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2022



WISDOM LEADS GLOBAL
ELECTRONIC CORE TECHNOLOGY

智领全球
电子核心
科技

POE科技·让世界更亲近

POE Manufacturing, Your Global Technology Partner

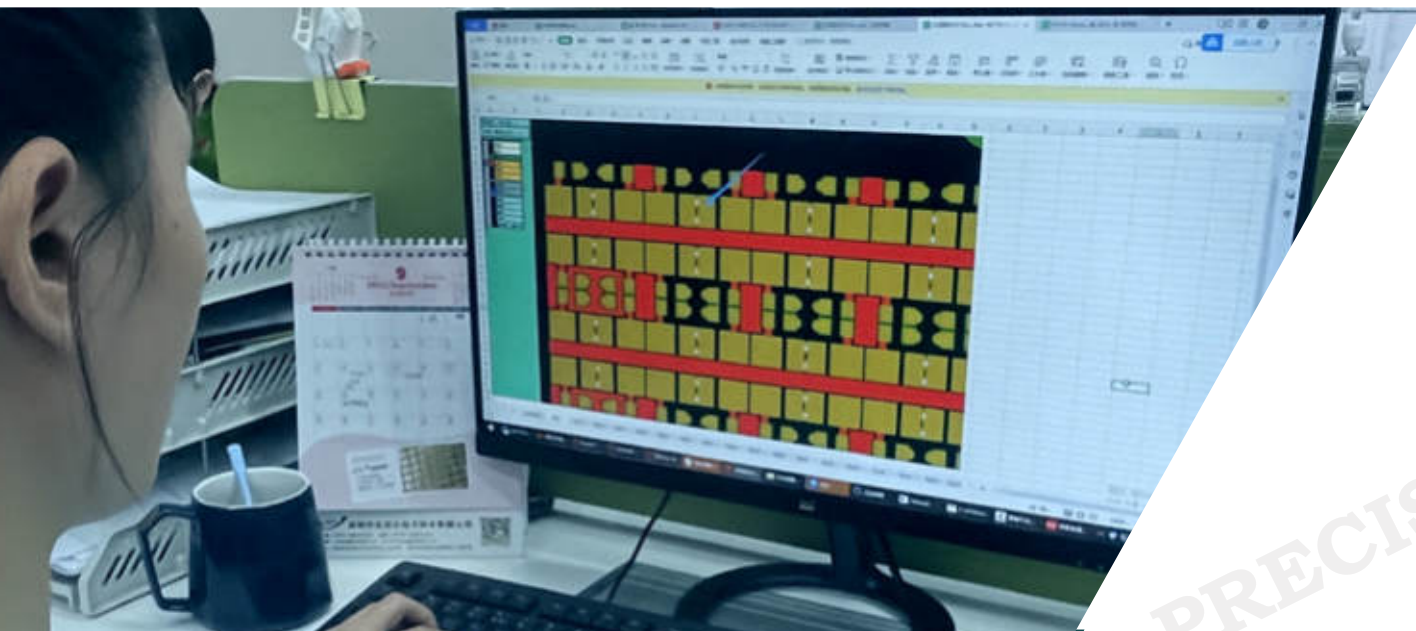


OEM Services for
PCB and PCBAs
Since 1996



CATALOG

- 01 Company Profile
- 02 POE Culture
- 03 Why Choose POE?
- 04 Customer Cases
- 05 POE Products



COMPANY PROFILE

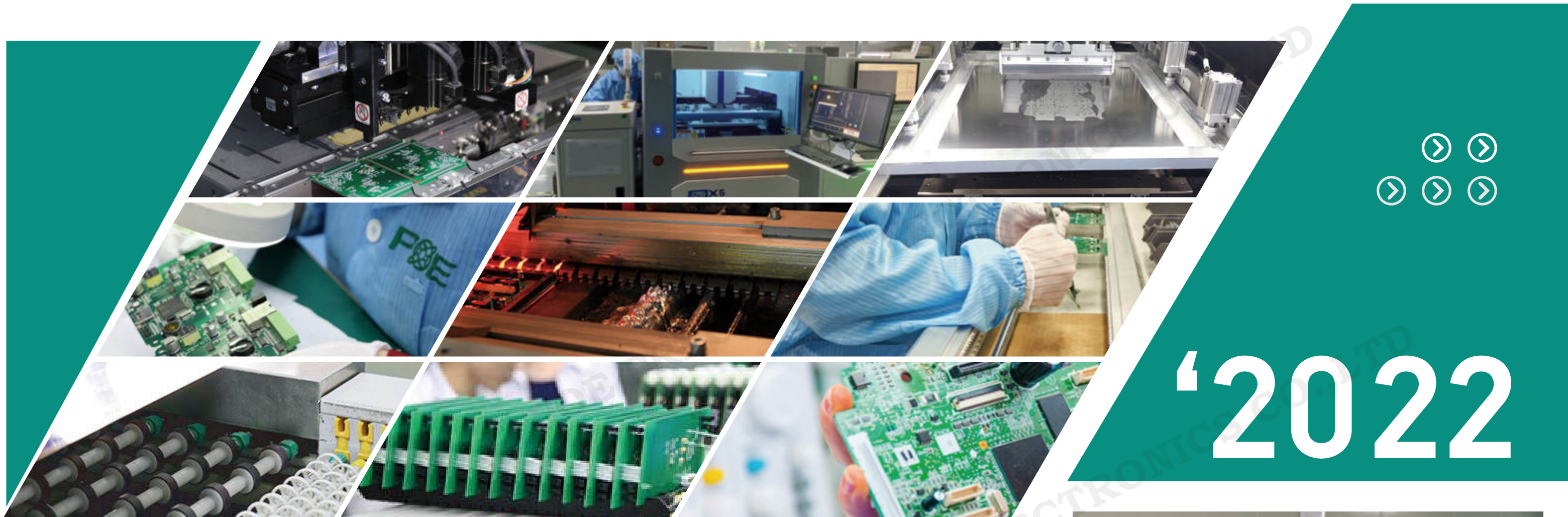


POE as a PCB company has developed to a well-known Turn-Key PCB assembly company over the years, providing high and low volume batches at reasonable prices and high quality, from making the boards to shipping the final product and everything in between.

With imported fully automatic production machines & professional sales team, purchasing team and engineering team located in Shenzhen China, HK, USA and Canada, POE is able to provide customers with low-cost one-stop contract manufacturing service, including PCB fabrication, components procurement, PCB assembly, programming, cable assembly, final PCBA testing, final case assembly, coating, worldwide shipping.

POE customers are primarily from the USA, Canada, Europe, Australia, Israel, Middle East, Brazil, Argentina, Asia..., and in a wide variety of industries like Medical, Telecommunications, Airplane recorder, Automobile, Database information, 5G, IoT, Robot, Industrial, Home appliance, Consumer Electronics ,LED products.





'2022

ISO9001:2015/UL94V-0/
ISO13485:2016/IPC III /
IPC II /ROHS/REACH



Birthday Parties

POE places great emphasis on the personal emotional care of the staff and holds regular birthday parties every month. With the confetti, balloons, and cake, office birthday parties provide employees a brief respite from their day-to-day, we enjoy tasty food and the blessings of our colleagues, taking beautiful souvenir photos. Such activities makes us feel appreciated and brings staff together, both of which help to form deeper relationships between team members and across the organisation.



POE CULTURES

01



02



To respond to the government's epidemic prevention and control, POE annual group travel to choose a local tour of Shenzhen. 19 November 2022, we had a two-night happy trip.





Merry Christmas!

POE organized Christmas activity

from festive to fun, from exciting to relaxing.
POE staff experience the most wonderful time
of the year in a very special way:

Christmas Card Exchange:

The main goal of this activity is to make people happy and help them making their Christmas time filled with more joy. By receiving cards from others and becoming creative in writing or decorating their own card, we hope to put a smile on everyone's face, increase their overall wellbeing. Everyone gave their best wishes to the colleagues around them, enhance the emotional exchange between colleagues.



December sprint!

Successful companies know that sales promotions are among the most effective methods of increasing sales, boosting customer satisfaction, and heightening brand awareness.

POE organized the end of the year performance sprint activities, and achieved better results with the efforts of all departments, for the perfect closing of 2022.



PCB Equipments Display



Drilling Machine



PTH Plated



CNC Outline



CNC Outline



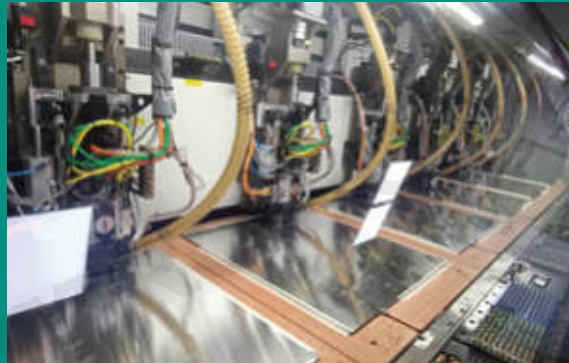
Drilling



LDI



Circuit Etching



Drilling

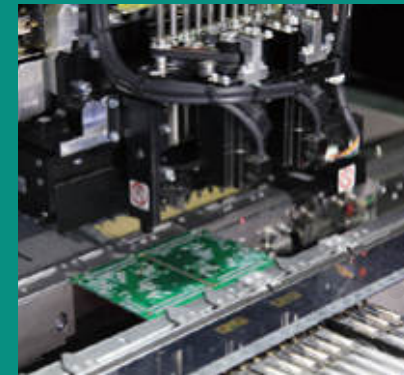


Sink Copper

WHY CHOOSE POE?



PCBA Equipment Display



Pick & Place Machine



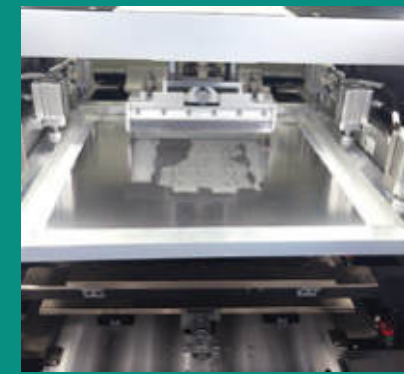
Pick & Place Machine



Manual Visual QC



Automatic Solder Paste



Automatic Solder Paste



AOI



Wave Soldering



Reflow Oven



Pick & Place Machine



Reflow Soldering



Automatic Printing Machine



Plate Washer

POE Production Report

Outgoing
Audit Report



POE Precision Electronics Co., Ltd.
OUTGOING AUDIT REPORT
此报告用于记录产品在出厂前的最终检查情况，确保产品符合客户要求及行业标准。

序号	检查项目	检查结果	检查人	检查日期
1	外观检查	合格	张三	2023-10-27
2	尺寸测量	合格	李四	2023-10-27
3	微区测量	合格	王五	2023-10-27
4	可焊性测试	合格	赵六	2023-10-27
5	电气测试	合格	孙七	2023-10-27
6	阻抗控制	合格	周八	2023-10-27
7	成品检验	合格	吴九	2023-10-27

Dimension
Measurement
Record



Dimension Measurement Record
微区测量记录 (1)

序号	测量项目	测量结果	测量人	测量日期
1	长度	10.00 ± 0.05	张三	2023-10-27
2	宽度	5.00 ± 0.05	李四	2023-10-27
3	厚度	0.50 ± 0.02	王五	2023-10-27
4	孔径	0.30 ± 0.01	赵六	2023-10-27
5	间距	2.00 ± 0.05	孙七	2023-10-27



Microsection Measurement Record
微区测量记录 (2)

序号	测量项目	测量结果	测量人	测量日期
1	长度	10.00 ± 0.05	张三	2023-10-27
2	宽度	5.00 ± 0.05	李四	2023-10-27
3	厚度	0.50 ± 0.02	王五	2023-10-27
4	孔径	0.30 ± 0.01	赵六	2023-10-27
5	间距	2.00 ± 0.05	孙七	2023-10-27

Microsection
Measurement
Record



Microsection Measurement Record
微区测量记录 (3)

序号	测量项目	测量结果	测量人	测量日期
1	长度	10.00 ± 0.05	张三	2023-10-27
2	宽度	5.00 ± 0.05	李四	2023-10-27
3	厚度	0.50 ± 0.02	王五	2023-10-27
4	孔径	0.30 ± 0.01	赵六	2023-10-27
5	间距	2.00 ± 0.05	孙七	2023-10-27

Solderability
Test Report



Solderability Test Report
可焊性测试报告

序号	测试项目	测试结果	测试人	测试日期
1	锡焊	合格	张三	2023-10-27
2	锡膏	合格	李四	2023-10-27
3	锡条	合格	王五	2023-10-27
4	锡丝	合格	赵六	2023-10-27
5	锡膏	合格	孙七	2023-10-27

Electrical
Testing Report



Electrical Testing Report
电气测试报告

序号	测试项目	测试结果	测试人	测试日期
1	电阻	合格	张三	2023-10-27
2	电容	合格	李四	2023-10-27
3	电感	合格	王五	2023-10-27
4	二极管	合格	赵六	2023-10-27
5	三极管	合格	孙七	2023-10-27

Certificate of
Compliance



Certificate of Compliance

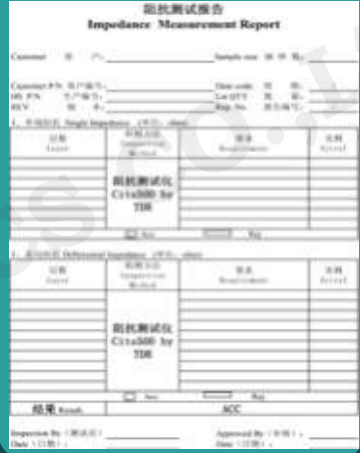
Customer No: 001
Customer P/N: 001
Customer P/N: 001
Customer P/N: 001
Customer P/N: 001

Product was manufactured to meet all assembly requirements in the latest IPC Industry documents.

POE Precision Electronics Co., Ltd. hereby certifies that the above-referenced product has been manufactured to full compliance to all customer purchase order requirements and master drawing, including associated documents.

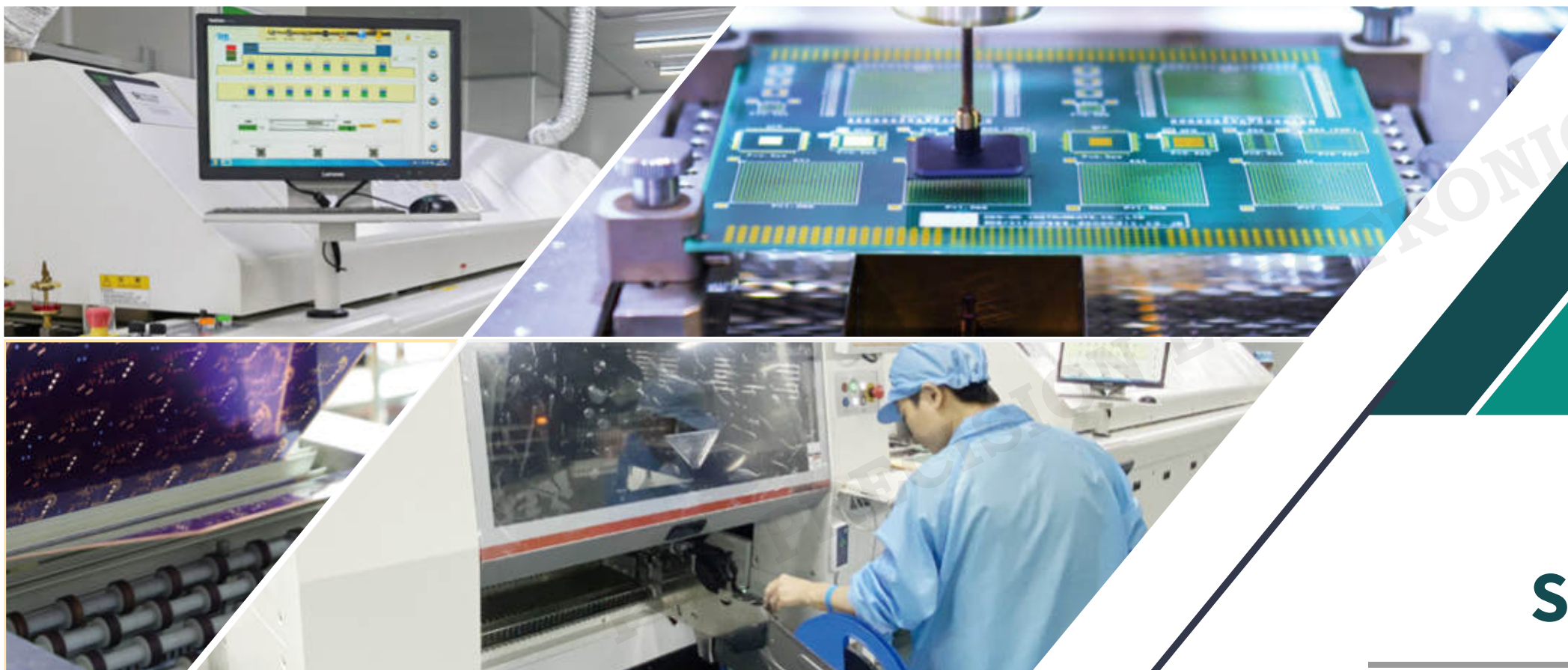
Authorized Quality Representative: 张三

Impedance
Control Report



Impedance Measurement Report
阻抗测试报告

序号	测试项目	测试结果	测试人	测试日期
1	电阻	合格	张三	2023-10-27
2	电容	合格	李四	2023-10-27
3	电感	合格	王五	2023-10-27
4	二极管	合格	赵六	2023-10-27
5	三极管	合格	孙七	2023-10-27



PCB

Contract Manufacturing

POE has over 20 years of PCBA EMS (electronic manufacturing service) experience, we provide a full range of sub-assembly, box-build, and integration services customized to each individual product. Except for SMT and Through hole assembly of the board, other processes include sub-assembly installation, cable assemblies, wiring harnesses, and fabrication of board enclosures. All these components must work together to ensure a fully-functional circuit.

Service Advantage

- Quick PCBA prototypes
(Automatic SMT line for quick samples output.)
- Full Turnkey PCBA Service.
- High-precision chip assembly.



Processing Advantages

01

Fast order arrangement and on-time delivery (POE focus on electronic products SMT processing, small batch commitment to material to confirm the error-free on-time delivery)

02

International equipment with high production accuracy(The equipment is made for the mass production of products with medium and high-end quality requirements, breakthrough industry technology, can paste 0402,0201, BGA pitch 0.2mm, QFN, CSP and other components.)

03

Continuous innovation and iterative technology(POE has a mature technology core team to keep the technology update and progress every year to bring more premium value products and services to our customers.)

04

Strictly control quality process (Compliant with ISO 9001:2015, ISO 13485:2016, ISO14001, 5S and 6Q standards.)



PCBA QC Process



Incoming
Quality Control



Electr-Static
Discharge (ESD)
Control



First Artical
Inspection



Offline Automatic
Optical Inspection



Online Automatic
Optical Inspection



Outgoing
Quality Control



QA Random
Inspection



Manual Inspection



X-ray Inspection

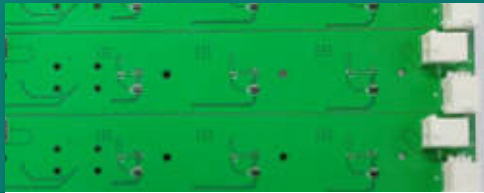
Customer Cases

For your reference: In the existing design the hole size is 0.65 mm and pad size is 0.85mm. The lead dimension (length x width) of the connector is 0.20mm x 0.40mm. So, the hole size needs to be modified accordingly for tight fitting.

1.Hole size change request



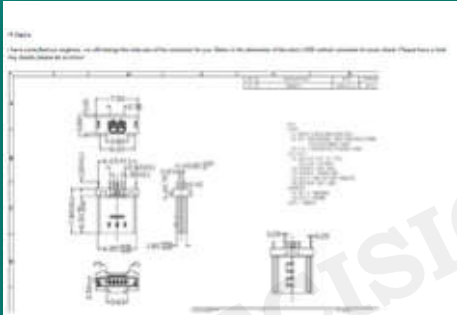
Finished boards 1



Finished boards 2



Finished boards 3



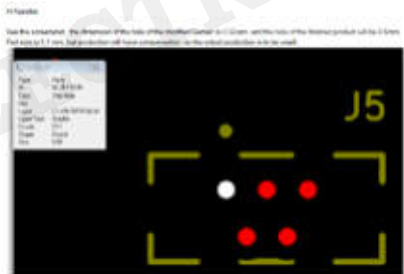
2.Confirm with customer before modification

Hi Alina,
Thank you for the confirmation and clear information about the details. We would like you to proceed with the production process.
Regards

5.Customer confirmed the modified Gerber was ok

Hi Alina,
I had few queries and I would like to mention them below.
1. The connector we need would have a height of 10.75mm as attached in the image below with 5 through hole pins. (Kindly check if the connector height and the number of pins of the connector are right before placing them on the board).
2. Gerber files have the dimension of the hole to be larger (1.1mm) than the previously design (Hole size was 0.65 mm and pad size was 0.85mm). Kindly let me know what the hole size would be before the process along with the attached Gerber files. According to Sapna's mail from 29.September the hole size needs to be optimized for tight fitting - therefore, 1.1mm seems to be too large.
If there is anything wrong with the data we have checked kindly revert back with a reply.

3. Customer's queries



4.Explanation

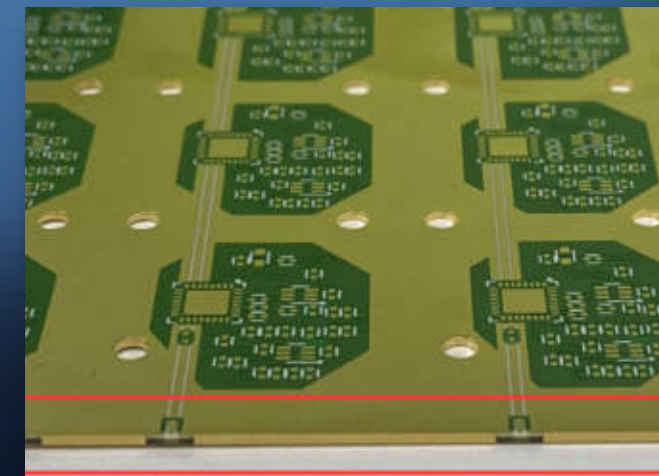
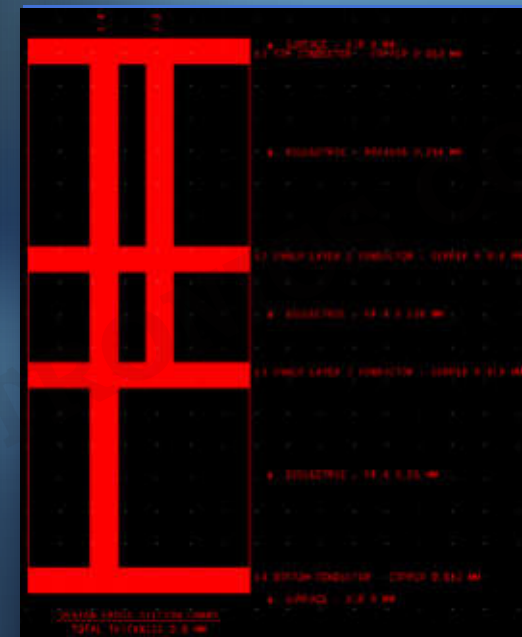
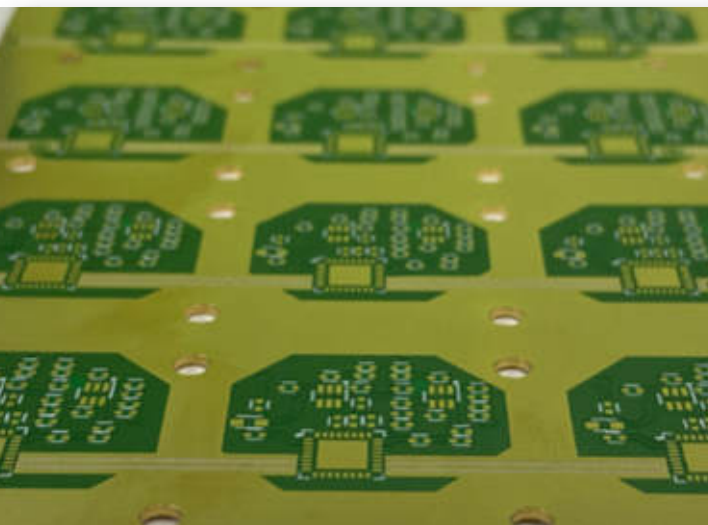
Case One

POE received the request from the customer to help modify the size of the hole.

Engineer changed the hole size according to the datasheet and sent the modified Gerber files to customer to check.

The customer finally confirmed that the modified information was ok.

PCB finished production.



Case Two

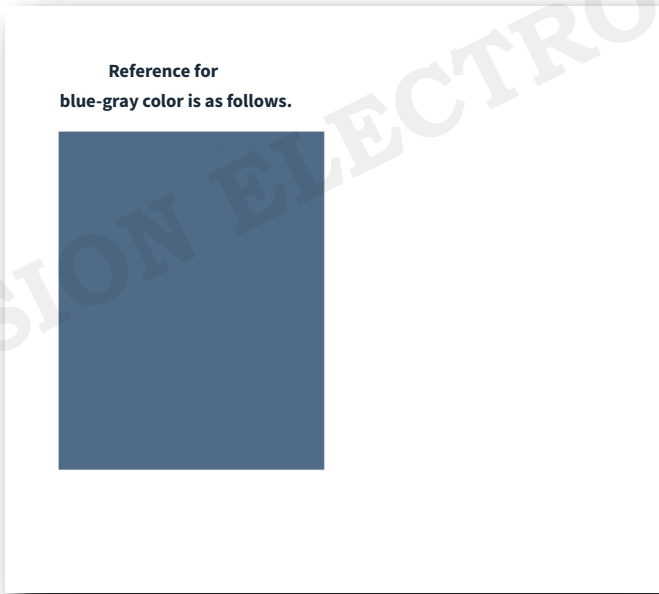
1. The board is FR4+Rogers RO4350 mixed press with blind hole and edge plating, advanced high performance PCB with special board material.
2. PCBs with whole board immersion gold surface treatment are easily to be scratched, and we used dust-free paper to separate each one when packing to avoid such issue.
3. POE Engineers make Stack-up structure per customer's design requirements.



Case Three



Blue-gray 2



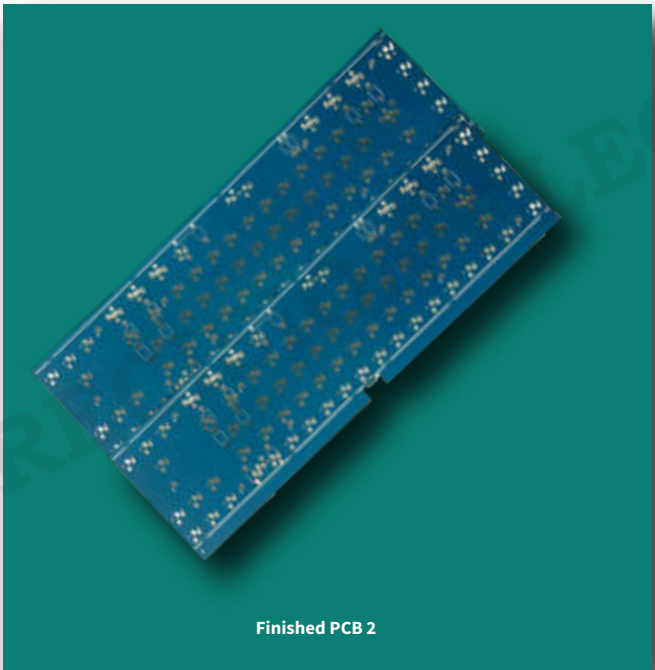
Blue-gray



Tune the soldermask Ink and test the color



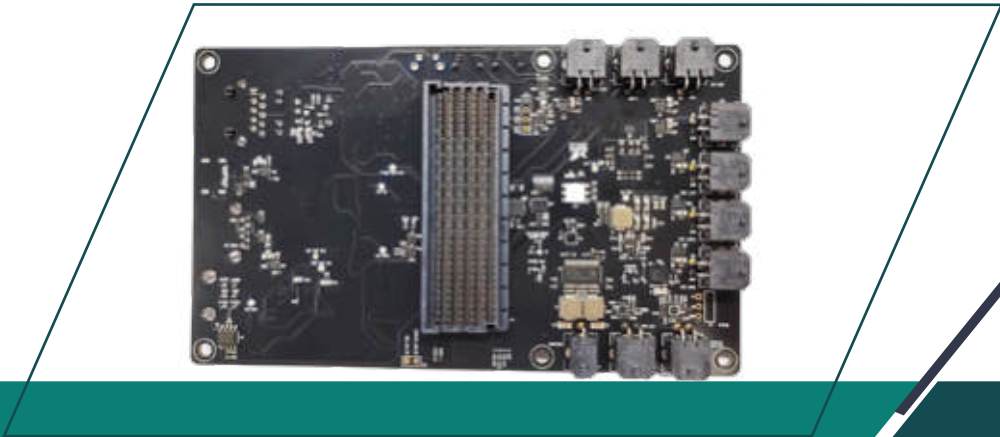
Finished PCB 2



Finished PCB 2

POE received the Pantone from customer. The technician adjusted the ink according to Pantone until the customer was satisfied with the color! Here's a picture of the finished color on the PCB.

Case Four



FAB DRAWING

Layer Stack Legend						
Layer	Material	Thickness	Dielectric Material	Type	Gerber	
Top Overlay				Legend	GTO	
Top Solder	Surface Material	0.025mm	SM-002	Solder Mask	GTS	
Top Surface Finish	Nickel, Gold	0.004mm		Surface Finish		
1-TOP	CF-004	0.018mm		Signal	GTL	
	Prepreg	0.100mm	PP-006	Dielectric		
2-GND	CF-004	0.035mm		Internal Plane	GP1	
	Core	0.100mm	PP-006	Dielectric		
3-SIGNAL	CF-004	0.018mm		Signal	G1	
	Prepreg	1.000mm	PP-001	Dielectric		
4-PWR	CF-004	0.018mm		Internal Plane	GP2	
	Core	0.100mm	PP-006	Dielectric		
5-GND	CF-004	0.035mm		Internal Plane	GP3	
	Prepreg	0.100mm	PP-006	Dielectric		
6-BOTTOM	CF-004	0.018mm		Signal	GBL	
Bottom Surface Finish	Nickel, Gold	0.004mm		Surface Finish	GBS	
Bottom Solder	Surface Material	0.025mm	SM-002	Solder Mask	GBS	
Bottom Overlay				Legend	GBO	
Total thickness: 1.6						

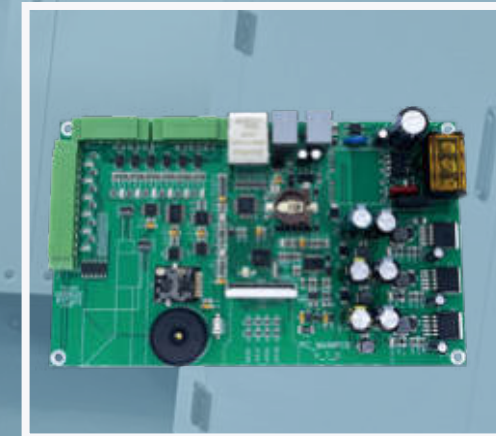
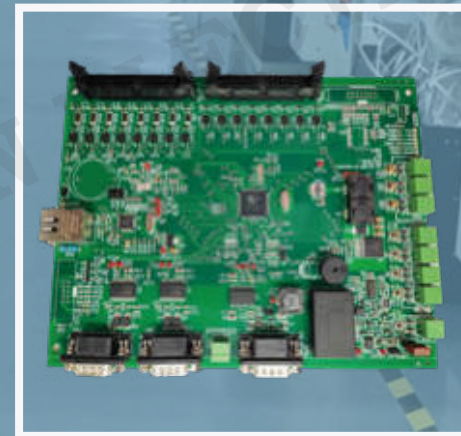
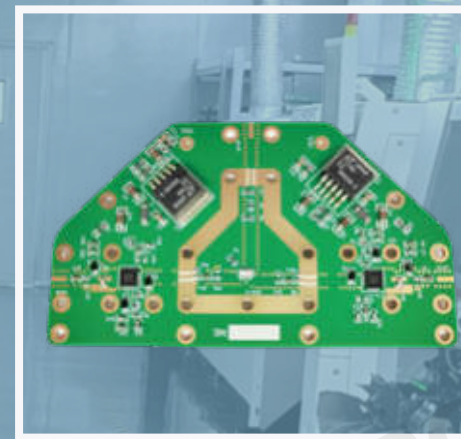
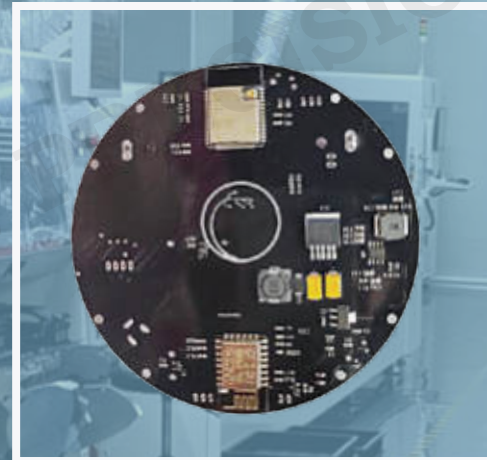
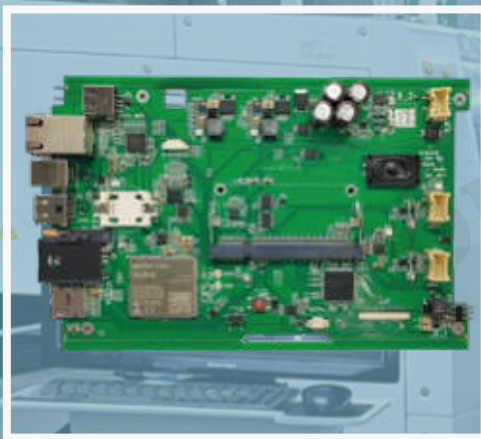
This board requires specific material and different copper thickness. It's difficult to mate 699 position connector and repair if there is soldering joint issue, so we need to use X-ray machine to inspect the soldering joint.



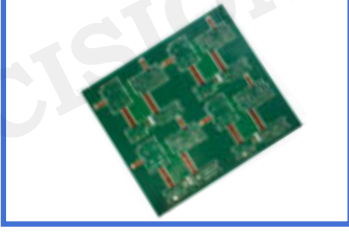
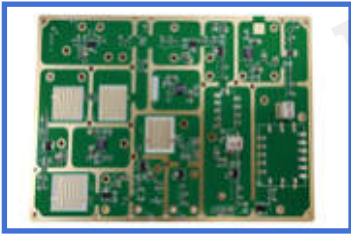
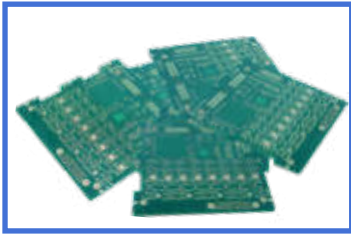
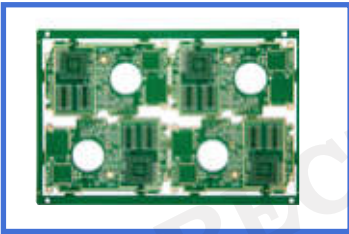
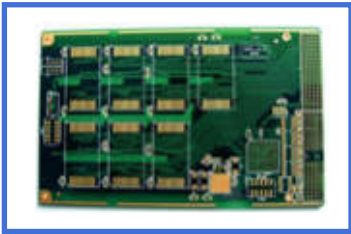
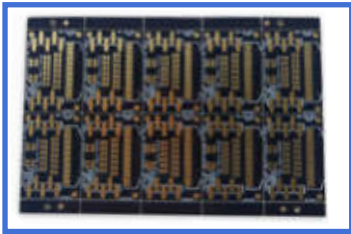
POE PRODUCTS



PCBA Products



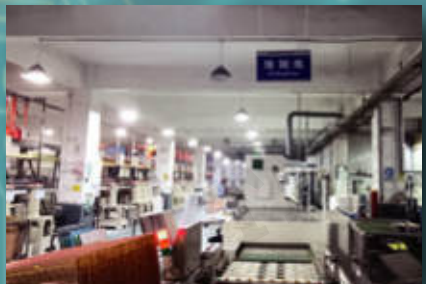
PCB Products



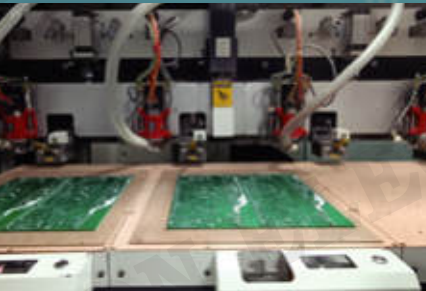
Drilling Machine



PTH



Circuit Etching



CNC Outline



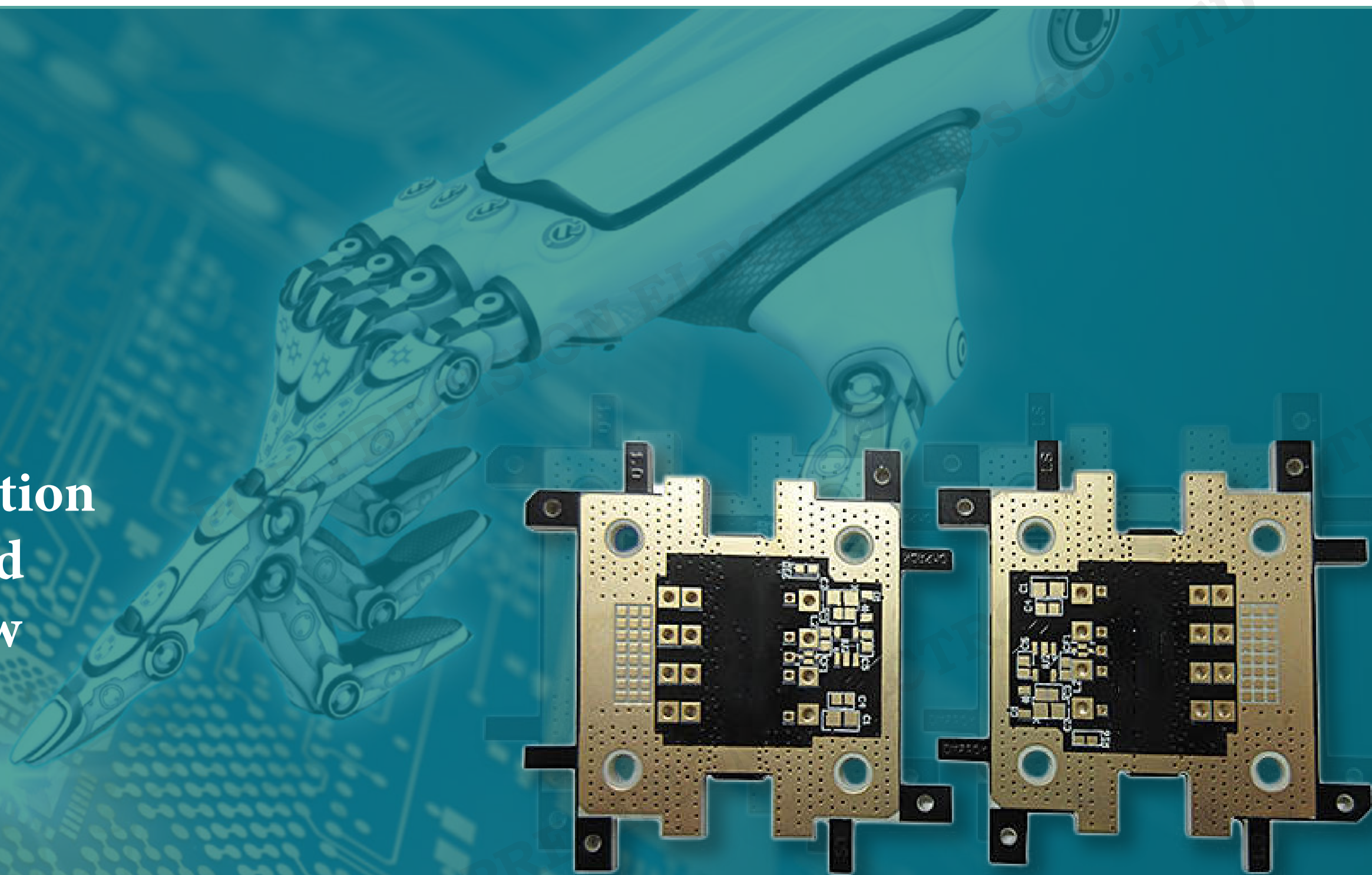
LDI

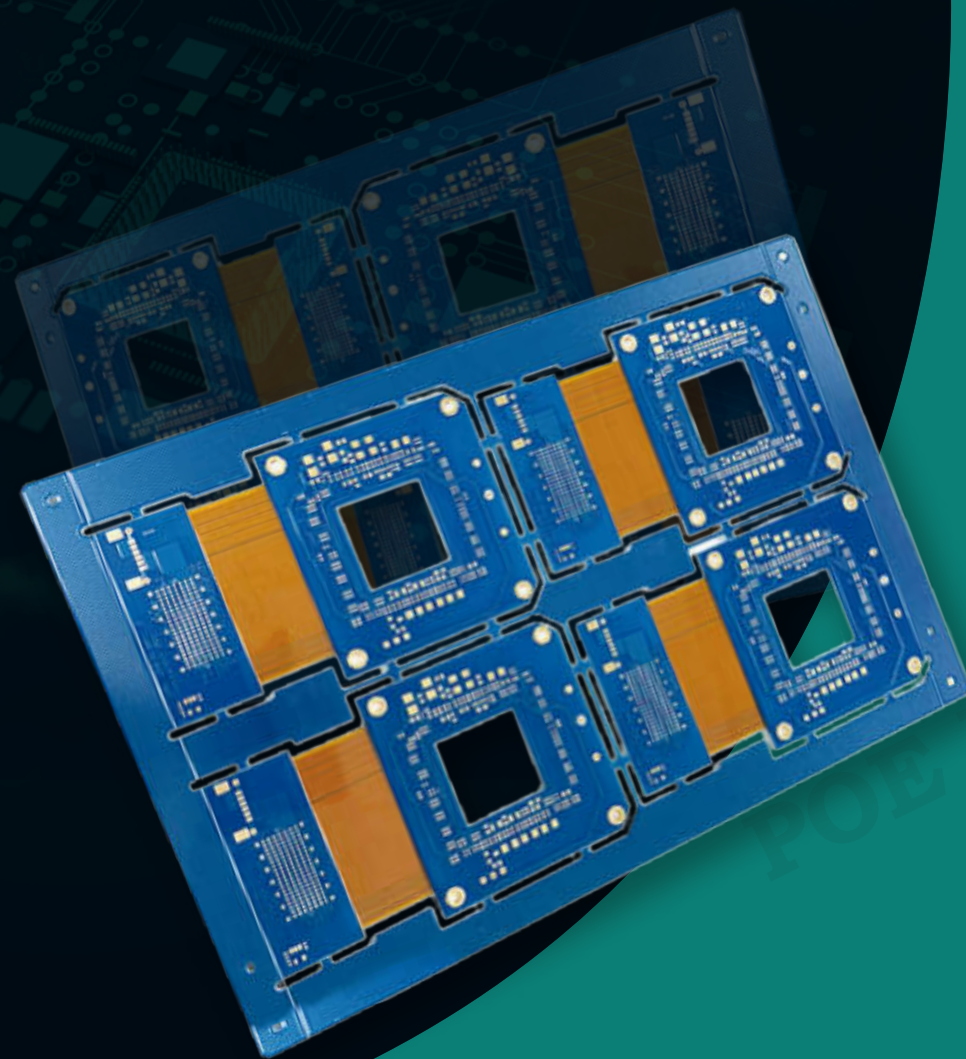


Sink Copper



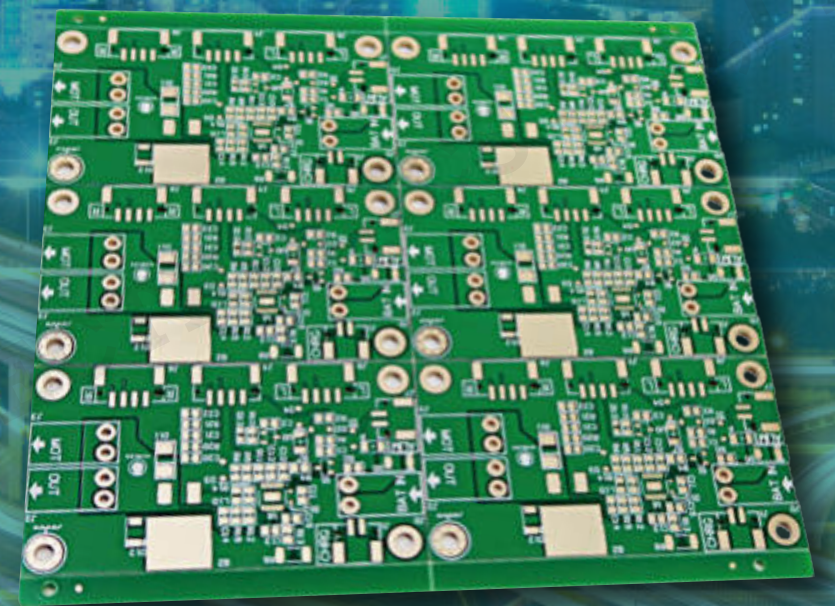
Application Board Show



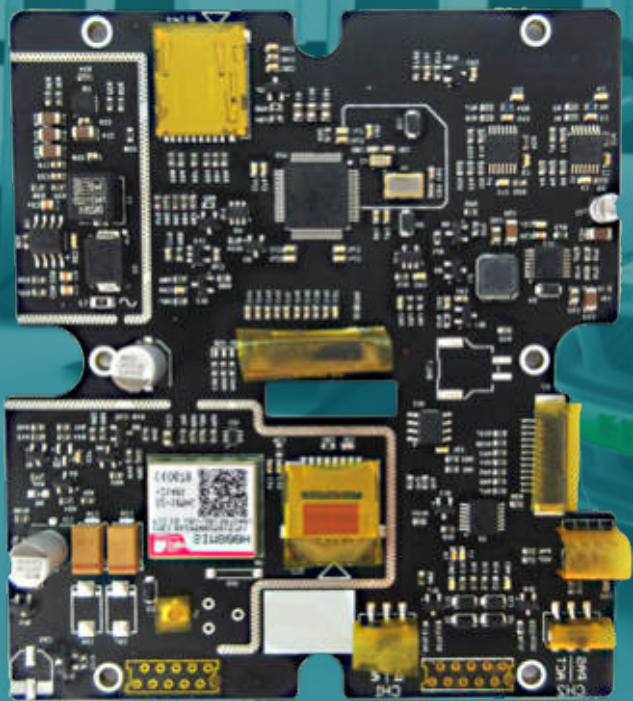


Optical
Module
PCBs

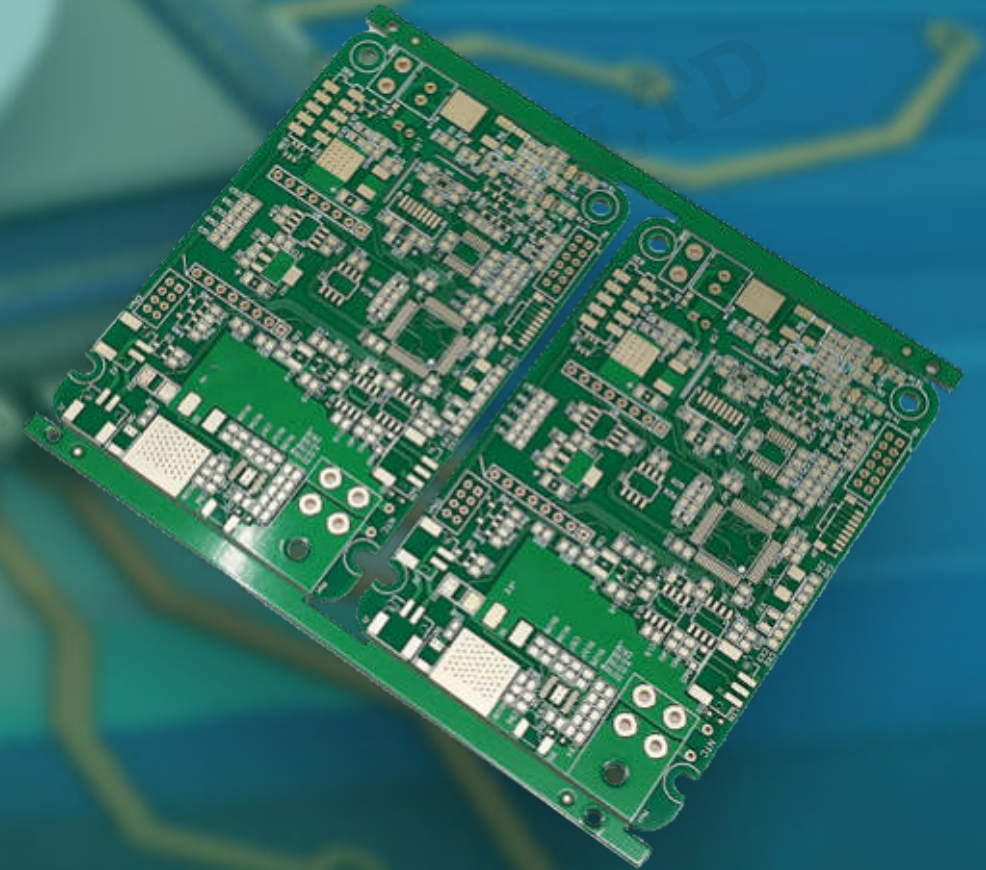
5G Communication PCBs



Automotive PCBAs



RF Antenna PCBs



Industry Control PCBs



These industries have high-power machinery and equipment, which are driven by high-power and high-current-driven circuits. For this reason, most of customers choose POE to get the best quality PCB products.

POE PRE



25 YEARS EXPERIENCE

Automation Systems Through-Hole
PCB Assembly Services

Low to high volume surface mount

01005s ,BGA, uBGA, CCGA CSP and Flip Chip

0.4mm Fine Pitch Devices

1-40 layers PCB Manufacturing

Encapsulation & conformal coating of
PCB assemblies