

### **致力于成为行业领先的** PCB/FPC制造及EMS配套服务提供商 PCB/FPC Manufacturing And SMT Services Provider

CHAMPION ASIA INTERNATIONAL ELECTRONIC LIMITED GUANGDONG CHAMPION ASIA ELECTRONICS CO., LTD.

www.championasia.hk



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People First ; Credit Based ; Excellent Innovation; Sustainable Operation;

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4

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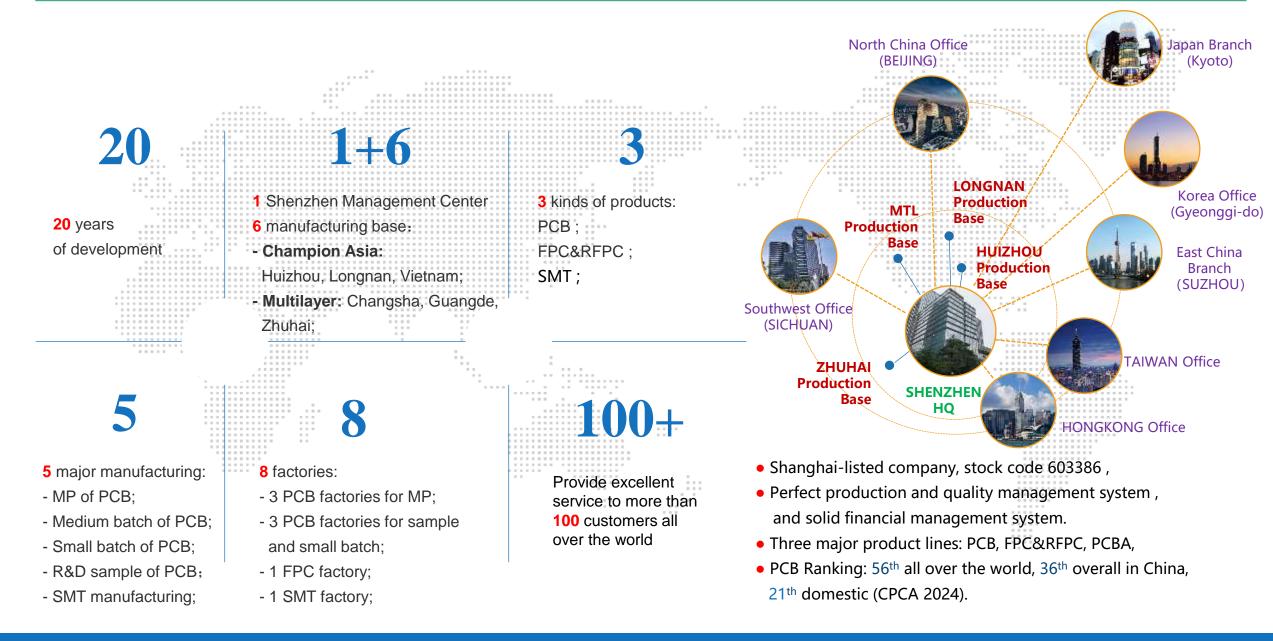
- Core advantage
- Intelligent manufacture
- Company glories



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# **Company Profile**

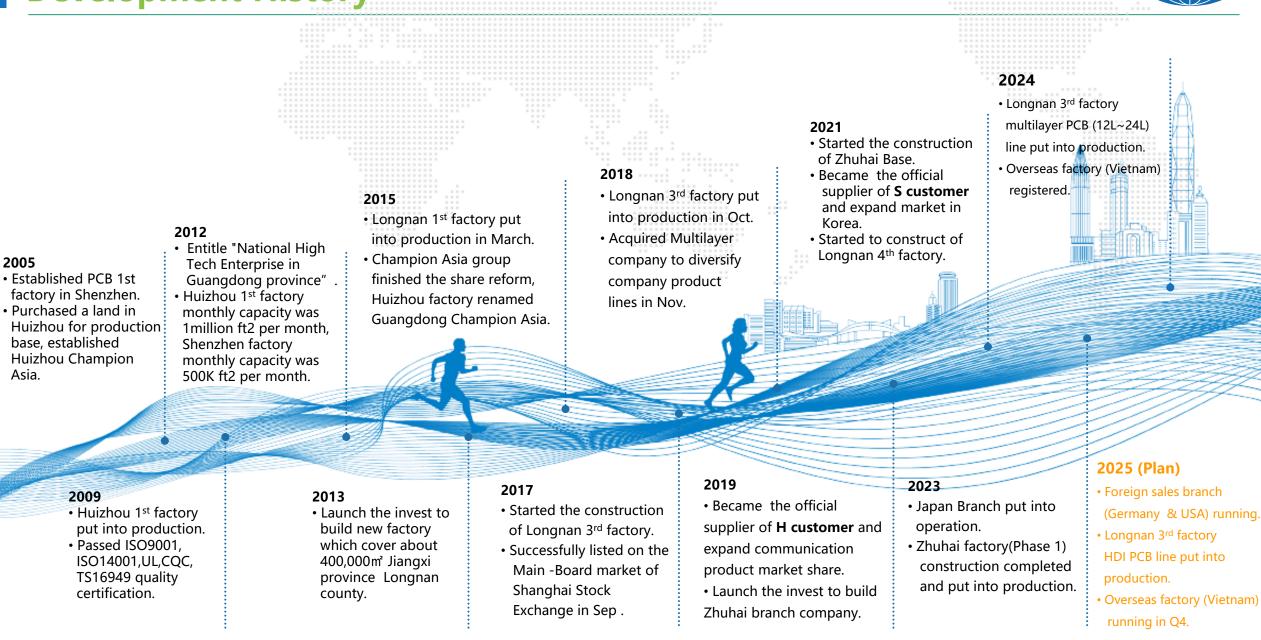




## **Development History**

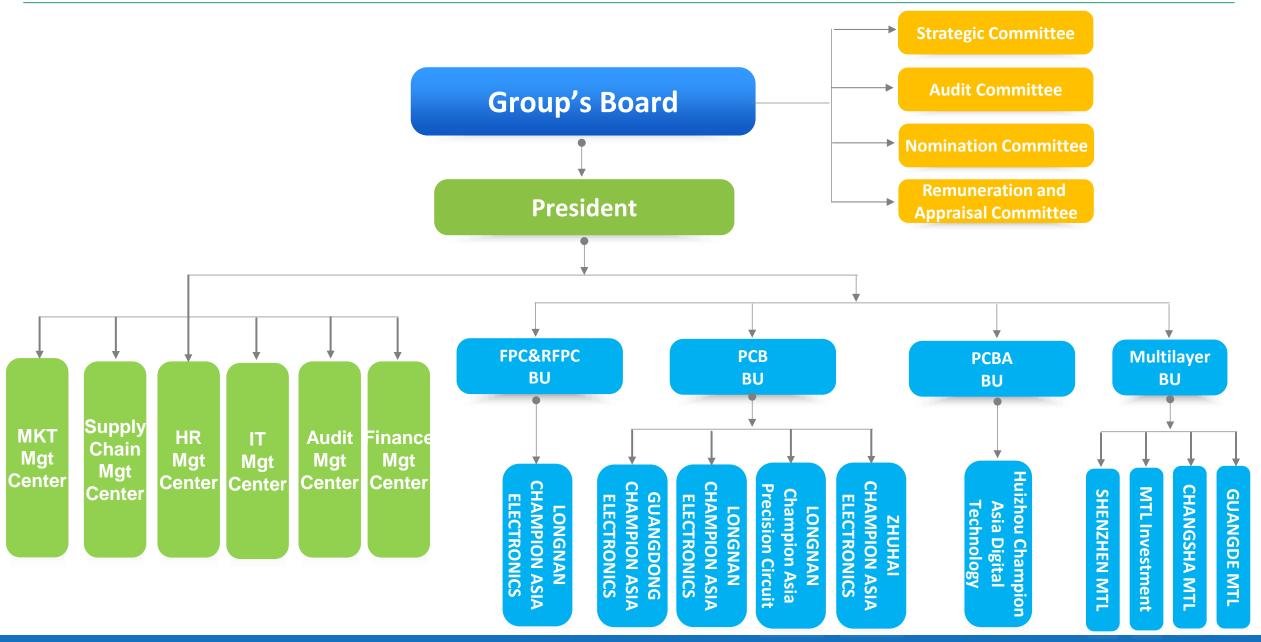
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Asia.



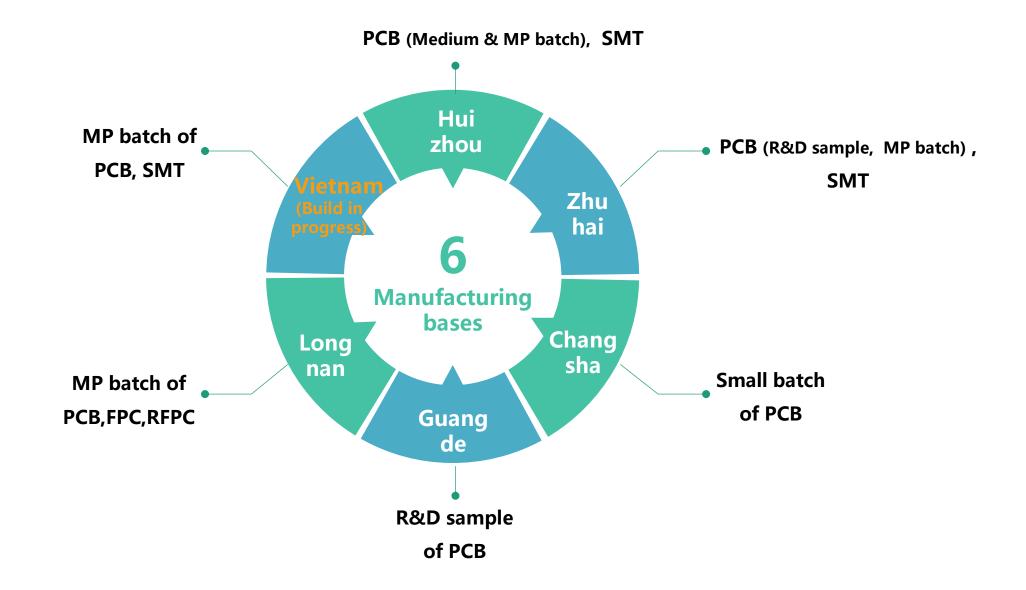
# **Organizational Structure**





# **Product Structure**





### Manufacturing base - Huizhou Base





#### Huizhou 1st factory (PCB factory)

- Date of foundation: 2005 (produced at 2009)
- Floor area: 50,000m2
- Capacity: 1,200,000 ft2/month
- **Product usage:** Focus on 4~12 layers PCB, mainly used inside Automotive Electronics, Industrial Control, Power, Energy, Communication, Security etc.







# Manufacturing base - Longnan Base



Reserved Developing Area

3rd Factory (PCB)

Stage 6

Stage 5

(HDI PCB)

1<sup>st</sup> Factory

4th fact

nd Factor

Big Industrial Park with area of 400,000<sup>m</sup>; Planning PCB/FPC/HDI/SMT production lines; Huge production capacity with automated equipment and advanced production efficiency;

#### Longnan 1<sup>st</sup> factory (MP PCB factory)

- Date of foundation: 2013 (produced at 2015)
- Floor area: 178,000m2
- Capacity: 1,200,000 ft2/month
- Product usage: Focus on 4~12 layers PCB, mainly used Automotive, Security, Industrial Control, Mother board, Server, consumer Electronic etc.

#### Longnan 2<sup>nd</sup> factory (FPCB&RFPC factory)

- Date of foundation: 2016 (produced at 2016)
- Floor area: 27,000m2
- Capacity: 500,000 ft2/month
- **Product usage:** Focus on 2~10 layers FPC&RFPC, mainly used inside battery, TWS earphone, wireless charger, CCM, smart home application, etc.

#### Longnan 3<sup>rd</sup> factory (MP PCB factory)

- Date of foundation: 2016 (produced at 2018)
- Floor area: 70,000m2
- Capacity: 3,000,000 ft2/month
- Product usage: Focus on 2~24 layers PCB, mainly used Consumer Electronic, Industrial, Energy, Server, Automotive Communication, etc.

#### Longnan 4<sup>th</sup> factory (HDI PCB factory)

- Date of foundation: 2016 ( plan to produce at 2024)
- Floor area: 60,000m2
- Capacity: 500,000 ft2/month
- Product usage: Focus on 4~8L HDI PCB, mainly used Consumer Electronic, Tablet PC, Industrial, Automotive Communication, etc.

### **Manufacturing base** - Multilayer bases





#### **Multilayer Changsha**

**Production capacity:** 12000m<sup>2</sup>/month **Production PNs:** 2700 / month **Product features:** above 10m<sup>2</sup> batch service

#### **Multilayer RFPC**

**Production capacity:** 6000m<sup>2</sup>/month **Production PNs:** 1000 / month **Product features**: rigid -flexible combination, HDI, special board production



#### **Multilayer Zhuhai**

**Production capacity:** 6000m<sup>2</sup> month **Production PNs:** 12000 / month **Product features**: ≤1m<sup>2</sup> samples and small batches for quick delivery.



#### **Guangde Multilayer**

**Production capacity**: 6000 m<sup>2</sup>/month **Production PNs:** 7800 / month **Product features:** above 3m<sup>2</sup> medium and large batch service.

### Manufacturing base - Zhuhai Base





### Zhuhai factory focus on sample PCB, High layers PCB, HDI, SMT manufacturing.

- Total floor area is 183479  $m^2$  , total covered area is 288980  $m^2$  , total green area is 33026  $m^2$  .
- Total capacity is 3,000,000 ft<sup>2</sup> /month, will be constructed in 3 phases.
- Phase I factory has been capped on 20<sup>th</sup> April 2022,
   Put into production on Oct 2023.







### **Manufacturing base** - SMT bases





#### Huizhou 2nd factory (SMT factory)

Date of foundation: 2009 (produced in 2010 and moved to new industrial park in 2021)
Floor area: 24,000m2

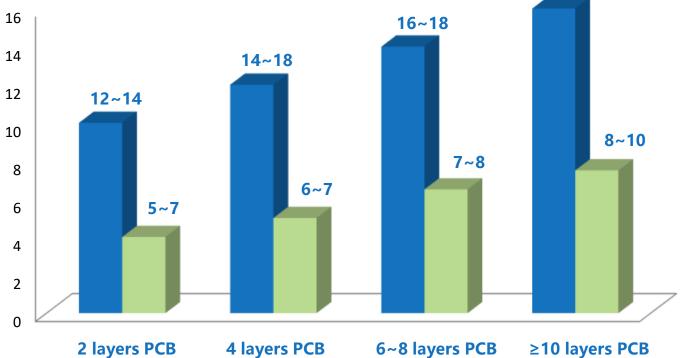
| Line | Unit    | Qty | CAPA/M | Application                         |
|------|---------|-----|--------|-------------------------------------|
| SMT  | 100M    | 28  | 20     |                                     |
| AI   | Million | 24  | 9.5    | Mother Board, TV<br>Mainboard, STB, |
| DIP  | 10K     | 10  | 220    | Consumer<br>Electronic etc.         |
| SET  | 10K     | 10  | 235    |                                     |



# **Product Lead time**



Mass production lead time Sample production lead time



#### ★ Fast delivery capability:

| Layers Count | Fastest delivery | Normal delivery |
|--------------|------------------|-----------------|
| 2L           | 24 hours         | 4 days          |
| 4L           | 48 hours         | 5 days          |
| 6L           | 60 hours         | 6 days          |
| 8L           | 72 hours         | 7 days          |
| 10L          | 96 hours         | 8 days          |
| >10L         | 96 hours         | 8~12 days       |

#### Remark:

The above lead time belong to Multilayer BU, Separate rates standard.

#### Remark:

Days

The above lead time is MP lead time standard, start after EQ confirm. We can apply the special process to meet customer' s urgent order.

# **Product Application** - MP batch of PCB

STB

Speaks

Router





### **Computer and peripherals: 15%**

Laptop Desktop



| Refrigerator    |
|-----------------|
| Washing machine |
| Microwave oven  |
| Air conditioner |
|                 |





#### Security & Industrial Control: 7%

| Monitoring System          | Industrial control |
|----------------------------|--------------------|
| Intelligent building       | Electric tool      |
| Intelligent transportation | Robotic arms       |
| The scanner                | LED                |

#### Energy: 25%

Solar inverter Energy storage system Converter Charging pile Network power





#### Automotive: 8%

The dashboard Intelligent Cabin T-Box Car antenna Vehicle light control system



#### IT Communication: 5%

Server

Switches

- Feature phones
- The Bluetooth module

# **Product Application** - Sample and Small batch of PCB



#### **Industrial Controllers:**

Mature mass production capability for rigid-flex board. Research and development of various special structural technologies. Adapting to the needs of intelligent products.



#### **Security Products:**

Stable and reliable quality. Manufacturing capability of special stack up. Process capability for special environmental requirements.



### Automotive:

Strictly in accordance with IATF 16949 management system. Good quality control for high reliability boards. Satisfy the technological R&D needs of new energy vehicles.



### Medical Products:

Long-standing recognition from multiple healthcare clients. Small footprint and fine PCBs for portable products.





**Communications**:

Manufacturing capability for high-layer PCB. Fabrication for big size and thick backplane PCB. Accurate impedance control. Various special materials support and mixed dielectric lamination. Special technology: Variable Length G/F, back drilling.



#### **Power Supply:**

UL listed thick copper board from 1oz to 6oz. Various types of high TG, high thermal conductivity materials. Manufacturing capability for copper busbar production. Fabrication of metal based(core), partially embedded copper coin board.



#### **IOT Products:**

Mature and reliable technologies like blind/buried vias, POFV and half hole plating. Fastest delivery time is 24 hours, which effectively assist clients in market development. Rich experience in various module production.



**Military avionics**:

Cutting-edge R&D capabilities. Capability of special products and special technologies available.

### **Product Classify - MP batch of PCB**





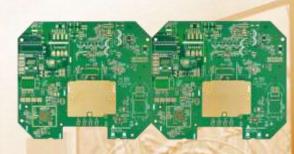
Layers Count: 6L (OSP+ENIG) Min drill hole diameter: 0.35mm Line Width/Space: 3/3mil Application: TV Mainboard

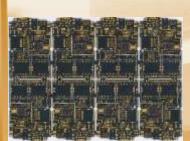


Layers Count: 6L (OSP) Min drill hole diameter: 0.25mm Line Width/Space: 3/3mil **Application:** Motherboard



Layers Count: 6L (ENIG) Layers Count: 4L (OSP) Min drill hole diameter: 0.25mm Min drill hole diameter: 0.20mm Line Width/Space: 0.152/0.102mm Line Width/Space: 3.9mil Application: Consumer electronic Application: Network Communication





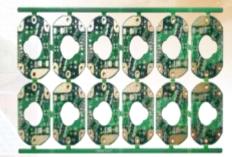
Layers Count: 4L(OSP+ENIG) Min drill hole diameter: 0.25mm Line Width/Space: 4/4mil **Application:** Feature Phone



Layers Count: 10L (OSP) Min drill hole diameter: 0.25mm Line Width/Space: 3/3mil **Application:** Server



Layers Count: 2L(ENIG) Min drill hole diameter: 0.40mm Line Width/Space: 4/4mil Application: Automotive (Dashboard)



Layers Count: 4L(ENIG) Min drill hole diameter: 0.30mm Line Width/Space: 4/4mil **Application:** Security



Layers Count: 4L(ENIG) Min drill hole diameter: 0.30mm Line Width/Space: 4/4mil Application: Solar Inverter

| -       |                   |                 | -                |
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| 100     | n                 | - 0-            | 0#               |

Layers Count: 4L(HASL LF) Min drill hole diameter: 0.30mm Line Width/Space: 5/5 mil **Application:** LED Display

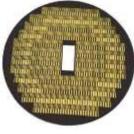
# **Product Classify - Sample and Small batch of PCB**



#### **High Frequency Board**:

Max Layers: 24L

Material: Rogers, Taconic, Arlon, Panasonic, TUC, PTFE Layer stack up: single material, mixed dielectric, metal base Surface treatment: OSP, Immersion Gold, HASL, Immersion Tin, Immersion Sliver



#### mm Wave Rader PCB:

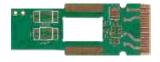
Material: PTFE+RF-4 Line width precision: ±8um Special technology: Blind via, POFV Advanced technology: Multilayer PCB with PTFE, Hybrid pressing technology. EA: ≤15um

#### High Speed Backdrill PCB:

Material: Panasonic, TUC, Isola Backdrill precision: ≤0.15um Chosen technology: backdrill+ via filled by epoxy resin Board thickness of backdrill PCB: ≤6.5mm

#### **Optical transceiver:**

Material: FR-4, High frequency, High speed material Gold finger size tolerance: ±0.075mm Special technology: HDI (hole filling) Signal transmission speed: ≤100Gbps



#### **Copper Embedded PCB:**

Structure: semi-embedded, fully embedded Min embedded copper size: 3\*3 mm Min thickness of embedded copper: 0.5mm Flatness of embedded copper to PCB ≤0.075mm

#### **Busbar PCB:**

Busbar material: copper Min conductor spacing: 0.8mm Busbar copper thickness: 1.0~3.0mm Finish board thickness: 2.0mm~10.0mm



#### Heavy copper PCB (Power supply):

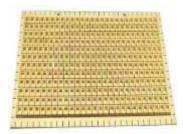
Material: High TG, high thermal conductivity Dielectric thickness ≥0.09mm Inner copper weight: ≤12 OZ Max layers: 24L



Feature technology: Thick copper PCB with stepped milling process

#### **Ceramic substrate:**

Special technology: DPC、DBC、COB Min hole size: 0.10mm Max copper thickness: 15um~200um Surface treatment : Immersion Gold/Sliver Board thickness: > 0.20mm PTH: Via-filling plating, Vias filled with silver paste



# **Product Classify - Sample and Small batch of PCB**



#### IC Test Board:

Max thickness: 6.0mm Max aspect ratio: 25:1 Max gold thickness: 80u″ Bow and twist: ≤4‰



#### High Density multilayer PCB:

Min line width: 3mil Min drilling hole: 0.2mm Impedance control tolerance: ±10% Max layers count: 108L

#### **Step golden fingers PCB:**

Layers count: ≤44L Board thickness: ≥2.0mm Gold finger thickness: ≤1.6mm±0.1mm Gold finger slot precision: ±0.05mm

#### **Backplanes:**

Max size: 1100mm\*610mm Max board thickness: 6.5mm Max aspect ratio: 25:1



#### **PCB with metal cores:**

Metal material: Aluminum, Copper Copper thickness: ≤12OZ Layers count: single layer, double layer, multilayer metal cores Thermal conductivity: 2-12w/m.k



#### **Thermoelectric separation PCB:**

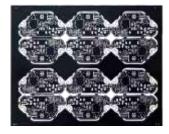
Material: Thermal conductivity of insulating layer (0.3-2w/m.k) Thermal relief: Flat, sink Outer layer copper foil (base): 0.5-18OZ Copper base thickness: 0.8-3.2mm

#### AIN embedded PCB:

Material: AIN Ceramic coin size: 20\*20mm Professional technical support of complete thermal management.

#### **Rigid-flex PCB:**

Max layers count: 16L Max layers count for flex: 8L Min line width: 2.5mil



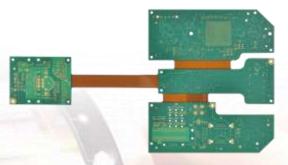


# **Product Classify - FPC&RFPC**





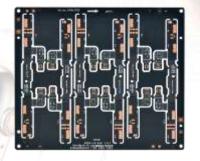
Layers Count: 6L RFPC Min drill hole diameter: 0.10mm Line Width/Space: 0.2 mm Special Process: HDI / 2OZ Cu Application: Electronic cigarettes



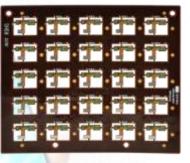
Layers Count: 10L RFPC Min drill hole diameter: 0.20mm Line Width/Space: 5/5mil Special Process: Via in pad Application: IT Communication



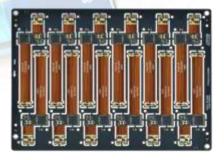
Layers Count: 8L RFPC Min drill hole diameter: 0.10mm Line Width/Space: 0.1mm Special Process: HDI Application: TWS Earphone



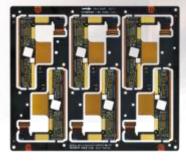
Layers Count: 8L FPC Min drill hole diameter: 0.1mm Line Width/Space: 0.15mm Special Process: HDI Application: Mobile battery



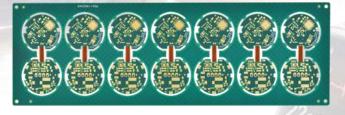
Layers Count: 4L FPC Min drill hole diameter: 0.10mm Line Width/Space: 3/4mil Special Process: Stiffener Application: Medical



Layers Count: 4L FPC Min drill hole diameter: 0.15mm Line Width/Space: 0.1mm Special Process: ENEPIG Application: CCM in Automotive



Layers Count: 6L RFPC Min drill hole diameter: 0.10mm Line Width/Space: 0.05mm Special Process: HDI Application: OLED



Layers Count: 10L RFPC Min drill hole diameter: 0.2mm Line Width/Space: 0.2mm Special Process: HDI, resin plugging Application: Industrial Control

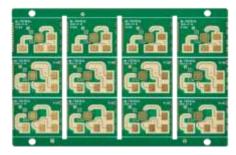
# **Product Classify** – Special PCB



Layers Count: 30L Min Drilling Hole Dia: 0.50mm Line Width/Space: 5/5mil Special Technology: Countersink hole Application: Semiconductor test Lay Boa Min

Layers Count: 108L Board Thickness: 8.6mm Min Drilling Hole: 0.50mm Aspect Ratio: 17.2 : 1 Hole to Line: 10mil Special Technology: Depth controlled hole, edge plating

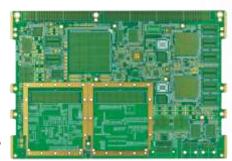




Layers Count: 10L Min Drilling Hole Dia: 0.40mm

Line Width/Space: 0.203/0.24mm

Application: Aerospace



Layers Count: 20L Min Drilling Hole Dia: 0.20mm Line Width/Space: 3/3mil Special Technology: Backdrilling , Via in Pad Application: Communication



Layers Count: 16L Min Drilling Hole Dia: 0.20mm Line Width/Space: 4/4mil Special Technology: Backdrilling, Via in Pad Application:

Application: Communication





# **Technology Capabilities -** MP batch of PCB



| Range       | lte                             | Capabilities                     |             |  |
|-------------|---------------------------------|----------------------------------|-------------|--|
|             | Layers Co                       |                                  | ≤24L        |  |
|             | Board Th                        | nickness                         | 0.30-3.5mm  |  |
|             | Thickness                       | Tolerance                        | ±10%        |  |
|             | Max PN                          | NL Size                          | 610mm*710mm |  |
| Normal      | Warpag                          | Je(Min)                          | ≤0.5%       |  |
|             | Impedance                       | Differential<br>impedance≥50Ω    | ±8%         |  |
|             | Tolerance                       | Characteristic<br>impedance≤50Ω  | ±4 Ω        |  |
| Stack up    | PP Thio                         | ckness                           | ≥3.0mil     |  |
|             | Min Drilling                    | 0.15mm                           |             |  |
| Drilling    | Hole diameter<br>tolerance      | PTH                              | ±0.05mm     |  |
|             |                                 | NPTH                             | ±0.025mm    |  |
| Plating     | Aspect Ratio of P               | Aspect Ratio of Plated Hole(Max) |             |  |
|             | Innor Lavor                     | Layers: 4-10L                    | ≥5 mil      |  |
|             | Inner Layer                     | Layers: 12-16L                   | ≥6 mil      |  |
|             | Inner Layer Line<br>Width/Space | Inner Layer HOZ                  | 2.5/2.5mil  |  |
|             | May Paca Coppor                 | Inner Layer                      | ≤5OZ        |  |
| Line Design | Max Base Copper                 | Outer Layer                      | ≤5OZ        |  |
|             | Outer Layer Lin                 | Outer Layer Line Width/Space     |             |  |
|             | Line width                      | Line width≥10mil                 | ±2mil       |  |
|             | tolerance                       | Line width<10mil                 | ±20%        |  |
|             | Pad Tolerance                   | Pad≥12mil                        | ≥±10%       |  |

| Range             | Ite              | Capabilities           |             |
|-------------------|------------------|------------------------|-------------|
|                   | Solder Ma        | ≥3mil                  |             |
| Solder Mask       | S/M Plugging     | Plugging hole diameter | 0.25-0.60mm |
|                   | C/M Thickness    | Line to surface        | 10-40um     |
|                   | S/M Thickness    | Line to corner         | ≥5um        |
| Routing           | Tolera           | ance                   | ±0.1mm      |
|                   |                  | Gold thickness         | 0.127-1.0um |
|                   | Gold-plated plug | Ni thickness           | 2.54-8um    |
|                   | FNUC             | Gold thickness         | 0.03-0.10um |
|                   | ENIG             | Ni thickness           | 2.54-8.0um  |
| Surface Treatment | OSP              | Film thickness         | 0.2-0.6um   |
|                   | HASL lea         | 1-25um                 |             |
|                   | Immersio         | 6-15u"                 |             |
|                   | Immers           | 0.8-1.2um              |             |
|                   | Gold thi         | 0.127-0.8um            |             |
|                   | Length Tolera    | ±0.15mm                |             |
| Gold Finger       | Length Tolerance | ±5mil                  |             |
|                   | Width To         | ±2mil                  |             |



| Item                           |                   | 2025     | 2026     | 2027     |
|--------------------------------|-------------------|----------|----------|----------|
| Max Layers Count               |                   | 12 L     | 18 L     | 24 L     |
| HDI Blind Hole Strcture        |                   | 3+N+3    | 5+N+5    | 7+N+7    |
|                                | Min Blind Hole    | 75       | 75       | 75       |
| Drilling hole diameter<br>(um) | Min Buried Hole   | 150      | 150      | 150      |
|                                | Min Through Hole  | 150      | 150      | 150      |
| May Aspect Datio               | Laser Blind Hole  | 0.8 : 1  | 0.9 : 1  | 1:01     |
| Max Aspect Ratio               | Through Hole      | 12 : 1   | 16 : 1   | 20 : 1   |
| Min core without copper th     | hickness (um)     | 50       | 50       | 50       |
| Finish Board Thickness (m      | m)                | 0.80~2.4 | 0.30~2.8 | 0.25~3.2 |
| Laser Hole Filling Dimple (    | um)               | 15       | 12       | 10       |
| Hole Tolerance (um)            | PTH               | ±50      | ±50      | ±40      |
|                                | NPTH              | ±0.025   | ±0.025   | ±0.025   |
| Warpage                        |                   | ≤0.6%    | ≤0.5%    | ≤0.4%    |
| CNC Routing Tolerance          | Mass Production   | ±100     | ±75      | ±75      |
| (um)                           | Sample Production | ±75      | ±50      | ±50      |
| Impedance Tolerance            |                   | ±10%     | ±8%      | ±8%      |
| Line Capability                | Line Width        | 60~50    | ~45      | ~35      |
| (um)                           | Line Space        | 60~50    | ~45      | ~35      |
| Min BGA Pad Size (um)          |                   | 120~100  | 110~90   | 90~75    |
| Min BGA Space (Pitch)          |                   | 0.40mm   | 0.35mm   | 0.30mm   |

# Technology Capabilities - Sample and Small batch of PCB



| Range                                    | lter                            | n                           | Sample batch<br>Capa | Small<br>batch Capa | Range     | lte                            | em                 | Sample batch<br>Capa | Small batch<br>Capa |
|--|---------------------------------|-----------------------------|----------------------|---------------------|-----------|--------------------------------|--------------------|----------------------|---------------------|
|  | Layers Count                    |                             | ≦108L                | ≦46L                |           | Solder Ma                      | Solder Mask Bridge |                      | 4mil                |
|  | Board Th                        |                             | 0.2~13.0mm           | 0.4~6.5mm           |           |                                | Plugging hole      | <b>F</b> 11          | <b>F</b> 11         |
|  | Thickness T                     |                             | ±8%                  | ±10%                | Solder    | S/M Plugging                   | diameter           | 5mil                 | 5mil                |
| Normal                                   | Impedance in                    | Differential npedance≥50Ω   | ±8%                  | ±10%                | Mask      | S/M Thickness                  | Line to surface    | 10~40µm              | 10~40µm             |
|  | Tolerance Ch                    | aracteristic<br>pedance≤50Ω | ±2.5Ω                | ±5Ω                 |           | 0,111 111 111 110 1000         | Line to corner     | ≧5µm                 | ≧5µm                |
|  | Warpage                         | •                           | ≤0.3%                | ≤0.75%              | Routing   | Toler                          | ance               | ±0.1mm               | ±0.1mm              |
| Stack up                                 | PP Thic                         |                             | ≥3mil                | ≥3mil               |           | Gold-plated                    | Gold thickness     | 0.127~2µm            | 0.127~1.25µm        |
|  | Min Drilling                    |                             | 0.125mm              | 0.15mm              |           | plug                           | Ni thickness       | 2.54~6µm             | 2.54~6µm            |
| Drilling                                 | Hole diameter                   | PTH                         | ±0.04mm              | ±0.05mm             |           |                                | Gold thickness     | 0.03~0.2µm           | 0.03~0.2µm          |
|  | tolerance                       | NPTH                        | ±0.025mm             | ±0.05mm             |           | ENIG                           |                    |                      |                     |
| Plating Aspect Ratio of Plated Hole(Max) |                                 | 25:1                        | 12:1                 | Surface             |           | Ni thickness                   | 2.54~6µm           | 2.54~6µm             |                     |
|  | Inner Layer                     | Layers: 4-10L               | ≥5.5mil              | ≥6.5mil             | Treatment | OSP                            | Film thickness     | 0.2~0.6µm            | 0.2~0.6µm           |
|  |                                 | Layers: 12-16L              | ≥7mil                | ≥7mil               |           | HASL le                        | ead free           | 1~40µm               | 1~40µm              |
|  | Inner Layer Line<br>Width/Space | Inner Layer<br>HOZ          | 2.0mil/2.0mil        | 3mil/3mil           |           |                                | on Silver          | 6~15u"               | 6~15u"              |
| L trans                                  | May Base Copper                 | Inner Layer                 | 280Z                 | 6OZ                 |           | Immers                         | sion Tin           | 0.8~1.2µm            | 0.8~1.2µm           |
| Line                                     | Max Base Copper                 | Outer Layer                 | 280Z                 | 6OZ                 |           |                                |                    |                      |                     |
| Design                                   | Outer Layer Line                | 30-40um                     | 3/3mil               | 3/3mil              |           | Gold th                        | ickness            | 0.127-2µm            | 0.127-1.25µm        |
|  | Width/Space                     | 40-55um                     | 3.5/3.5mil           | 4/4mil              | Gold      | Length Tolera                  | nce (Etching)      | ±0.15mm              | ±0.15mm             |
|  | Line width                      | Width≥10mil                 | ±15µm                | ±1mil               | Finger    |                                |                    | ±0.1mm               | ±0.1mm              |
|  | tolerance                       | Width<10mil                 | ±10%                 | ±10%                |           | Length Tolerance (Solder Mask) |                    |                      |                     |
|  | Pad Tolerance                   | Pad≥12mil                   | ±1mil                | ±1mil               |           | Width To                       | olerance           | ±25µm                | ±40µm               |

Surface treatment: HASL lead free, immersion gold, immersion Tin, immersion Silver, Gold Finger, Hard/Soft gold plating, OSP, ENEPIG and Selective hard gold plating.
 Materials: FR4, Rogers, Arlon, Taconic, Bergguist, TUC, Panasonic M6/M7 and so on.

• Special technology: Blind & buried holes, Via in pad, Castellated holes, Counterbore, Step mounting holes, Controlled depth holes, edge-plating, metal base PCB, Stepped G/F, Back-drill, Mixed RF PCB, Busbar PCB, Copper coin embedded and Ceramic coin embedded.

# **Technology Capabilities** - FPC & RFPC



| No. | ltem                                  | Capabilities  |
|-----|---------------------------------------|---|
| 1   | Layers Count                          | FPC: 1-6L<br>RFPC: 2-10L  |
| 2   | Finished Board Size(Max)              | 19.7"×19.7"   |
| 3   | Major CCL Brand                       | Doosan\Thinflex\Shengyi\<br>Taiyo\DongYi                          |
| 4   | Finished Board Thickness<br>Tolerance | ±0.03mm(Thickness≤ 0.2mm)<br>±0.05mm(0.2mm < Thickness≤<br>0.5mm) |
| 5   | Blind/Buried Hole                     | YES   |
| 6   | Min Drilling Hole Diameter            | Mech Drilling: 0.1mm~6.5mm<br>Laser Drilling: 0.1-0.125mm         |
| 7   | Base copper of outer layer            | 1/3 OZ-2OZ (0.012mm -0.070mm)                                     |
| 8   | Base copper of inner layer            | 1/3 OZ-1OZ (0.012mm -0.035mm)                                     |
| 9   | Board Thickness                       | 0.07mm-2.0mm  |
| 10  | Aspect Ratio of Plated<br>Hole(Max)   | 8:1   |
| 11  | Hole Diameter Tolerance<br>(PTH)      | ±3mil ( ±0.075mm)   |
| 12  | Hole Diameter Tolerance<br>(NPTH)     | ±1mil ( ±0.025mm)   |
| 13  | Copper Thickness of PTH<br>Wall       | 10um min or base on<br>customer requirement                       |

| No. | ltem   | Capabilities  |
|-----|--|---|
| 14  | Design Line Width /Space of<br>inner layer (Min) | H/H OZ 3mil/3mil<br>1/1 OZ 4mil/4mil<br>2/2 OZ 5mil/5mil<br>3/3 OZ 6mil/6mil  |
| 15  | Design Line Width /Space of<br>outer layer (Min) | H/H OZ 3mil/3mil<br>1/1 OZ 3mil/3mil<br>2/2 OZ 4mil/4 mil<br>3/3 OZ 6mil/6mil |
| 16  | Solder Mask Bridge Width (Min)                   | 2.5mil (0.064mm)  |
| 17  | Solder Mask Alignment<br>Tolerance               | ±2mil (±0.05mm)   |
| 18  | Coverlay Bridge Width(Min)                       | 8mil (0.2mm)  |
| 19  | Coverlay Bridge Alignment<br>Tolerance           | ±6mil (±0.15mm)   |
| 20  | Dimension Tolerance<br>(Hole to Edge)            | ±4mil ( ±0.1mm)   |
| 21  | Test Capacity                                    | PAD Size min (0.1mm)<br>PAD Pitch min (0.4mm)                                 |
| 22  | Stiffener Type                                   | PI\FR4\SUS  |
| 23  | Electromagnetic Shielding<br>Technology          | Film / Silver Paste   |
| 24  | Surface Treatment                                | OSP, ENIG, Plating Gold   |

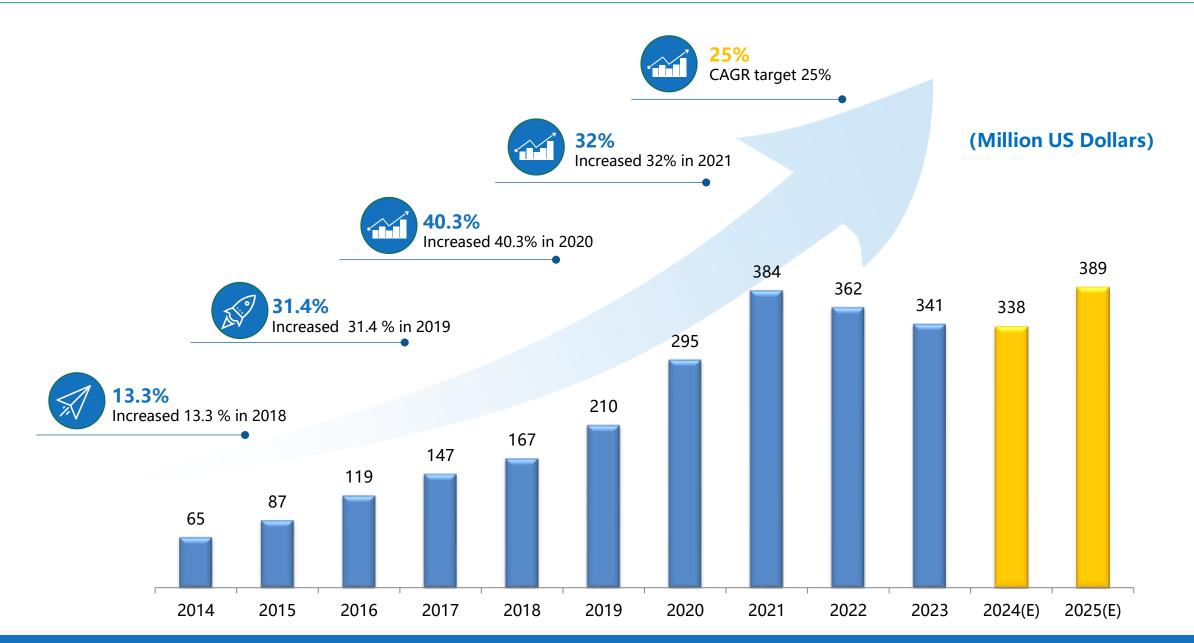
# **Sale Areas**





# **Sales Revenue**





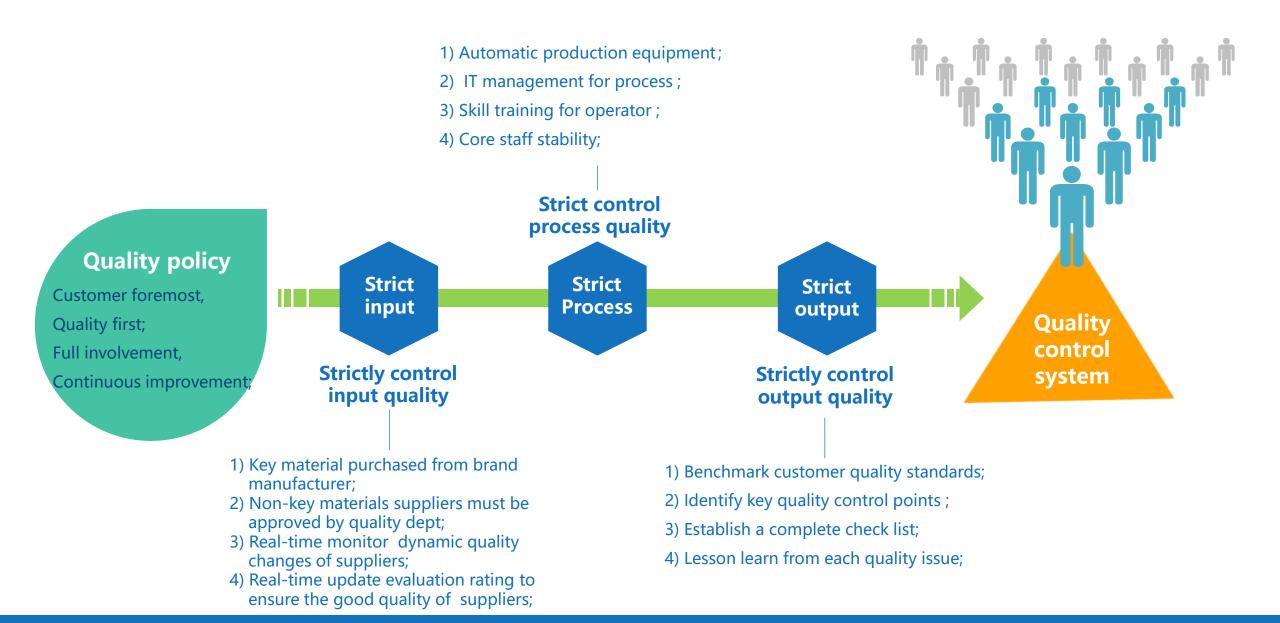
# **Serviced customers**





# **Quality Management**





### **Product Certification**





ISO9001: 2015 management system certification ISO14001: 2015management system certification IATF16949: 2016 management system certification OHSAS45001: 2018management system certification QC080000: 2017management system certification ISO27001: 2013management system certification ISO13485: 2016 Medical management system CQC Product Certification

UL Product Certification RoHS environmental protection test REACH environmental protection test

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# **Major Equipment** - PCB





Automatic Vacuum Lamination Machine



Automatic Return Line



#### Schmoll Drilling Machine

# **Major Equipment** - PCB





Dongwei VCP Plating Line

Automatic Silk Screen Machine



LDI Exposing Machine

Universal Horizontal PTH Line

**CNC** Machine

Automatic Electrical Test Machine

# **Major Equipment** - PCB



#### **Reliability Test Equipment (Partial)**



**RoHS** Detector



Impedance Tester



Metallographic Microscope



#### Gold-nickel Thickness Tester



#### **EDX Element Analysis**



**Reflow Oven** 

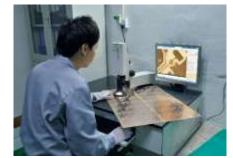
**CAF** Tester

FIL: 0.53

1000



Soldering Pot



Line-width/space Tester



#### Thermal Shock Chamber



**IC Tester** 



#### CTI Tester



#### Water Quality Detector





#### Humidity Test Chamber



Layer Thickness Meter

# Main equipment - FPC





Boffotto P26H-Plasma



**Through-Hole Plating Line** 



Integrated U Type Vertical Continuous Plating Line



Double Track Vertical Continuous Plating Line



Jet Master Machine



Deburring & Desmear Machine



**OSP** Machine



XinHuaMei Immersion Gold Line

# **Major Equipment-SMT**













BGA welding X-ray detector



Odd shaped Components Automatic Insert Machine





Warehouse



Fully Automatic Test Production Line



SMT Workshop

# Main Advantage



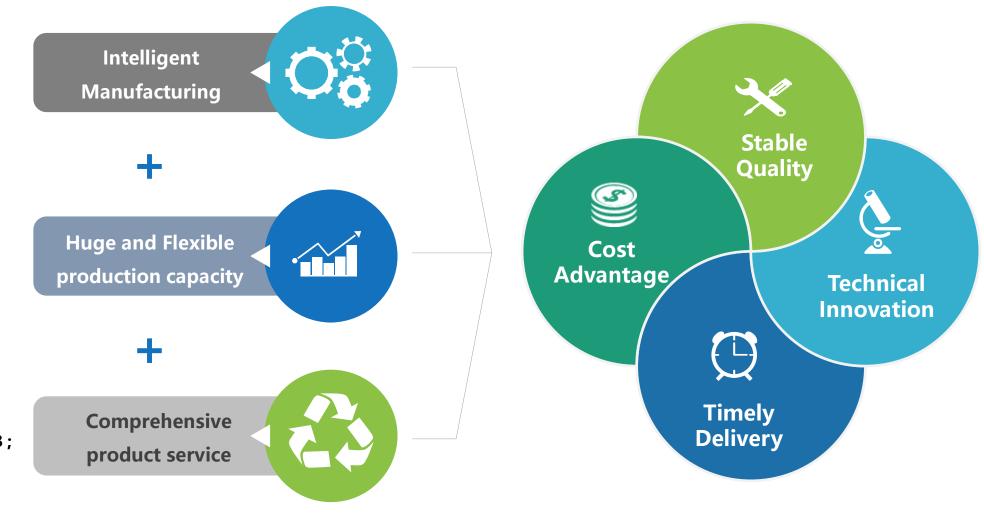
Intelligentized ; Networking ; Digitization ;



Large-scale capacity ; Modular production ; Flexible capacity ;

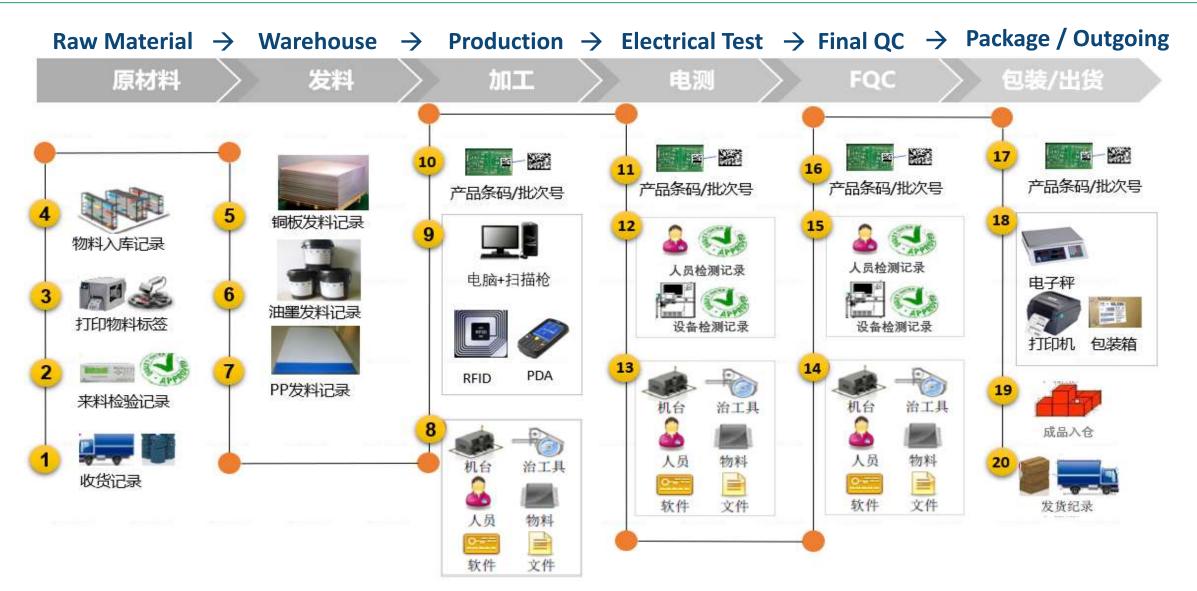


MP of PCB ; Medium batch of PCB ; Small batch of PCB ; R&D sample of PCB ; SMT manufacturing ;



### Intelligent Manufacturing - Fully process traceability





## **Intelligent Manufacturing** - Product traceability





Inner Layer Coding machine and PNL Code Printing Outer Layer Transcoding Finishing PCB Code Printing

# **Intelligent Manufacturing** - Exhibition of scene



Champion Asia applied intelligent management through automatic production machine/inspection machine/ERP system

and China Unicom 5G bases, all kinds of data can be collected automatic and upload to cloud system for record and analysis.



# **Company glories**





# **Company Culture**



## Company Philosophy

People First ; Credit Based ; Excellent Innovation ; Sustainable Management ;





## **Company Value**

Take Social Responsibility ; Cohesive of corporate culture ; Practice people-oriented ;

# **Social Responsibility**

public ownership



Champion Asia comply with the laws and regulations strictly, implement green production and environmental protection activity. Honest tax payment, targeted poverty alleviation, make contribution to the society.





**COVID-19** prevention

labor union



**Green Factory** 

A taxpayer of tax payment credit

Excellent credit model enterprise

Excellent environmental protection facilities

# **Social Responsibility**



Champion Asia implemented the national dual carbon policy, each plant is equipped with rooftop photovoltaic power stations.

The use of clean electricity significantly reduces carbon dioxide and sulfur dioxide emissions from the factory.

#### Huizhou PCB Plant:

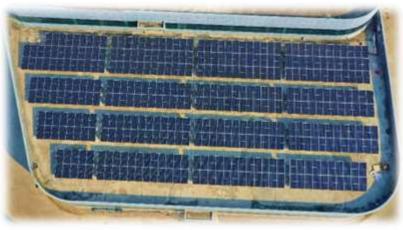
A total of 400KW photovoltaic power stations have been installed, providing 410,000 KWH of clean electricity for the factory every year, annual emissions of 410 tons of carbon dioxide and 12 tons of sulfur dioxide can be reduced.

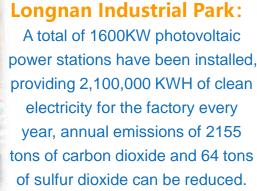




#### Huizhou SMT Plant:

A total of 1600KW photovoltaic power stations have been installed, providing 1,640,000 KWH of clean electricity for the factory every year, annual emissions of 1642 tons of carbon dioxide and 50 tons of sulfur dioxide can be reduced.











## **Location**





### Sketch Map Between each factory in China

Convenient transportation and logistics, less than 300 kilometers from Guangdong to Longnan. The whole journey from Shenzhen to Longnan just need 1.5 hours by high speed train or 3~4 hours by car.

赤尾屿

## **PS: Status of our oversea factory**





#### **Country:** Vietnam;

**Location:** Le Ho Province,

Kim Bang 1# Industrial Park;

**Logistic:** 87km far away Hanoi airport.

140km far away Haiphong harbor.

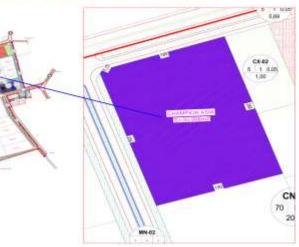
Floor Area: 50,098 m<sup>2</sup>





**Production:** Plan to trial run at Mar 2026;

**Capacity:** 200,000 m<sup>2</sup>per month, mainly on 2~12L PCB and SMT;













## **PS: Status of our oversea factory**

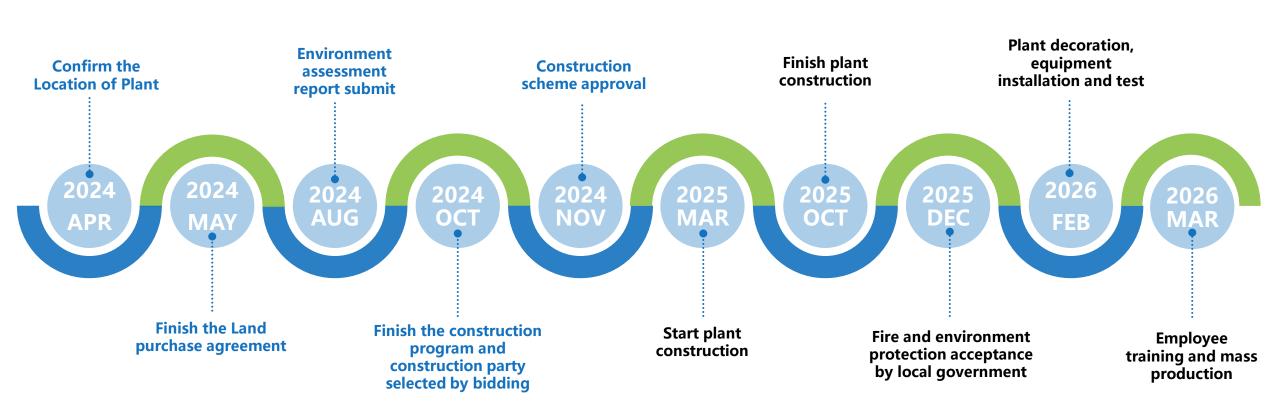
#### Design Plan of Champion Vietnam Plant











# Thank You



Champion Asia Group CHAMPION ASIA INTERNATIONAL ELECTRONIC LIMITED

#### Guangdong Champion Asia Electronics Co., Ltd. Huizhou Champion Asia Precision Circuit Co., Ltd.

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#### Huizhou Champion Asia Digital Technology Co., Ltd.

(Plant 1),No.103 Jinfu Road, Xiaojinkou Subdistrict, Huicheng District, Huizhou City Guangdong Province ,China .

#### Longnan Champion Asia Electronics Technology Co., Ltd. Longnan Champion Asia Precision Circuit Co., Ltd. Longnan Champion Asia Flexible Intelligent Technology Co., Ltd.

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