



Turnkey PCB Assembly Solution

specializes in responsive, flexible manufacturing for fast-changing R&D prototyping needs, enabling accelerated time-to-market.



From Zero to One
We have solutions.

Overview

Company introduction

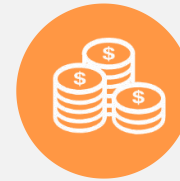


- PCB Design
- PCB Manufacturing
- Components Sourcing
- Rapid PCB Assembly



One Time Success

- Strive to complete the project after one edit.
- Reduce the overall project time and cut the cost of research & development.
- Introduce the product to market quickly.



Reduce Manufacturing Cost

- The design specifications are in line with the process capabilities of most PCB fabrication and assembly houses, allowing customers to have more choices when choosing suppliers.
- The design parameters are not only suitable for the research stage, but the characteristics for mass production are also considered.



Qualifications



ISO13485



ISO14001:2015



ISO 9001:2015



IATF 16949



UL certification

We are committed to offer flexible means of building and testing circuit boards for new products, helping customers shorten 1/3 of the R&D time, while improving product quality. We focus on meeting your R&D needs, providing fast solutions to your prototypes and small & medium series production.



Automatic Electrical Measuring Machine



Germany Schmolz Drilling Machine



Solder Mask Exposure



In-Line AOI



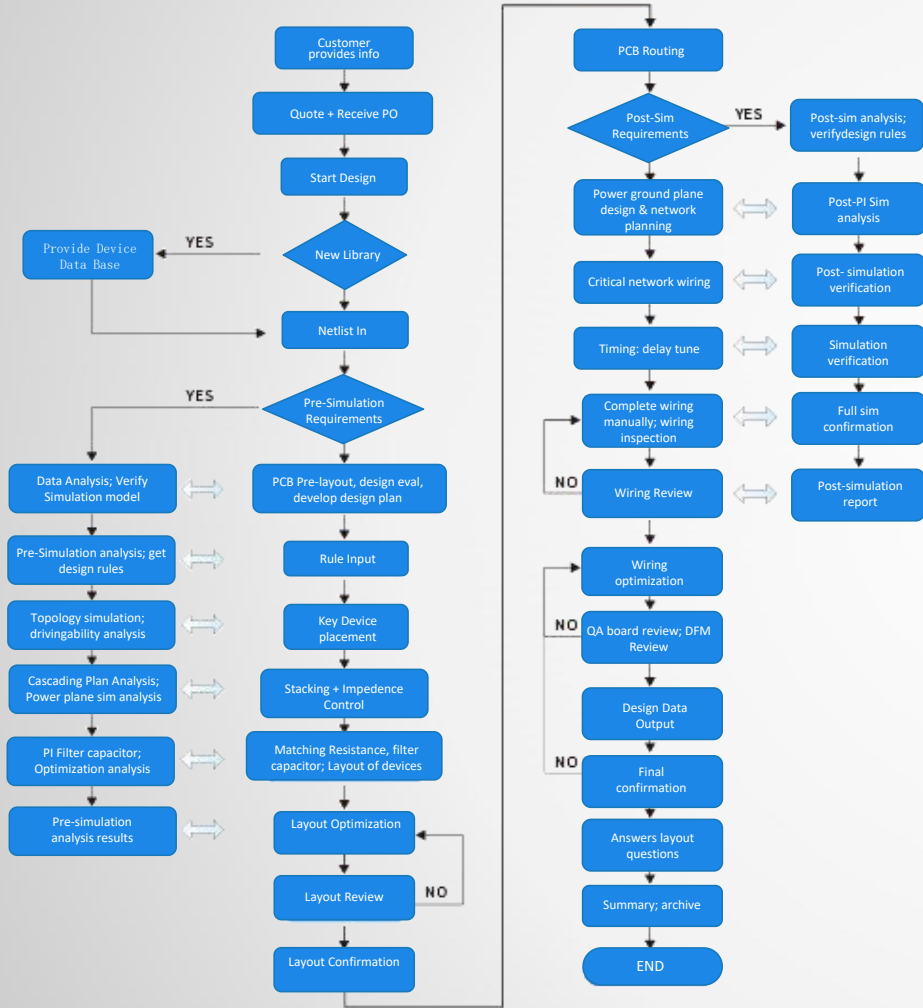
SPI-Automatic 3D Solder
Paste Thickness Gauge



FUJI AIMEX III



PCB Design Flow Chart



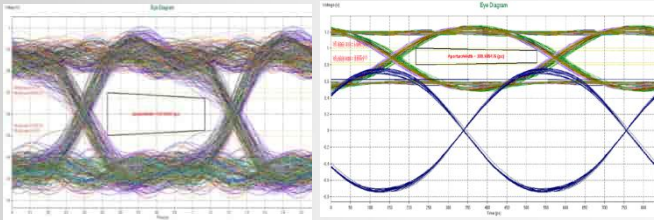
Design steps



Industry leader in high speed PCB design

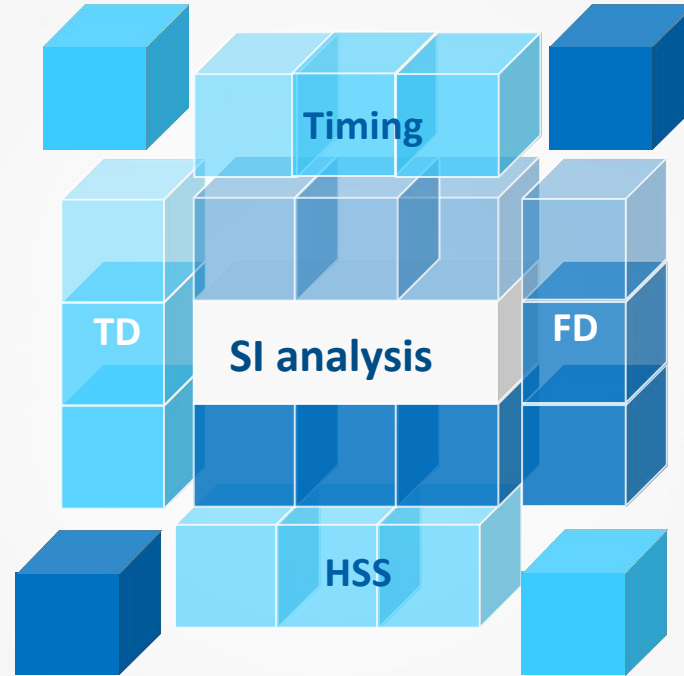
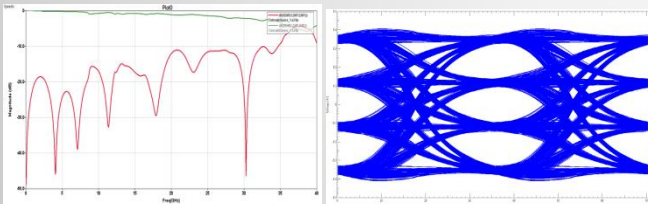
High-Speed Parallel Signal Simulation Optimization

- DDR3/4/5, LPDDR3/4/5, EMMC trace topology analysis, effective guide layout design
- Full channel simulation process, accurately include the performance of each signal line
- Drive and ODT simulation, accurate configuration recommendation, convenient for customer debugging



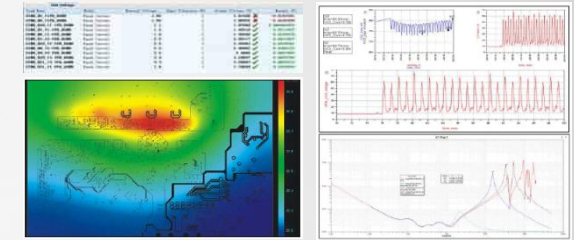
High-Speed Serial Signal Simulation Optimization

- MIPI, USB3, Pcie4/5, 10G/28G/56G/112G-PAM4, etc.
- Board material selection, impedance control, loss and crosstalk evaluation, etc.
- Eye diagram simulation, recommended chip pre-emphasis equalization parameters, shorten customer core Chip debugging cycle



Power Integrity

- Voltage drop, via and current carrying capacity
- Electro-thermal and static thermal analysis
- PDN impedance control, capacitor selection
- Power noise analysis and optimization



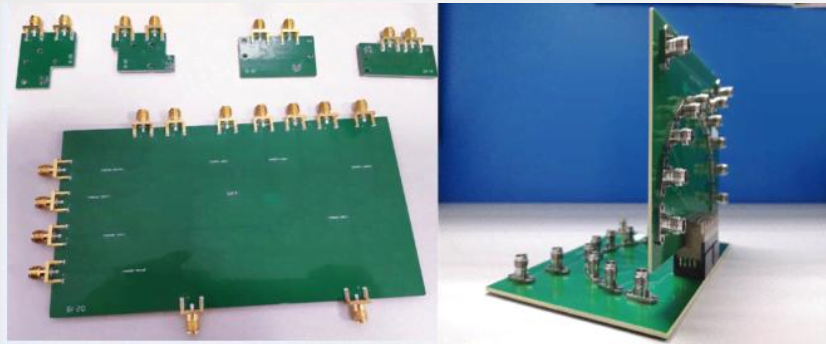
Test and Verification

- Eye diagram test, timing test
- Passive channel S parameter, impedance test
- Power ripple test
- High-speed Laboratory: 67GHz network classification



1

Customized Test Fixture



Testing fixtures based on customers' request

1. Customized connector/ backplane, Discrete components (RLCCable, Chip....)
2. Meet the test standard, accurately measuring the real performance of DUT
3. Multiple De-embedding: TRL/ISD/AFR to remove the fixture effort. (Our capabilities: RL-40dB@67GHz, $IL \pm 0.1dB@67GHz$)

2

Standard Universal Fixture





Standard Fixture

1. Optical module clamps, such as SFP / SFP28 and QSFP / QSFP28, meet the passive index requirements of HCB / MCB.
2. Universal USB/HDMI/VGA/Display port/SAS/SATA/M.2/8639 fixture to meet compliance test requirements
3. Provide DDR / LPDDR test interposer board, which can conduct accurate particle end tests

| Item | Technical Parameter |
|---------------------------|--|
| Layer | 2-68 L |
| Board Thickness | 0.5-17.5mm |
| Finished copper thickness | 0.3-18oz |
| Min drill hole size | 0.1mm |
| Minimum laser via size | 0.075mm |
| HDI Type | 1+n+1、2+n+2、3+n+3 |
| Max Aspect Ratio | 20:1 |
| Max board size | 650mm X 1130mm |
| Min width & space | 2.4/2.4mil |
| Min Outline Tolerance | ±0.1mm |
| Impedance Tolerance | ±5% |
| Min PP Thickness | 0.06mm |
| Bow & Twist | ≤0.5% |
| Materials | FR4 / Hi-Tg FR4 / Rogers / Nelco/M4 / M6 / M7 / TU862 / TU872 |
| Surface Finished | HASL-LF, OSP, IMM Ag, IMM Tin, ENIPIG, ENIG, Plating Gold |
| Special Capability | Buried blind via, Step groove, Metal board, Buried resistance and capacitance Mixed pressure, flex board, back drill, Gold finger buried resistance and capacitance |


- No MOQ
- Full range of PCB
- High-end low & medium volume


 **2** Hours quotation response

 **2** Hours customer service quick response

 **72** Hours Fast Delivery

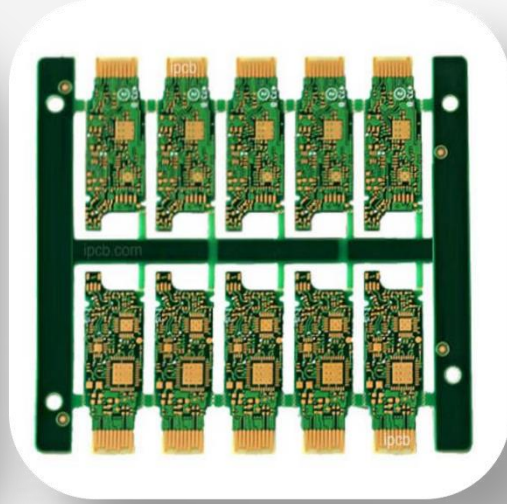
 **7×24** Hours technical support

 **7×24** Hours order service

 **7×24** Hours production operation



Back-drilled PCB



HDI PCB



Rigid-Flex PCB

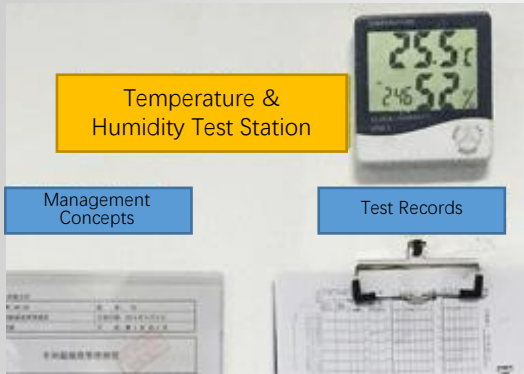


Multilayer PCB



- ✓ Quick component sourcing: complete sourcing within 2 weeks.
- ✓ Professional component certification engineer performs IQC inspections & adept at improving accuracy of customers' BOMs.
- ✓ Professional support from the supply chain team, even for customers with small volume orders.
- ✓ Strict supplier audit systems in place.
- ✓ When the parts arrive, the chip welding production line is arranged to speed up the product development process.

Components Quality Control

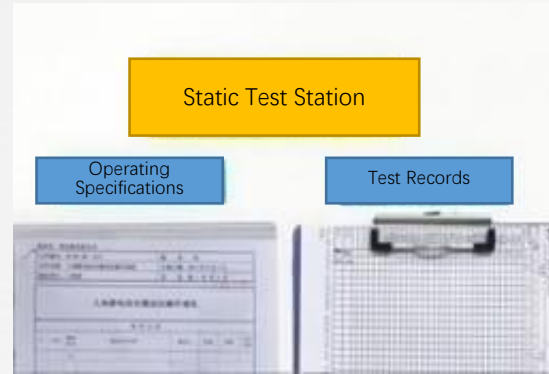


Temperature & Humidity Test Station

Management Concepts

Test Records

Temperature & Humidity Test



Static Test Station

Operating Specifications

Test Records

Static Test



Temperature & Humidity Testing Chamber



Oven



LCR Meter



SMD Counter



Electron Microscope



Dryer



PCBA Capabilities

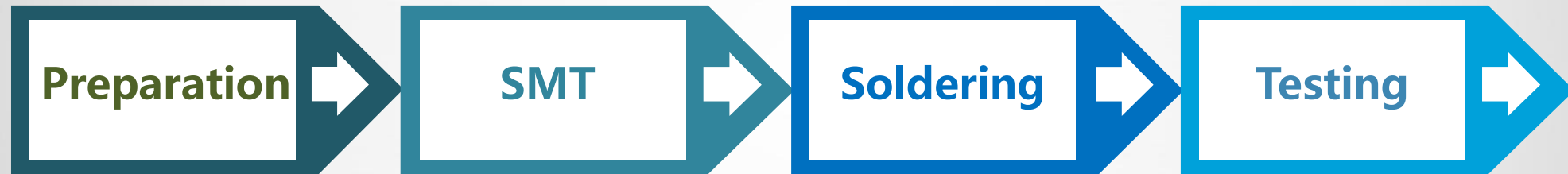


| Item | | Normal | Special | Remark | | |
|-------------------|-----------------------|---------------|-------------------|---------------------------|--|--|
| SMT | PCB | Min Size | L≥50mm W≥50mm | L<50mm W<50mm | 1. Bottom/Top side components to board edge space≥3mm 2. Mark point to board edge≥3mm | |
| | | Max Size | L≤450mm W≤350mm | L: 800-450mm W: 400-350mm | | |
| | | | 0.5mm≤T≤3mm | T<0.5mm T>3mm | | |
| | Dimension | Min Package | 0201(0.6mm*0.3mm) | 01005 (0.3mm*0.2mm) | Double-sided components height≤ 25mm | |
| | | | SMD≤200mm*125mm | SMD> 200mm*125mm | | |
| | | Thickness | T≤15mm | T>15mm | | |
| | QFP、SOP、SOJ MultiPins | MinPIN Space | 0.4mm | 0.3mm≤Pitch<0.4mm | | |
| CSP,BGA | MinBallSpace | 0.4mm | 0.3mm≤Pitch<0.4mm | | | |
| DIP | PCB Dimension | Min Size | L≥50mm W≥50mm | L<50mm | | 1. Bottomside components <5mm 2. Plug-in components pins to Bottom side SMT parts space > SMT parts thickness+ 2.0mm. |
| | | Max Size | L≤500mm W≤450mm | L<800mm W≤450mm | | |
| | | Min Thickness | 0.5mm | T<0.5mm | | |
| | | Max Thickness | 5mm | T>5mm | | |
| Conformal coating | Temperature | | -30°C≤T≤120°C | -50°C≤T≤150°C | / | |
| | Coating Thickness | | 20um≤T≤35um | 35um≤T≤60um | | |
| Flying Probe Test | Components Height | Topside | H≤60mm | H>60mm | / | |
| | | Bottomside | H≤120mm | H>120mm | / | |
| | PCB | Thickness | T≤5mm | T>5mm | / | |



PCB Assembly Flow Chart

Prototype PCB assembly services are characterized by small batches, professional and fast delivery, serving customers on R&D stage. We can assemble PCBs as fast as 24 hours.



First-Class NPI Team Experienced technicians in engineering and technology inspect the printed circuit boards at various stages of the manufacturing process for early detection of faults.



ATE Tester board



Industry motherboard



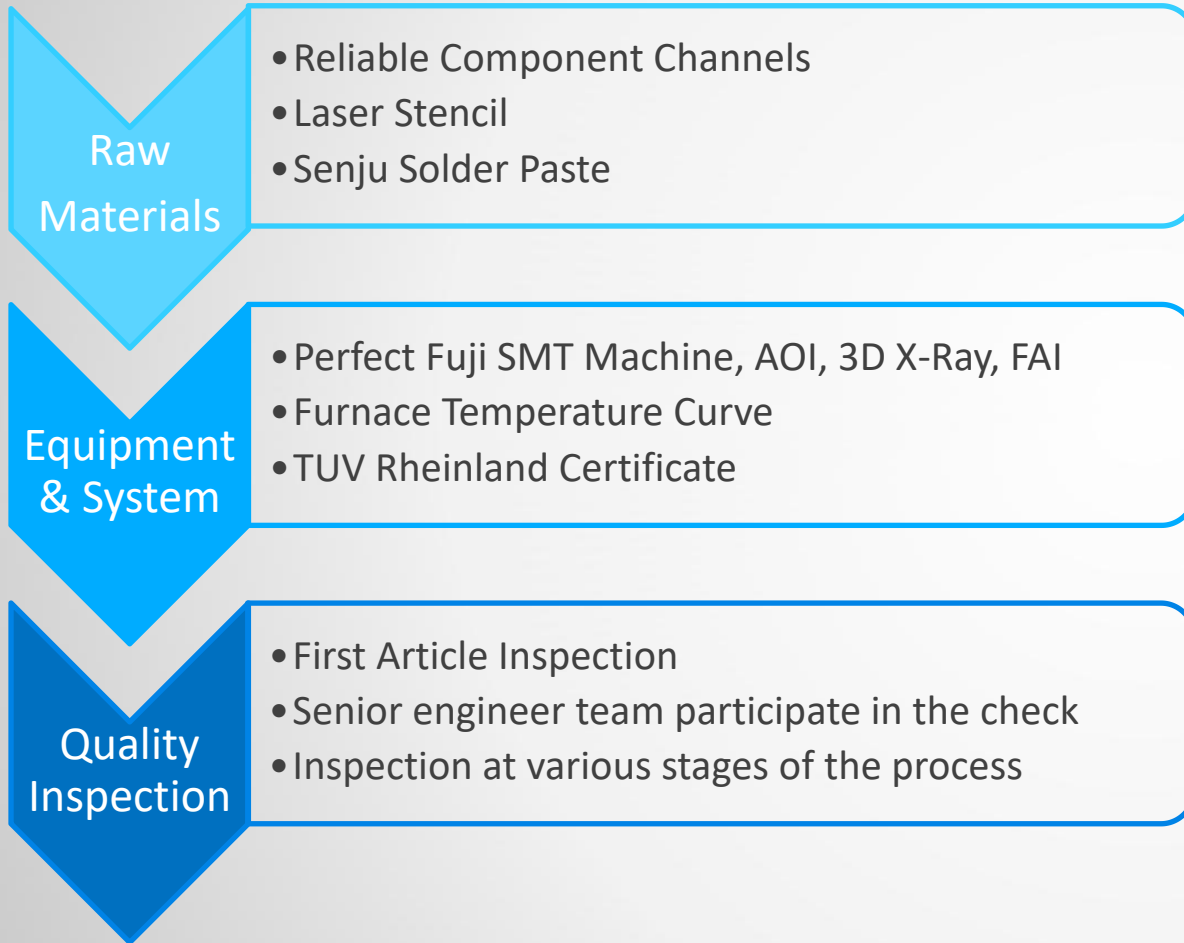
FPGA board



Medical equipment board



Quality Assurance System





Industries Served



With more than 10 years of experience in serving R&D customers, we have established a flexible system platform suitable for multi-variety and small-batch product design, production and service, and has established cooperation with customers around the world. It is used in telecommunication technology, industrial control, new energy, medical equipment, automotive electronics, intelligent security and other fields.



ZERO ONE SOLUTION LTD.

To be your one-stop PCBA partner

Shenzhen Office:

Contact: Nick Cheng

TEL/FAX: +86 755-8219 0735

WhatsApp/Mobile:+86 180 8888 3067

Email: info@01solution.com

UAE Office:

Contact: Naim Boueri

WhatsApp/Mobile: +971 58 5854462

Email: uae@01solution.com

[Http://www.01pcb.com](http://www.01pcb.com)





**From Zero to One,
we have solutions.**