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智领全球电子核心技术

WISDOM LEADS GLOBAL  
ELECTRONIC CORE TECHNOLOGY

Nov-Dec 2020

## 总经理寄语

"Business is about building life-long relationships with attentive service, quality products and honest business practices"



## ONE-STOP PROFESSIONAL EMS MANUFACTURE

科技创新 精诚共赢  
Technological innovation. win-win cooperation

- ◆ With good service, superior quality, honest business and on-the time delivery.
- ◆ Provide the best and fastest innovation service of electronic technology.
- ◆ Build up win-win cooperation and mutual development.
- ◆ Change the world technology and lead the enterprise with innovation.



## 目录 CATALOG

01

### OVERVIEW

POE New Facility Show 100% Dusty-Free

02

### POE TEAM

POE Company Group Tour and Leisure Time Activities

03

### PCB MANUFACTURING

A.PCB Fabrication Capabilities  
B.PCB Fabrication Equipments  
C.PCB Material POE use. UL 94v-0 certified  
D. POE PCB Manufacturing Quality Control  
E. POE PCBs (Nov-Dec 2020) Showcase  
F. Flex PCB Applications

04

### POE TURNKEY PCB ASSEMBLY

(1) Prototype PCB Assembly  
(2) BGA Assembly  
(3) Value Added Service  
(4) Nov-Dec 2020 Fully Turnkey PCB Assembly Projects  
(5) Medical Applications

05

### CUSTOMERS VISITING

POE Manufacturing, Your Global Technology Partner



# POE

POE is an OEM manufacturer that focus on PCB & PCBA manufacturing over 24 years



POE China Contract Manufacturing Facility  
3000m<sup>2</sup> New Factory is running now  
4000 more worldwide  
Customers PCB  
Turnkey PCB Assembly Partner

## 01 Overview





## Activity



## 02 POE Team



POE had a a four-day company group tour in Guizhou in November 2020. Historical Qingyan ancient town, magnificent Huangguoshu waterfalls, amazing Libo streams, and tranquil Miao Village, we had good memories there and enjoyed a relaxing time together.

A Trip to Guizhou






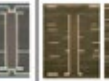


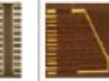

### A variety of activities inject new vitality into the POE team

Everyday work starts from the morning meeting. Share and interaction bring us power and passion to deal with working stuff. Monthly birthday party is always full of happiness and gratitude





製造能力

層數 Layer	4L	2L	6L	6L	8L	10L	12L	14L	16L
結構圖 Layer Structure									
產品類型	深孔鑽 Depth control drill	銅基板 Copper base PCB	埋銅[方銅、凸台、盲槽] Buried copper inlaid	一階HDI、疊埋孔 1 + N HDI, Buried holes	機械背鑽、蝕刻背鑽 Mechanical back drilling Etching back drill	二階HDI、POFV 2 + N HDI, POFV	厚銅 Heavy copper	沉頭孔 Countersunk head holes	多层板 High layer count

項目 Item	2018製程能力 Manufacture Capability	2019製程能力 Manufacture Capability
層數Layer	2-20層/2-20Layer	2-30層/2-30Layer
板厚Thickness	0.3-3.5mm	0.2-5.0mm
基材料型Laminate Type	FR4、High TG、高速/高頻、金屬基	高頻、玻纖、PTFE、非PTFE高頻料 &BT、金屬基、PI
銅箔厚度Copper Foil Thickness	1/3-6oz	1/3-14oz
最小線寬/線距Min.Line Width/Space	75um/75um	50um/60um
最小通孔直徑線距Min.Minimum through hole diameter	0.15mm	0.15mm
通孔直徑比Micro channel thickness ratio	12:1	15:1
最小盲孔直徑比Min, blind hole diameter	4mil	4mil
盲孔直徑比Blind aperture ratio	0.7:1	1:1
最小介電厚度Min. Dielectric thickness	50um	50um
佈線層數Wiring Layer	2+N+2	3+N+3
表面處理Surface Finish	噴錫、沉金、沉銀、沉錳、OSP HASL ENIG Immersion silver OSP	
(斜邊角度) Chamfer	(階梯類型) The angle type of the chamber	30°, 45°, 60°
最大NPTH孔尺寸 Largest NPTH hole size	6.5mm	>6.5mm
最大PTH孔尺寸 Largest PTH hole size	6.5mm	>6.5mm
最小孔環 Min,annular ring can be kept	6mil	4mil
銅線有橫前提IC最小間距 Min, distance between the IC for SM bridge	0.25mm	0.25m
最小綠油橋 Min.SM bridge for green soldermask	0.1mm	0.076mm
最小黑油橋 Min.SM bridge for black soldermask	0.125mm	0.1mm
外型尺寸公差 Tolerance of dimension size	±0.1mm	±0.8mm
成品板厚公差 Tolerance of board thickness	±10%	<±8%
成品NPTH孔徑公差 Tolerance of finished NPTH hole size	±0.05mm	±0.03mm
成品PTH孔徑公差 Tolerance of finished PTH hole size	±0.076mm	±0.05mm

03 PCB Manufacturing

PCB Fabrication Equipments

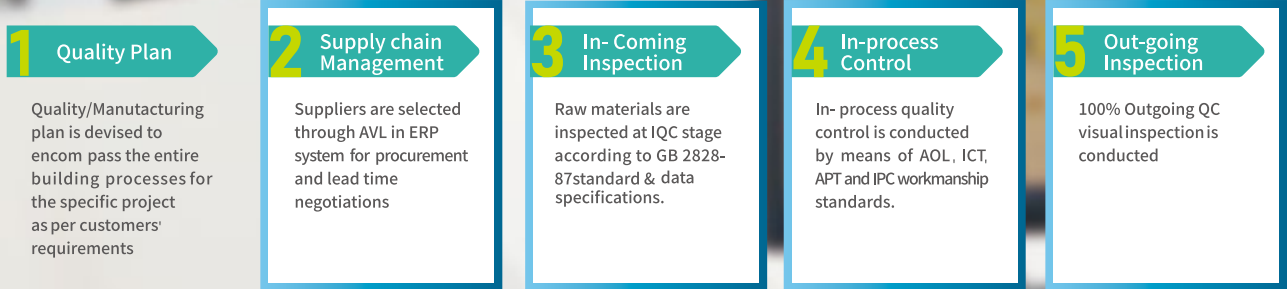


POE  
PCB Material POE use  
UL 94v 0 certified

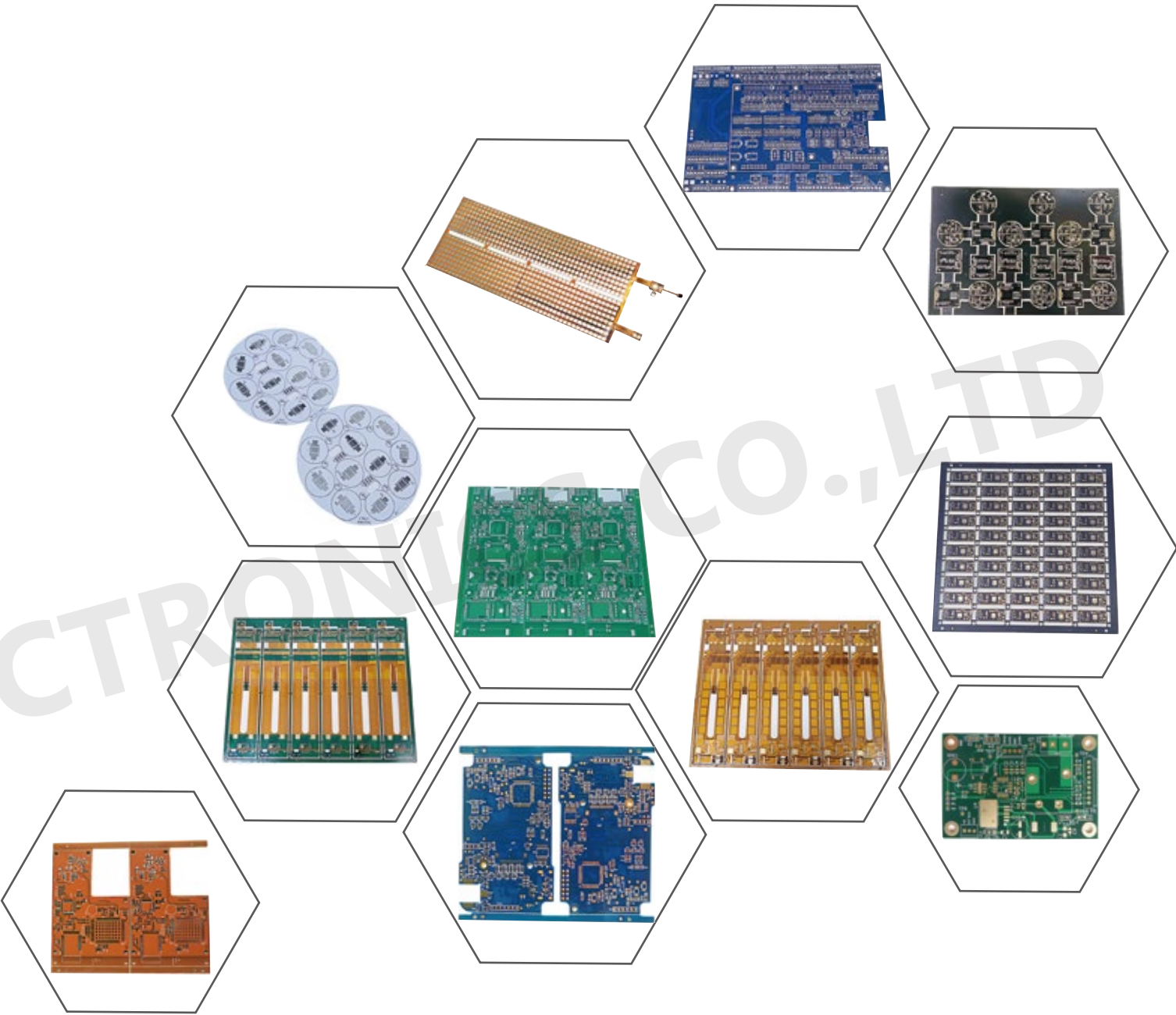
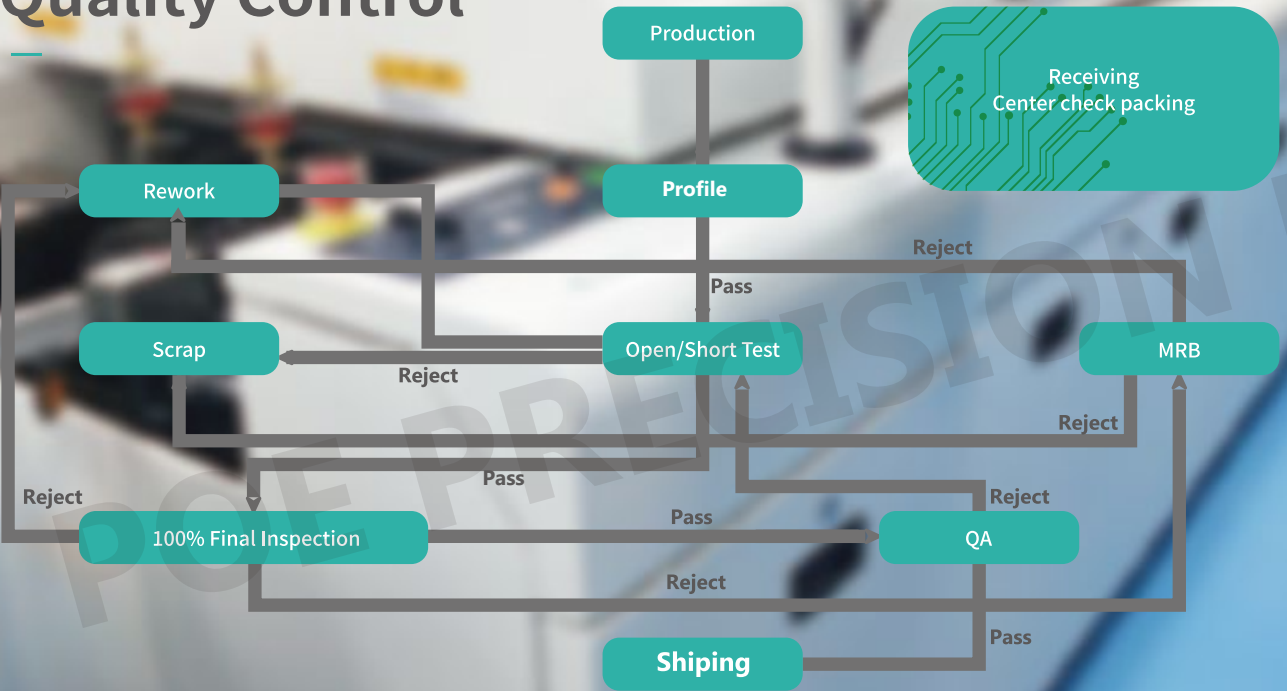




# POE PCB Manufacturing Control:



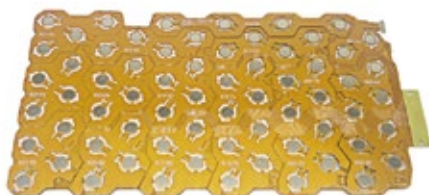
## Quality Control



POE PCBs (Oct-Nov 2020)  
Showcase



# Flex PCB Applications



Electric Car  
Charging Infrastructure



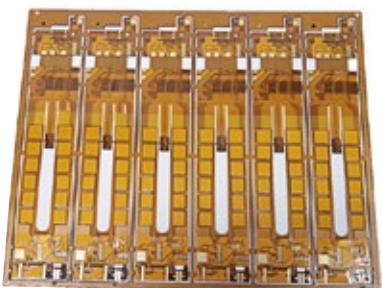
LED decorated  
on the Paper Books



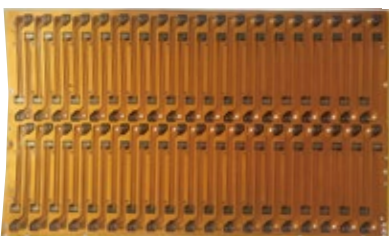
LED decorated  
Table Lamp



The Heating Pot



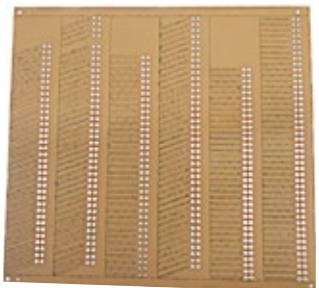
Sports Bracelet



Industrial Computer  
Display Screen



Aviation



Phone Devices



## 04 POE TURNKEY PCB ASSEMBLY



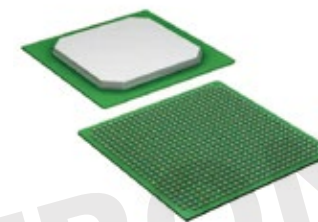
POE is able to make all kinds of PCB assembly prototypes. We provide PCB prototype service from 1 -40 layers. We can do flexible PCB, rigid PCB, flex-rigid PCB, metal core PCB, aluminum PCB and high-frequency PCB board. NO MOQ.



## BGA Assembly



POE has been providing BGA assembly, including BGA Rework and BGA Reballing services in printed circuit board assembly industry since 2003.



### BGA Assembly Capability

We have a wealth of experience handling all types of BGAs, including DSBGA and other Complex Components, from micro BGAs (2mmX3mm) to large size BGAs (45 mm); from ceramic BGAs to plastic BGAs. We are capable of placing minimum 0.4 mm pitch BGAs on your PCB.



### BGA Assembly X-Ray Inspection

We use an X-Ray machine to detect various defects which might occur during BGA assembly.



### BGA soldering, BGA Rework & Reballing

POE is specialized in BGA soldering service and we can assist you with BGA rework and reballing service at an affordable price! We follow five basic steps to perform BGA rework component removal, site preparation, solder paste application, BGA replacement, and reflow soldering. We guarantee that 100% of your boards will be fully functional when they are returned to you.

## VALUE ADDED SERVICE

### POE Value-Added Services



Components Sourcing



3D Printing Enclosure



Cable Assembly



Programming & Functions Tests



Conformal Coating



Kitting Carton Box & Foam Service



PCB Stencil



# Nov - Dec 2020 Fully Turnkey PCB Assembly Projects

					
2L, FR4, 1.6 mm HASL Lead Free Green Solder Mask White Silkscreen	2L, FR4, 1.6mm HASL Lead Free Green Solder Mask White Silkscreen	6L, FR4, 1.6mm HASL Lead Free Green Solder Mask White Silkscreen  Application: IoT Sensor	4L, FR4 PCBA with Gold Finger Matt Black Color  Application: Telecommunication Industry	4L, FR4 Blue Solder Mask ENIG Surface Treatment BGA Assembly  Application: Aerospace	2L, FR4, 1.6mm Blue Solder Mask HASL Lead Free Surface Treatment  Application: Industrial Control
					
4L, FR4, 1.6mm HASL Lead Free Black Solder Mask White Silkscreen  Application: Robots Programming	2L, 4oz copper Yellow Coverlay White Silkscreen  Application: Electric Car Charging Infrastructure	2L, FR4, 1mm Hasl Lead Free Green Solder Mask White Silkscreen  Application: E-cigarette	2L,FR4, 1.6mm Hasl with Lead Green Solder Mask White Silkscreen  Application: Medicial Device Used in Ambulance Car	2L, FR4, 1.6 mm HASL Lead Free Black Solder Mask White Silkscreen	2L, FR4, 1.6 mm HASL Lead Free Orange Solder Mask White Silkscreen



## Medical Application

### THE MEDICAL INDUSTRY

## POE— an Experienced Electronics Partner In the Medical Industry



### Why Choose POE as Your Medical Device PCB Provider?

One of our values is transparency, this is why we offer complete transparency regarding all aspects of our process which is vital for this industry and highly appreciated by our customers. POE will always provide unprecedented service and flexibility for any medical device printed circuits.

Since 1996, we have over 24 years experience from pcb fabrication to turnkey assembly. We know that early involvement with all participants will save time and money. Using our knowledge and experience to make your medical product development process run as smooth as possible.

Medical Applications scale in variety when it comes to size and technology. Advanced, large x-ray machines, ventilator, robotic arms, and microscopic hearing devices or sensors, and applications for both the exterior and the interior of the human body.

POE offers fast and complete medical PCB manufacturing services to speed up your go-to-market schedule. High reliability is a top priority in the medical device manufacturing industry. Our clients know they can rely on us to deliver the precise, high quality results they need, in the shortest time span.

We are ISO-9001, ISO-13485 and ISO14001 certified. This means every single, double or multi-layer, flex, rigid and rigid-flex PCB board undergoes stringent inspection testing to ensure it meets your specifications and compliance requirements.





## 05 Customers Visiting

