金晟达电路

SHENZHEN JINSHENGDA ELECTRONIC TECHNOLOGY CO LTD

中国领先的样板及小批量PCB供应商

-- Leading quick-turn Prototype and Small volume PCB manufacturer in China



公司简介（Company Profile）

- 金晟达电路成立于2003年5月，是中国顶尖的快样及批量电路板生产商。 金晟达提供“放心板”和“准时交付”的一贯服务赢得了全球市场的好评。产品被广泛使用在通信，医疗器械，工控产品，航空，军工产品，测试仪器，汽车，计算机周 边产品，电子消费品以及大专院校等科技领域。与海内外多家知名品牌有着战略伙伴关系。

  Founded in 2003，JSD PCB is the leading manufacturer of prototypes and small-volume PCB in China.

  JSD PCB’s “Delivery on-time” and “Reliable board” has won widely recognition in the global market. JSD PCB’s products are extensively used in the fields of communications, network, industrial control, automobile, computer peripheral, and national defense, aerospace and medical device, etc. JSD PCB has established strategic partnerships with many industry-recognized domestic and foreign companies.

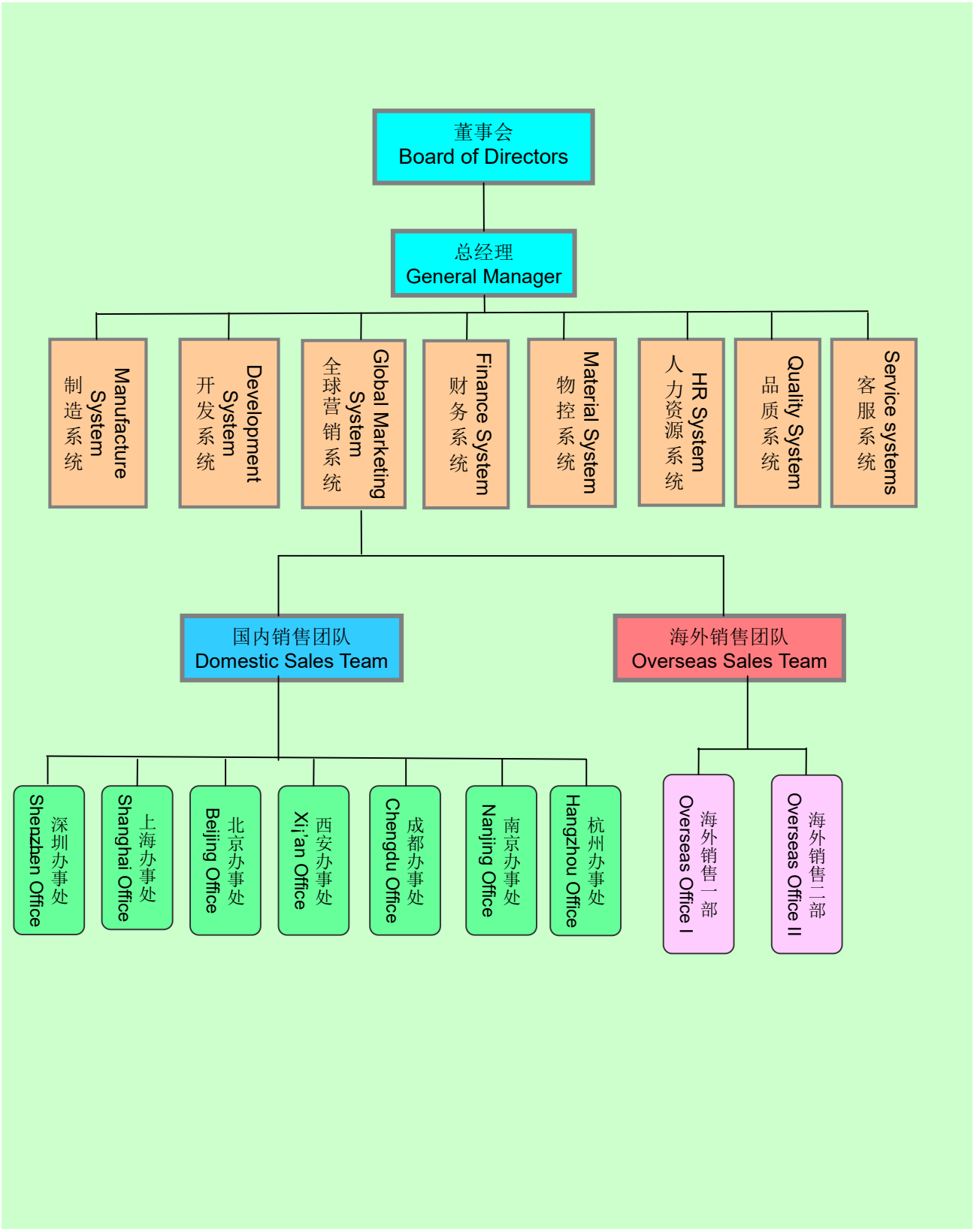
- 金晟达一个工作日可以加工180多款快速样单， 60%是多层板。月产量5000多平米。公司200多名员工，拥有一支由40位经验丰富的工程师组成的工程队伍。一线技术人员平均拥有5年以上的实际操作经 验，使金晟达能够在高难度，高精度PCB生产领域保有实力。

  JSD PCB can process more than 180 different part numbers in one work day! More than 60% of our current orders are multilayer boards. Monthly production capability reaches 5000 square meters. Now, JSD has over 200 employees, including a professional engineer team of 40 skilled CAM engineers. Operation staffs have working experience of over 5 years in average, so JSD PCB has powerful advantages in the field of High-precision, Superior Difficulty boards.

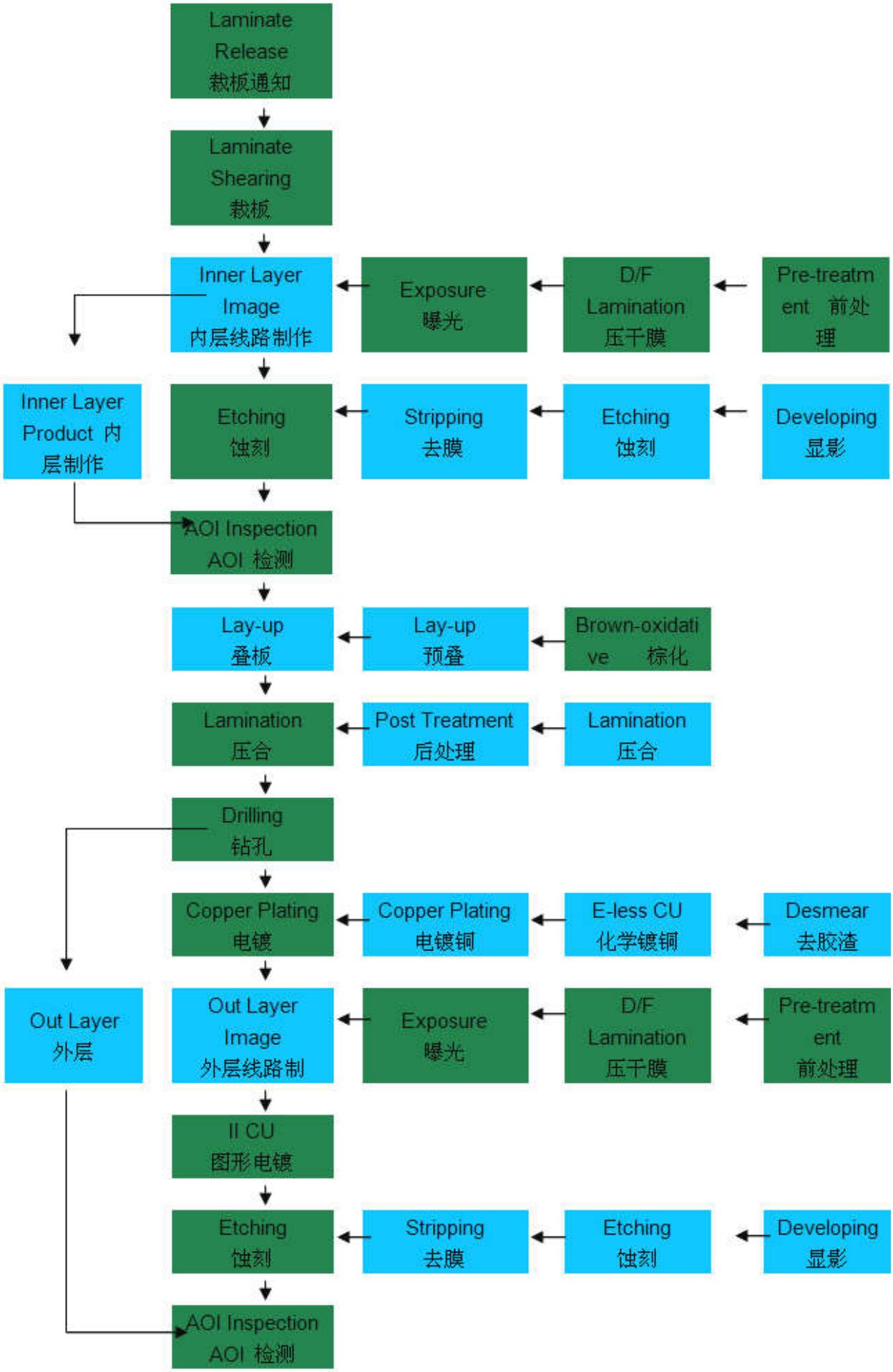
- 目前，金晟达电路已经获得了ISO 9001，ISO 14001，UL（E345919），SGS等国际认证。

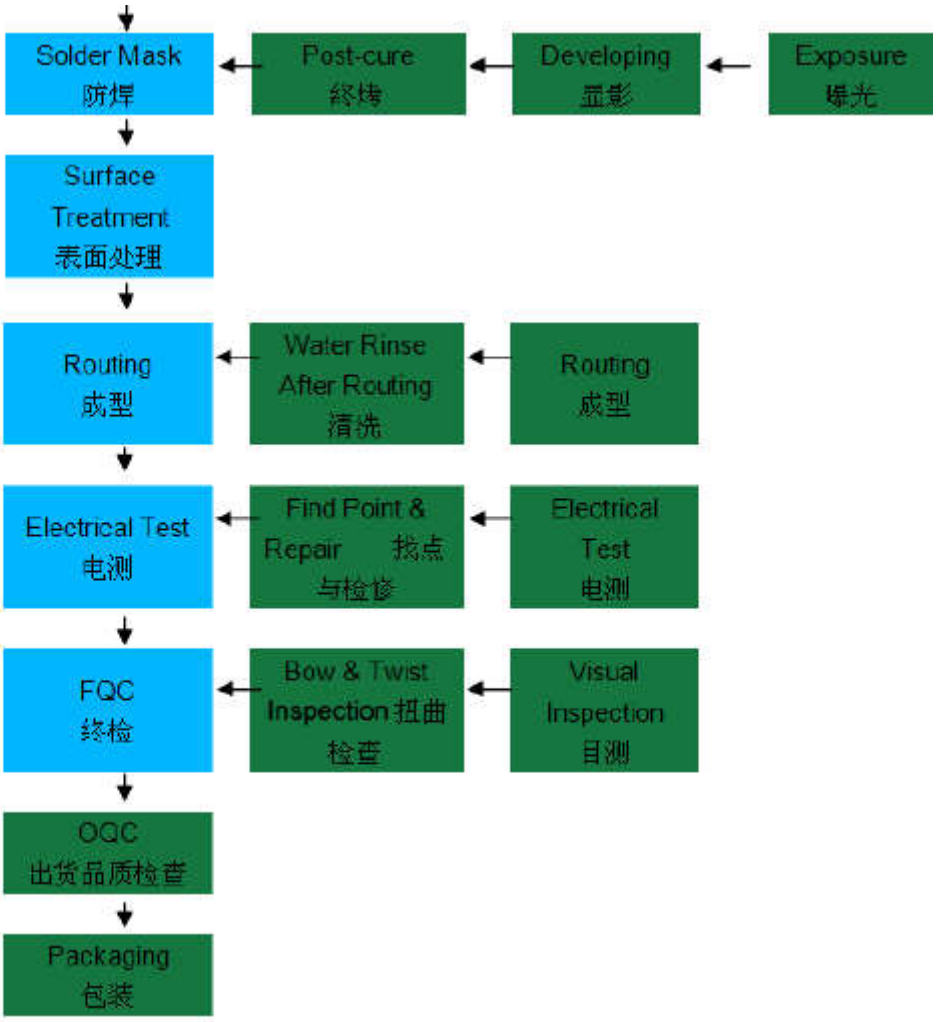
  At present, JSD PCB has been certified with international standards of ISO 9001, ISO 14001, UL (E345919), SGS, and so on.

组织架构（Organization Structure）



PCB生产流程（Production Flow Chart）




Solder Mask
防焊
Post-cure
终烤
Developing
显影
Exposure
曝光
Surface
Treatment
表面处理
Routing
成型
Water Rinse
After Routing
清洗
Routing
成型
Electrical Test
电测
Find Point &
Repair 找点
与检修
Electrical
Test
电测
FQC
终检
Bow & Twist
Inspection扭曲
检查
Visual
Inspection
目测
OQC
出货品质检查
Packaging
包装

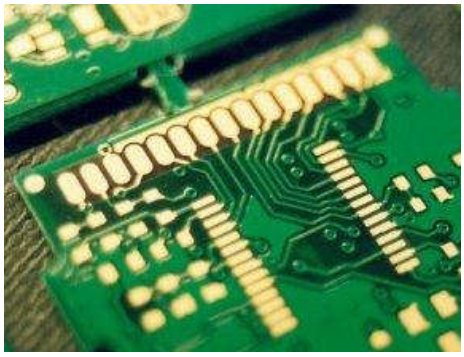


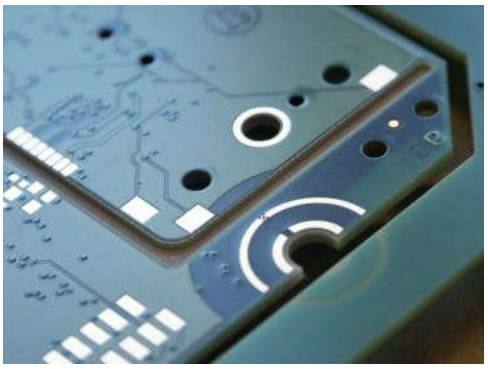
产品和技术（**Products & technology**）

JSD始终致力于向全球客户提供各种类型的线路板。我们提供最佳的品质、最好的价格和贴心的服务。

JSD PCB offers a wide range of different printed circuit boards to our customers in the world. We supply you the best quality, best price and heart to heart service.

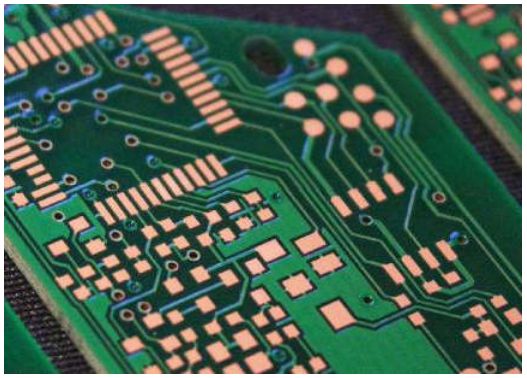
单双面板、多层板（4-40层），
厚铜板、电源板、背板，金属基板（铝基）
Single- and double-sided printed circuit boards
Multilayer boards 4-40 layers
Heavy copper, power boards, back planes
Metal backed boards - aluminium



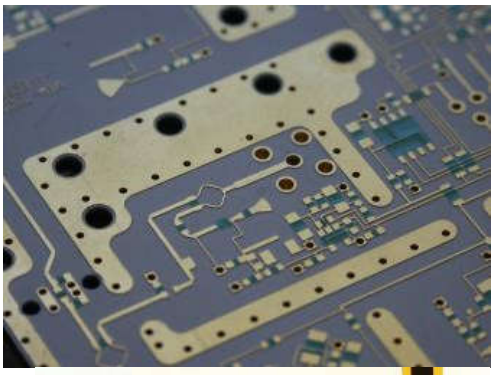


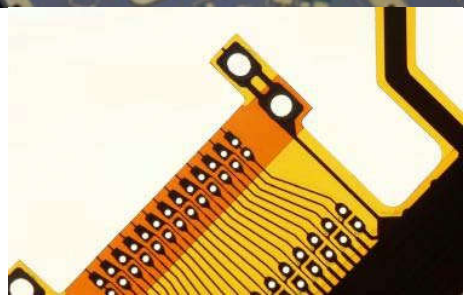
先进的成型技术-控深锣、镂空、沉头孔、锣槽
填孔、油墨塞孔和表面镀孔
激光孔、盲孔、埋孔等

Advanced routing – depth controlled routing, cavities, channels, counter sink, slots
Plugged, epoxy-filled and overplated vias
Microvia, blind vias, hidden vias, plugged vias

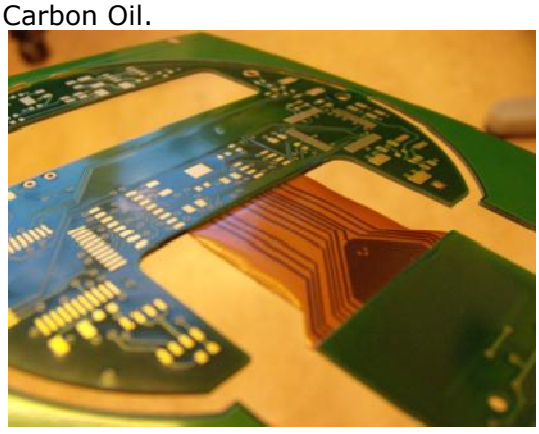


高频板
High frequency base material, Arlon, Nelco, Rogers, Taconic, thermoset, PTFE, BT-epoxy,
Mixed dielectric, **impedance control**





有铅或无铅喷锡、沉金、沉银、沉锡、电金、碳油、OSP
Hot Air Solder Leveling –lead-free and Sn-Pb, ENIG, ASIG, SIT, OSP, Plated Gold, Immersion Gold, Immersion Tin, Immersion Silver, Carbon Oil.



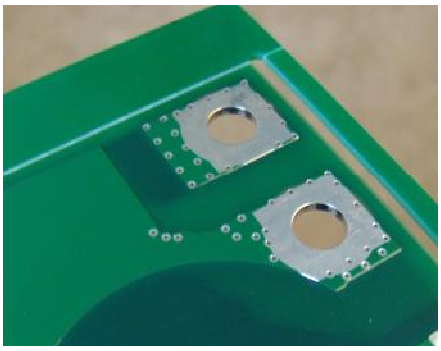
软硬结合板Rigid-flex – also with microvia, Impedance-control and carrier.
Up to 10 layers flex-rigid.

我们的产品涵盖了普通FR-4，高Tg FR-4，塞孔板，蓝胶，金属基板和软硬结合板等。

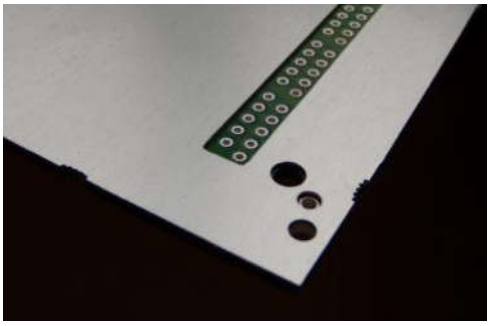
Our product covers from common FR-4 boards, High Tg FR-4 boards to microvia solutions, plugged via-holes, peelable mask, metal backed boards, and flex-rigid boards.

先进的控深锣和板边镀金工艺

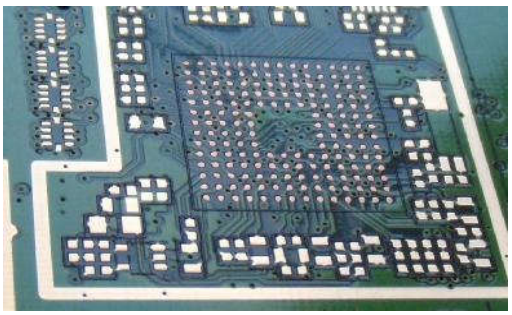
Depth controlled routing and gold-plated edge connectors, a wide range of final finishes and different colors of soldermask finishes and of course a large selection of different types of base materials is available.



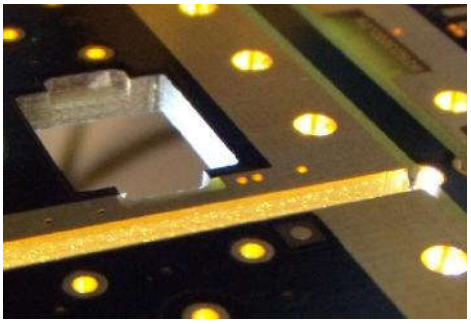
4oz厚铜电源板（最厚可达10oz）
Power board with heavy copper 140 µm copper thickness and lead-free HAL. We can offer copper thickness from 18 µm up to 350 µm.



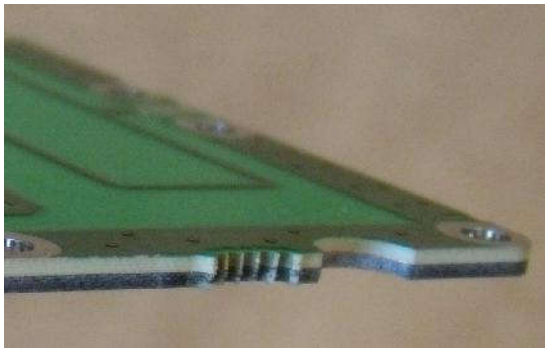
金属基多层板-铝基和不流动PP压制
Metal backed multilayer board. Alumium plated bonded with non-flow prepreg. We can also offer other advanced metal core solutions.



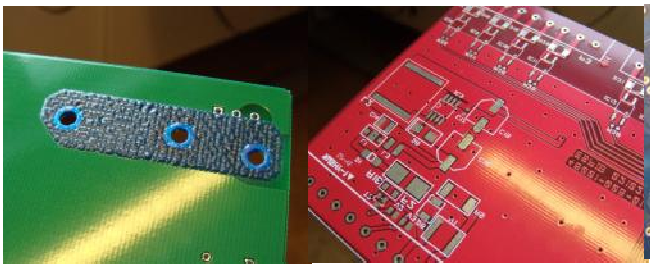
选择性OSP和沉金 SIT – Selective OSP and ENIG



Z轴成形，板边镀镍金，黑色阻焊
Z-axis routing and plated board edges with nickel-gold.
Black soldermask.

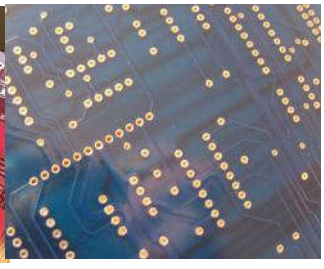


Arlon和FR4混压三层板 Mixed dielectric build-up. Arlon thermoset material laminated together with FR-4 forming a 3-layer high frequency board.



蓝胶板
Peelable mask

红油板
Red soldermask



蓝油板
Blue soldermask

工艺能力（**Capability** ）

- 表面处理：喷锡、镀金、沉金、沉锡、沉银、金手指、OSP
  Surface treatment: HASL, Gold plating, Immersion gold, Immersion tin, Immersion silver, Gold fingers (Hard gold), OSP
- 层数：2-40层
  Count of layers: double-side to above 40 layers
- 最小线宽：3mil (0.076mm)
  Min track width: 3mil (0.076mm)
- 最小线距：3mil (0.076mm)
  Min track space: 3mil (0.076mm)
- 最小线到焊盘：3mil (0.076mm)
  Min space between track to pad, pad to pad: 3mil (0.076mm)
- 最小钻孔直径：机械钻 6mil (0.15mm); 激光钻 4mil;
  Minimum drill hole diameter: 6mil (0.15mm) mechanical drill; 4mil (laser drill);
- 最小过孔焊盘：12mil (0.40mm)
  Min pads for vias: 12mil (0.40mm)
- 最大孔径比：1:15
  Max aspect ratio: 1:15
- 最大PCB尺寸：23 x 35 英寸 (584.2 x 889.0mm)
  Max PCB dimension: 23 x 35 inches (584.2 x 889.0mm)
- 板厚：8.27-275.8mil (0.21-7.0mm)
  PCB thickness: 8.27-275.8mil (0.21-7.0mm)
- 最大铜厚：10 OZ
  Max copper weight: 10 OZ
- 最小阻焊桥：4mil (0.10mm)
  Soldermask bridge between solder dam: 4mil (0.10mm)
- 最小阻焊环：1.5mil (0.038mm)
  Minimum soldermask annular: 1.5mil (0.038mm)
- 阻焊颜色：绿色、黄色、黑色、蓝色、哑光色、半哑光色、透明色和蓝胶
  Soldermask colors: green, yellow, black, blue, matte, semi-matte, transparent LPI solder mask and peelable soldermask
- 塞孔尺寸：0.15mm- 0.5mm
  Plugged hole size: 0.15mm- 0.5mm
- 特殊材料：高Tg、 高频板(Rogers, Teflon, ARLON, TYCONIC)、无卤素、混压板
  Special material: HTG FR4, high frequency (Rogers, Teflon, ARLON, TYCONIC), halogen free, different material mixing laminating
- 特殊技术：盲埋孔，厚铜多层板
  Special techniques: blind and buried vias (min hole size is 0.1 mm), high layer with heavy copper





注：以上基于1oz或0.5oz铜厚，如果铜厚超过2oz，上述参数相应调整

Remark: the copper foil is 1OZ and 0.5OZ, If the copper foil is above 2OZ (including 2OZ), the above parameter will be changed.

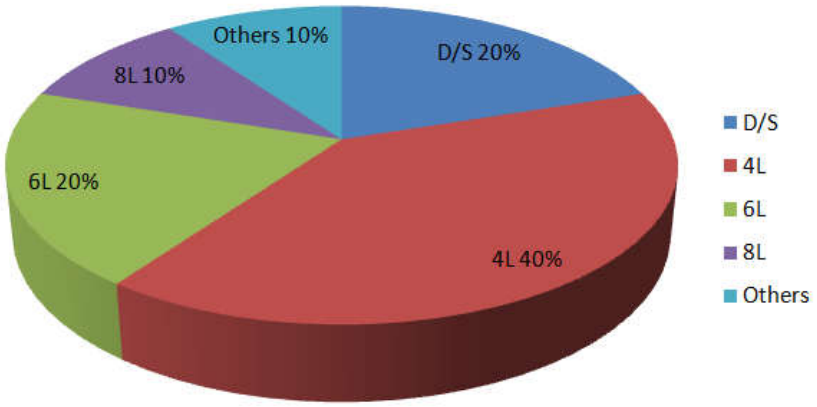
产品销售构成图（Product Mix）

在金晟达全球行销团队的共同努力下，近年来，金晟达在海内外市场上的知名度日益增加，销售额节节攀升，尤其是多层板产品在销售结构中的比重显著加强。

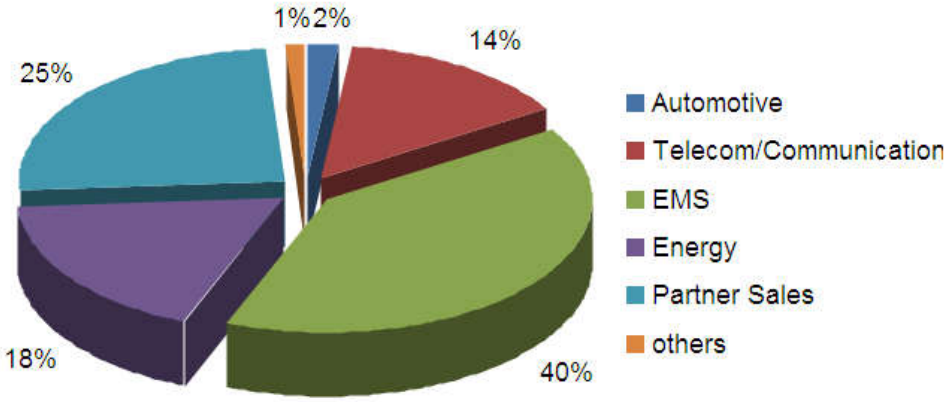
Recent years, **JSD**' reputation is enhanced in the global PCB market with the sales revenues more and more, especially the sales proportion of multilayer boards in the product portfolio increasing significantly. (Please see below the production mix.)



Production Mix



Sales by segments



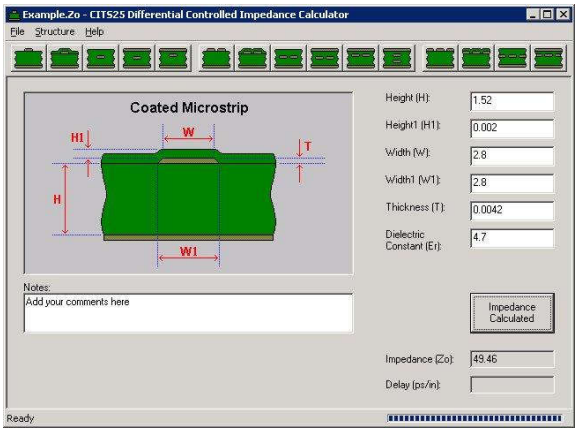
技术支持（Technical Support）

无论订单大小或工艺不同，金晟达为每位客户提供始终如一的技术支持和专业知识。

Regardless of order size or printed circuit board technology, it is important for you as customer to know that JSD is always there with technical support and knowledge.

金晟达拥有一支超过40人的专业工程师队伍，每位工程师都有丰富的国内外订单的处理经验。

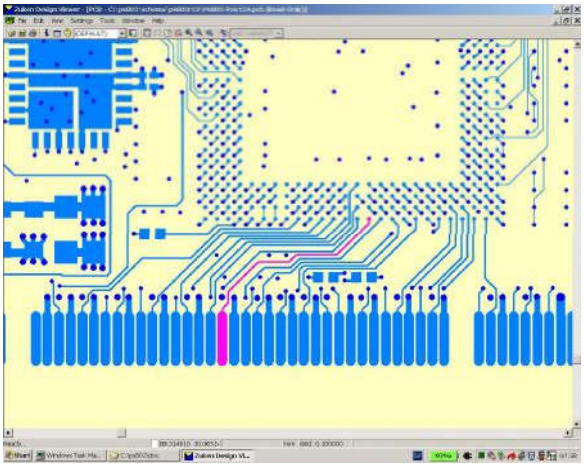
JSD has a professional engineer team, including more than 40 skilled engineers with rich engineering experience.

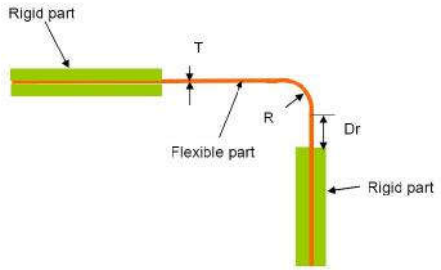


我们的技术专家关注您可能遇到的每个技术问题。我们提供从早期设计、样板制作到批量生产等各阶段的专业支持。我们会给您优化设计的各种建议，从而帮助提升最终品质，例如：叠层结构、阻抗计算等。

Our experts will concern every single technical question you might have. We can provide you printed circuit board knowledge during the early design phase, further through prototype evaluation and transfer to volume manufacturing. We will give you the most professional technical suggestion or advice to optimize the quality maximumly. For example, if you need assistance to find a suitable multilayer build-up, calculate impedance values, get detailed information about base material or final finishes, or basically find the most cost effective solution, do not hesitate to contact **JSD**.

As an customer of **JSD**, you will have an added value together with your deliveries of printed circuit boards.





在金晟达，您将获得：At **JSD**, you can get:

- 快速报价服务，常规报价3小时响应

  Quick response, generally customer’ s inquiry can be replied within 3 hours;
- 每天超过100款订单的文件处理能力

  More than 100 types of pcbs can be processed everyday;
- 24小时在线订单查询支持

  24 hours of online order query service;
- 24小时全球无时差文件处理服务，

  24 hours of file process service for global customers;

质量保证（Quality Aassurance）

金晟达拥有完善的品质保证体系。我们熟知线路板相关的IPC品质验收标准和相关知识。

JSD has a certified quality management system, certified environmental system. We have knowledge of the specifications and standards for acceptability of printed circuit board quality.

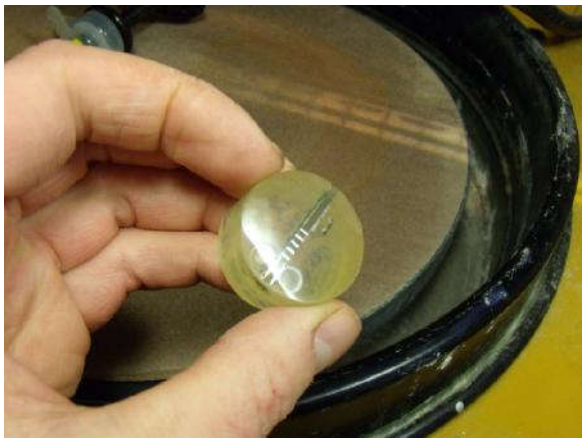
所有交付的线路板均经过FQC目检、AOI检测和100%电测。

All the outgoing boards will be tested by FQC visual test, AOI test and 100% E-test (open and short test of circuit).

金晟达执行以下测试：

JSD performs the following tests:

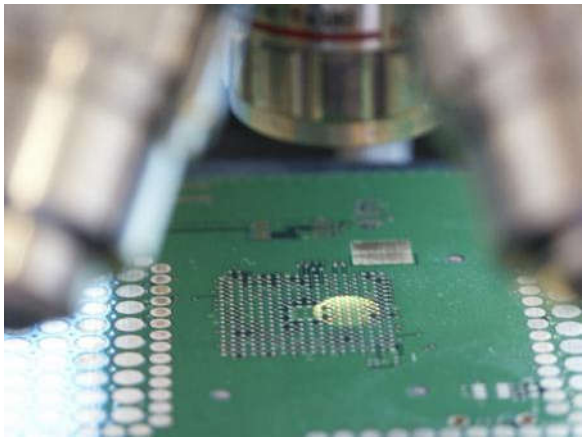
- 100%电测和AOI测试；100% Inspection by E-test and AOI;
- 阻抗测试 Impedance Measuring;
- 切片测试 Provide Micro-section;
- 高压测试 High voltage test and reliability test;
- 热冲击测试 Thermal shocking test and insulating resistance test;
- 离子测试 Ionic contamination test;
- 可焊性测试Soldering capability test;



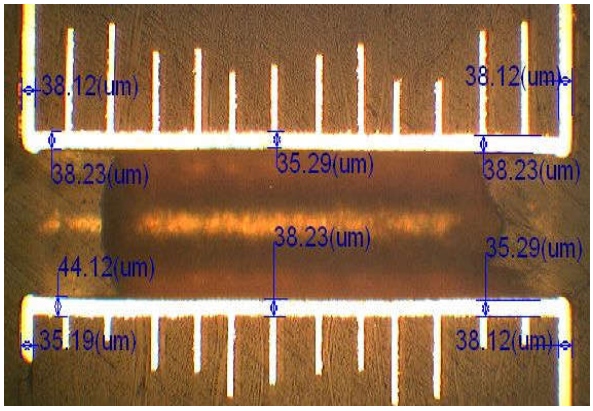


左图为典型的切片测试图，请注意孔壁镀铜层表面灰色的阻焊层

Typical microsection view seen in microscope. The left picture shows a viahole in a 4-layer board. Note the thin solder coating appearing as a grey layer on the copper plating surface.



右图为一款14层板的切片图示：



认证证书（**Certificates**）

金晟达目前已经获得了美国**UL**认证**(UL No. E345919)**，并于**2011**年分别通过**ISO14001：2004**环境体系和**ISO9001:2008**管理体系的认证，产品均符合欧盟**RoHS**指令，并引入其他各类认证等一系列国际先进质量管理标准。

JSD has been certified by UL (**UL file NO. E345919**), and passed the ISO14001:2004 & ISO9001:2008 Quality Management System Certification in 2011, all products are in line with EU RoHS Directives.



QUALITY MANAGEMENT SYSTEM CERTIFICATE

This is to Certify that the Quality Management System of

SHENZHEN JINSHENGDA ELECTRONIC TECHNOLOGY CO., LTD.

Building 11 and 12, Lisheng Industrial Park
Qiaotang Road, Tangwei Community
Fuyong, Bao'an,
Shenzhen, Guangdong, 518103
P.R. China

has been assessed by Sira Certification Service
and found to comply with

ISO 9001:2008

for the

Manufacture and sale of printed circuit boards

Certificate No: 116110
Date of Initial Certification: 13 October 2011
Date of Issue/Reissue: 13 October 2011
Renewal Due: 08 October 2014

On behalf of SCS

This certificate is subject to the company maintaining its system to the required standards, which will be monitored by Sira.
The use of this Certificate and the Sira Certification Mark are subject to the Regulations Applicable to Holders of Sira Certificates.

Sira Certification Service

12 Acorn Industrial Park, Crayford Road, Crayford, Kent, DA1 4AL, England Email: management.systems@siracertification.com

This certificate remains the property of Sira and shall be returned when requested. It may only be reproduced in entirety and without change.
Registered office: CSA International, 3 Arrowsmith Square, 1st Floor, London, United Kingdom EC2M 2LP



质量管理体系认证证书

兹证明

深圳市金晟达电子技术有限公司

中国广东省深圳市宝安区福永街道塘尾社区桥塘路利昇工业园

11、12 栋

其质量管理体系已通过 Sira Certification Service 的评审，符合

ISO9001:2008 标准

认证范围

线路板的生产和销售

证书编号： 116110
首次核发证书日期： 2011-10-13
签发/重新签发日期： 2011-10-13
证书有效期至： 2014-10-08

此中文证书为英译版本，必须与英文版证书共同使用。
This is only a translation for the English certificate; it must be used with English version in the same time,or it will be no longer in force.

本证书加贴年度监督审核防伪标签后方为有效，获取认证依据标准要求对获证组织执行定期监督审核，证书是否有效必须登陆 http://www.sira.com.cn 获证组织信息栏中查询。

Sira Certification Service

12 Acorn Industrial Park, Crayford Road, Crayford, Dartford, Kent, DA1 4AL, England Email: management.systems@siracertification.com

This certificate remains the property of Sira and shall be returned when requested. It may only be reproduced in entirety and without change.
Registered Office: CSA International, 3 Arrowsmith Square, 1st Floor, London, United Kingdom EC2M 2LP



ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

This is to Certify that the Environmental Management System of

SHENZHEN JINSHENGDA ELECTRONIC TECHNOLOGY CO., LTD.

Building 11 and 12, Lisheng Industrial Park
Qiaotang Road, Tangwei Community
Fuyong, Bao'an,
Shenzhen, Guangdong, 518103
P.R. China

has been assessed by Sira Certification Service
and found to comply with

ISO 14001:2004

for the

Manufacture and sale of printed circuit boards

Certificate No: 116111
Date of Initial Certification: 13 October 2011
Date of Issue/Reissue: 13 October 2011
Renewal Due: 08 October 2014

On behalf of SCS

This certificate is subject to the company maintaining its system to the required standards, which will be monitored by Sira.
The use of this Certificate and the Sira Certification Mark are subject to the Regulations Applicable to Holders of Sira Certificates.

Sira Certification Service

12 Acorn Industrial Park, Crayford Road, Crayford, Kent, DA1 4AL, England Email: management.systems@siracertification.com

This certificate remains the property of Sira and shall be returned when requested. It may only be reproduced in entirety and without change.
Registered Office: CSA International, 3 Arrowsmith Square, 1st Floor, London, United Kingdom EC2M 2LP



环境管理体系认证证书

兹证明

深圳市金晟达电子技术有限公司

中国广东省深圳市宝安区福永街道塘尾社区桥塘路利昇工业园

11、12 栋

其环境管理体系已通过 Sira Certification Service 的评审，并符合

ISO14001:2004 标准

认证范围

线路板的生产和销售

证书编号： 116111
首次核发证书日期： 2011-10-13
签发/重新签发日期： 2011-10-13
证书有效期至： 2014-10-08

此中文证书为英译版本，必须与英文版证书共同使用。
This is only a translation for the English certificate; it must be used with English version in the same time,or it will be no longer in force.

本证书加贴年度监督审核防伪标签后方为有效，获取认证依据标准要求对获证组织执行定期监督审核，证书是否有效必须登陆 http://www.sira.com.cn 获证组织信息栏中查询。

Sira Certification Service

12 Acorn Industrial Park, Crayford Road, Crayford, Dartford, Kent, DA1 4AL, England Email: management.systems@siracertification.com

This certificate remains the property of Sira and shall be returned when requested. It may only be reproduced in entirety and without change.
Registered Office: CSA International, 3 Arrowsmith Square, 1st Floor, London, United Kingdom EC2M 2LP

工厂设备（Facility）

为满足各种高难度线路板的制作要求，金晟达引入了目前国内最顶级的各种生产设备。

To be able to offer a wide range of printed circuit board technologies at an attractive price level and suitable lead time, **JSD** introduces state-of-the-art facifility and testing equipments.

DES生产线 （DES Line）

内层显影、蚀刻和退膜线，确保2.5mil/2.5mil的内层线路制作能力。Inline inner layer developing, etching and dry film stripping, process controlled to ensure the quality of thin (.002") cores with fine (.0025") lines and (.0025") spaces.



X-ray打靶机

检查压合偏位，提高钻孔环节的对准度。

Check material migration during lamination cycle and ensure greatly improved registration during the subsequent drilling process.



高精度钻机（Hi-precision Drilling Machine）

天马高精度钻机可以达到0.15mm的最小钻孔。

Timax Drilling machine can drill min. hole of 0.15mm.



平行光曝光机 （Collimated Exposure Unit）

区别于普通的散光曝光机，可以得到更好的干膜附着和最小2.5mil的线宽。Parallel light dispersion, far superior to conventional light dispersion, allows better dry film adhesion and cleaner walls for more accurate etching of traces down to .0025".



龙门电镀线（Pattern Plating line）

台湾全自动龙门电镀线可以满足15:1的板厚孔径比要求。
Taiwan-made automatic plating line can meet the requirement of aspect ratio of 15:1.



喷砂磨板线（Jet Master Line）

可以确保阻焊环节高品质的油墨附着，从而减少元器件组装过程中的油墨剥离现象。High quality surface treatment prior to soldermask ensures better adhesion and reduced peeling after assembly.



AOI测试机

100%的内层AOI测试，提高一次通过率，降低报废率，从而转化为更具竞争力的价格。100% inspection of all inner layers to guarantee higher yields and lower scrap rates, translating to lower prices.



水平棕化线（Brown Oxide Line）

压合前处理设备。Pre-processing before lamination.



压合机 （Pressing Machine）

满足各种层数多层板以及混压板的压合要求。Meet the needs of all kinds of multilayer boards and mixed dielectric build-up.



自动成型机 Auto V-Cut Unit

设备精度+/- 2mil，板厚加工范围：.010”-.125”；

Machine tolerance+/-.002”, board thickness .010”-.125”.



高速飞针测试机 High Speed Flying Probe Tester

目前国内最先进的协力测试机可以确保3mil/3mil的测试能力。The most advanced Surpass Tester(X600L) can test tracks/space of 3mil/3mil.



物流和交付（**Logistics & deliveries**）

金晟达拥有一套完善的物流系统处理每天众多订单的交付工作。JSD has a well developed system for handling and follow-up of your deliveries.



报价处理、订单处理、文件制作、订单确认、物流和货物跟进在一个充满灵活性的架构内完成，同时整个体系的运作是高效而迅速的。我们的物流团队每天和顺丰快递、UPS、Fedex以及DHL一道，通过紧密协作，确保总是搭乘最近的航班，尽快将货物送达您的手中。

Handling of quotations, order processing, CAM-engineering, order confirmations, logistics and follow-up are handled within a flexible organization and the process is effective and quick. There is no time to loose when handling quick-turn orders and our logistics team ensures that everyday your goods will always be on the earliest flight of SF, UPS, Fedex or DHL as possible, to take advantage of the difference of time zones.

JSD has very good partnership with UPS and DHL. This makes it possible you can get the lowest rates of UPS or DHL at any time. Surely, if you would like to ship the goods by sea or air cargo from Shenzhen or Hongkong, it will also be easy and convenient.





通常，样品订单从中国寄送至美国仅需2-3个工作日，到欧洲3-5个工作日。在中国大陆，通过顺丰速运最快可以实现次日到达。**JSD** delivers large quantities of printed circuit boards each year and the excellent logistics team is of course very important for all of our deliveries. Usually, we can deliver prototype production within 2-3 working days to US and 3-5 working days to Europe.

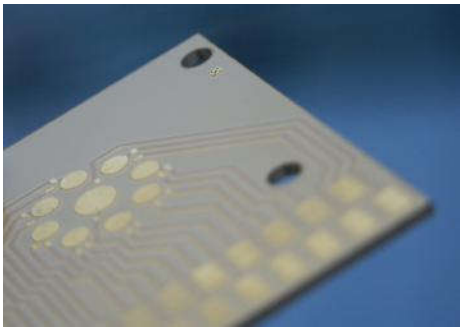


良好的包装也是确保品质必不可少的环节，我们按照您的要求打印标签，放置干燥剂或湿度指示计。

Packaging of printed circuit boards delivered to you is also strictly regulated and controlled through our specific requirements. Labeling of boxes and pcb stacks, ESD- and MSD-control and further on are implemented for each order. We take care of everything for you.

关于未来（About the Future）

未来，金晟达将在目前工艺能力的基础上，继续加大在人才和设备方面的投入，在埋入式电阻及电容板、软硬结合板、阶梯板、多层铝基板、金属基与PTFE压制板、陶瓷FR4与和铜基混压板等领域深入开拓。



In the future, on the basis of current technology level, JSD will keep increasing investment in professionals and equipments. We will continuing the development in the fields of buried capacitor/ resistor board, rigid-flexible board, Step hole board, multilayer aluminum board, metal core and PTFE material combined board, ceramic core and FR4 and Cu core pressed board, etc.

同时，我们将继续致力于为全球客户提供关于线路板的整套解决方案，从layout设计到线路板制作，我们全程提供支持。自诞生之日起，“为客户的客户着想”已经成为我们基本的商业理念。在满足客户需求的道路上，金晟达人永不止步！



We consistently strive to offer global customers "total solutions" to their requirements, from layout design to PCB manufacturing, provide unparalleled engineering and customer service support. From the day of establishment, “thinking for customer’s customer” is our basic business concept. JSD will never stop on the road of satisfying customers’ needs…

一路向前，只为您的认可！

Thanks