejiang University, Harbin Institute of Technology, Xi'an University of Electronic Science and Technology, South China Institute of Technology More than 20 colleges and universities across the country have established long-term strategic partnerships.
- The annual R&D investment accounts for more than 5% of the company's operating income. In 2018, R&D investment reached nearly 120 million yuan, accounting for 8.24% of the company's operating income, an increase of 80.31% over the same period of the previous year.

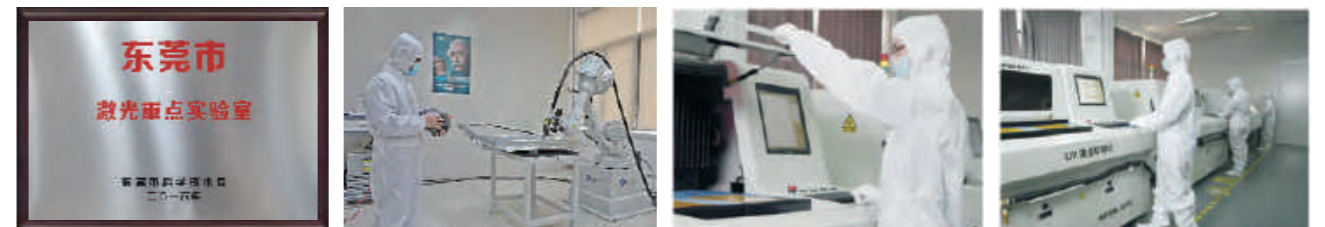
Guangdong Zhengye Technology Co., Ltd. (stock code: 300410) was founded in 1997. It is located in Songshan Lake National High-tech Industrial Development Zone, Dongguan City, Guangdong Province. It was listed on the Growth Enterprise Market of Shenzhen Stock Exchange in 2014. A high-tech group of more than 10 molecular companies.

Zhengye Technology mainly provides products and services such as smart detection and intelligent manufacturing overall solutions for PCB, lithium battery, LCD panel and other industries. It is widely recognized in the electronic information industry and has developed into a leading enterprise in many industry segments. The market covers dozens of countries and regions around the world.

In the future, Zhengye Technology will focus on the strategic development line of "Intelligent Detection and Intelligent Manufacturing Total Solution", and deepen the three markets of "PCB, LCD panel, new energy", and become the leading enterprise in the field of intelligent detection and intelligent manufacturing. Global Industry 4.0 have made outstanding contributions to the development of the industry.



R&D lab--Laser Key Laboratory





- National high-tech enterprises
- National intellectual property rights enterprise
- AAAA national standardization good behavior enterprise
- National patent excellence award winning enterprise
- The first, second, third and fourth "China electronic circuit industry outstanding national brand"enterprise
- Guangdong's top 500 enterprise
- Guangdong province innovative enterprise
- "Guard the heavy reputation of contract"enterprise of GuangDong province for 12years in a row
- The equipment manufacturing industry in GuangDong province by the enterprise(one of the province's 100)
- Strategic emerging industries to foster enterprise in GuangDong province
- China's top 100 electronic circuit industry company
- Dongguan Top Ten Multiplier Enterprise
- Vice President enterprise of Dongguan intelligent manufacturing industry association
- Excellent member of Dongguan High-tech Industry Association



Legend Inkjet Printer (PY100B/PY100B-F)



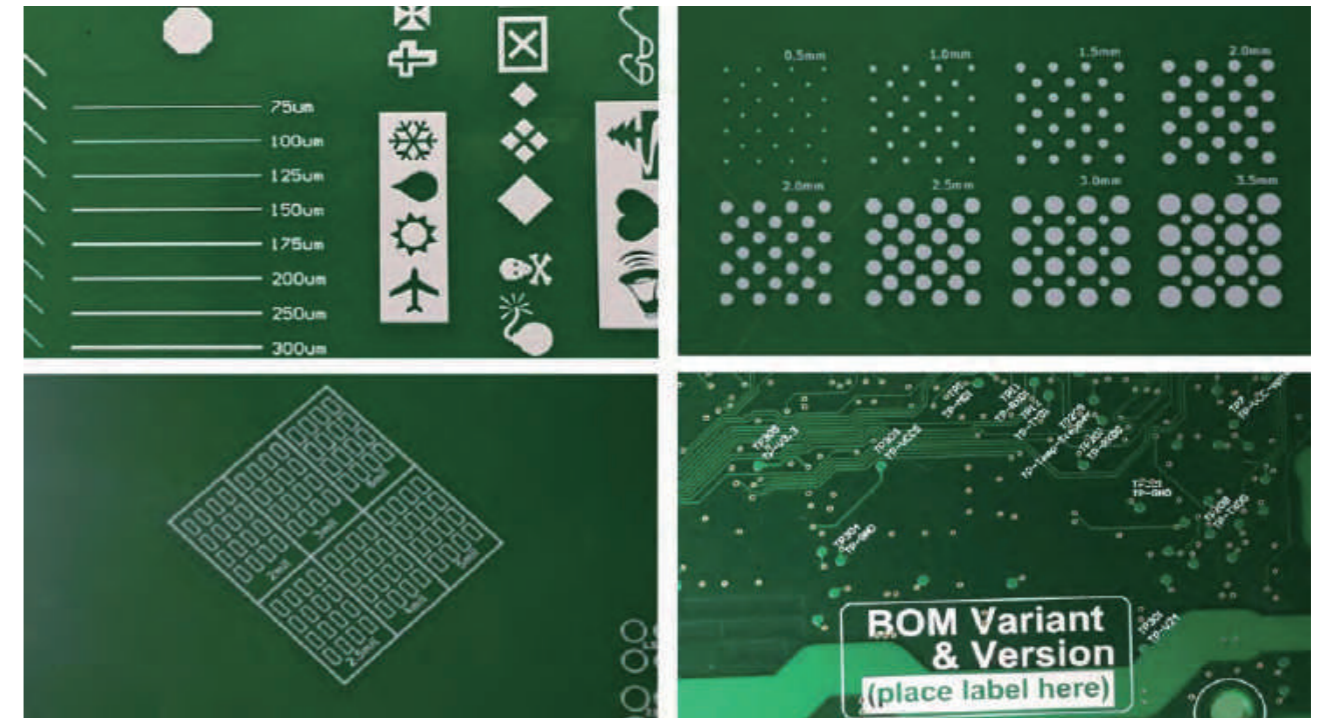
USAGE

The equipment is used in processing of character printing on PCB / FPC, which replaced of the traditional screen printing to provide a high-precision, high-quality and efficient characters production solutions for PCB / FPC manufacturers.

CHARACTERISTICS

- 1, High precision: Adopt special precision motion guide modules, servo control, and multi-point positioning and compensation technology.
- 2, High-quality: High definition printing characters, high quality printing block, strong adhesion.
- 3, High efficiency: Using high-performance UV ink pre-curing systems, two print-head print technology allows a substantial increase in production efficiency.
- 4, Printing software is easy to operate, simple and easy to learn.
- 5, Customized: The hardware and software are self-developed in order to master core technologies and Customize personalized solutions for customers.

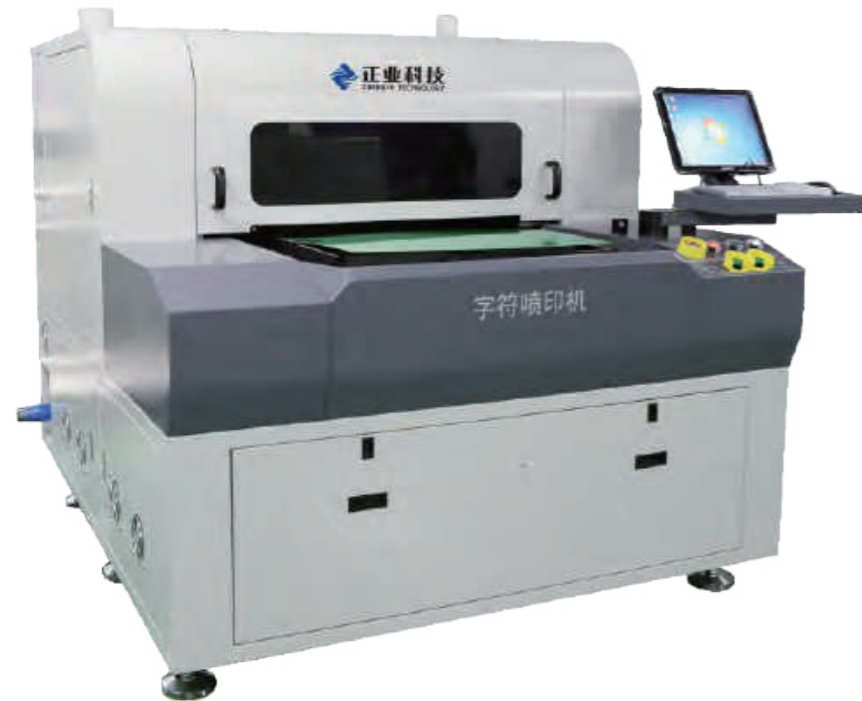
SAMPLES



TECHNICAL PARAMETER

ITEM		PY100B	PY100B -F
Accuracy	Positioning Accuracy	±70μm	
	Repeat Accuracy	±10μm	
Quality	Resolution	720 / 1080 / 1440dpi	
	Minimum Line Width	75~100μm	
	Minimum Character Height	0.5mm	
Speed	sizes	610mm*430 mm / 24"x16"	480mm*250 mm / 18"x9"
	Mass production	110	140
	Fine resolution	80	110
		1024*2.	
Objects	Plate Size	630mm x 550mm (24"×21")	480mm x 250mm (18"×9")
	Plate Thickness	0.1mm~6mm (4~240mil)	
	Dimensions	L1890x W1750 x H1575mm	L1510x W1040 x H1650mm
	Weight	1400Kg	1000Kg

Legend Inkjet Printer (PY300D-F/PY300D)



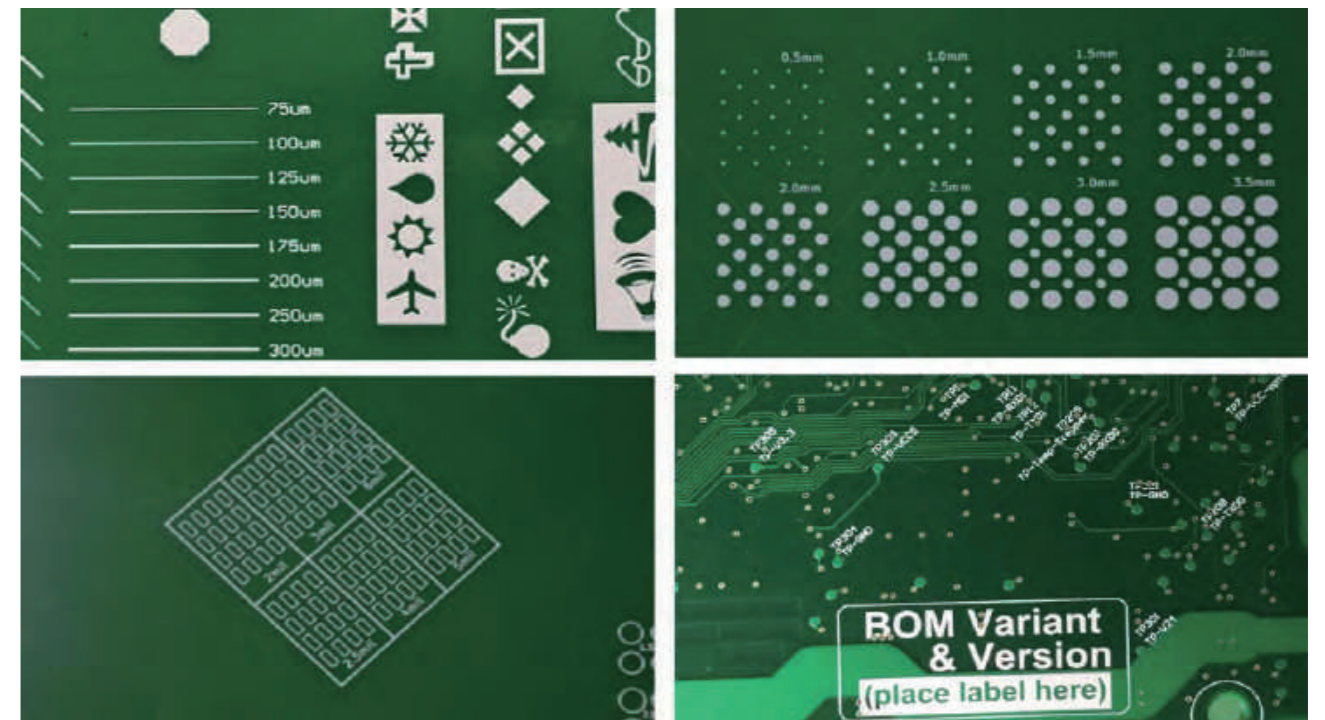
USAGE

The equipment is used in processing of character printing on PCB/ FPC/IC/LED, which replaced of the traditional screen printing to provide a high-precision, high-quality and efficient characters production solutions for PCB manufacturers.

CHARACTERISTICS

- 1.High precision: Adopt special precision motion guide modules,servo control, and multi-point positioning and compensation technology.
- 2.High-quality: High definition printing characters, high quality printing block, strong adhesion.
- 3.High efficiency: Using high-performance UV ink pre-curing systems, four print-head print technology allows a substantial increase in production efficiency.
- 4.User-friendly: Printing platform options for different print media, printing software is easy to operate, simple and easy to learn.
- 5.Customized: The hardware and software are self-developed in order to master core technologies and Customize personalized solutions for customers.

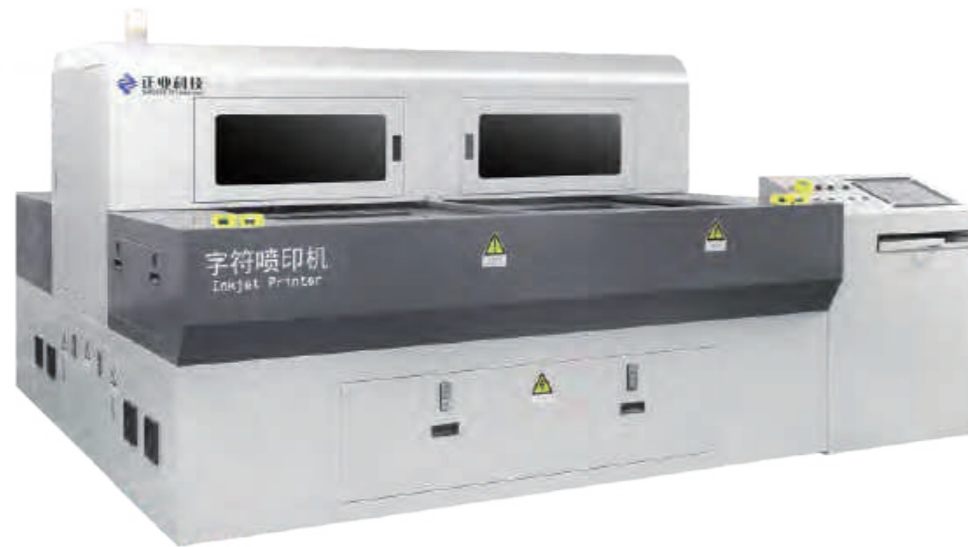
SAMPLES



TECHNICAL PARAMETER

ITEM	PY300D-F	PY300D
Accuracy	Positioning Accuracy: $\pm 38\mu\text{m}$	
	Repeat Accuracy: $\pm 5\mu\text{m}$	
Quality	Resolution: 720 x360dpi ~1440 x1440dpi	
	Minimum Line Width: 75~100 μm	
	Minimum Character Height: 0.5mm	
Speed	sizes:250 x200mm /9" x7" ~400 x250mm /16" x10" Mass production:260 260sides/h Fine resolution:220 220sides/h 1024i*4.	sizes:350 x250mm/13" x9" ~610 x560mm/24" x22" (2)Mass production:150 150sides/h (3)Fine resolution:120 120sides/h 1024i*4.
	Note: The printing speed calculation does not include loading and unloading time; the number of print-header: 1024i*4.	
Objects	Plate Size: 730mm x 621mm (28" x 24")	
	Plate Thickness: 0.1mm~6mm (4~236mil)	
Dimensions (L×W×H)	2050mm x1650mm x1650mm	
Weight	1450Kg	
Automatic loading and unloading	Solution One: Robot Arm Type (Can Automatic Turning Plate) Solution Two: Stacker Type (Can't Automatic Turning Plate)	

Legend Inkjet Printer (PY600E)



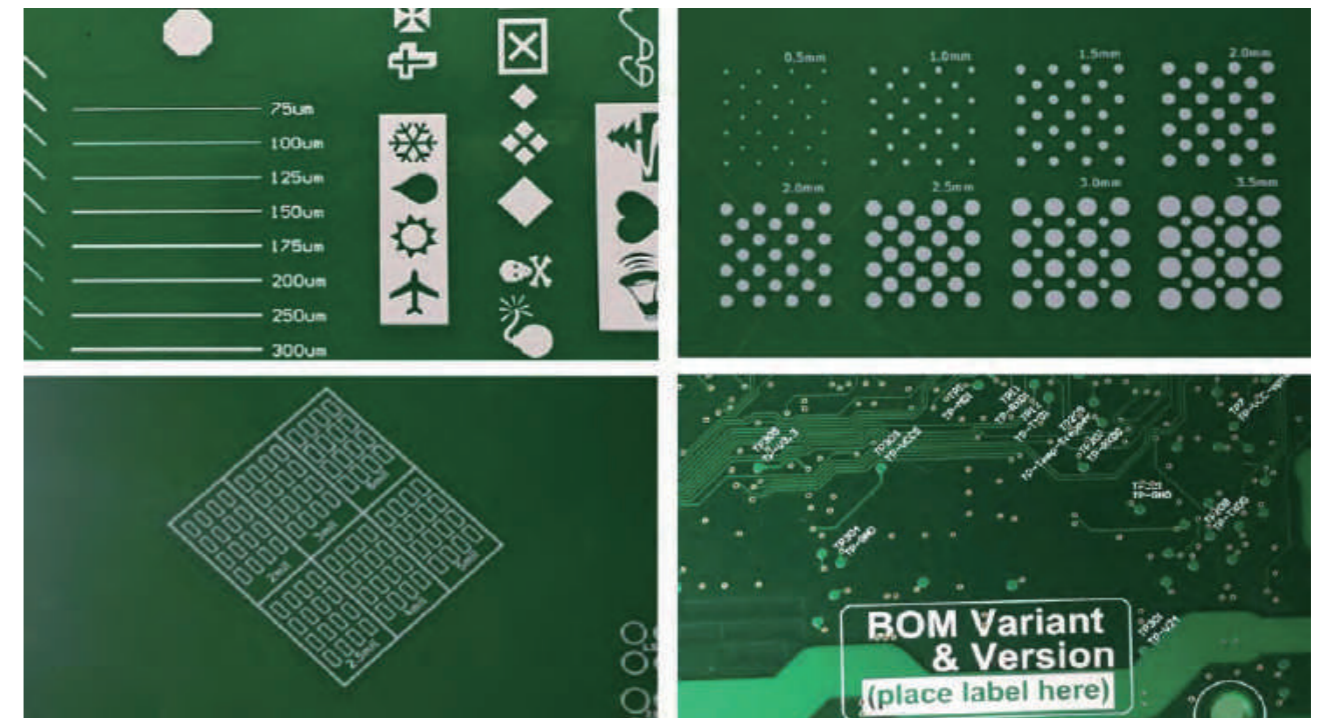
USAGE

The equipment is used in processing of character printing on PCB / FPC, which replaced of the traditional screen printing to provide a high-precision, high-quality and efficient characters production solutions for PCB / FPC manufacturers.

CHARACTERISTICS

- 1, High precision: Adopt special precision linear motion guide modules, high precision control and multi-point positioning and compensation technology.
- 2, High-quality: High definition printing characters, high quality printing block, strong adhesion.
- 3, High efficiency: Using high-performance UV ink pre-curing systems, four print-head print technology allows a substantial increase in production efficiency.
- 4, User-friendly: Printing platform options for different print media, printing software is easy to operate, simple and easy to learn.
- 5, Customized: The hardware and software are self-developed in order to master core technologies and Customize personalized solutions for customers.

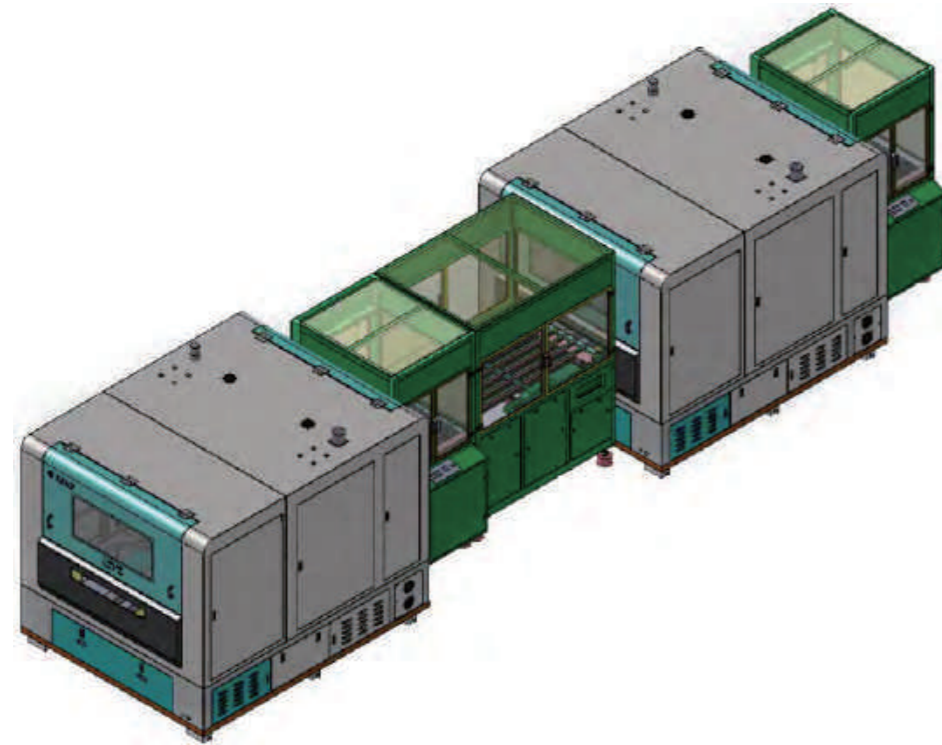
SAMPLES



TECHNICAL PARAMETER

ITEM	PY600E
Accuracy	Positioning Accuracy: $\pm 38\mu\text{m}$
	Repeat Accuracy: $\pm 5\mu\text{m}$
Quality	Resolution: 720 / 1080 / 1440dpi
	Minimum Line Width: 75~100 μm
	Minimum Character Height: 0.5mm
Speed	sizes: 350 x250mm /13" x9" ~ 720 x600mm /28" x24" (2)Mass production: 17 (3)Fine resolution: 20 1024i*5
Objects	Plate Size: 730mm x 621mm (28" x 24")
	Plate Thickness: 0.1mm~6mm (4~236mil)
Dimensions (L×W×H)	L2670x W2400 x H1790mm
Weight	4800Kg
Automatic loading and unloading	Solution one: Automated assembly line solution (two machine connections print front and back separately) Solution two: Robot Arm Type (Can Automatic Turning Plate)

Legend Inkjet Printer (PY800I)



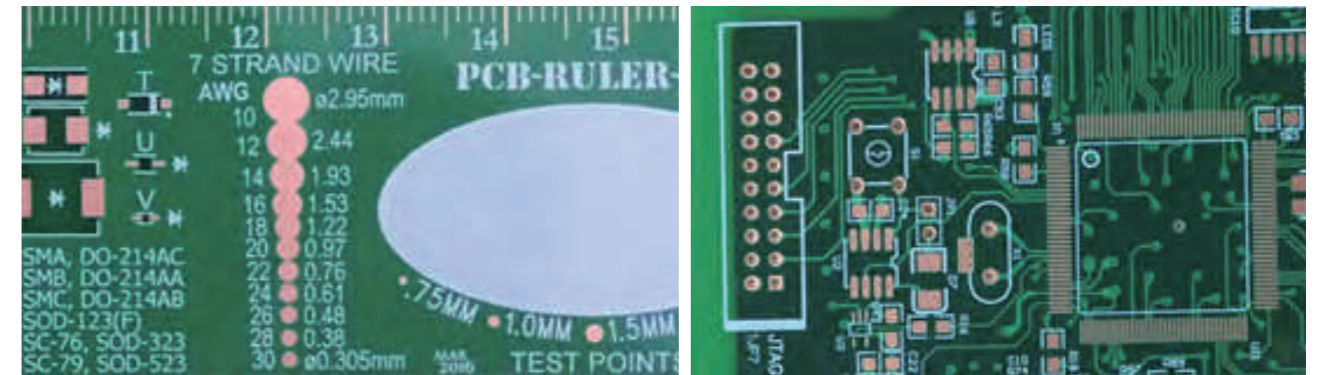
USAGE

The equipment is used in processing of character line printing on PCB, which replaced of the traditional screen printing to provide a high-precision, high-quality and efficient characters production solutions for PCB manufacturers.

CHARACTERISTICS

1. High precision: Adopt special precision linear motion guide modules, high precision control and multi-point positioning and compensation technology.
2. High-quality: High definition printing characters, high quality printing block, strong adhesion.
3. High efficiency: Using high-performance UV ink pre-curing systems, nine print-head print technology allows a substantial increase in production efficiency.
4. User-friendly: printing software is easy to operate, simple and easy to learn.
5. Customized: The hardware and software are self-developed in order to master core technologies and customize personalized solutions for customers.

SAMPLES



TECHNICAL PARAMETER

ITEM	PY800I
Accuracy	Positioning Accuracy: $\pm 50\mu\text{m}$
	Repeat Accuracy: $\pm 5\mu\text{m}$
Quality	Resolution: 720 / 1080 / 1440dpi
	Minimum Line Width: 75~100 μm
	Minimum Character Height: 0.5mm
Speed	sizes: 350 x350mm/13" x13" ~720 x620mm/28" x24" (2) Mass production: 15 (3) Fine resolution: 18 1024i*9
Objects	Plate Size: 730mm x 621mm (28" x 24")
	Plate Thickness: 0.1mm~6mm (4~236mil)
Dimensions (L×W×H)	L2600x W2100 x H2200mm
Weight	5000Kg
Automatic loading and unloading	Automated assembly line solution (two machine connections print front and back separately)

Dust-free Prepreg Automatic Cutting Machine



CQ2000



CQ2000C



CQ3000C

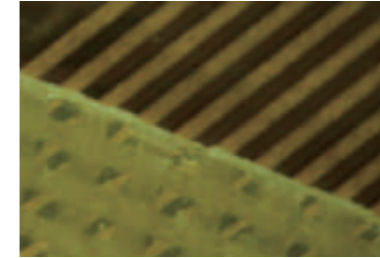
USAGE

The machine is used for cutting rolled prepreg, to solve the problems of prepreg spreading and too much dust in cutting and after cutting so as to improve the cutting accuracy, quality and efficiency.

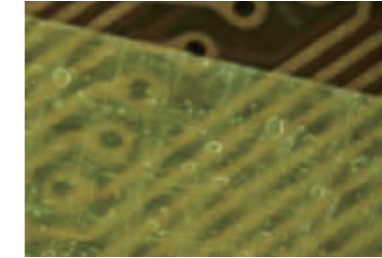
CHARACTERISTICS

1. The first company to adapt infrared preheating technology in prepreg cutting
2. Low dust, environmental protection, Preheating then cutting, automatic sealing side, without drawing; Increase the dust collection device, through the detailed calculation and analysis of fluid, reduce dust, environmental health.
3. Precision: using high precision actuator and synchronous servo control system, high cutting precision
4. High quality: cut the Pre-preg neatly, automatic edge banding, no drawing.
5. High efficiency:
 - ① dynamic heating transverse, longitudinal cutting, cutting efficiency;
 - ② After cutting the PP sheet can be used directly, without subsequent sealing side, vacuuming, etc;
 - ③ The precision of the cutting, further improve the cutting efficiency is further improved;
 - ④ PP sheet can be automatically stacked;
 - ⑤ Parameters can be packed up and brought up directly.

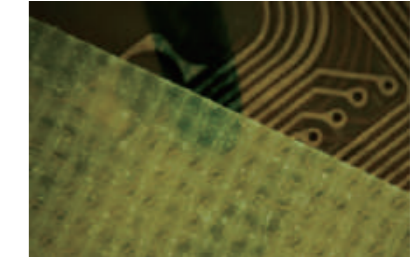
CUTTING EFFECTS



Smooth edge, very few dust and glass fiber falling.



Smooth edge, burr width less than 0.5mm, very few dust falling.



Smooth edge, very few dust and glass fiber falling.

TECHNICAL PARAMETER

ITEM		CQ2000	CQ2000C	CQ3000C
Cutting Accuracy		±1mm		
Quality	Compared with the traditional purely mechanical cutting	Tidy cutting edge, no white edges & layered & wrinkled and charred carbonation		
		95% more than 95% dust reduced	98% more than 98% dust reduced	
Efficiency	Cutting Frequency (take 500mm length as calculation)	≤21 /min	≤21 /min	
Objects	① Cutting Length	250mm~750mm		
	② Cutting Width	200mm~1270mm		
	③ Cutting Thickness	0.02mm~0.3mm		
	④ Slitting	Circular Knife Cut Type	Shear Type/cut Type; Continuous Uninterrupted Feeding;	
	⑤ Pointing knife adjustment	Manual	Manual	Automatic

UV Laser Drilling Machine (JG23T/JG23M)



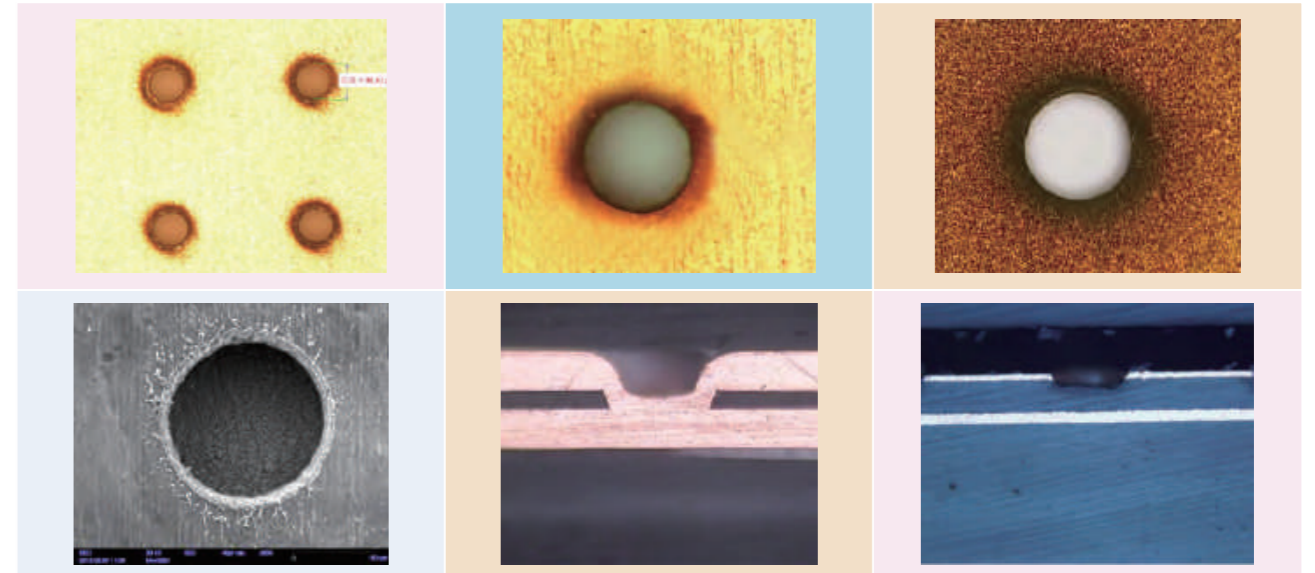
USAGE

Mainly used in the circuit board industry, double-sided copper foil for through-hole blind hole processing and HDI plate copper window processing.

CHARACTERISTICS

1. Advanced flying drilling technology to improve drill efficiency and quality.
2. Three software management levels to easier machine maintenance and management.
3. Strong function to daily record, all working procedure is saved.
4. Automatically running by RTR and PTP.

DRILLING SAMPLES



TECHNICAL PARAMETER

ITEM		Through hole processing	Blind hole processing
System Processing Accuracy (ZHENGYE Conditions)		±20μm	
Laser power		11W@40kHz	
Laser Wavelength		355nm	
Pulse width		45ns~60ns@40kHz	90±30ns@40kHz
Frequency range		0-150kHz	40-90kHz
Energy control		Energy monitoring	
Objects	① Large processing size	520mm×620mm	
	② Table number	Single beam, single platform	
Dimensions (L×W×H)		1600mm×1650mm×1940mm	
Weight		2300kg	

Picosecond Laser Cutting Machine (JG32)



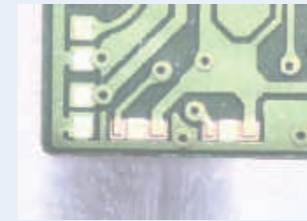
USAGE

The machine is used in cutting for CVL/FPC/RF and thin multilayer board.

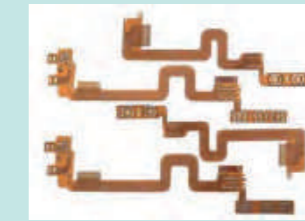
CHARACTERISTICS

1. Completely cold cutting, almost no carbonizing.
2. High efficiency, times speed higher than nano laser cutting.
3. Two tables to cycle working one by one, no preparing time, high processing efficiency.
4. Preview function before processing to avoid damaging sample.
5. Barcode marking function

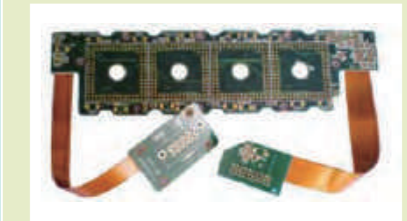
CUTTING SAMPLES



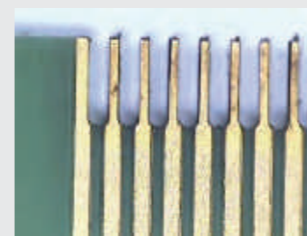
PCB



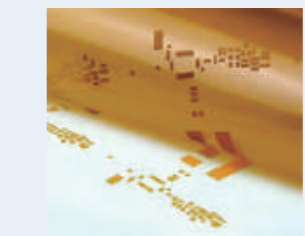
FPC



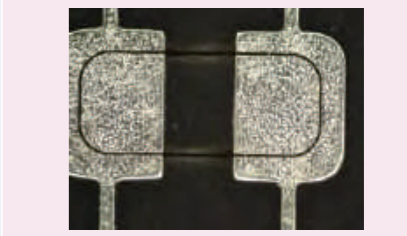
RF board



Goldfinger



Cover layer



Tin alloys

TECHNICAL PARAMETER

Applied Range	FPC,CVL,FPC	
System Processing Accuracy (ZHENGYE Conditions)	±20μm	
Laser power	15W@400kHz / 30W@1.2MHz	
Laser Wavelength	355nm	
Pulse Width	10ps	
Frequency Range	400kHz-2MHz / 1.2MHz-2MHz	
Objects	① Large processing size	550mmX650mm
	② Table number	Single beam, Dual platform
Dimensions (L×W×H)	2200mm×2150mm×1750mm	
Weight	3700kg	

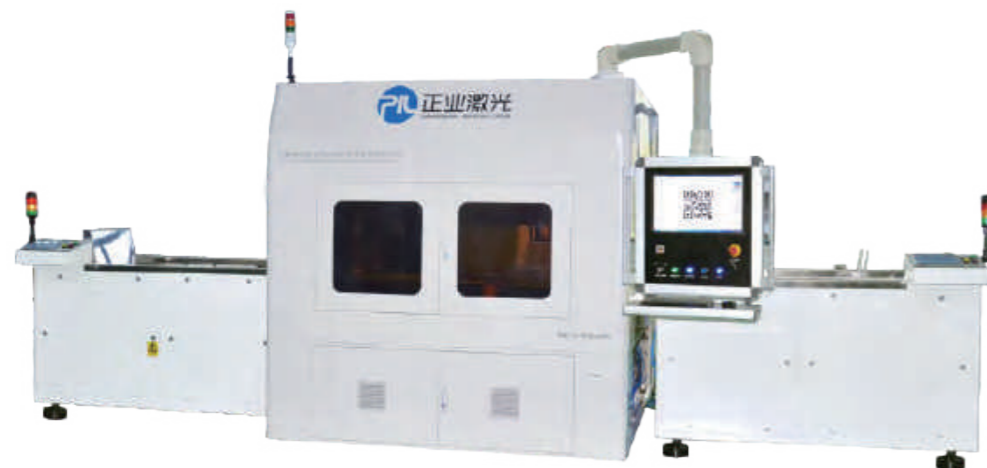
PCB 2D code Automatic Laser Marking Machine



PCB-0404



PCB-0707



PCB-0909

USAGE

PCB 2D code automatic laser marking machine can be applied in PCB,FPC,SMT..etc. industries.It is mainly applied for automatic marking 2D code on PCB surface (Different machine model options depending on PCB size), available to mark on white oil, green oil, black oil and other inks and copper/stainless stell/aluminum alloy surface . It can automatically create a 2D code,which includes so many informations,such as raw materials procurement, production process, batch, manufacturer, production date ,customer name...etc. for product identification and traceability.

CHARACTERISTICS

No.	PCB-0404	PCB-0707	PCB-0909
1	Imported CO ₂ laser, fiber laser, green laser, UV laser, stable performance.		
2	Imported high speed glavo mirror, high processing precision and marking speed, stable performance.		
3	Easy to use software interface, easy to learn.		
4	Automatically obtain the work order, product batch number, material name encoding, specifications and other information and automatic marking.		
5	Automatically read and save the 2D code data, record and alarm if not available.		
6	Automatic loading/unloading machines can be customized.	Automatic loading/unloading machines can be customized.	
7	Environmental friendly, less consumables,less pollution, free maintenance compared to ordinary jet printing way.		

SAMPLES



TECHNICAL PARAMETER

ITEM	Specifications		
Name	Small Panel PCB 2D code Automatic Laser Marking System	Mid Panel PCB 2D code Automatic Laser Marking System	Large Panel PCB 2D code Automatic Laser Marking System
Model	0404	0707	0909
Laser Type	UV lasers, green laser, fiber laser, CO, laser optional		
Marking Range	100mm×100mm 100mm×100mm		
Marking Speed	Line speed can reach 7000mm/s		
Marking Position Accuracy	±0.1mm		
Applicable PCB Size	Size is less than 400mm×400mm; Thickness 0.6mm-5mm (can be customized)	Size is less than 550mm×650mm; Thickness 0.1mm-3.5mm (can be customized)	Size is less than 800mm×800mm; Thickness 0.1mm-3.5mm (can be customized)
Application	PCB white ink, green ink, blue ink, black ink and other inks; copper; stainless steel; aluminum alloy; (depending on the type of laser)		
1D Code	Code 39, Code 25, Code 93, Code 128, EAN-13, EAN-8, ISBN Code 39, Code 25, Code 93, Code 128, EAN-13, EAN-8, ISBN, etc.		
2D Code type	Data matrix, QR Code, micro QR Code, PDF417, Code 49, Code 16K Datamatrix, QR Code, micro QR Code, PDF417, Code 49, Code 16K, etc.		
2D Code Size	1.5mm×1.5mm Minimum 2D code size 1.5mm×1.5mm (depends on the laser type)		
Character Types	Supports TrueType fonts, single font (JSF), SHX font, bitmap fonts (DMF)		
Minimum Character Height	0.1mm ~0.4mm 0.1mm ~0.4mm (depending on the laser type)		
File Format	DXF, Excel, DXF, Excel, TXT file format		
Positioning	Supports automatic photo, 2, 3, 4 points localization way		
Read Code	Read 2D code automatically and save data, alarm if can't read		
Intelligent Production	Can be connected to ERP/MES system, automatic access to the order number, product batch number, material code, commodity information etc. and code automatically		
Other Automatic System	Automatic loading/unloading machines can be customized.		

UV Laser Cutting Machine (JG16/JG16C/JG18/JG15A)



JG16



JG16C



JG18



JG15A

USAGE

The machine is used in cutting, opening the window and uncover for CVL/FPC/RF and thin multilayer board.

CHARACTERISTICS

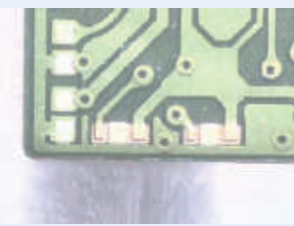
JG16/JG16C:

1. Two tables to cycle working one by one, no preparing time, high processing efficiency.
2. Preview function before processing to avoid damaging sample.
3. Barcode marking function.

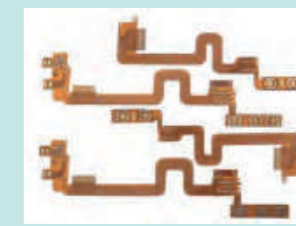
JG18:

1. The largest table for Laser Cutting machine in PCB industry.
2. Preview function before processing to avoid damaging sample.
3. Barcode marking function

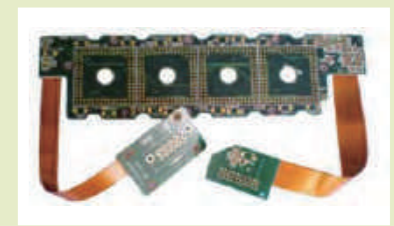
CUTTING SAMPLES



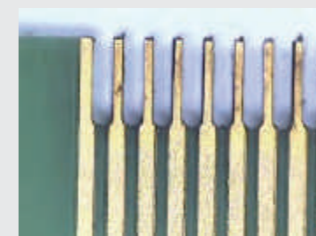
PCB



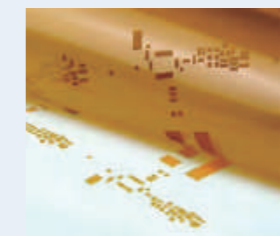
FPC



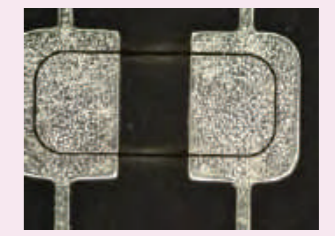
RF board



Goldfinger



Cover layer



Tin alloys

TECHNICAL PARAMETER

ITEM	JG16	JG16C	JG18	JG15A
Wavelength	355nm			
Laser Power	Standard 10W, optional 15W			
Laser Frequency	30-120kHz			
Maximum Processing Size	500mm×400mm Double platform	650mm×550mm Double platform	720mm×540mm	520mm×420mm
Maximum Operating Speed	800mm/s			500mm/s
Positioning Accuracy of Table	±3μm			±4μm
Positioning Accuracy of Table	±1μm			±2μm
Total Accuracy (ZHENGYE Conditions)	±20μm			
Light Spots	20±5μm			
Scanning Range	45mm×45mm			40mm×40mm
File Format	*.gbr & *.dxf & *.lay			
Electric Power Supply	AC220V/2kW; AC380V/5.5kW			AC220V/1.5kW; AC380V/1.5kW
Dimensions(L x W x H) (mm)	1850×1640×1650 (mm)	1780×1610×1650(mm)	1780×1610×1650(mm)	1400×1300×1700(mm)
Weight	2400kg	3600kg	2500kg	1500kg
Environmental Temperature	20°C±2°C			
Environmental Humidity	≤60%RH, Non-condensing			
Ground Amplitude	≤5μm			
Ground Pressure	1000kgf/m ²			

Roll To Sheet UV Laser Cutting Machine (JG15R/JG15DA)



JG15R



JG15DA

USAGE

Mainly used in covering film window. The film is cut into sheet after laser processing. Input data into cutting software, fully automatic completion of all actions, no guards, can save labor costs.

CHARACTERISTICS

1. A high degree of automation. The resource is automatically cut into single sheets after processing, saving labor costs;
2. High-precision mode. Non-stitching processing for small graphics.

CUTTING SAMPLES



Cutting heat affected zone



Cover layer

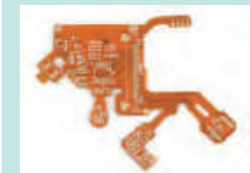
TECHNICAL PARAMETER

ITEM	JG15R	JG15DA
Laser wavelength	355nm	
Laser Power	Standard 10W	Standard 15W
Laser Frequency	40-120kHz	
Maximum processing width	300mm×500mm	300mm X 500mm
Total Accuracy (ZHENGYE Conditions)	±50μm	
Motor repeatability	±2μm	
Laser scanning range	40-40mm	
Processing documents	.Gbr&.dxf	
Dimensions	1650×1350×1670mm	1650×1520×1700mm
Power source and power	Host AC220V 50~60Hz/1.5kW Vacuum cleaner AC380V 50~60Hz/0.65kW	Host AC220V 50Hz/1.5kW; Vacuum cleaner AC380V 50Hz/1.5kW
Weight	1300kg	1700kg

UV Laser Cutting Machine (JG15C)



CUTTING SAMPLES



FPC



RF board

USAGE

Mainly used in the circuit board industry, SMT sub-plate processing

CHARACTERISTICS

1. Good effect: smooth and neat cutting surface, no burr, slight carbonation;
2. Automation: the processing of software plate is installed on the fixture, which flows through the flow platform, automatically clamps and automatically locates the processing, without manual feeding. After processing, automatic outflow.

TECHNICAL PARAMETER

ITEM	JG15C
Laser wavelength	355nm
Laser Power	15W
Laser Frequency	40-120kHz
Maximum processing width	200mm×270mm
Total Accuracy (ZHENGYE Conditions)	±50μm
Laser scanning range	40×40mm
Processing documents	.gbr & .dxf & .lay
Dimensions	1100×1570×1700mm
Power source and power	Host AC220V 50~60Hz/1.5kW; Vacuum cleaner AC220V 50~60Hz/1.5kW
Weight	1500kg

hole checker + warping degree checker + plate retractor

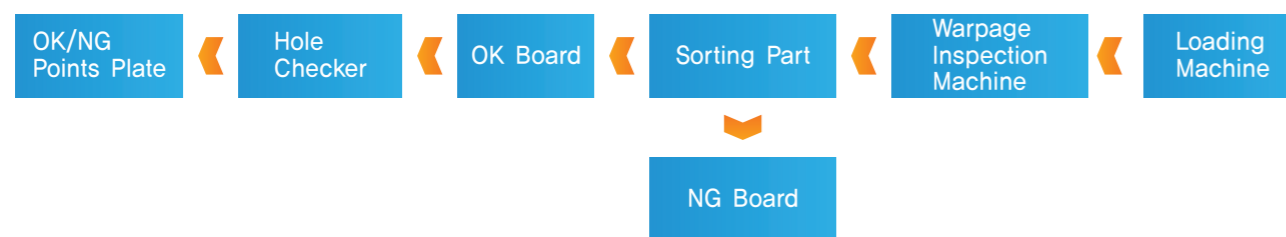


We can customize different connecting schemes for customers

USAGE

1. Hole checker is suitable for hole quality inspection and analysis of PCB drilling boards and finished boards. Detection contents: automatic detection of defects such as few holes (drill leakage, plug hole), multiple holes (drill more, split in two), foreign bodies inside the holes, large holes, small holes, length, width, Angle of "one" type slot holes and other irregular shaped holes.
2. warping degree checker is mainly used in PCB finished board or copper clad board "board bending, board warping, deformation" Defects are checked for quality and warpage values are analyzed.
3. The board receiver classifies the equipment according to OK/NG signals sent by the detection equipment.

WORKFLOW



Special for finished boards: Hole checker + high speed board Loading machine

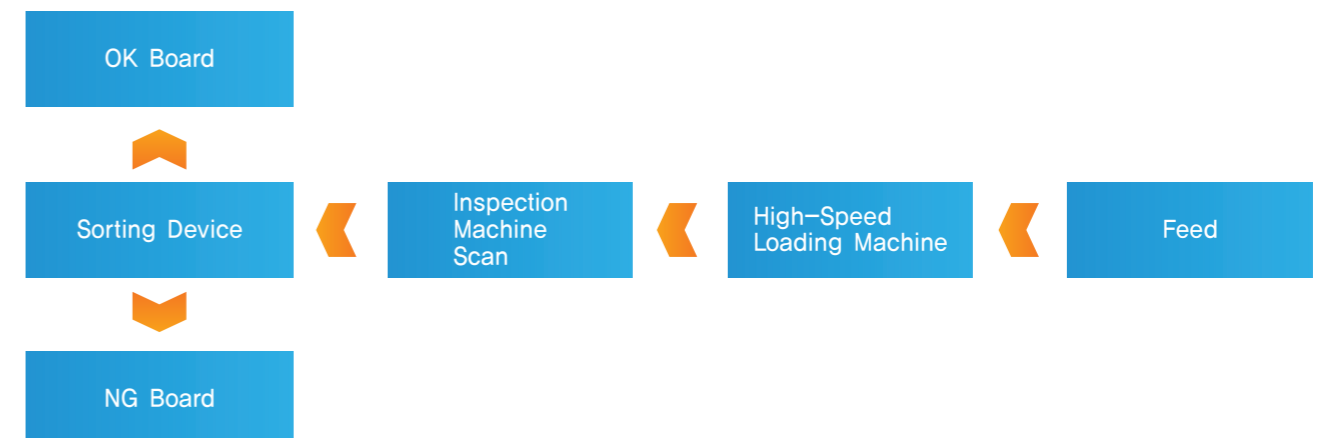


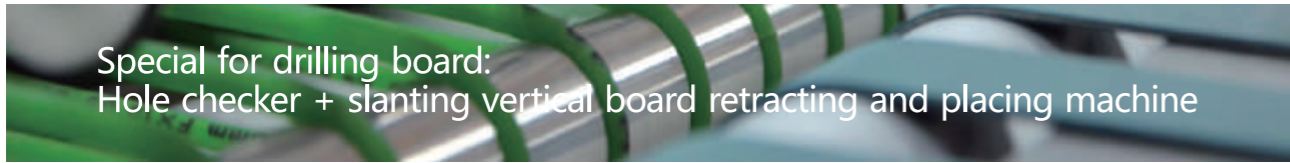
We can customize different connecting schemes for customers

USAGE

1. It is suitable for hole quality inspection and analysis of PCB finished boards. Detection contents: automatic detection of defects such as few holes (drill leakage, plug hole), multiple holes (drill more, split in two), foreign bodies inside the holes, large holes, small holes, length, width, Angle of "one" type slot holes and other irregular shaped holes.
2. Automatically determine NG/OK according to the setting aperture tolerance standard, and classify the equipment at the same time.

WORKFLOW





Special for drilling board:
Hole checker + slanting vertical board retracting and placing machine

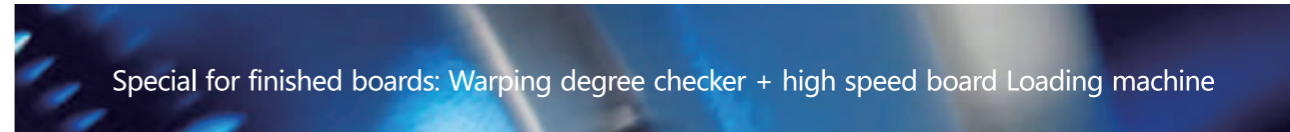


○ We can customize different connecting schemes for customers ○

USAGE

1. It is suitable for hole quality inspection and analysis of PCB drilling boards.
Detection contents: automatic detection of defects such as few holes (drill leakage, plug hole), multiple holes (drill more, split in two), foreign bodies inside the holes, large holes, small holes, length, width, Angle of "one" type slot holes and other irregular shaped holes.
2. and according to the set aperture tolerance standard for automatic determination of NG/OK, while the dislocation classification equipment.

WORKFLOW



Special for finished boards: Warping degree checker + high speed board Loading machine

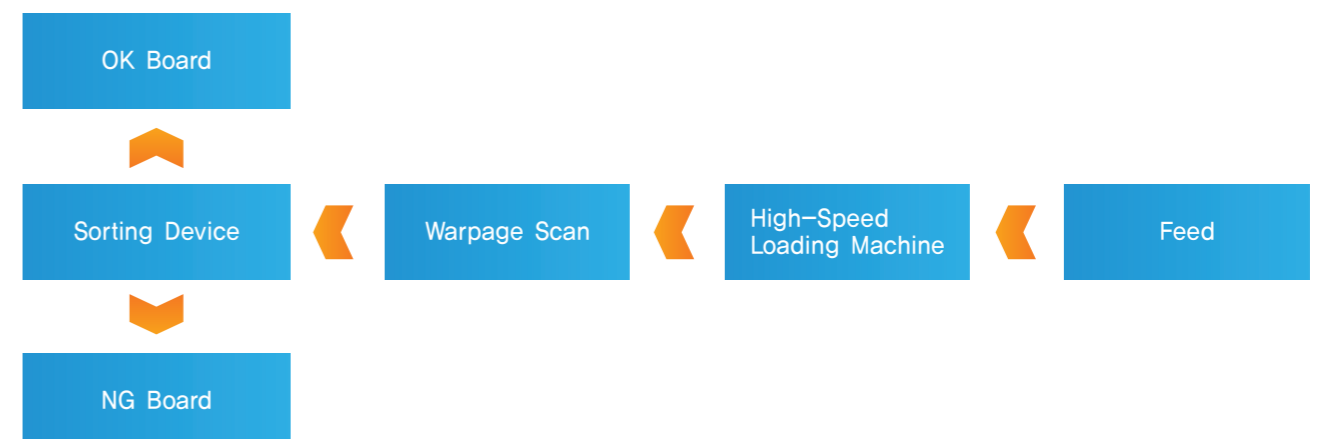


○ We can customize different connecting schemes for customers ○

USAGE

1. Suitable for PCB finished board or copper clad board "bending, warping and deformation", etc. Defects are checked for quality and warpage values are analyzed.
2. Automatically determine NG/OK according to the set IPC board warping tolerance standard, and classify the equipment at the same time

WORKFLOW



FPC Appearance Checker series (AVI-600L/AVI-800Z/AVI-1000Z)



AVI-800Z

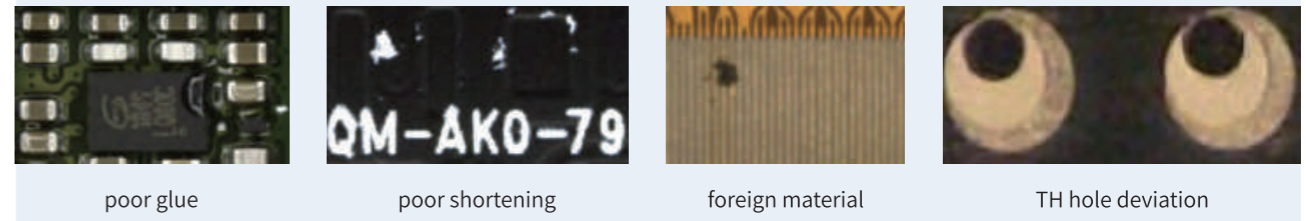
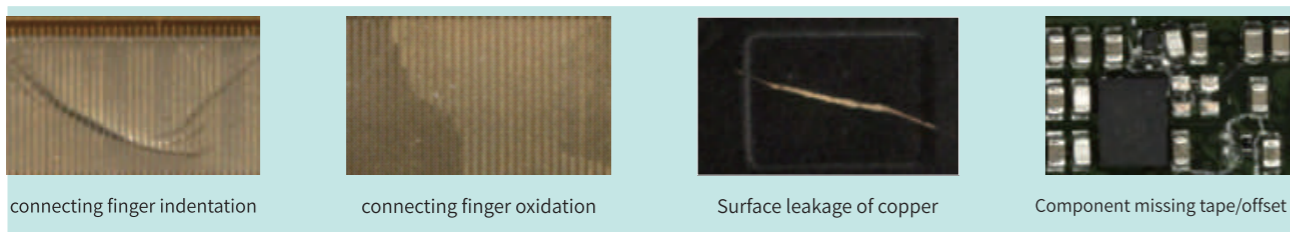
USAGE

This equipment is mainly used in the appearance inspection of flexible printed circuit board (FPC) and FPCA after SMT, which can be directly connected to the extraction plate inspection, and can be automatically loaded and unloaded.

CHARACTERISTICS

1. The AVI device builds a neural network, and the software has a function similar to that of human brain and has the function of deep learning. It can make different calculation results for the defects of different products and feedback the results;
2. High detection rate, few false alarm points, only one person is needed to complete the whole line work, greatly saving labor cost of rejudgment;
3. The equipment has strong universality, fast switching between different types of machines, direct extraction detection, no need to invest in tooling and jig, saving a lot of cost;
4. the equipment structure is simple, the failure rate of the machine is almost zero, low maintenance cost, high equipment moving rate.

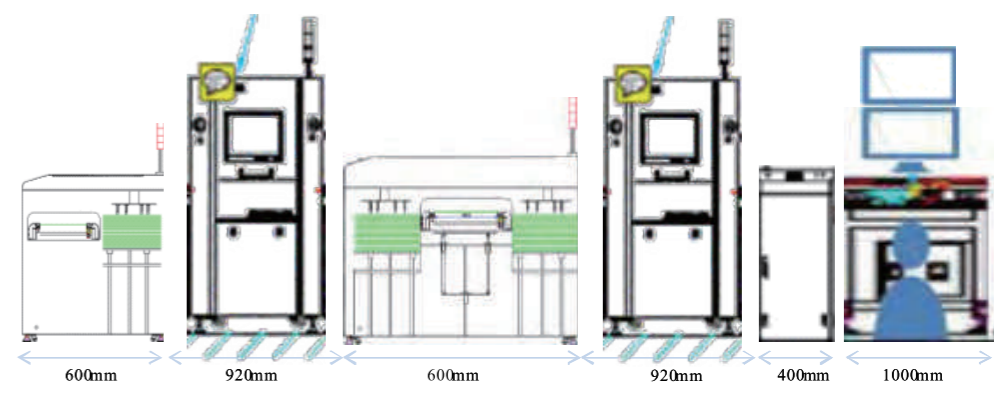
TEST SAMPLES



TECHNICAL PARAMETER

ITEM	SPECIFICATIONS
L x W x H	1000×1400×1500mm
(mm) measurable board	MIN 60 x 80mm MAX 450 x 500mm
Detection accuracy	<10μm
Repeat accuracy	CPK≥1.33
The detection accuracy of defective products	less than 0.3%
The equipment pass-through rate	more than 90% and the product yield is high. This index can be improved
The false alarm rate(counting points per PCS)	less than 0.5 points/PCS
The detection efficiency	0.5S-1.5S/pcs
Detection mode	direct extraction plate detection, after the detection of direct extraction plate shipment
Personnel	only one OP online operation to complete the detection line, feeding, reviewing and selecting defective products

Dual machine line detection mode



The entire inspection line
The length is about 3.5-4.5 meters

Online Hole Checker (JK5200/JK8000)



JK5200



JK8000

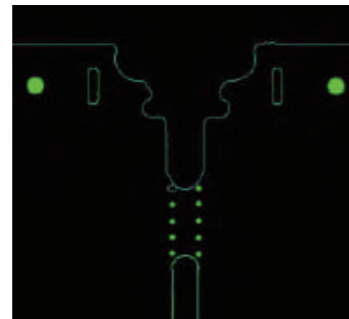
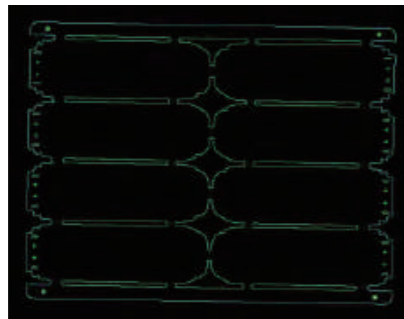
USAGE

Hole checker machine is mainly used for drilling quality inspection and analysis of PCB drilling board and finished product board. The defects such as the lack of holes (leaky drill and plug holes), multihole, internal burrs, big holes, small holes, the length, width, Angle and other irregular shaped holes of the PCB drilling board and finished board are automatically detected, and the equipment for classification of NG/OK is automatically determined.

CHARACTERISTICS

1. Precise : Adopting high-precision CIS scanning system, automatic positioning, image processing and detection technologies.
2. Efficient: when equipped with Multichannel sorting device and small plate parts, multi-channel simultaneous detection is supported; the standard machine can detect both plates at the same time; 3 and 6 channels can be customized at the same time.
3. Characteristics : With network maintenance function, it can use several terminals to view NG board defect information synchronously, and to overhaul the NG board rapidly.

TEST SAMPLES



TECHNICAL PARAMETER

ITEM		Jk5200	Jk8000
dim	length	3510 mm; :1530mm	1550mm
	width	1160mm	1280mm
	height	1050mm	1520mm
CIS	Contact image sensor		
light	Bar red LED light source		
Maximum diameter ratio	20:1		
Measurable thickness	Plates with thickness less than 0.3mm shall be submitted for sample confirmation		
Plate size	width:80~650mm, length100~650mm	width :80~800mm, length 100~800mm	
Pore size range	Φ0.10mm~Φ10mm		
Min margin of punching hole	0.1mm		
The maximum number of holes in the tested plate	500,000 (round hole)	800,000 (round hole)	
measuring speed	The four gears of the measured velocity scanning part were available) :3.0±0.5m/min、6.5±0.6m/min、10±0.8m/min、12.5±0.8m/min。 The drill plate is up to 6.5m/min		
Repeat precision (round hole)	±30um		
Repeat precision (non-circular hole)	±75um;	Slot: plus or minus 75um; Irregular holes: 150um	
Aperture accuracy (round hole)	+/-20um(aperture≤1mm) +/-30um(4mm> aperture>1mm) +/-40um(aperture≥4mm)		
The content of detection	Missing Hole (leaky holes, plug holes), holes (multi-drilling, bisecting), foreign body inside the holes, large holes, small holes, the length, width, burr of "one" type hole and other defects of irregular and irregular holes, plate length, width and size, etc		
Inspection line number	standard machine: single line, 2 lines;(above line 3, please separately inquire)		
computer	Electric brain industrial computer, CPU: i5 series;Memory: 8G;Hard disk: 1T;Operating system: windows7 X64		
Power source	220V(1±10%)/50Hz		
Power	Power scanning and sorting device: 2KW;No sorting device: 1.2kw		
temperature: 20 °C to 40 °C;Humidity: 40-70%;There is no acid base gas in the environment.Production board requirements: dry, no acid/alkaline liquid (to prevent equipment corrosion); The device requires an Internet connection for remote diagnosis.Requirements for the board to be tested: the warping degree of the board to be tested shall not exceed 0.75% of the IPC diagonal line. After being washed with high pressure and dried, the test results will be affected if the board surface is not clean.			

On-line Copper Thickness Checker (TH11)



USAGE

The on-line copper thickness inspection machine is suitable for the measurement of the copper thickness on the surface of hard board, single-layer and multi-layer circuit board.

CHARACTERISTICS

1. Connect the production line: monitor MES docking online and prevent the production of defective products;
2. Accurate data: improve test efficiency and reduce human recording and test error;
3. Original positioning method: patented design, double-sided measurement;
4. Stable performance: equipped with fischer PC2 host and ERCU N copper probe;
5. Thickness of test plate: 0.050-12mm, wide range of thickness of applicable plate;
6. Automation: it can support three automatic loading and unloading system to reduce cost and improve efficiency;
7. Test points are easy confirmed by input file (file type available: Gerber or DRL).

TECHNICAL PARAMETER

ITEM	SPECIFICATIONS
Measuring Plate Area	200mm * 220mm — 650mm * 620mm
Test plate thickness	0.05mm - 12mm
Copper thickness test range	0.1- 120μm
Copper thickness test area size	>10mm*15mm
Testing Accuracy	±5%
Copper thickness test controller	FISHER (MMS PC2 BU)
Copper thickness test probe	FISHER (PROBE ERCU N)
Test efficiency	6point:6-9S/pc , 18point:10-13S/pc
Test point positioning accuracy	±3mm
Test point	1.Dir input file(type Dir) and find the test points 2.Gerber input file(type Gerber) and find the test points 3. average of 5 test points or 9 test points which can be set by software
Platform speed	6M/min、12M/min
Data statistics	yes
Collecting plate function	optional
Working Environment Temperature	22±3°C
Power Requirement	AC220V 50HZ
Air supply	0.6-0.8Mpa
Power	2KW
Weight	500KG
Appearance Dimension	L*W*H (mm) 1536*1245*1420

On-line PCB thickness Inspector (BH11)



USAGE

The on-line plate thickness inspection machine is applied to PCB/PCBA, automobile, machining and other industries. It adopts non-contact laser measurement. It can accurately measure the thickness of the pcb pressing board, plastics and films

CHARACTERISTICS

1. High quality: on-line detection can reduce the output of defective products, and non-contact laser measurement is adopted without destructive effect;
2. High efficiency: the measurement efficiency is 6-8s/PC;
3. Accurate data: the test accuracy is as high as $\pm 5\mu\text{m}$;
4. Thickness of test plate: 0.1-10mm, wide range of thickness of applicable plate;

TECHNICAL PARAMETER

ITEM	SPECIFICATIONS
Measuring type	Non-contact measurement
Test point	1. self-selection 2. Software to determine
Plate thickness measurement range	0-12mm
Accuracy of the test	$\pm 5\mu\text{m}$ (Standard piece) $0-20\mu\text{m}$ (PCB < 0.8mm)
Test plate size range	250mm*250mm—650mm*620mm
Test efficiency	6-8S/pc
Test point positioning accuracy	$\pm 3\text{mm}$
Sensor model	lk-coriolis (keyence)
Sensor resolution	0.025 μm
Sensor laser diameter	$\phi 50\mu\text{m}$ (The laser)
Platform speed	6M/min、12M/min
Data statistics	yes
Collecting plate function	optional
Working Environment Temperature	$22\pm 3^{\circ}\text{C}$
Power Requirement	AC220V 50HZ
Air supply	0.6-0.8Mpa
Power	2KW
Weight	500KG
Appearance Dimension	L*W*H (mm) 1536*1245*1420

Automatic Line Width Measuring Machine (XK32)



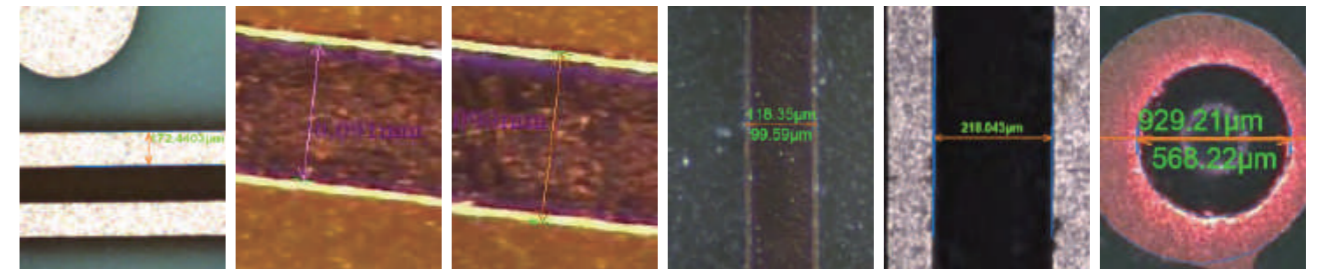
USAGE

The automatic line width measuring instrument XK32 is suitable for detecting the widths of the upper and lower webs of the inner and outer layers of the PCB after etching (before the green oil), as well as the distance between the etching lines and the copper lines, the hole-to-edge distance, and the round holes blind hole diameter, etc.; and suitable for line width measurement of IC wafers and LCDs.

CHARACTERISTICS

1. Automatic positioning measurement: The user can import the DXF data, and customize the measurement location information according to the DXF file, generate an automatic measurement program and then import the software for automatic measurement;
2. Auto focus: When the automatic measurement is performed, the imaging system automatically focuses to ensure that the measurement position is clear and accurate;
3. Automatic switching magnification: Automatic zoom lens, no manual switching, software online switching magnification;
4. Navigation Positioning: Navigation image positioning function;
5. Automatic edge search: Automatically grasp the line, width of upper and lower lines, line spacing, round diameter, etc. during automatic measurement;
6. Data statistics function: EXCEL data archiving and statistics functions; data automatically exported;
7. SPC statistics: capable of SPC statistical analysis;
8. Self-developed wire width measurement software, Support MES database docking: support SQL database docking and realize factory informatization.

TEST SAMPLES



TECHNICAL PARAMETER

ITEM	Xk32		
parameters	dimension	1810mm×2070mm×1700mm	
Equipment capacity	Equipment capacity measurement project	PCB/SMT-PAD/	
	(W*L) Measuring range of platform	W720mm×L700mm (platform measurement range can be customized)	
	Table surface	adsorption platform + edge positioning	
	Plate thickness range	0.036mm-6mm	
	Measuring range of line width	15um-2600um	
Imaging system	Precision of line width measurement	1x=±3um; 2x=±2um; 3x=±1um; 4x=±1um; 4.5x=±1um	
	camera	5 million gigabit color CCD	
	Ccd resolution	2560*1920pixel	
	Lens head	0.7X~4.5X continuous automatic lens doubling	
	Different magnification /image resolution	1.0X-2.3um/pixel; 2.0X-1.5um/pixel; 3.0X-0.9um/pixel; 4.0X-0.7um/pixel; 4.5X-0.5um/pixel	
	Measuring repeatability	≤±2 pixel	
	Measurement window field of view	Minimum magnification	0.7X=X3.50mm - Y2.65mm
		Maximum magnification	4.5X=X0.75mm - Y0.55mm
	Light source	LED	
	Navigation field of vision	X1.2mm - Y0.8mm	
The navigation and positioning camera	equipped with CCD navigation, which is convenient and fast to locate the measurement target		
Autofocus allows autofocus	Software auto focus		
Operation mode	learning mode		
	CAM data import mode	br-RS274X	
	Measuring edge	finding method has manual and automatic edge - finding function	
	Measurement speed	≤3	
Data output	Data export statistics function	EXCEL data automatic export save the specified path	
	Database sharing	has SQL database sharing and can dock with MES information terminal	
	Installation environmental requirements		

Line Width Tester (XK25)



XK25 DESK TYPE

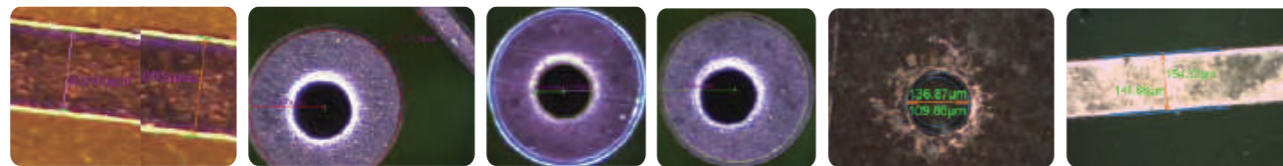
USAGE

These instruments are suitable for measuring the widths of inner and outer range of semi PCB after etching (before solder masking), the distance between two lines, distance between holes and edge, diameters of round holes, blind holes and arcs can also be measured. In addition, measuring widths of IC wafer, thickness of films and LCD boards are available.

CHARACTERISTICS

1. Precise: Adopting high-precision focus distance adjustable device, image processing, automatic boundary and sub-pixel algorithms technologies.
2. Efficient:
 - ① Red LED positioning.
 - ② Automatic boundary technology.
 - ③ Perfect function of SPC statistics.

TEST SAMPLES



TECHNICAL PARAMETER

ITEM		XK25
Accuracy	① Measuring Accuracy	±1μm
	② Resolution	0.4μm/pixel~2.7μm/pixel
	③ Total Magnification	70X~450X
	④ Optics Magnification	1.4X~9X Continuously Adjustable
Objects	① PCB Width	≤760mm
	② Field of View	0.53mm×0.4mm~3.3mm×2.5mm
	③ Line Width	20μm~1200μm
Appearance dimension (Without Computer)		960mm×720mm×1280mm
Weight (Without Computer)		145kg

Warpage Checker (QQ1000/QQ3000)



USAGE

This machine is used for detecting plate bending and warping on PCB finished plate or a copper clad plate, and make OK,NG judgements automatically according to the detection result.

CHARACTERISTICS

1. Accurate: high precision laser displacement sensor measurement of plate bending plate become warped values with high stability.
2. Intelligent and efficient:
 - ① used of high-speed data communication, precision platform, real-time image data shows technology.
 - ② the modular design, online detection speed can reach 15m/min, but automatic identification of OK/NG and receiving, respectively.

TECHNICAL PARAMETER

ITEM	QQ1000	QQ3000
Inspection Accuracy	±0.1mm	
Inspection Speed	6.5m/min、10m/min、12.5m/min、15m/min	
Objects	PCB Thickness: 0.5mm~10.0mm	PCB Thickness: 0.5mm~10.0mm
	Warpage: 0.1mm~8.0mm	Warpage: 0.1mm~8.0mm
	Board Size: Min:40mm x 80mm Max:550mm x 630mm	Min.:L80×W40 Max.:L630×W300
Dimensions (L×W×H)	3510mm×1300mm×1050mm	3510mm×1300mm×1050mm
Weight	450kg	450kg

Coordinate Measuring Machine

Auto/Manual -type Video Measuring Instrument
EC11-4030/5040



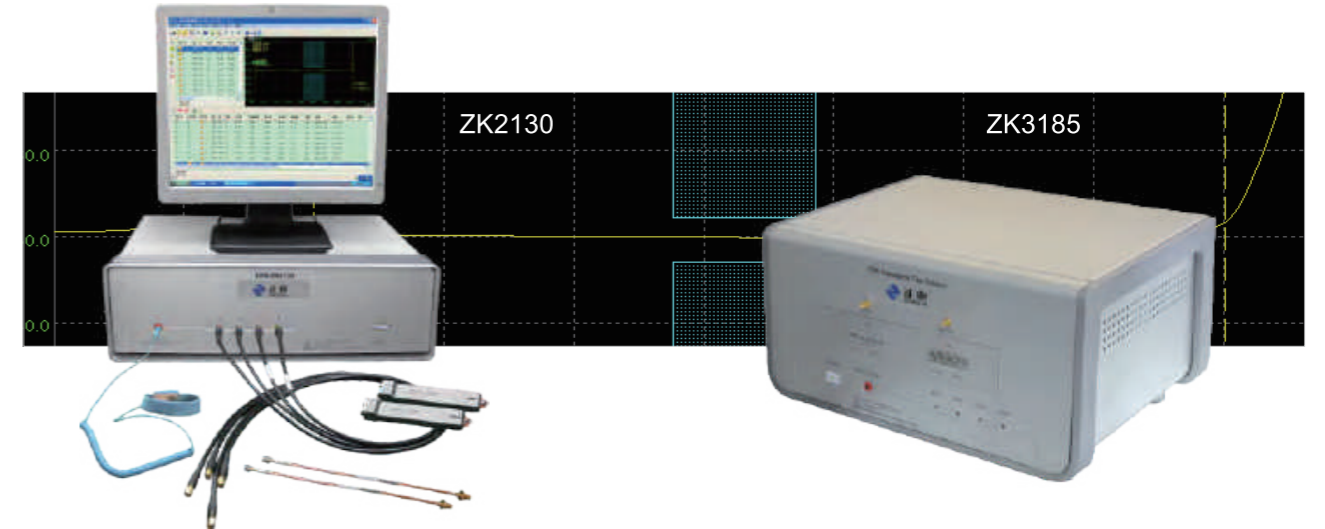
USAGE

Two-dimensional measuring includes: points, lines, circles, rectangles, angle, contour, shape, surface shape and other geometric elements. A three-dimensional measuring probe is optional.

TECHNICAL PARAMETER

ITEM	6050A	8060A	120100A	220180A
X.Y.Z Stroke	600*500*200 mm	800*600*200 mm	1200*1000*200 mm	2200*1800*200 mm
Loader Size	698*665mm	896*778mm	1400*1100mm	2300*1900
Max Loading	30KG			
Base Materials				
Objective Lens Focal	90mm			
Objective Lens	0.7~5X			
Total Max Magnification	25~180			
Grating Solution	≤ 0.001 mm			
Linear Accuracy	E2 ≤ +/- (2.5+L/200) um		≤ +/- (3+L/150) um	
Repeat Accuracy	≤ ±3 um			
Total Machine Size (L.W.H)	1850*1960*1800	1950*2060*1800	2500*1800 *1800	3500 *3000 *1900
Total Machine Weight	1800kg	2000kg	3800kg	7500kg
Measuring Software	ASIDA MEASURE VMA3.00.01			
Data Output Format	DXF, WORD, EXCEL			
OS	Windows7			
Requirement	IPC-610H			
Power	220V/50Hz/10A			

TDR Impedance Test Instrument (ZK2130/ZK3185)



USAGE

The instrument is used in testing impedance and S parameters of high frequency circuit boards which provides a fast, accurate, standard and economic solution for PCB Manufacturers. It is also applicable for impedance testing of wire and cable.

CHARACTERISTICS

1. Precision: Adopting high-precision Probes, high frequency coaxial switch, and time-domain reflection, synchronous high-resolution sampling and multi-point calibration techniques.
2. Efficient: Test procedure integrated, multi-tasking one-button operation.
3. Specialties: Displays test waveform analysis, statistical data analysis, automatically record test data, automatically generates test report and print, calibration open.

TECHNICAL PARAMETER

ITEM	Zk2130	Zk3185
Measuring Accuracy	± 1% (50Ω)	
Detection Rate	≤ 1s/	
Objects	① Controlled Impedance Measurement Range: 20Ω~150Ω ② Measuring Range: 0.05m~2m	① Controlled Impedance Measurement Range: 20Ω~200Ω ② Measuring Range: 0.02m~2m
Wave Bandwidth	3GHz	0.1GH~8.5GH
Loss test	/	S
Dynamic range	/	>100dB

Ionic Contamination Tester (LZ22/LZ22A)



USAGE

The instrument is suitable for the test of ion pollution degree of PCB optical plates before and after cleaning, coating and other processes. It can test the ion pollution degree of PCBA circuit boards with electronic components.

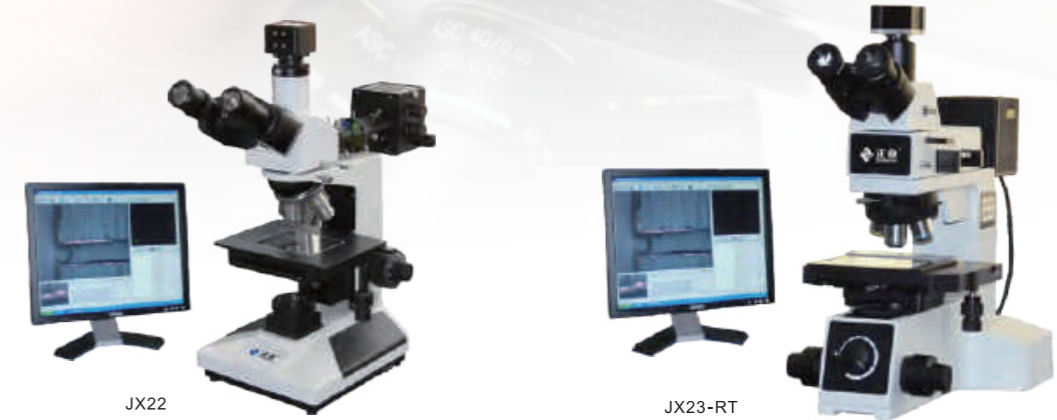
CHARACTERISTICS

1. Precise: Adopting online high-precision conductivity meter, fully enclosed circulatory system, mixed anion and cation exchange resins, as well as real-time processing algorithms and temperature compensation technology.
2. Efficient: Adopting heat extraction and high-speed loop flushing technology.
3. Characteristic: Unique dynamic / static test mode. The national torch project, with the invention patent, has been produced for more than 10 years, and the market share is more than 60%.
4. Customize: Volume can be customized according to the requirements.

TECHNICAL PARAMETER

ITEM	SPECIFICATION	
MODEL	LZ22	LZ22A
Testing Method	Dynamic testing	Dynamic testing
Volume of Water Tank	352mm×70mm×600mm (L×W×H) 15L	680mm×65mm×680mm (L*W*H)30L
Test the size	10cm*20cm-35cm*60cm	10cm*40cm-68cm*68cm
Testing Accuracy	±5%	
Resolution of Conductivity	0.001μs/cm	
Electrode resolution range	0.001us/cm—20us/cm (NACL:300-100000ug)	
Measuring Plate Area	800-4200cm ²	1200-8712cm ²
Proportion of Extract	0.85~0.855	
Reference	66/100MΩ	
Appearance Dimension	1050mm×600mm×920mm (L×W×H)	1401mm×600mm×1000mm (L×W×H)
Weight	≈115kg	≈180kg

Metallographic Microscope (JX22/JX23-RT)



USAGE

Used for the measurement and analysis of small objects like IC components and microsections.

CHARACTERISTICS

- Optimal optical path to ensure best imaging effects.
- In house software can be customised to your required specification.
- User friendly software, easy to achieve accurate measurement and analysis of length, area, radius, axis, angle and other related dimensions.
- Ability to take still images, measure and store them simply.

TECHNICAL PARAMETER

ITEM	JX22	JX23-RT
Main Body	Upright	Upright
Optional Magnification	50X~600X	50X~500X (1000X)
Electronic Magnification	90X~1150X	90X~900X
Eye lens(wide view)	10X	10X
Field lens(achromatic)	5X、10X、40X、60X	5X、10X、20X、50X (100X)
Dark field		
Lighting System	Drop lighting 6V30W, adjustable halogen brightness with effect from polarizer	Drop lighting 6V100W, adjustable halogen brightness with effect from polarizer
CCD Model	WD-300C, WD-300C2/TCC-2.0CL	
CCD Camera	300 Megapixel	300 Megapixel
Accuracy	±0.0006mm	±0.0006mm
Special Feature	Metal Grain Size Test	

Metallographic Sample Cutting Machine (QY22)

CHARACTERISTICS

- High-quality pneumatic components and accurate X-Y work table, which increases the accuracy of sample cutting.
- Clear sample-cutting process, safe & reliable, no dust or noise.
- Patented design, flexible programming, wide range of sample cutting.



Long-arm board thickness measurement (CB21)

CHARACTERISTICS

- Patented products, the industry's original pressure plate measurement method, do not hurt the PCB surface;
- Using keenes grating scale, the resolution can be up to 0.1 μm, and the measurement accuracy can be ±3 μm.
- Deep roar, can meet the measure requirements of large plate.
- Arbitrary switching of mm/inch units .
- Measurement datas are displayed on LCD screen.
- Zero setting at any position.
- Optional SPC (Statistical Process Control) software to improve quality control.



USAGE

Applicable to water, electroplating solution, glue, ink, chemical, food and beverage industries filtration. Made of special technology and a variety of high-end materials, it features high precision, strong pressure resistance and long service life. Particularly good for high viscosity filtrates.



Two-component Filter

SPECIFICATION

10", 20", 30"

Carbon Fiber Filter



USAGE

Used to filter pure water, petrochemical, medica and pharmaceutical, food, beverage and other industries.
 a. A new type filter, which has high BET (Brunauer-Emmett-Teller), bigger micropores, Mesoporous volume rate, all above can improve absorption.
 b. This filter can deal with the organic contaminations which produced while plating, make electroplating baths longer life, this will help customers improve efficiency and lower labor cost.

SPECIFICATION

10", 20", 30", 40"

USAGE

Be suitable of various acid and alkali chemical & plating liquid's filtering.

SPECIFICATION

10", 20", 30", 40"

Filter Cartridge



USAGE

Used in production and installation of precision instruments and processing of electronic products for pollution prevention and corrosion protection.

SPECIFICATION

10", 20", 30", 40"

USAGE

1. Pre-filtering treatment of drinking water; 2. Pre-filtration treatment of R.O permeation; 3. Filtration and decolorization treatment of industrial water, electronics and electroplating liquid; 4. Air purification treatment.

SPECIFICATION

10", 20", 30"



Activated Carbon Filter



PP Filter

Protective Film of Diazo Film

USAGE

Prevent the scratches from yellow film and back film, protect film from by artificially.

CHARACTERISTICS

Excellent transmittance, anti-static, good bonding effect, no residual film when tearing the film.



SPECIFICATION

No.	Width(in)	length(m)	No.	Width(in)	length(m)
1#	18	150	2#	20	150
3#	22	150	4#	24	150

QUALIFICATION

Specification	180° Peel strength	Full light transmittance	Parallel light transmittance	UV transmittance (λ=365nm)	UV transmittance (λ=420nm)	Fog surface treatment
18" *150m	205~225gf/25mm	98.2%	89.7%	88.59%	90.35%	5.2%
20" *150m						
20.5" *150m						
21" *150m						
22" *150m						
24" *150m						

Permanent antistatic barrier film



USAGE

It is suitable for isolation between production turnover layers of fine line PCB (line width 75um) to solve problems such as equipment boards and adsorbed sundries in electrostatic environment, minimize damage to PCB boards and improve production quality.

CHARACTERISTICS

1. Permanent anti-static: the polymer material is fused to form an omni-directional conductive network, and the electrostatic performance life is dozens of times of the ordinary coating anti-static film; Anti-static performance is not affected by the environment, time, permanent as new;
2. Strong chemical resistance: from organic solvents to inorganic drugs, excellent chemical resistance, leading the industry;
3. Strong stability: strong charge export ability makes the product no longer accumulate static electricity, even if the external humidity environment changes, the anti-static performance is stable, protect the plate from electric shock.

PRODUCT SPECIFICATION

Model	Length(mm)	Width(mm)	Thickness(mm)	Surface resistance(Ω)	Resistance value holding
ESD01A	≤1500	≤760	0.3-1.0	1.00E+06	Permanent
ESD02A	≤1500	≤760	0.3-1.0	1.00E+09	Permanent

ESD01 products in different humidity environment, or after repeated cleaning, will not affect the surface resistance value.



USAGE

Used for PCB, release film/paper's dust removal.

CHARACTERISTICS

Cutting and without cutting

SPECIFICATION

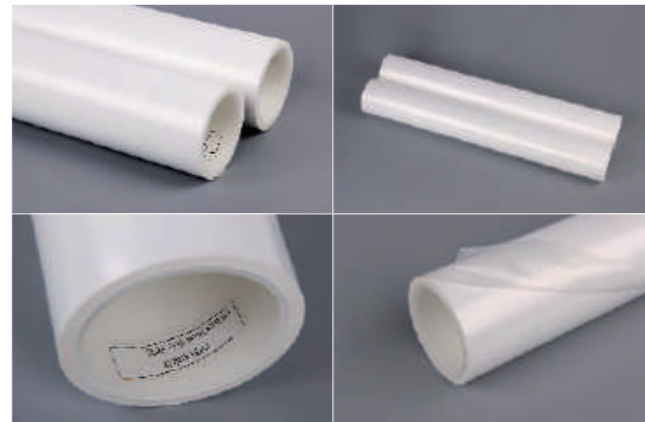
Width:300 ~ 1200mm(Customized according to your need.)

Length:15m、 20m or 25m

Viscosity specification:400D、 600D、 800D、 1000D、 1200D

Remarks:There are two options routine and without cutting

Sticky Roller



USAGE

Used in workshop of PCB plant for clearing impurities. Its main function is for laminated layers of laminating process, steel plate and copper foil cleaning; It is also suitable for cleaning equipment surface and table top in dust-free rooms.

CHARACTERISTICS

It does not incur any dust and no drop of gel and can thoroughly clean the dust on the surface of printed plate and copper foil so as to reduce the occurrence of defect like scratch marks and dent on the plate surface after laminating.

Cleaning Cloth



	TYPE	FEATURES	TYPE	FEATURES
22cm×100m×4层	Hy-881	Feel soft and fluffy with low viscosity	HY-301	Feel soft and fluffy with low viscosity
	Hy-882	Feel straight with moderate viscosity	HY-302	Feel straight with moderate viscosity
	Hy-883	Feel straight with high viscosity	HY-303	Feel straight with high viscosity
	Hy-884	Feel straight with high viscosity	HY-304	Feel straight with high viscosity
	Hy-885	Feel straighten with high viscosity	HY-305	Feel straighten with high viscosity

Dust-free Paper



USAGE

Used in electronic, semiconductor, LCD, PCB industries for cleaning and operation in dust-free room as well as for cleaning outside dust-free room.

CHARACTERISTICS

The wiping cloth of new generation used for dust-free room is normally made of special fiber (polyester). It has high water absorption with high flexibility, no wear is caused to and no besmirch or water marks remain on the surface when used. It is suitable for use in both wet and dry conditions and has the electrostatic prevention function.. Its edges are tidy with little amount of dust as it is sealed around by laser, therefore, it can improve the fine rate of the products cleaned with it in course of use.

SPECIFICATION

4"×4"、 6"×6"、 9"×9"、 12"×12",Products with special sizes are available.

USAGE

Used in electronic, semiconductor, LCD, PCB industries for cleaning and operation in dust-free room as well as for cleaning outside dust-free room.

CHARACTERISTICS

Clean paper of new generation used for dust-free room is made of special fibers. It has a pure composition and strong liquid absorption with a splendid dynamic wiping efficiency (98.3%) and static particles removal capability (99.3% of each 10 thousand partides). "Zhengye" dust-free paper has anti-static function and super strong anti-solubility.

SPECIFICATION

4"×4"、 6"×6"、 9"×9",Products with special sizes are available.

Dust-free Cloth



Dust-adhesive Book













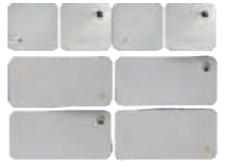
USAGE

Widely used in semiconductor industry,PCB circuit board industry, food service industry, steel plate and glass working industry, LCD industry etc.

SPECIFICATION

330 mmX240 mm (paper made50 layers/book)

Product	Usage	Feature	Specification	Tolerance
<p>Sticky Mat</p> 	<p>Widely used in entrance of clean room in semiconductor industry, hospital and operating room, pharmacy and bioengineering industry, medical equipment industry, photographic apparatus industry for removal of foreign matters.</p>	<p>Low density polyethylene is adopted with an intensity grade lengthening coefficient of above 250%, and a viscosity of 100-1200g/ 25 mm, easy to fold and free of pollution, easy to peel off, strong viscosity and durable in use.</p>	<p>24"×36", 18"×36", 26"×45"(30 layers /pieces).</p>	/
<p>Permanent antistatic barrier film</p> 	<p>It is suitable for isolation between production turnover layers of fine line PCB (line width 75um) to solve problems such as equipment boards and adsorbed sundries in electrostatic environment, minimize damage to PCB boards and improve production quality.</p>		P48	/
<p>Plastic Card</p> 	<p>Designed specifically for printed circuit board production, film for intervals between board and board, which preventing products' clean flowers, scratches, and prevention of static electricity.</p>	<p>Different dimensions & colors can be made according to customer's requirements.</p>		±3mm
<p>Plastic Basket</p> 	<p>This plastic container box is exclusively design and produce. For printed circuit board, it contain 30-50panel per box (combining board), plastic clapboard were used to separated, the board so as to prevent the board from scratch, damage.</p>	<p>Small box: 18"×24" (457×610mm) internal dimension Big box: 22"×26" (560×660mm) internal dimension Height of the box: 70mm Box color: Yellow, Blue, Green, White, Red.</p>		/
<p>ABS Plastic Basket</p> 	<p>Commonly used in the automatic retractable plate machine and holding process board with turnover box, wear resistance of cast long service life, wear not chips.</p>	<p>684.5 x 684 x 66mm。</p>		/

Product	Usage	Feature	Tolerance	Specification	Pin head type
<p>Standoff Rivet</p> 	<p>For standoff locating use in 6-18 layer printed circuit board (PCB).</p>	<p>Base material are made of import special copper Brightness & spotless.</p>	+0.01mm/-0.015mm	<p>Base diameter (a): Φ5.5; Height (b): 1.7 2.0 2.3 2.5 2.7 3.0 3.2 3.4 3.7 4.0 Diameter (c): Φ3.175。</p>	/
<p>Positioning Pin</p> 	<p>Positioning when in hole drilling and panel milling.</p>	<p>Brightness and pureness in surface Base material are made by special steel.</p>	+0.00/-0.01mm	<p>Pin for drilling use: Diameter (a) Φ3.1, Φ3.12, Φ3.15, Φ3.175; Length (L) 13, 15, 15.8, 18, 20.0, 21, 8; Pin for milling use: Diameter (a) Φ0.8-5.0 (interval 0.05 interval 0.05 each); Length (L) 13, 15, 15.8, 18, 20.0, 21, 8; Diameter (a) Φ0.75-Φ6.5 (interval 0.05 each);</p>	Round head or chamfer end/Flat head.
<p>Exposing Pin</p> 	<p>Special pilot pins use for videos image's divert & exposure in single/multi-layer printed circuit board.</p>	/	+0.005mm / -0.02mm	<p>Φ5.0×1.2×Φ3.1; Φ5.0×1.5×Φ3.0; Φ5.0×1.5×Φ3.15; Φ6.0×1.4×Φ3.1; Φ6.0×1.45×Φ3.15; Φ6.0×1.45×Φ3.175。</p>	Flat head, peakhead, round head.
<p>Silk Screen Copper Pin</p> 	<p>Use for pin bed making, it can print on both side of the board, save times and improve efficiency.</p>	<p>Copper material, high precision, small deviations and durability.</p>	+0.005/-0.02mm	<p>Specifications, can be customized</p>	/
<p>Piercing Pin</p> 	<p>Exposure optical imaging graphic transfer special positioning nails in double/multi-layer printed circuit board.</p>	<p>Pointed ended four sides open.</p>	+0.005/-0.02mm	<p>Φ5.0×1.2×3.1; Φ5.0×1.5×Φ3.0; Φ5.0×1.5×Φ3.15; Φ6.0×1.4×Φ3.1; Φ6.0×1.45×Φ3.15; Φ6.0×1.45×Φ3.175。</p>	/
<p>Guide Pin (Single/Double-side)</p> 	<p>It is used in producing nail bed, improve the production efficiency.</p>	<p>Base materials are made by special steel. Special dimension can be produce by custom-made.</p>	+0.005/-0.02mm	<p>Specifications, can be customized</p>	/

Customer Representative







Service promise

AFTER-SALES SERVICE

The warranty of our company's equipment is 12 months. During the warranty period, we will be responsible for the repair or re-placement the damaged or broken-down equipment free, except that the malfunction is caused by the customer's fault.

We will respond to the technical problem putted forward by the customer within one hour. If the equipment breaks down, our company guarantee that we will send maintenance staff to solve the problem within 48 hours. As for the customers in remote areas, we will negotiate with customers about the time.

We have established nationwide network of maintenance services of equipments. We will track the equipment during its life cycle, and appoint officers to visit the customers regularly (call customer quarterly), so as to discover the potential failure and resolve it. Taking precautionary measures makes equipment in good working condition.



Machines of printed circuit board manufacturing

Machine Name	PCB TYPE	HDI	MLB
UV Laser Cutting Machine		✓	✓
UV Laser Drilling Machine		✓	
Dust-free Prepreg Automatic Cutting Machine		✓	✓
Legend Inkjet Printer		✓	✓
TDR Impedance Test Instrument		✓	✓
Hole Checker		✓	✓
Warpage Checker		✓	✓
Line Width Tester		✓	✓
Image Measuring Instrument Series		✓	✓
Metallographic Microscope		✓	✓
Dynamic and Static Ionic Contamination Tester		✓	✓
Long-arm board thickness measurement		✓	✓
Automatic Sample-cutting Machine		✓	✓