

#### 佛山市顺德区厚信电子配件有限公司 FOSHAN CITY SHUNDE QU HOU XIN ELECTRONIC PARTS CO.,LTD.

中国广东省佛山市顺德区大良街道大门村 Da Men Village, Da Liang Street.Shunde Qu, Foshan City ,GuangDong,Province China.

Tel:(86-757)2263 8205, 2262 1518, 2263 5641 Fax:(86-757)2262 8225

#### 厚信电路板有限公司

HALESON PCB CO.,LTD..

九龙荔枝角青山道479号丽昌工厂 大厦3字楼3032室

Unit 3031,3/F.,Lai Cheong Factory Building,479 Castle Peak Road, Lai Chi KoK, Kowloon. Tel:(852)2461 6423, 2468 0373 Fax:(852)2462 4398

#### 厚信电路板(新加坡)有限公司

HALESON PCB (S) PTE LTD 80 PLAYFAIR ROAD, #07-07, KAPO FACTORY, BLK A,

SINGAPORE 367998.

TEL: 65 - 6288 6788 FAX: 65 - 6282 4113

EMAIL: sales@hls-pcb.com

Website: www.haleson-pcb.com



This is our Communication on Progress in implementing the principles of the United Nations Global Compact and supporting broader UN goals.

We welcome feedback on its contents.



### Environment 环境管理:

Our success in past provides a strong foothold to anticiopate the future. One of the most important preventive measure that we have committed considerable resources is environmental protection. During the fast few years, we have continuously improved our manufacturing process in order to minimize toxic waste. We have achieved our target and are now well positioned for the future. Our products are certified by SGS as RoHS compliant in year 2005. In addition to the Halogen free requirement set out by Japan, our products are conforming to environment requirement anywhere in the world.

Obtaining RoHS complaint certification is an extension of commitment to our quality service to our customers. This is an active step to protect our customers and our means to show that we are looking for a continuous relationship with our customers. But still, we are looking and keep improving for the future.

过去的成就为我们未来的发展奠定了坚实的基础。厚信于建厂初期已经确立环保预防的意识,这是我们投放大量的人力物力进行环境保护的最主要原因。过往除了运用物料上和生产工序上之改进减少有害废料排放之外,并在生产设备设计和其他能源使用方面都会朝着环保及节约的方针迈进。对于所有经处理后的废料排放亦已经符合政府环保部门的最高排放标准,顺应通过欧盟所提出之有害重金属环保要求RoHS。我们早于2005年初已经通过SGS之检测认证并采取对我们的物料供应商也同样地要求他们提供SGS之检测证书,确保我们的成品必定能符合欧盟的RoHS要求。此外我们亦有对日本所提出的Halogen Free物料要求作出全面的配合,务使我们的客户在各种环保材料或加工要求的情况之下,也能符合现时世界上任何之环保标准。







To Excel in the printed circuit board manufacturing in China and Asia. 优秀的印制线路板供应厂商。

### Our Philosophy

Our whole company is committed in providing top of the line quality products.

Through continuous improvement in all areas, we aimed to achieve toal customersatisfaction.

### 我们的信念

我们全公司的员工都一致承诺我们是高品质产品的供应商,并以不断改善的方式去达成"客户满意"的目标

### Company Profile公司简介:

#### **Shunde Hou Xin Electronic Parts Company Limited**

Shunde Hou Xin Electronic Parts Company Limited is a wholly owned subsidiary of Haleson PCB Co.,Limited.Hou Xin Electronic Parts commenced production in year 1992,with a mere 60 people to start with. Haleson Singapore was established in 2006 to serve the customer in South East Asia, Japan, America and Europe region. It was a labour intensive manufacturing and annual production volume of just 400,000 square feet.Through years of improvement,we had consistently converted the dedication of our staffs into high quality products and customer satisfaction,expending our capacity and upgrading our production technology as our customer's demand increased.

We grow with our customers. Today, we have 500 staffs and our annual production reached 5 million square feet, eleven times of the initial production volume. Our staffs are proficient in latest technology and our production process is highly automated in order to achieve better quality.

Not only that we had obtained ISO9000 certification in 1999 and cerifications like UL and ISO14000. In year 2004, we passed the RoHS environment requirement certified SGS in PCB products series and also obtained TS16949 in 2007. During the last few years we had upgraded and introduced new equipments for advance manufacturing process. Through continuous improvement in all ares, we provide PCB-Professional, Cost effective and Best in service to our customer. And realize the intangible term(total customer satisfaction) in every tangible aspect.

『香港厚信电路板有限公司』之全资附属机构「顺德厚信电子配件有限公司」是一家专业之双面及多层电路板生产制造商。本厂于1992年创立至今,由原来60多名员工及年产量仅得40万平方尺发展至现时拥有700多名员工及年产量达到500万平方尺的电路板生产厂,期间通过厂内全体员工之努力、增添先进设备、生产技术的改造、高品质要求的提升及所有客户的全力支持下,达至今天与客户共同成长、共同发展、共创未来的伙伴关系成果。厚信(新加坡)成立于2006年服务东南亚,日本,美洲和欧洲的客户。

不单如此,厚信公司对于管理体系方面亦非常重视,早于1999年已经取得国际 IS09000之管理认证资格,UL及IS014000之环境认证,更于2007年获得TS16949 的汽车标准证书,我们亦己由SGS验证产品达到RoHS要求。希望通过完善及有效率的管理体系来协助我们的员工走上最高水准的管理台阶,并能向客户提供更专业、高效、优质及具竞争力的服务,我们承诺在未来的日子仍会继续努力不懈、持续改进并朝着以往的宗旨「客户满意为目标」作为我们日后经营的原动力。



### Product display 产品展示:



12L Board

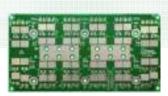




8L Board

6L Board for Netbook Computer

6L HDI Board for Mobile Phone



6L Board for Netbook Computer

Aluminum Base Board



2L Board for Gold Wire Bonding



ISD 9001: 2000 Cert.No. 225; TS16949 N'IATF: 0061640



SO14001:2004 Cort No. ENV557



## **Our Main Customers**

















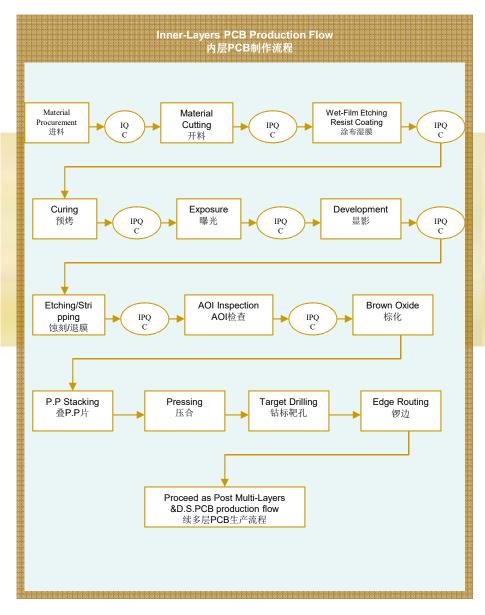


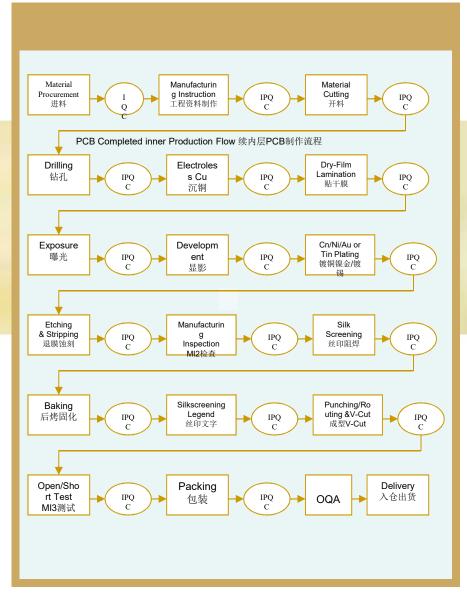






## Production Flow 生产流程





#### Quality Management 品质管理

We believe in quality.Quality in work means better products with lower cost and wastage.In order to facilitate our customer in smooth production and minimize customer loss, we always produce the best quality products to our customers. We have incorporated the In-Process Quality Checking(IPQC)procedure in our production line.Any defective components or manufacturing error are detected instantly and eliminated.This is a responsibility that everyone participates in and our ultimate commitment to quality.

In supporting our staff members to systemically upholding our quality commitment, we have introduced various management system and international standards as check points and guideline. Total Productive Management(TPM), Total Quality Management(TQM), 5S+Safety(6S), ISO9000, ISO14000, TS169 49, AQL, MIL, IPC, U/L and RoHS are systems and standards that we have seamlessly incorporated into our manufacturing process.

Our quality commitment extends to reach our customer. We are constantly interacting with our customers and providing assistance in time management-before, during and after production. Dedicate staff members to handle customers' feedback and complaints. Their one working day performance pledge ensures fast response to resolve any problem that our customer may encounter. Providing quality service in addition to on time delivery, in quest of total customer satisfaction.

厚信公司坚信品质是企业的生命泉源,令到客户可用更低的成本代价得到更高的产品质素。引进了国际品质管理体系如TPM、TQM、6S、等等并通过IQC/IPQC/OQA对我们的产品从物料供应以至全生产流程及成品出货进行全方位监控。利用与客户同步之质量标准如IPC/MIL/UL/RoHS进行符合双方要求之品质检定程序,务必使我们的员工能达致对品质的最终承诺。我们认为无论在售前,售中,还是售后服务方面都必须跟客户保持联系,为他们提供及时的帮助,致力于及时处理客户反馈和诉求。除了优良的品质和服务外我们还确保成品出货的准时性,使我们的客户可以在各方面达到满意的程度。











### Equipment 设备

Production Department 生产部门	Facility and equipments 设备	Number 数量
Manufacturing Inspection Department MI车间	01.300VHigh Voltage O/S Tester 02.Universal O/S Tester	24Sets 4Sets
Outline Fabrication Department 成型部	01.Punching M/C 02.Bevelling M/C 03.CNC Routing M/C 04.CNC V-Cut M/C	16 Sets 1 Sets 2 Sets 3 Sets
Quality Control Department 品质部	01.500X Platform Microscope 02.X-Y Measuring Instrument 03.Micro-Section Unit 04.Solder-Pot for Solder Ability Test 05.CMI X-Ray Plating Thickness Measurement M/C 06.CMI Cu Plating Thickness Measurement M/C	1 Set 1 Set 1 Set 1 Set 1 Set 1 Set
Pressing Department 压合部	01.250T Hot Pressing M/C with Auto Load /Unload System (3Hot Presses+2Cold Press) 02.Brown Oxide Treatment Line 03.Welding Bond M/C for up to 16Layers Multilayer Board 04.Separator Plate Scrubbing M/C 05.AOI Checking System with Repairing Station 06.X-Ray Targetting Drilling M/C	1 Set 1 Set 1 Set 1 Set 3 Sets 1 Set
Others 其他	01.Waste Water Treatment System 02.Generator andbackup Power Supply 03.Vacuum Packing M/C 04.Panel-Edge Grinding Line 05.Ultra Sonic Cleaning M/C 06.Chemical Laboratory 07.Physical Laboratory	1 Set 1 Set 2 Sets 1 Set 2 Sets

Our PCB manufacturing plant possesses highly automated production machines, allowing us to produce PCB from single layer up to 16 layers, with maximum panel size of 457x609mm(18x24 inches).

我们的制造部门持有高自动化的生产设备,使我们可以生产一到十二层的PCB,最大呎寸是457x609mm(18x24inches).

#### Equipment 设备

Production Department 生产部门	Facility and equipments 设备	Number 数量			
Drilling Department (Drilling & Routing M/C) 钻孔部(钻孔&锣边M/C)	ling & Routing 03.HITACHI 06  M/C) 04.HITACHI Laser Drilling M/C(CO2)				
Plating Plant 电镀线	01.Deburring/Scrubbing M/C 02.Auto-Electroless Cu (PTH) Line with Dismear Process 03.Auto Cu/Ni Plating Line 04.Auto Soft/Hard Au Plating Line 05.Auto Cu/Sn Plating Line 06.Automatic Atripping & Etching M/C 07.Pure Tin Stripping M/C 08.Auto Cu/Tin Plating Line 09.Bench-Top Thickness Measurement System 10.Atomic Absorption Spectrmeter	4 Sets 1 Sets 2 Sets 2 Sets 1 Set			
Imaging Department 图形转移部	01.Semi-Auto Dry-Film Laminator 02.Automatic Dry Film Laminator 03.5kw-8kw UV Exposing M/C 04.CCD Exposing M/C 05.Dry-Film /Wet-Film Developer 06.Wet-Film Plating Resist Roller Coating M/C 07.Artwork Inspection System 08.Automatic Inner Layer Roller Coating System 09.Laser Direct Imaging M/C	2 Sets 1 Set 6 Sets 1 Set 3 Sets 2 Sets 1 Set 1 Set 1 Set 1 Set			
Silk Screening Department 丝印部  01.Auto Screening M/C 02.Ovens Tunnel 03.Wet Film Solder-mask Developer 04.UV Curing M/C 05.Wet-Film Solder-mask Roller Coating M/C 06.Legend Ink Printer		11 Sets 2 Sets 2 Sets 2 Sets 1 Set 1 Set			

#### People 人才培养:

- Dependable people are the foundation of our continuous success. Through education, training, staff programs and various incentive activities, we not only build up the character and expertise of our staffs, we have created the bonding and team spirit of working as a family.
- Training program:In addition to mandatory internal training,professions or specialists are invited to conduct seminar and training to improve the quality of staff members in every aspect.
- Outstanding employee award:To encourage healthy competition,award is given quarterly to staff member as recognition to their contribution to the company.
- 3.Periodic newsletter:Staff members are encouraged to write essays,suggestion or complaints and share with others.Criticisms are taken into consideration and create a harmonic environment for mutual support and improvement.
- 4.Recreation:To strengthen the bonding within our big family,we have function room, outdoor sport ground and karaoke room for our staffs to relax and enjoy.
- 5.Gathering:Different annual events are scheduled throughout the year to celebrate and reward.Company vacation,annual dinner,lucky draw,talent show and birthday parties are held to maintain the morale of everyone.

企业的人才是持续发展的基础,通过教育、培训、适当的人力资源 规划和多样性的鼓励活动,不仅能塑造员工个人能成为企业的中流 砥柱,并能更进一步地达致高度合作性的团队精神。

- 1.培训计划:除了公司内部自行设计的培训课程外,公司亦会聘请专业之管理顾问司作为顾问,向员工提出一些有前瞻性及建设性之课题,令到员工能有持续改进的目标。另外亦会经常邀请行内专业人士或专家举行研讨会以提高我们的员工各方面的专业水平。
- 2.优秀员工:每一季度我们都会评审一些各个级别的员工,从他们对工作的热诚、态度与及对公司的贡献作出优秀员工的奖励,使能积极地鼓励员工和平竞争,力争上游。
- 3.厂事通讯:我们一直鼓励员工与他人分享评论及建议,所以设立了员工通讯栏,使员工有一个能表达意见的场所及讨论的空间,即使是善意的批评也得检讨及反省,为持续改进营造和谐的环境气氛。
- 4.工余安排:为了增强我们厚信大家庭的凝聚力,所有员工能尽情放松和娱乐。我们设有活动中心、户外运动场及卡拉<SPAN lang=EN-US>OK</SPAN>房等等娱乐设施,使员工能够在工余时间得到适当的精神放松,并能够对前面的挑战作出更佳的准备。
- 5.另外每年都会举行多次不同的聚会以鼓励员工士气,例如年夜晚 会、秋季旅行及生日晚会等等。





### Production Capability 生产能力

#### Technical Specification for PCB PCB 技术说明 1.FR-4, (Tg140to Tg180),CEM-3,Halogen-Free Product Range 成品范围 2. Aluminum base Material Laminate Thickness 板材厚度 0.4~3.2mm:up to 16 Layers Copper Foil Thickness 铜箔厚度 18um to 140um(0.5oz~4oz) Minimum Finished Hole 最小成品孔径 Ø 0.1mm(4mil) Minimum Line Width 最小线径 0.07mm(3mil) Minimum Air Gap 最小线距 0.07mm (3mil) Minimum BGA(Filp Chip)最小BGA焊盘 Ø 0.13mm(5mil) Fine SMD Pitch 线到PAD,PAD到PAD 0.07mm(3mil) Maximum Panel Size最大拼版尺寸 457mm x 609mm(18"x 24") 1)Electroless Ni/Nu Plating 2)Soft / Hard Au Plating 3)Carbon Ink/ Silver Ink **Surface Finishing** 表面处理工艺 4)OSP 5)Lead-Free Hot Air Levelling 6)Electroless Pure Tin /silver 1) Wet Film (LPI Soldermask) Solder-Mask Finishing 组焊工艺 2)Peelable Solder-make 1)CNC Routing ( $\pm 0.1$ mm) 2)CNC V-Cut(±0.05mm) Profile 成型 3)Bevelling 4)Mould-Die Punching(±0.1mm)

### Equipment 设备



Panel Edge Routing Line 自动磨板边机



Brown Oxide Treatment Line 棕化线



LDI M/C 雷射线路制作机



Pressing System 压合机组



Drilling M/C 数控钻孔机



DES Line 显影/蚀刻/退膜线



Electroless Cu/Cu, Ni, Au Plating Line 金属孔化/铜镍金电镀线

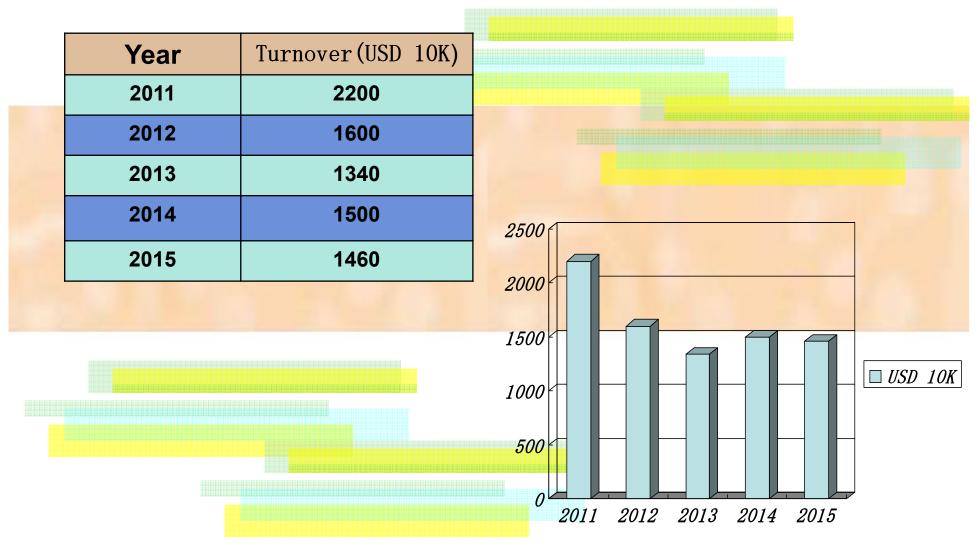


Solder Mask Screening M/C 防焊油墨丝印机

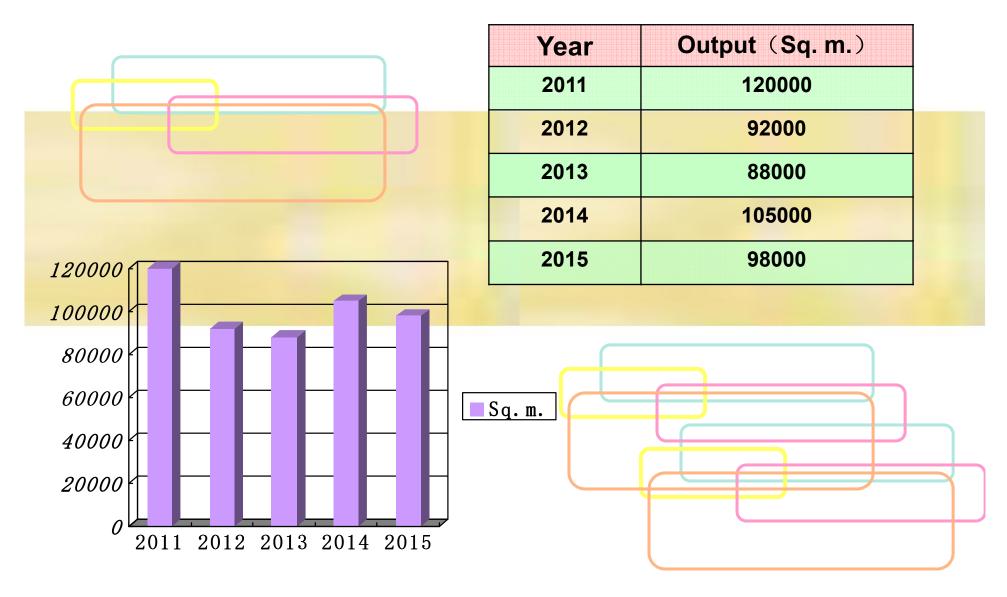


CNC V-Cut M/C V-Cut机

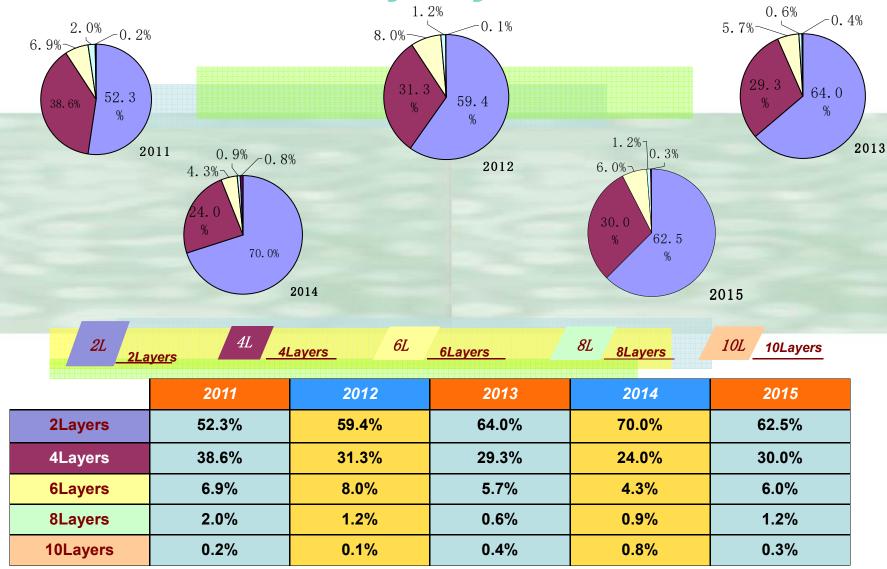
# Annual sales turnover for the past 5 year



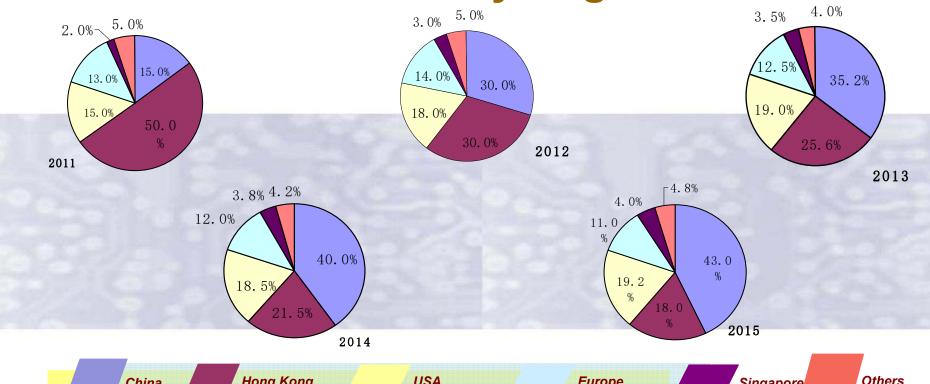
## Annual production output for the past 5 year



# **Turnover by Layer Count**

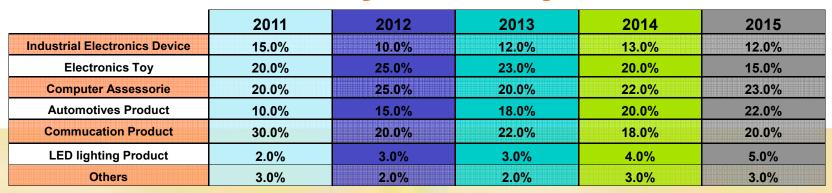


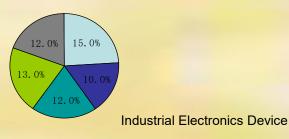
# **Turnover by Region**

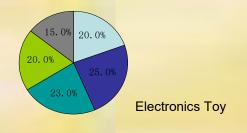


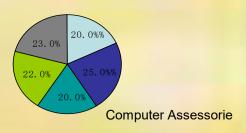
China	Hong Kong	USA	Europe		Singapore Others
	2011	2012	2013	2014	2015
China	15.0%	30.0%	35.0%	40.0%	43.0%
Hong Kong	50.0%	30.0%	25.5%	21.5%	18.0%
USA	15.0%	18.0%	19.0%	18.5%	19.2%
Europe	13.0%	14.0%	12.5%	12.0%	11.0%
Singapore	2.0%	3.0%	3.5%	3.8%	4.0%
Others	5.0%	5.0%	4.0%	4.2%	4.8%

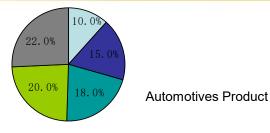
## **Turnover by Industry Sector**

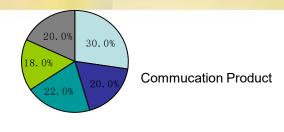


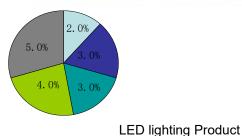


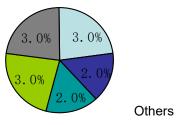






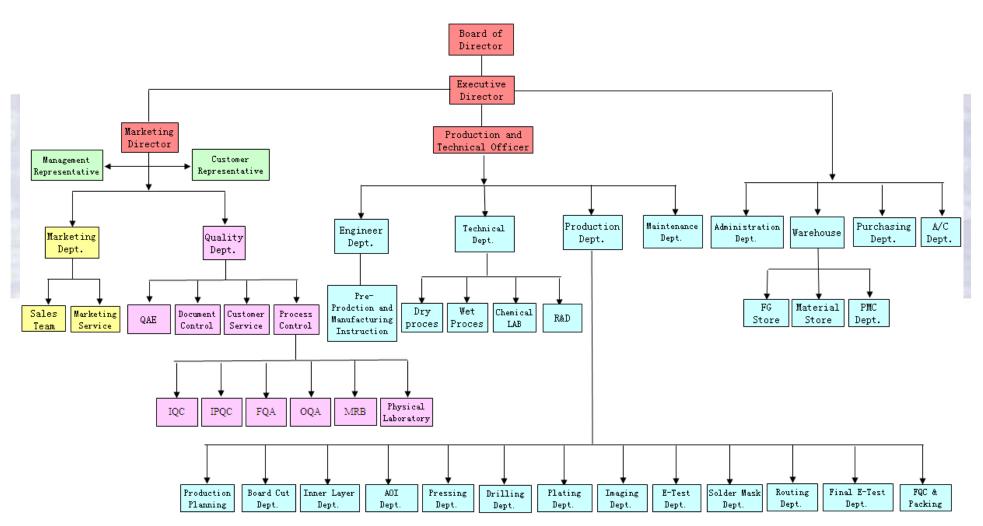








# **Organization Chart**



## Certificate of the company



Certificate

N° 2007/30575.2

AFNOR Certification certifies that the management system implemented by: AFNOR Certification certifie que le système de management mis en place par

FOSHAN CITY SHUNDE QU HOU XIN ELECTRONIC PARTS CO., LTD.

佛山市顺德区厚信电子配件有限公司

for the following activities: pour les activités suivantes :

MANUFACTURING OF PRINTED CIRCUIT BOARDS FOR ELECTRICAL, ELECTRONIC, TELECOMMUNICATION, GAME PLAYER AND COMPUTER PRODUCTS.

用于电子、电器、通讯、游戏以及电脑的印刷线路板的制造

has been assessed and found to meet the requirements of: a été évalué et jugé conforme aux exigences requises par :

ISO 9001: 2008

and is developed on the following locations: et est déployé sur les sites suivants :

DAMEN VILLAGE, DALIANG STREET, SHUNDE QU, FOSHAN CITY, GUANGDONG PROVINCE, CHINA 中国广东省佛山市顺德区大良街道大门村

This certificate is valid from (year/month/day) Ce certificat est valable à compter du (année/mois/jour)

2013-11-15

until .

2016-11-15

Managing Director of AFNOR Certification

Al

F. MÉAUX

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COPPAC annual soul of 4,000, the apprecial fundame Controller. Good evaluation of controller. A controller as dynamic minute private. Public absorbes au present controller.





N° 2012/51918.2

AFNOR Certification certifies that the management system implemented by: AFNOR Certification certifie que le système de management mis en place par

FOSHAN CITY SHUNDE QU HOU XIN ELECTRONIC PARTS CO., LTD.

佛山市顺德区厚信电子配件有限公司

Organization Code/Code d'Organisation/组织机构代码:

61746734-8

for the following activities: pour les activités suivantes :

MANUFACTURING OF PRINTED CIRCUIT BOARDS FOR ELECTRICAL, ELECTRONIC, TELECOMMUNICATION, GAME PLAYER AND COMPUTER PRODUCTS.

电子、电器、通讯、游戏以及电脑印刷线路板的制造

has been assessed and found to meet the requirements of: a été évalué et jugé conforme aux exigences requises par :

ISO 14001: 2004

and is developed on the following locations: et est déployé sur les sites suivants :

DAMEN VILLAGE, DALIANG STREET, SHUNDE QU, FOSHAN CITY, GUANGDONG PROVINCE, CHINA

中国广东省佛山市顺德区大良街道大门村

This certificate is valid from (year/month/day) Ce certificat est valable à compter du (année/mois/jour)

2015-11-23

until

2018-09-14



Managing Director of AFNOR Certification Directeur Général d'AFNOR Certification

F. LEBEUGLE

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### Certificate of the company





N°30574 Nº IATF: 0173875

> AFNOR Certification certifie que le système de management mis en place par : AFNOR Certification certifies that the management system implemented by:

#### FOSHAN CITY SHUNDE QU HOU XIN ELECTRONIC PARTS CO., LTD.

佛山市顺德区厚信电子配件有限公司

pour les activités sulvantes : for the following activities:

MANUFACTURING OF PRINTED CIRCUIT BOARDS FOR THE AUTOMOTIVE INDUSTRY. 汽车用印刷线路板的生产

a été évalué et jugé conforme aux exigences requises par :

ISO/TS 16949: 2009

Avec l'exclusion du chapitre 7,3 de la spécification technique (L'exclusion de la conception des processus de fabrication n'est pas autorisée).

With the exclusion of chapter 7,3 of the technical specification (The exclusion of manufacturing process design is not permitted).

et est déployé sur les sites suivants : and is developed on the following locations:

DAMEN VILLAGE, DALIANG STREET, SHUNDE QU, FOSHAN CITY, GUANGDONG PROVINCE, CHINA 中国广东省佛山市顺德区大良街道大门村

2013-11-15

2016-11-14

Certifié depuis: 2007-12-21

Version du certificat: 2 Certificate Version: 2

Directrice Générale d'AFNOR Certification
Menaging Director of AFNOR Certification

F. MÉAUX

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