



WISDOM LEADS GLOBAL  
ELECTRONIC CORE TECHNOLOGY

2023

智领全球  
电子核心  
科技

Sep-Oct

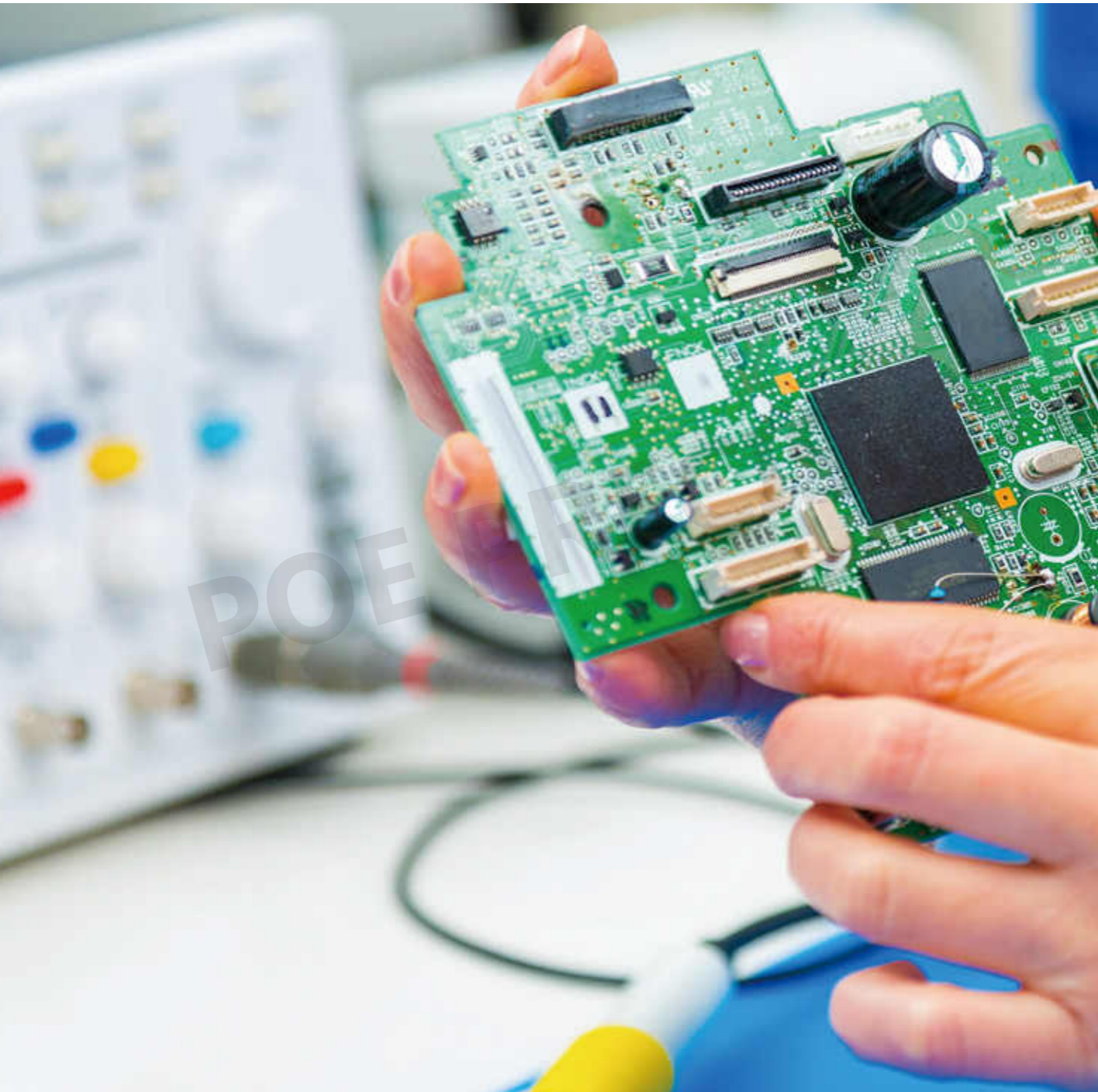
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- WEB2: [www.chinapcbmt.com](http://www.chinapcbmt.com)
- WEB3: [www.pcbmake.com](http://www.pcbmake.com)
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# Company Profile

POE PRECISION ELECTRONICS CO.





# POE Culture

# 1

## Happy Birthday

Monthly birthday party comes again!  
POE wishes every birthday celebrators  
happy every day!



# 2

The September promotion is POE's biggest yearly sales promotion activity. We fired on all cylinders to achieve our best sales: sales encouraged customers to participate, purchasers integrated and adjusted the purchasing plan, and workers fully supported the production of customer orders. With our efforts and customers' support, we made breakthroughs every day: the first million goal, the second, the third...



# 3

## Team Building Activities

POE attaches great importance to team building and employee happiness, regularly holds various activities to cultivate our teams.

We visited Dapeng Ancient City, the largest, best preserved and most protected historical heritage in Shenzhen, to experience and feel its culture.



We came to Nan'ao Island for kayaking and fishing, which expanded our mental and physical strength, enhanced our sense of identity and belonging to POE.

In the busy sprint work in September, we played ring toss and got exquisite gift, , which have livened up our team atmosphere pretty well !



POE has introduced a new SMT production line, and we would like to introduce it to you.

A new 10-Zone Nitrogen production line that improves placement performance by 20%-30%.



**POE Trend**

- 1** Fully Automatic Printing Machines L6
- 2** 3D SPI
- 3** DECAN S2 High Speed pick and place machine
- 4** Multi-function pick and place machine Decan S1\_CAT\_CH\_001



## Fully Automatic Printing Machines L6

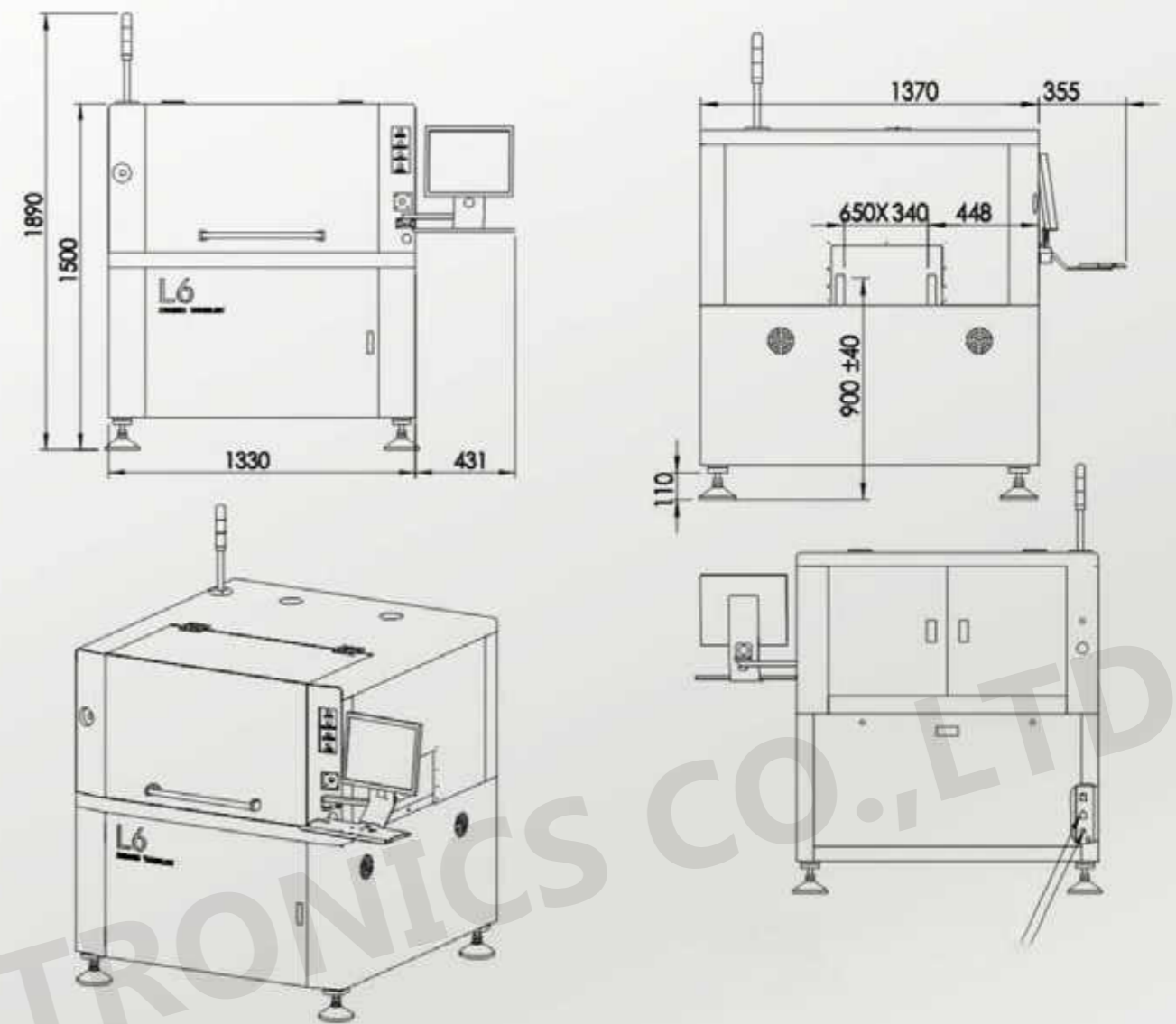
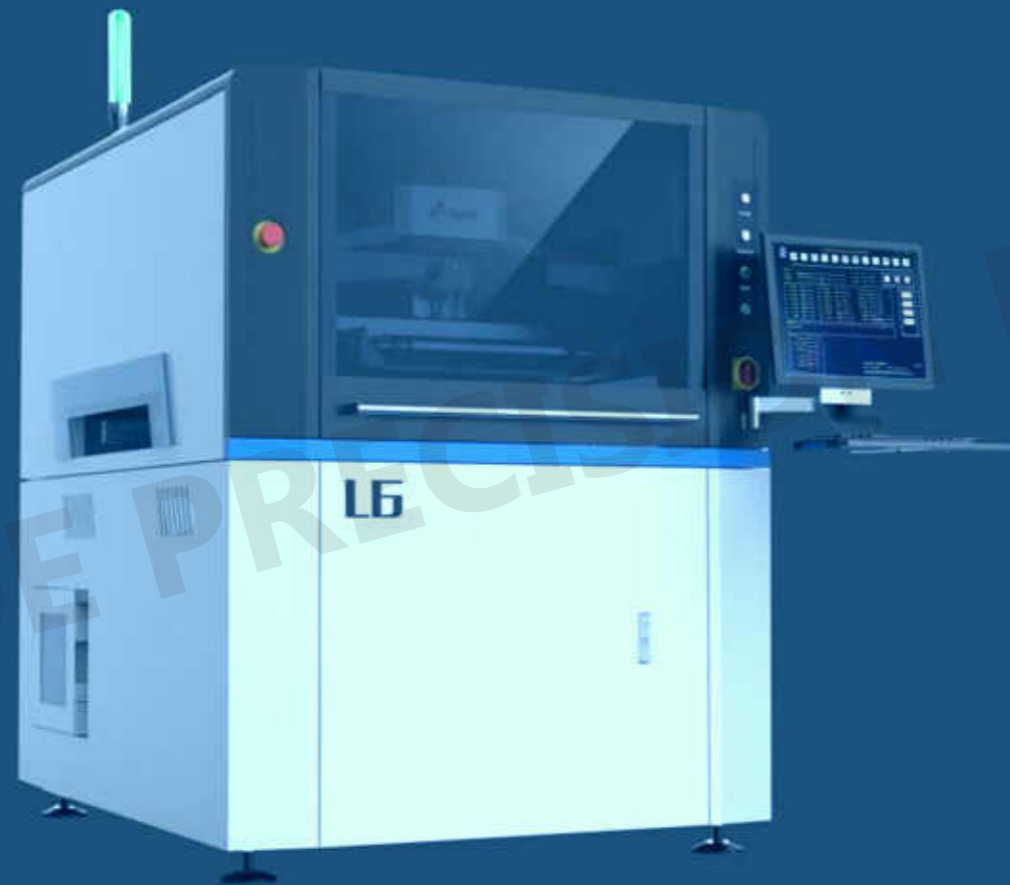
1

PCB Min Size: 50\*50MM

PCB Max Size: 650\*340MM

PCB Thickness: 0.4~6MM

PCB Warpage: <1%



Repeat Position Accuracy:  $\pm 0.01$ MM

Printing Accuracy:  $\pm 0.025$ MM

Cycle Time: <105(Exclude Printing & Cleaning)

Product Changeover: <5Min

Air Required: 4.5-6KG CM2

Power Input: AC:  $220 \pm 10\%$  50/60HZ

Control Method : PC Control

Machine Dimensions: 330(L)X1355(W)X1500(H)MM

Machine Weight : 1100KG

2

3D S-P-I

3D white light PSLM PMP  
(Programmable Spatial Light  
Modulation, Phase Measurement  
Profilometry)



Measurements	volume, acreage, height, XY offset, shape
Detection of Non-Performing Types	missing print, insufficient tin, excessive tin, bridging, offset, mal-shapes, surface contamination)
Accuracy XY (Resolution)	10 $\mu$ m
Repeatability Height	$\leq 1 \mu$ m (4 Sigma) ; volume/area: <1% (4 Sigma)
Gage R&R	<<10%
Inspection Speed	0.35sec/FOV-0.5sec/FOV
Mark-point Detection Time	0.3sec/piece
Maximum Measuring Head	$\pm 550 \mu$ m ( $\pm 1200 \mu$ m as option)
Maximum Measuring Height of PCB Warp	$\pm 5$ mm
Minimum Pad Spacing	80 $\mu$ m/100 $\mu$ m/150 $\mu$ m/200 $\mu$ m
Minimum Element	01005/03015/008004



# 3

## DECAN S2 High Speed Pick and Place Machine

Structure: 2 Gantry x 10 spindles/Head

Speed: 92,000 CPH (Optimum, HS10-type)

Accuracy:  $\pm 28\mu\text{m}$  Cpk  $\geq 1.0$  (03015)

$\pm 25\mu\text{m}$  Cpk  $\geq 1.0$  (IC)

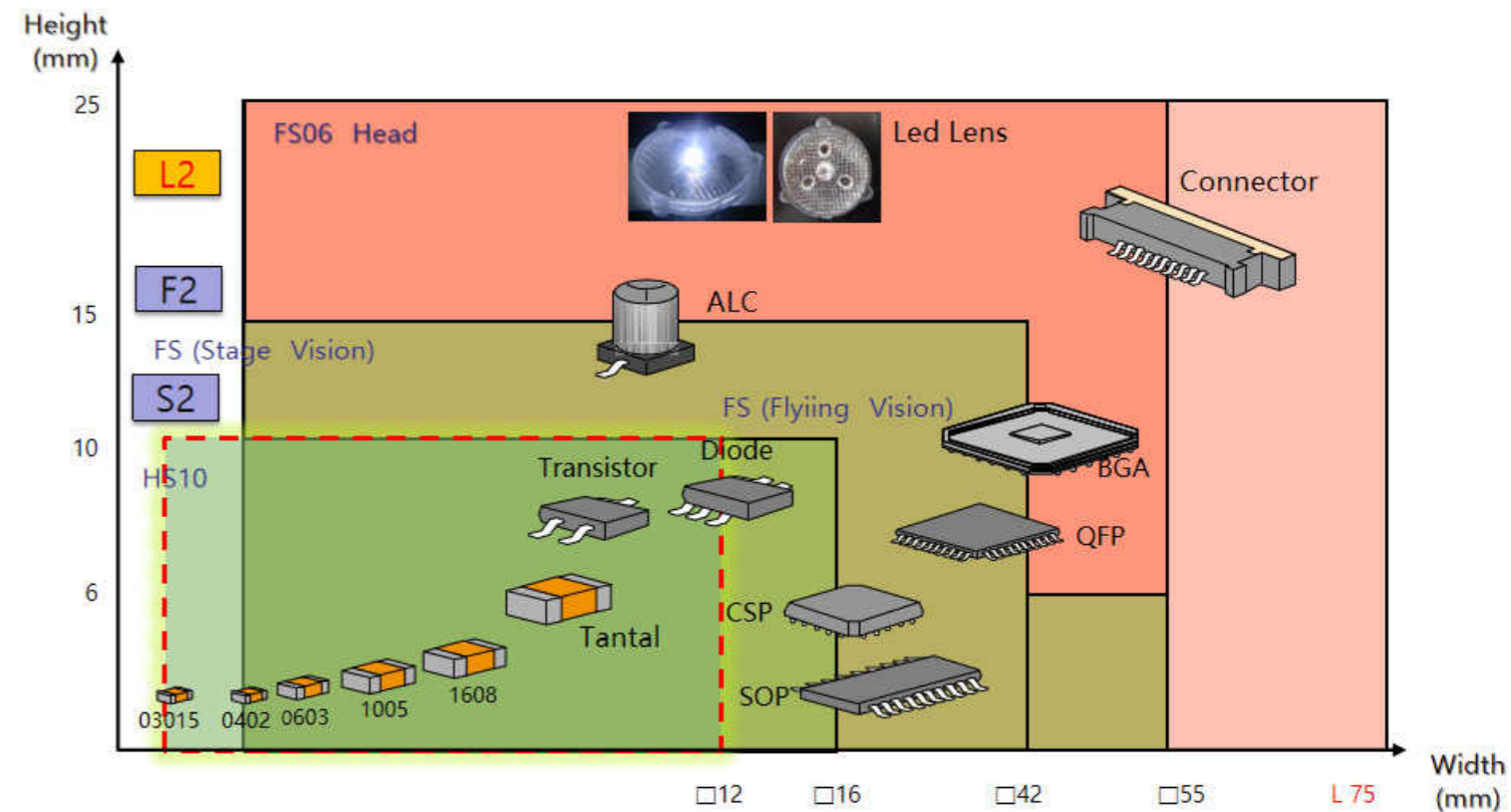
Parts Size: 03015 ~  $\square 12\text{mm}$ , H10mm (HS10-type)

PCB Size: Max. 510 x 460 (Standard)

Max. 740 x 460 (Option) 1200 x 460 (Option)



Range of mountable components





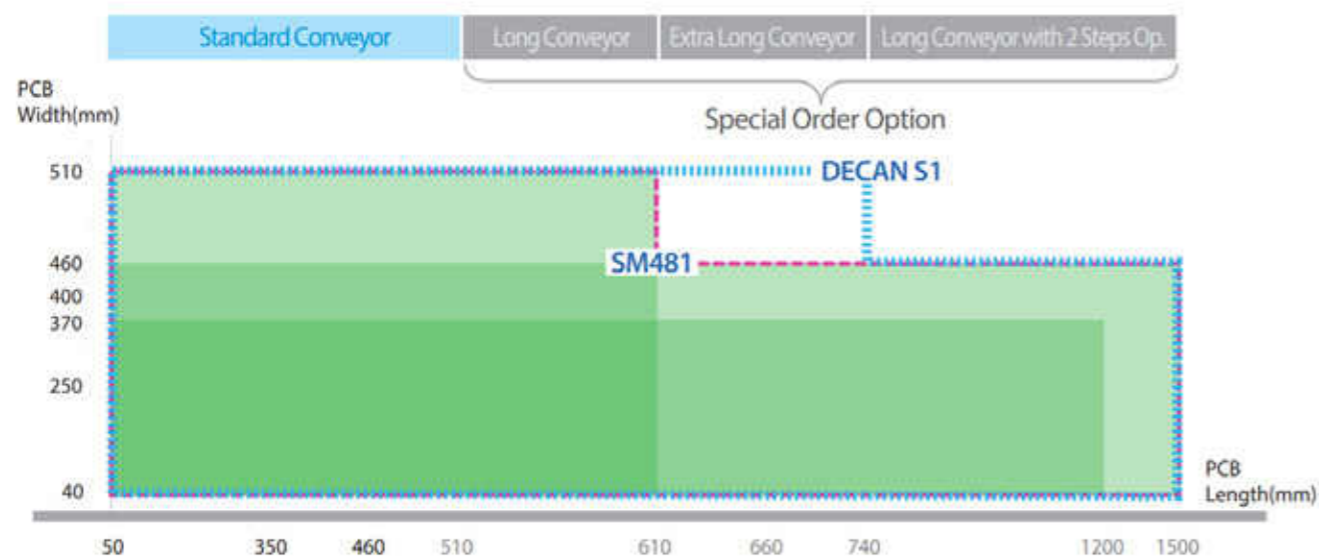
Multi-function pick and place machine  
Decan S1\_CAT\_CH\_001

## Specifications

Model Name		<b>DECAN S1</b>	
Alignment		Fly Camera + Fix Camera	
The number of spindles		10 spindles x 1 Gantry	
Placement Speed		47,000 CPH (Optimum)	
Placement Accuracy	Chip	±28µm @ Cpk≥ 1.0	
	IC	±35µm @ Cpk≥ 1.0	
Component Range	Fly Camera	03015 ~ □ 16mm	
	Fix Camera	~ □ 42mm (Standard) □ 42mm ~ □ 55mm (MFOV) L55mm ~ L75mm Connector (MFOV)	
	Max. Height	10mm (Fly), 15mm (Fix)	
PCB Size (mm)	Min.	50(L) x 40(W)	
	Max.	Standard	510(L) x 510(W)
		Option	~ Max. 1,500(L) x 460(W)
PCB Thickness (mm)		0.38 ~ 4.2	
Feeder Capacity (8mm 基准)	Standard	60ea / 56ea (Fixed feederbase / Docking Cart)	
	Option	120ea / 112ea (Fixed feederbase / Docking Cart)	
Utility	Power	3Phase AC200 / 208 / 220 / 240 / 380 / 415V Max. 3.5kVA	
	Air Consumption	5.0~7.0kgf/cm <sup>2</sup> 50Nℓ/min (真空泵)	
Weight (kg)		Approx. 1,600	
External Dimension (mm)		1,430(L) x 1,740(D) x 1,485(H)	

1: The largest PCB handling capacity among medium-speed mounters.

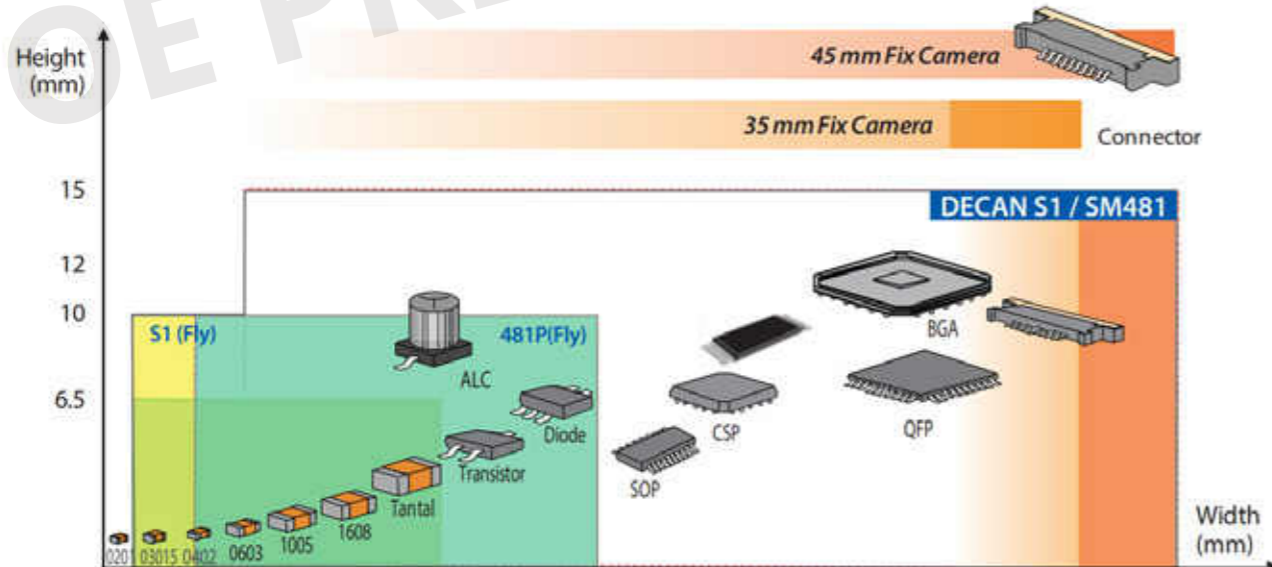
510x510mm(standard)/1500x460mm(option)



2: Expanded component recognition range by camera

High pixelization

03015~16mm fly camera can recognize the whole item.



3: Increased simultaneous pickup rate

Automatic alignment of the pocket position through

Communication between the device and the feeder.

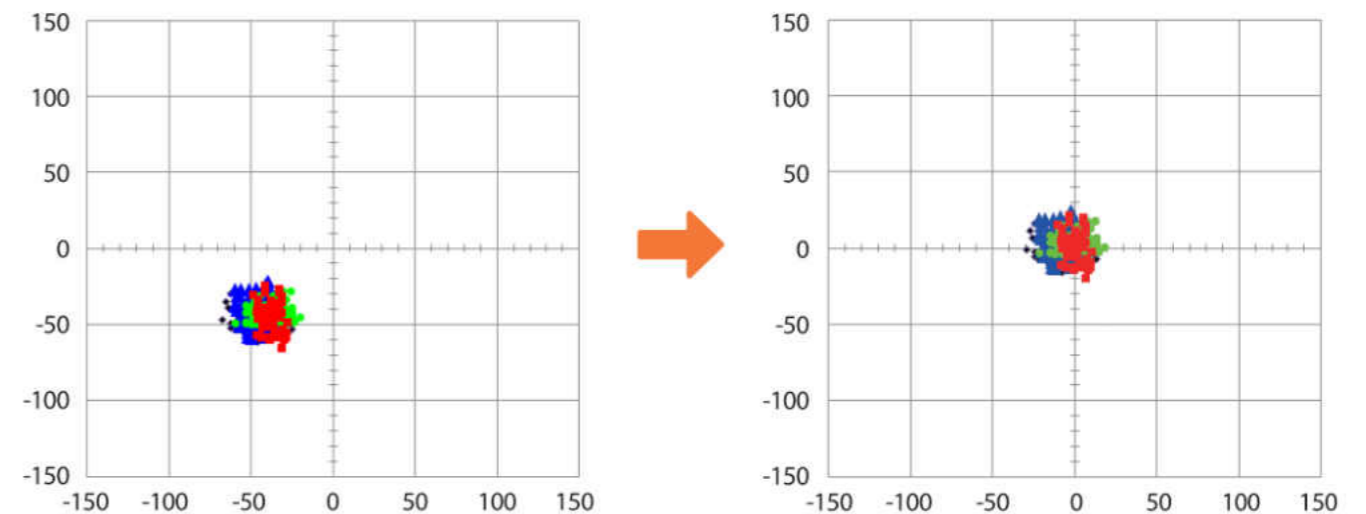
4: Improved mounting speed for shaped components.

Optimization of Fix Camera's recognition sequence increases speed by 25%.

5: Run Time Calibration

Continuous maintenance of placement accuracy through

Automatic calibration during production.



6: Prevents pickup failures and maintains placement quality through

Auto Maintenance\*.

Measurement of Nozzle/Shaft Air Pressure/Flow Rate

Nozzle/Shaft removal by high-pressure Blow Cleaning

5

## Multi-function pick and place machine Decan S1\_CAT\_CH\_001



### Advantage:

A: Double track, double speed: double the capacity.

B: Computerized settings for automatic switching on and off, controlling the production schedule at any time.

C: Automatically measures the temperature profile of each PCBA, reducing line changeover and downtime.

D: When the furnace temperature curve is abnormal, stop feeding the plate immediately to prevent more defects from occurring.

New SMT Assembly Line





# Exhibition



Warmly celebrate the complete success of the POE exhibition at AsiaWorld-Expo, Hong Kong, from Oct 10-14, 2023

The POE team actively treats every customer from all over the world. POE carefully answers customer questions, helps promote projects, and conducts live stream.

POE exhibited more than 80 types of PCB & PCBAs at its booth, covering various fields such as medical products, aerospace equipment, and communication equipment. In addition, there are FR4 PCB, aluminum PCB, flexible PCB, rigid PCB, high-frequency PCB, etc.





# Customer Visit

Exciting news can't wait to share with you! POE factory warmly welcome our valued customers for a memorable visit!

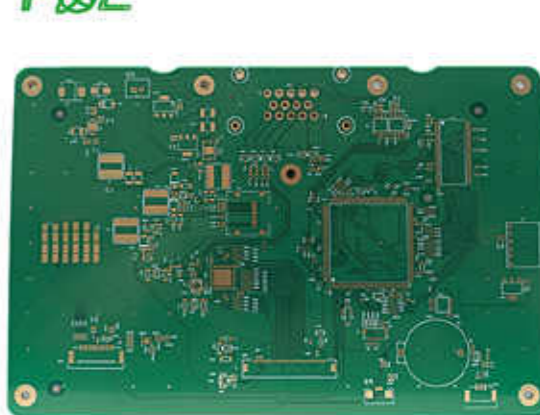
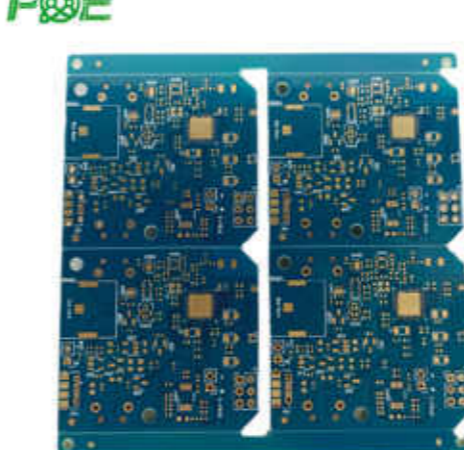
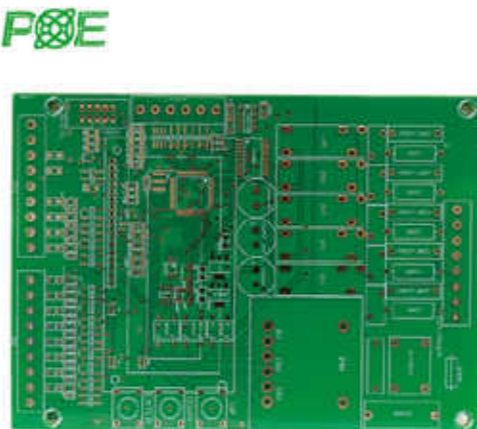
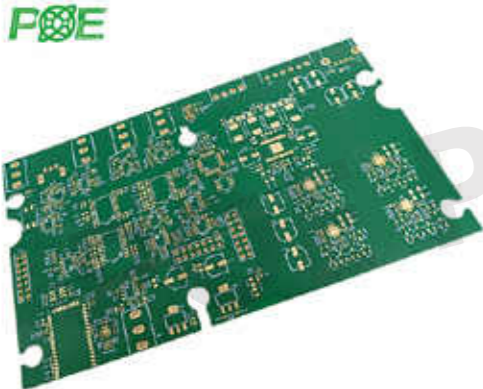
It's our honor to introduce how we produce PCBA and control quality in POE, including Incoming Inspection, SMD Machine, FAI Machine, Reflow Oven Machine, AOI/X-RAY Machines, Wave soldering oven, QC/FQC, Cleaning, Functional Testing and final ESD packing.

The customers are very strict about the quality, and super surprised by our new imported SMT machine, combined with nitrogen reflow oven, which can control the SMT tolerance between 0.002-0.003mm and improve 30% soldering quality of complex boards, like BGA. Really happy that customers are very satisfied with us. Thanks so much for your coming and visit.



# PCB Products

Our PCB manufacturing capabilities enable us to produce a wide range of products. We can make any printed circuit board you can think of including HDI PCB, Multilayer PCBs (up to 40layers), High-tech PCB, Thick Copper PCB, Halogen PCB as standard options, and more special PCBs such as Flex-Rigid PCB, aluminum PCB and Rogers PCB.



## PCBA Products



With Imported State-of-the-Art fully automatic production machines and our professional international sales team, purchasing team and engineering team, we are able to offer our customers low-cost and one-stop PCB Assembly Services.



## PCBA Equipment

POE continually reinvests in the very latest technology and equipment based on customer demands and industry trends.

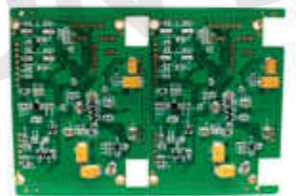
POE



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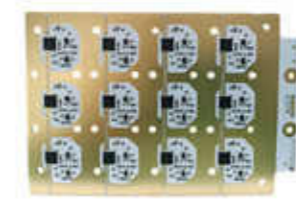
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Pick & Place Machine



Pick & Place Machine



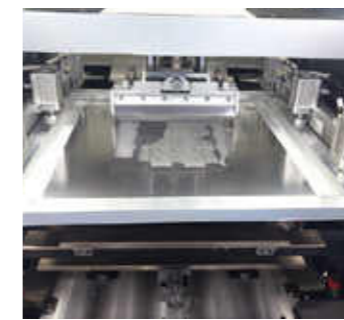
Manual Visual QC



Reflow Soldering



Automatic Solder Paste



Automatic Solder Paste



AOI



Automatic Printing Machine



Wave Soldering



Reflow Oven



Pick & Place Machine

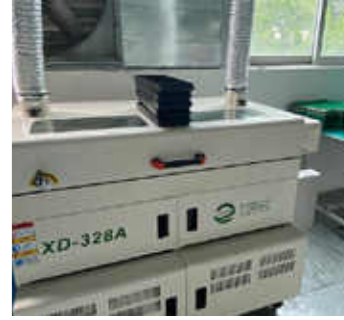


Plate Washer



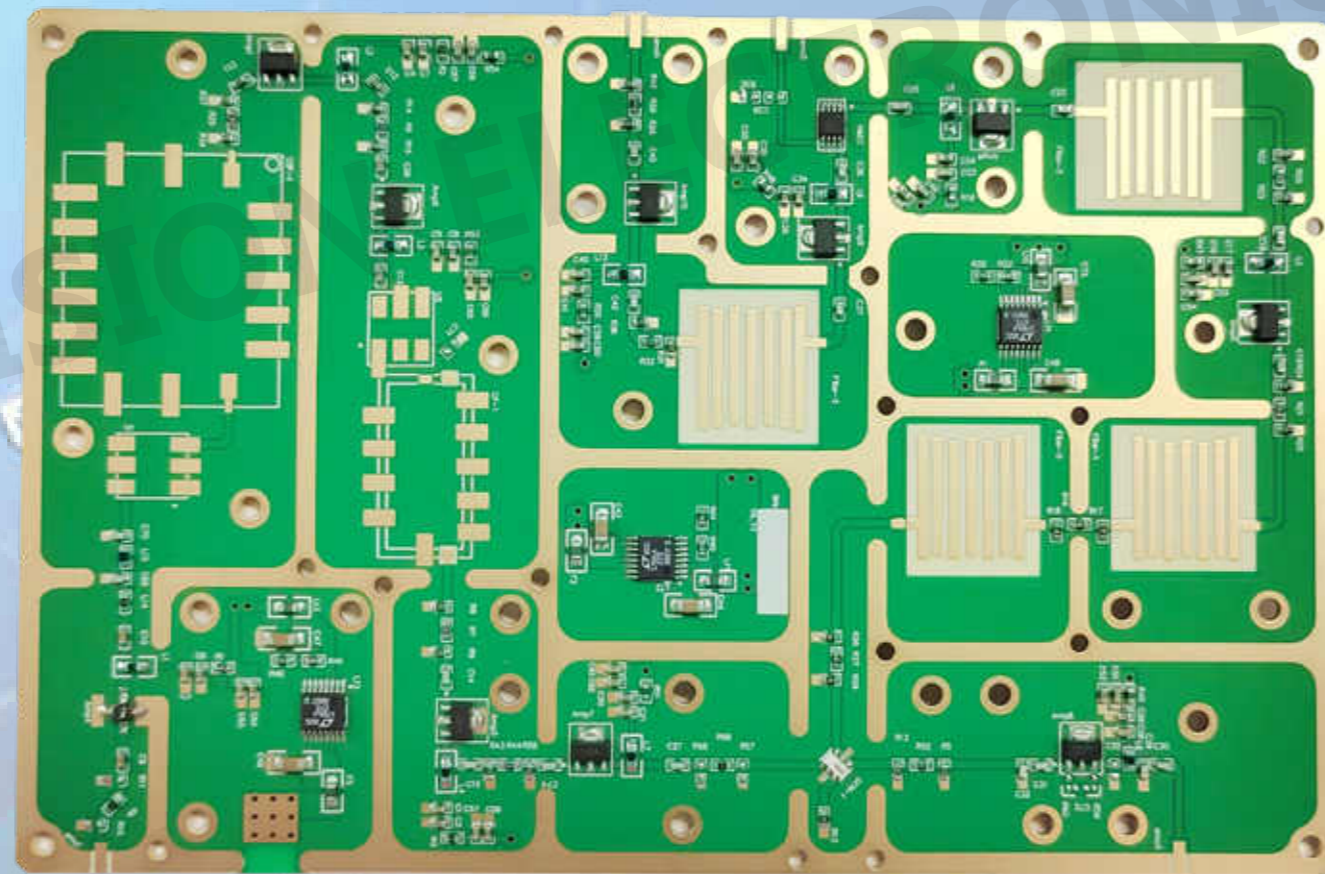
**4 Layer PCB**

**Material: Rogers 4350B**

**Finish Treatment: ENIG**

**Copper Thickness: 10Z**

**Board Thickness: 0.6MM**



TECHNICAL ELECTRONICS CO.,LTD

**12 Layer PCB**

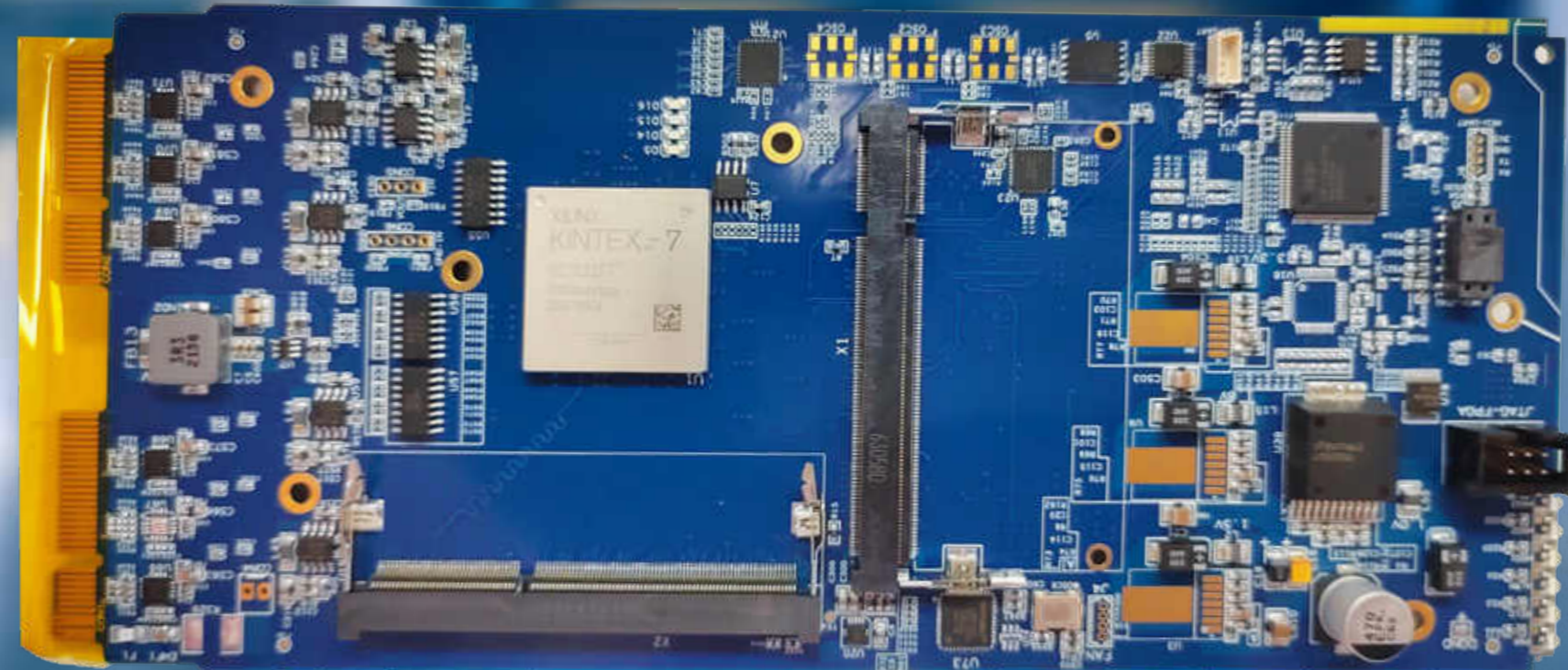
**Material: FR4 Shengyi TG170**

**Finish Treatment: ENIG+Gold Finger**

**Copper Thickness: 10Z**

**Board Thickness: 1.6MM**

**Impedance Control**



**8 Layer PCB**

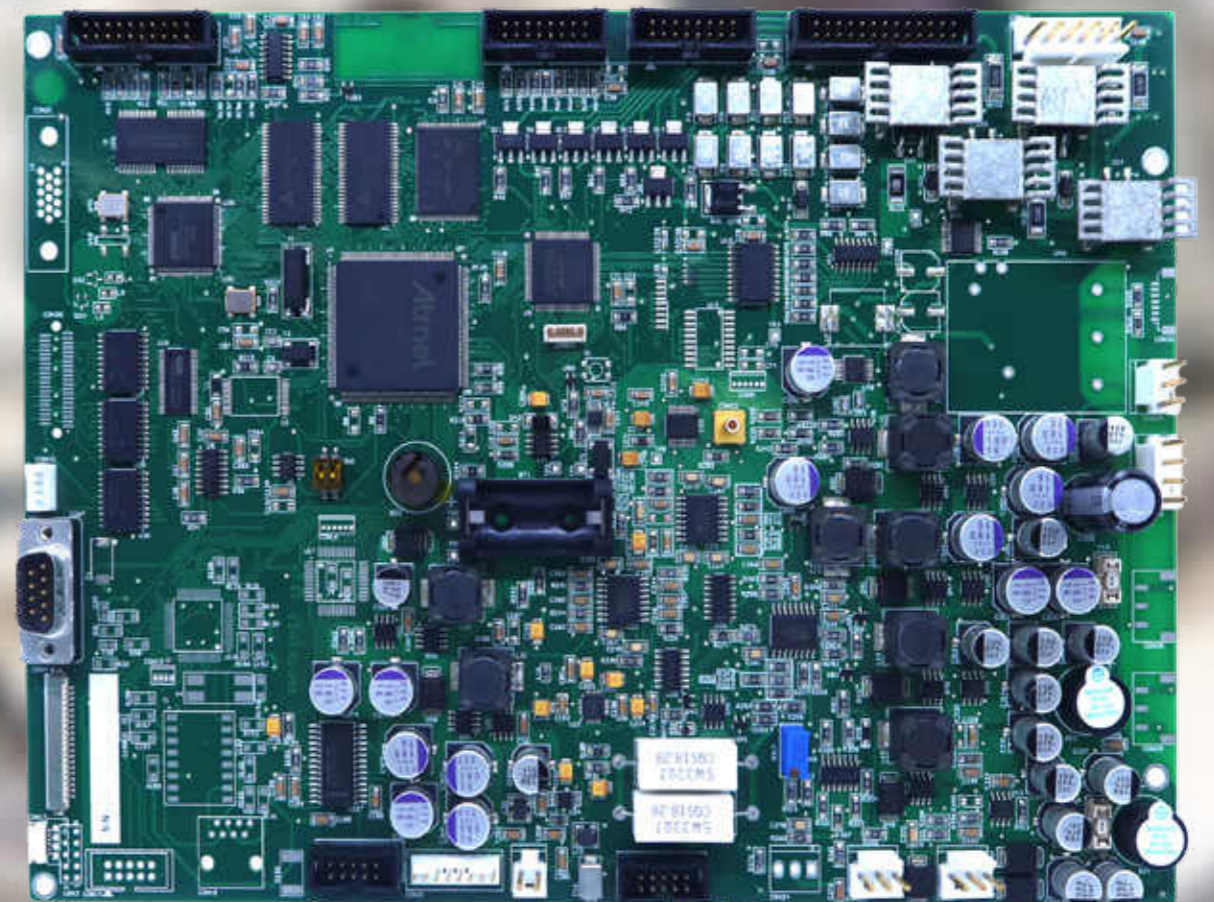
**Material: FR4 TG150**

**Finish Treatment: HASL LF**

**Board Thickness: 1.5MM**

**Application :**

**Medical Device**



**4 Layer PCB**

**Material: FR4**

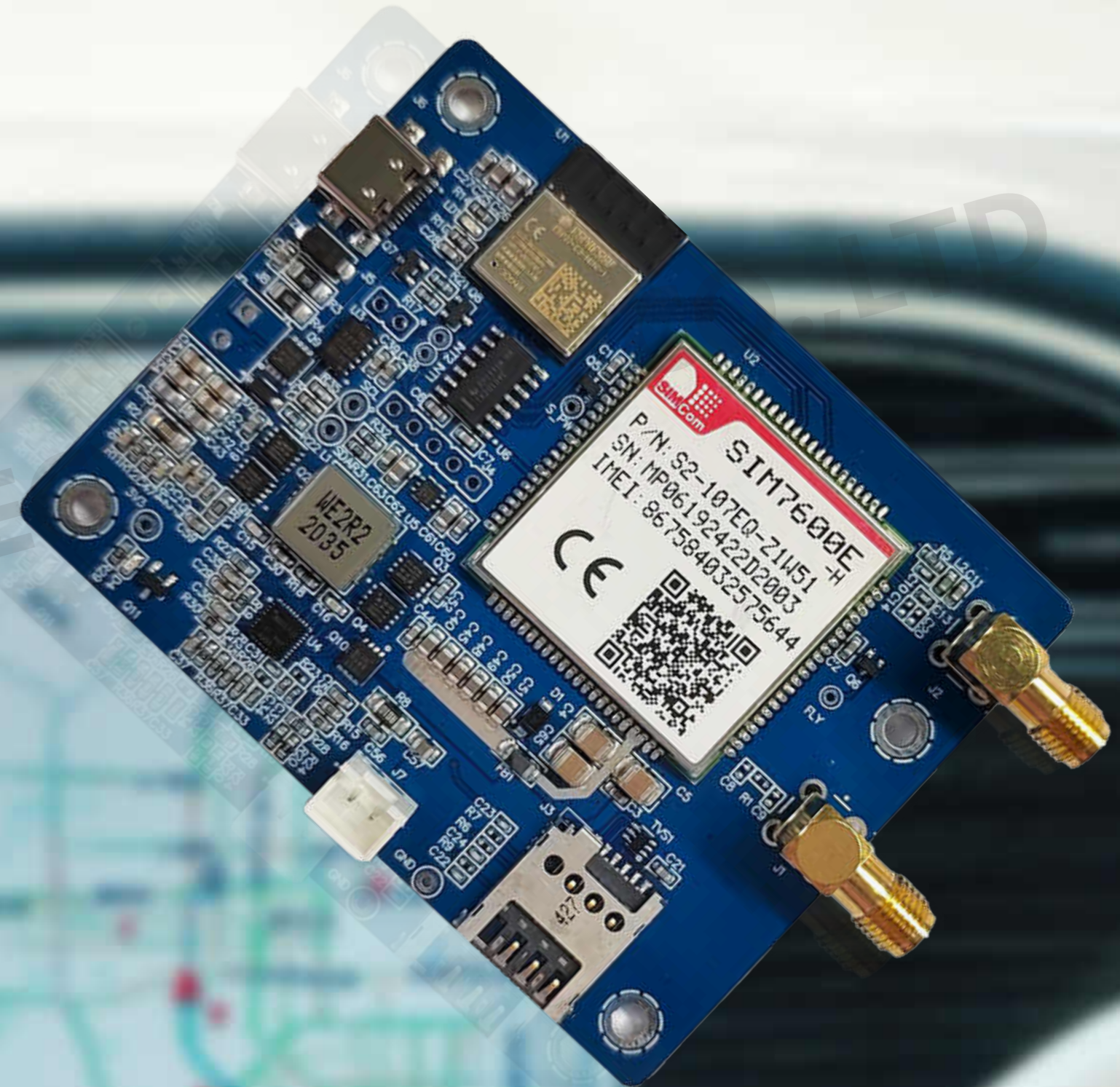
**Finish Treatment: HASL LF**

**Copper Thickness: 1OZ**

**Board Thickness: 1.6MM**

**Silkscreen: White**

**Application: Automobile**





**4 Layer PCB**

**Material: FR4**

**Finish Treatment: HASL LF**

**Copper Thickness: 1OZ**

**Board Thickness: 1.6MM**

