

PRESENTATION

CMP CO., Limited

Innovation Printed Circuit Board Solutions

CMP founded at 2006, located at HongKong, invested ShenZhen factory at the same year, main product is small & middle volume PCB. CMP began the Rigid & Flex PCB at 2015, capacity achieved 38000sqm/month at 2018. CMP also invested GuangZhou factory at 2023, which focus on the normal layer PCB with middle & big volume size

CMP stand by HongKong, global support, produce high layer, HDI, R&F PCB, focus on “Multi-batch, multi-variety, high layer, short lead-time”.

CMP has always been committed to the PCB production and sales since its establishment, gathered a large number of high-quality talents with rich industry experience to improve R&D strength continuously. Now CMP has nearly 1,000 employees, gained certification of ISO9001, ISO 14001, IATF 16949.

Related company or branch:

Headquarters: ROOM 1503-09 15/F CAUSEWAY BAY CENTRE 15-23 SUGAR ST, CAUSEWAY BAY, HK.

ShenZhen Office: #211, JiaYu Building, ShaPuWei Industrail avenue, SongGang Town, ShenZhen City, GuangDong Province, 518105,China, ShenZhen factory: Building 4, JinFeng Industriy Area, HePing Village, FuYong Town, ShenZhen City, GuangDong Province, China.

GuangZhou factory: No 15, LiYe Road, DongYong Town, NanSha District, GuangZhou City, GuangDong Province, China.

India Office: The Marketing House, 201 Sairang, DP Road Kothrud, Pune 411038, India.

Spain Office: Calle 5, numero 2 (Pol. Ind. Ei Rubial), 03400 Villena, Alicante, Spain

Web: www.cmppcb.com

Overview



Spain Office

Address: Calle 5, numero 2 (Pol. Ind. Ei Rubial), 03400 Villena, Alicante, Spain



GuangZhou factory

Plant area : 15000 sqm
Employees : 500
Product: Rigid pcb 2-12 L
Volume: Middle & Large volume
Capability: 50000 sqm/month



ShenZhen factory

Plant area : 12000 sqm
Employees : 400
Product: Rigid pcb, Rigid & Flex pcb, HDI, 8-32L
Volume: Small & Middle volume
Capability: 38000 sqm/month



Indian Branch Office

Address: 201 Sairang | DP Road Kothrud | Pune 411038 | India



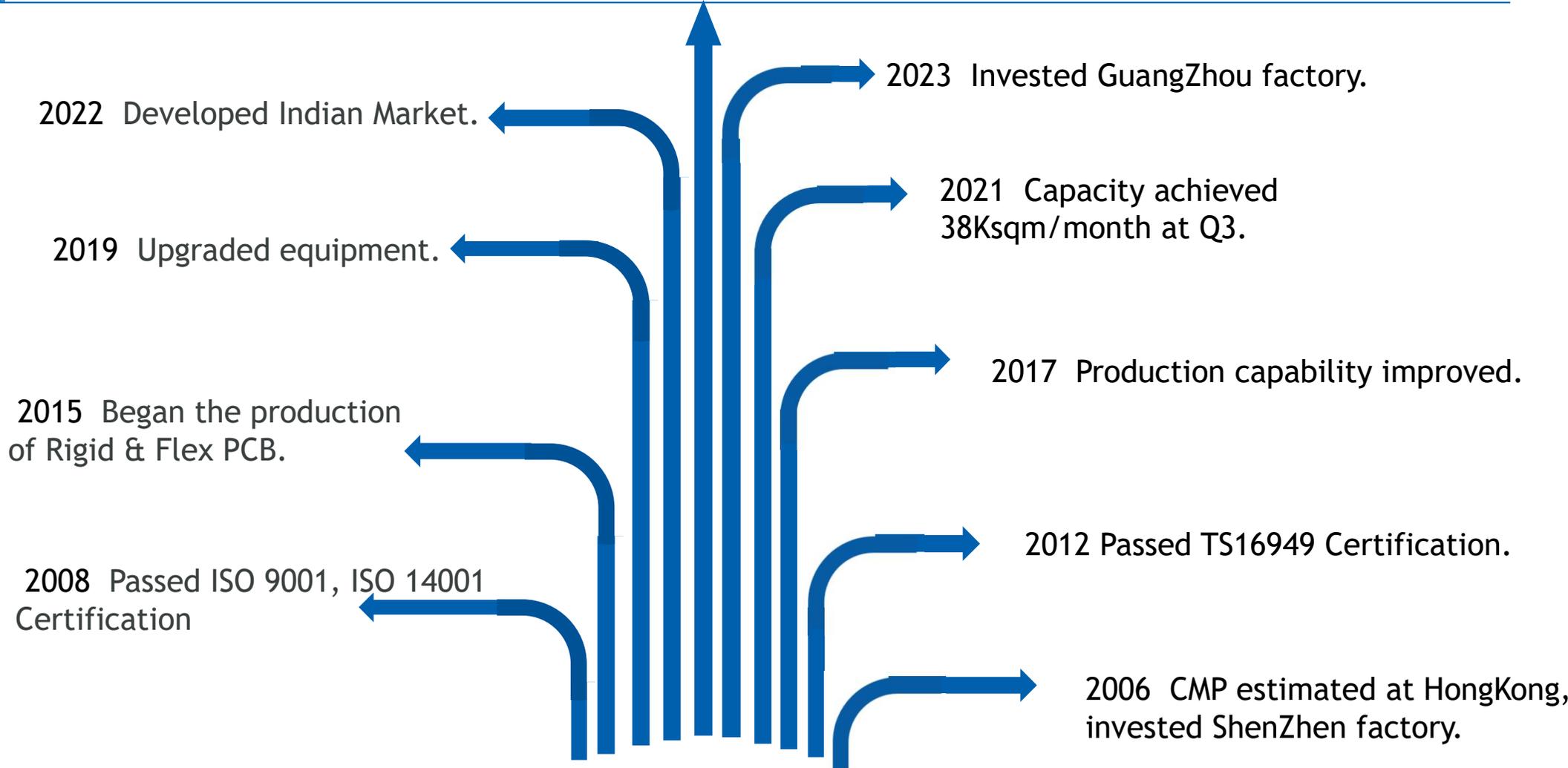
HongKong Head Office

Address: ROOM 1503-09 15/F CAUSEWAY BAY CENTRE 15-23 SUGAR ST, CAUSEWAY BAY, HK.



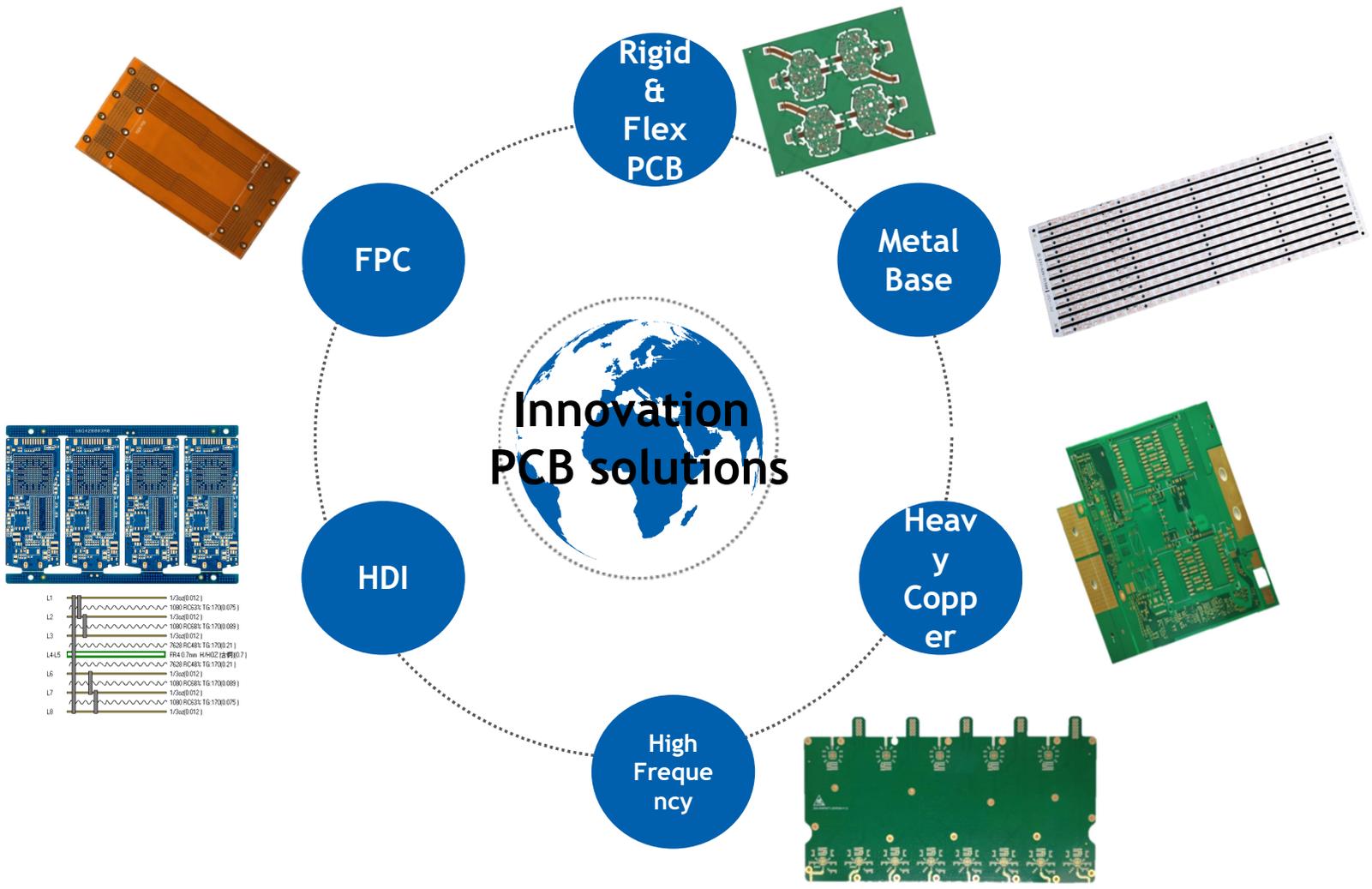


Milestone

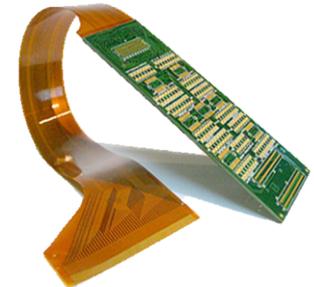
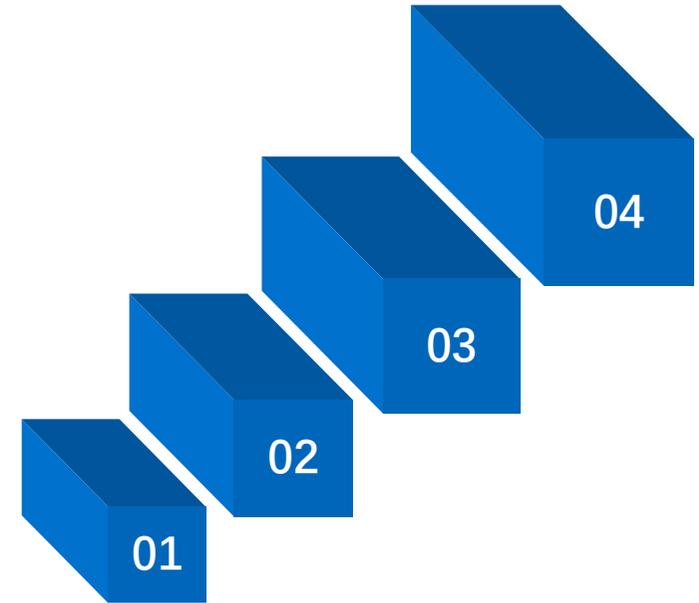




Product Category

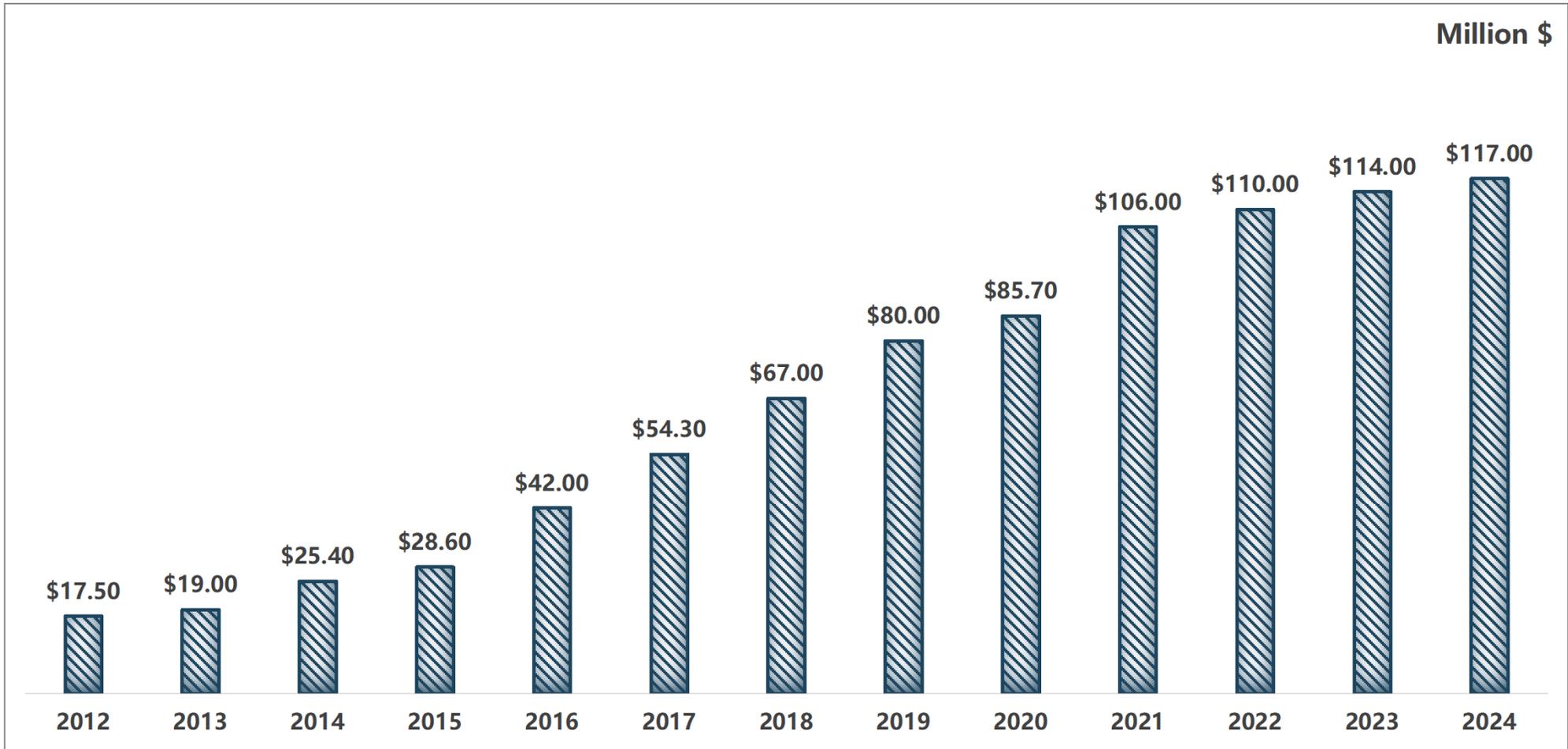


- * Stand by HongKong, global support.
- * Quick response, 24H *7 flexible service time.
- * All batch size, from prototype to big volumes.
- * All kinds of PCBs, different layer and different technology.
- * Technology support, our experience will help customer design.
- * Quotation by door to door, payment in different currencies.



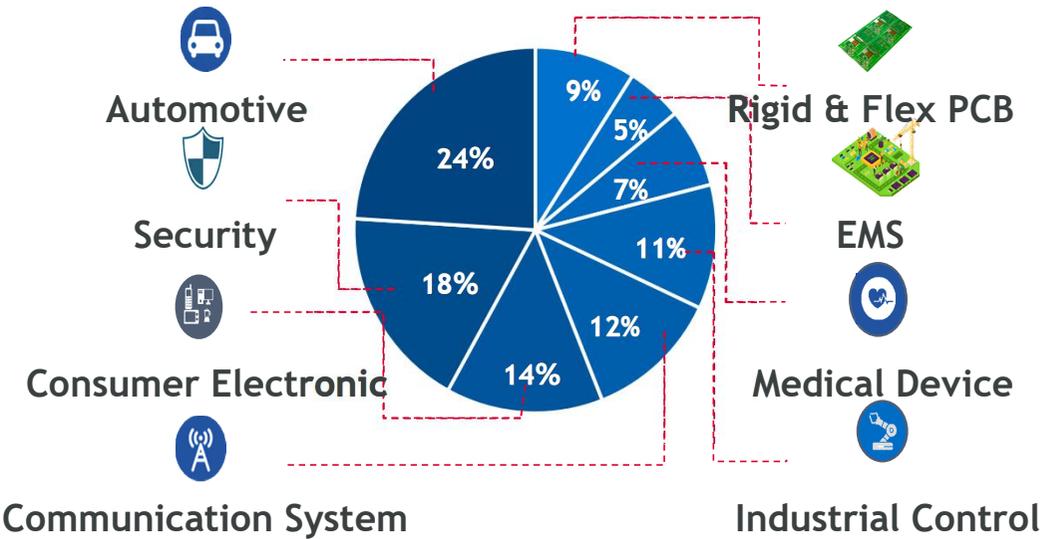


Annual Sales

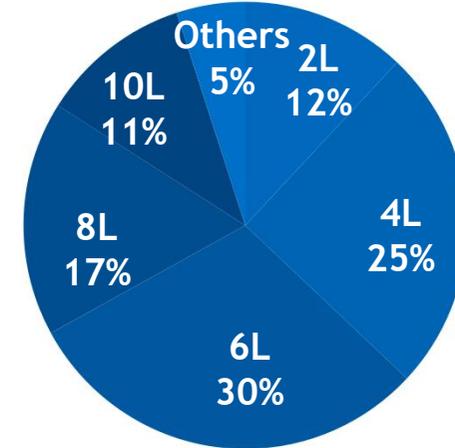


Sales Distribution

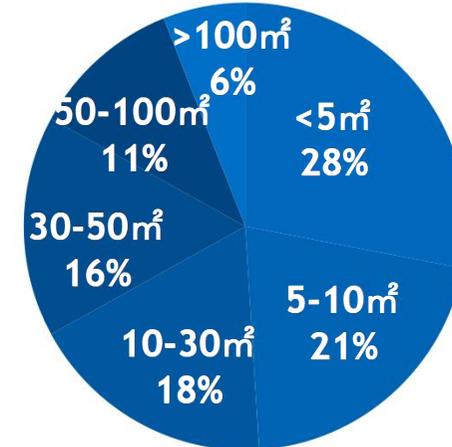
By Application



By Layer

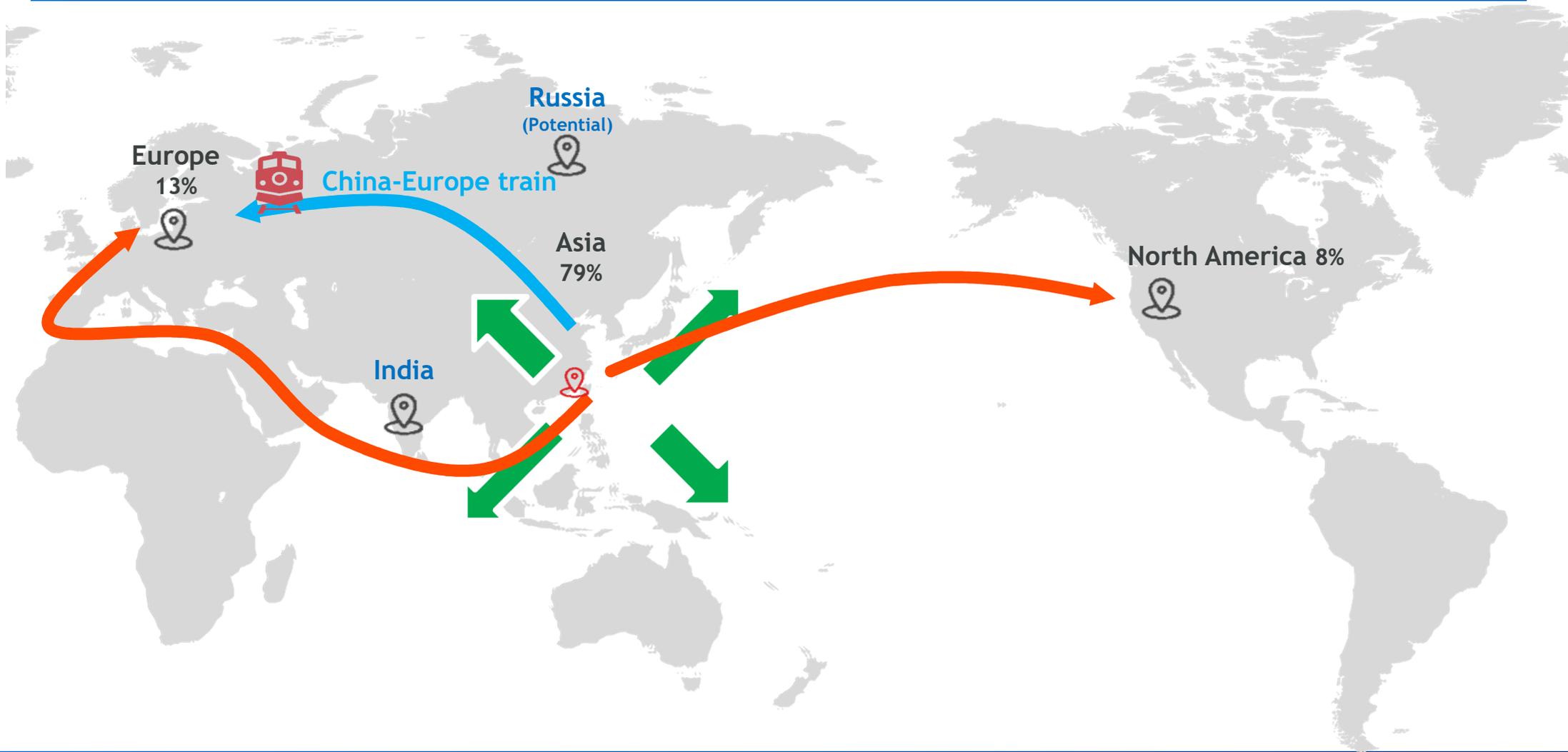


By Order Size





Sales By Market





Customers

Automotive



ADAYO 华阳集团



MOBICOOL 美国

Security



Infinova



HITACHI Inspire the Next



Communication system



MOBI 摩比



WINSTARS



Consumer electronic

harman/kardon



Netac 朗科

Industrial control

北京理工大学 BEIJING INSTITUTE OF TECHNOLOGY

invit 英威腾



MAX 创鑫激光

SUNGROW 阳光电源

华北工控 NORCO



ERM

EMS/ Others

TATA AUTOCOMP SYSTEMS Enabling Mobility Solutions



TOP-TEK



TAURUS PRODUCTS INC.





ShenZhen Factory Certification & Patents



Awarded “China Hi-Tech Enterprise”, gained 77 patent for invention.



GuangZhou Factory Certification & Patents





ShenZhen factory / Rigid & Flex PCB Capability

Parameter	2023		Outlook	
	Sample	Mass-produce	Sample	Mass-produce
Layer	18 L	12 L	30 L	20 L
WPNL size	400mm*540mm	400mm*540mm	400mm*540mm	400mm*540mm
Board thickness	0.25-3.2mm	0.25-3.2mm	0.25-5.0mm	0.25-3.2mm
Min line width/space	2mil/2mil	2.5mil/2.5mil	1.5mil/1.5mil	2mil/2mil
Min distance from hole to line	5mil	5mil	4mil	5mil
Copper thickness	1/3 - 2 oz	1/3 - 2 oz	1/3 - 2 oz	1/3 - 2 oz
Alignment between layer	2mil	2mil	2mil	2mil
Min through hole size	0.075mm	0.1mm	0.05mm	0.075mm
Min blind hole size	0.05mm	0.075mm	0.05mm	0.05mm
Max aspect ratio	12:1	10:1	16:1	12:1
Etching tolerance	±10% / ±1.5mil	±10% / ±1.5mil	±10% / ±1.5mil	±10% / ±1.5mil
Min solder mask bridge	3mil	4mil	2mil	3mil
Impedance control	±5%	±10%	±5%	±5%
Surface treatment	ENIG, Hard gold, HASL, ENEPIG, Immersion Tin, Immersion Ag, OSP			
Structure	Single layer FPC, Multiple layer FPC, FPC with gold finger, Air gap, HDI, Asymmetric stack-up, FPC on top layer (press fit stack-up), Book structure, Flying tail structure, others			
Raw material	ShengYi / Grace Electron (宏仁) / Taiflex (台虹) / Dupton / Panasonic			



ShenZhen factory / High Frequency Capability

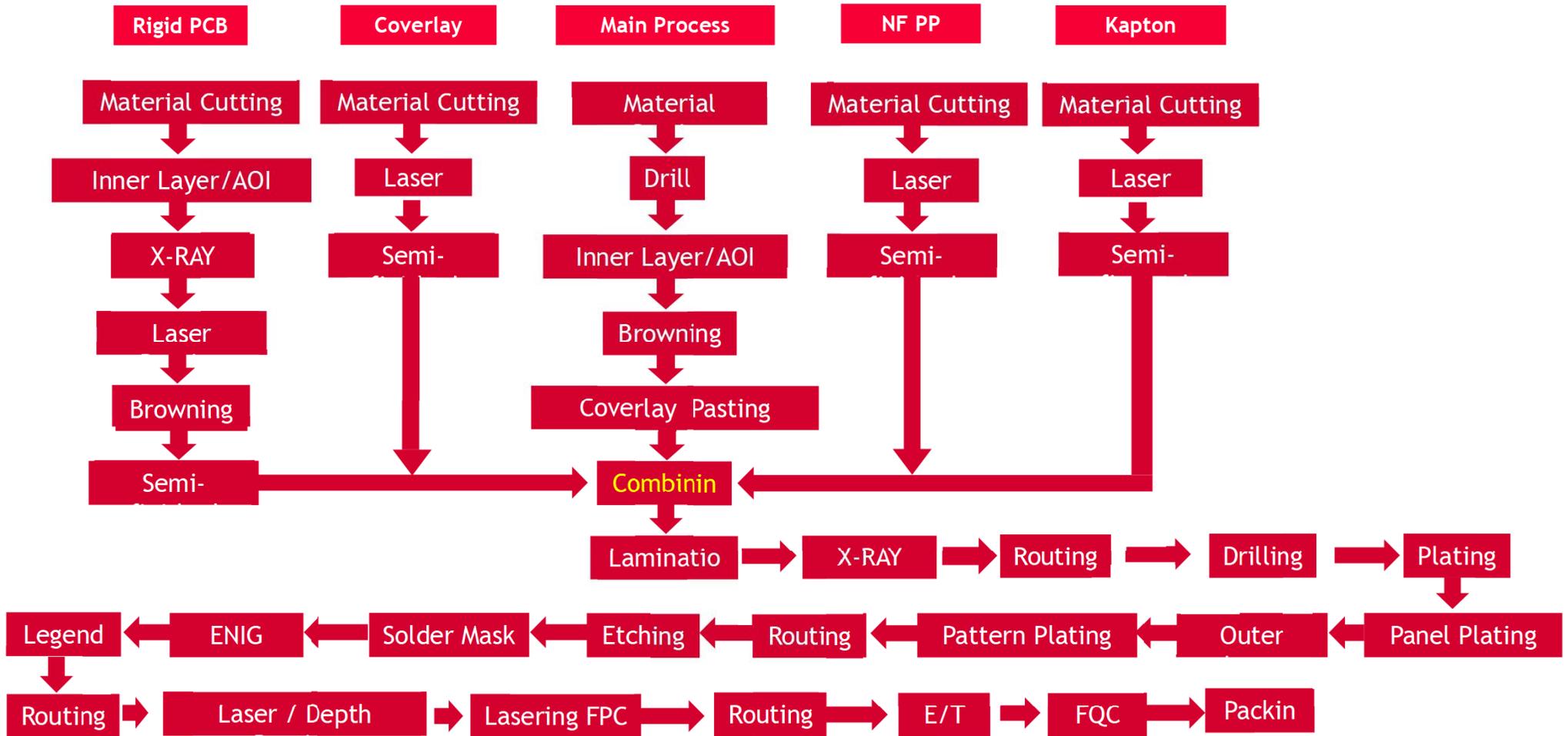
Parameter	Technology	Sample	Mass-Produce
Material	PTFE, Hydrocarbon resin (碳氢树脂), etc.	PTFE+Ceramic, PTFE+Glass fiber+Ceramic, PTFE+Glass fiber	
Layer	Layer	24 L	16 L
Outline tolerance	Max size	850*700 mm	720*650 mm
	Outline tolerance	±0.05 mm	±0.10 mm
	Slot hole size tolerance	Normal slot ±0.08; short slot ±0.1	Normal slot ±0.1; Short slot ±0.13
Lamination	Alignment between layer	2 mil	3 mil
	Mix laminating	PTFE+Hydrocarbon ceramic (碳氢陶瓷) +Fr4	
Hole	Min hole size	0.25 mm	0.3 mm
	Min wall of hole spacing	0.6mm	0.65mm
	Hole size tolerance	±0.05 mm	±0.075 mm
Plating	Max aspect ratio	16:1	12:1
	Hole copper homogeneity	COV≤5%	COV≤7%
Resin plug	Resin plug aspect ratio	12:1	12:1
	Hole type	Through hole / Blind & Burry hole	Through hole / Blind & Burry hole
Line width	Tolerance	±1.5mil	±1.5mil
Impedance control	Impedance control	±8%	±10%
Other	Bow & Twist	0.50%	0.75%
	Special technology	POFV(VIPPO), Mix laminating, Part mix laminating, Recessed gold finger, countersinking & Step slot, back drill, edge plating, N+N structure, double sides press-fit mechanical blind hole, part heavy copper, etc.	
Hi-Frequency / Speed material	Brand	ShengYi (LNB33), ITEQ, TUC(台耀), Panasonic (M4, M6)	



GuangZhou factory / Standard PCB Capability

Parameter	2023			
	Sample		Mass-produce	
Layer	20 L		12 L	
Max PNL size	620*820mm		620*720mm	
Board thickness	0.4-5.0mm		0.4-3.2mm	
Min line width/space for Inner layer	2.5mil/2.5mil		2.5mil/3.5mil	
Min line width/space for Outer layer	3/3mils		4/4mils	
Copper thickness	6 oz		4 oz	
Alignment between layer	3 mils		3 mils	
Min through hole size	0.15 mm		0.2 mm	
Finished hole size tolerance	0.05mm PTH	0.05mm NPTH	0.075mm PTH	0.05mm NPTH
Max aspect ratio	12:1		10:1	
PTH hole copper thickness	20-30um		10-15um	
Min solder mask bridge	2.5mil		3mil	
Impedance control	±8%		±10%	
Surface treatment	ENIG, Hard gold, HASL, ENEPIG, Immersion Tin, Immersion Ag, OSP, HASL, LF-hasl, Carbon, Peelable mask.			
Raw material	Nanya, ITEQ, ShengYi, KB,			

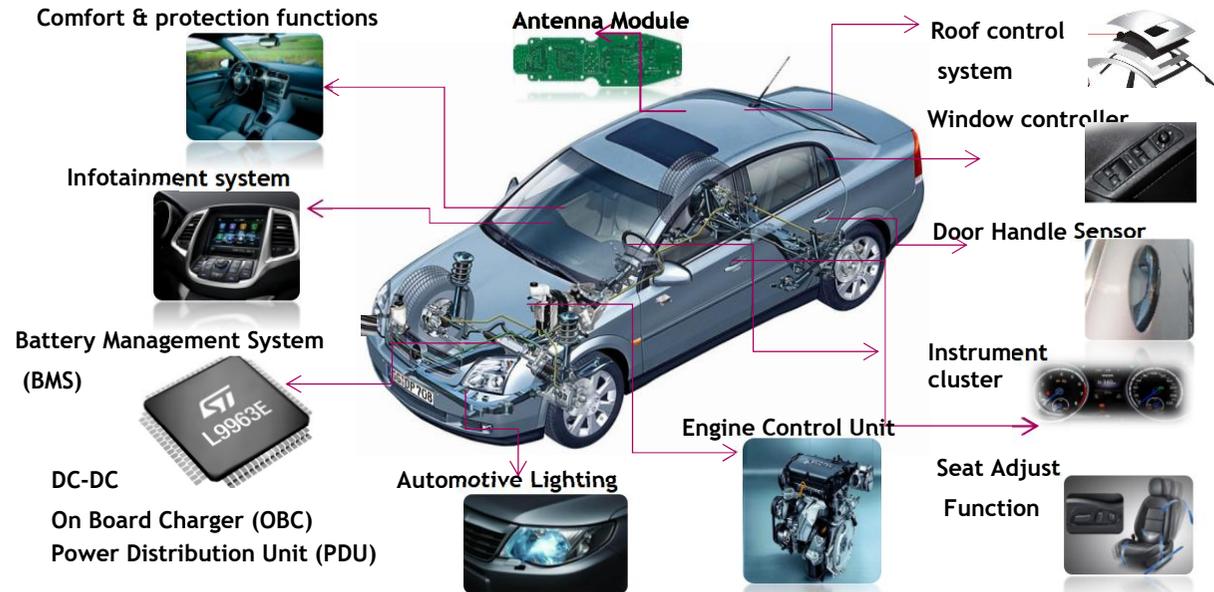
Manufacturing process of Rigid & Flex PCB



Automotive PCB Application

What we support to your Automotive PCB?

- ◆ Full IATF 16949 certification
- ◆ Level 3 PPAP capability
- ◆ IMDS / CAMDS submission capability
- ◆ Dedicated automotive production equipment



According to the PCB application, our main Automotive customer would be divided into three categories:

1. Automotive Electronics.

As above picture shows, their products involved all of the parts except “automotive lighting” & “Engine Control Unit”. Along with the China electromobile increasing these years, their products also be used into Vehicle smart cabin, smart drive, smart service, HUD, T-BOX, etc. In another word, our PCB mainly used into the field of Automotive electronics part, customer name : Desay SV, ADAYO, E-lead, BICV, China TSP, Coagent.

2. New energy.

Sound Group is one of China Lithium new energy research and production institutions. their main products are battery cell product, power battery pack, energy storage system, etc.

3. Car refrigerator.

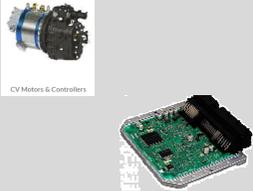
Automotive PCB Application

Logo	Customer	City	Our PCB application	Picture	Other
	Desay SV Automotive	HuiZhou, China	Display		<p>Chines state-owned enterprise engaged in automobile electronics.The Company conducts business in three fields: intelligent cabin, intelligent driving, and online service. The Company's main products include in-vehicle infotainment systems, body information and control systems, driving information display systems, intelligent driver assistance safety systems and components.</p> <p>https://en.desaysv.com</p>
	Foryou Corporation	HuiZhou, China	HUD & air condition controller		<p>Foryou Corporation (stock code:002906) was founded in 1993, is committed to becoming a leading supplier of automotive electronics and parts in domestic and global markets.</p> <p>https://en.foryougroup.com/</p>
	E-LEAD ELECTRONIC CO. LTD	ChangHua, TaiWan	Adanced Driver ASsistance Syestm (ADAS)		<p>E-lead electronics company was founded in 1983. main products are focused on four major areas: head-up display, driving safety protection, rear seat entertainment system,and charger and other accessories. they have successfully entered the first-tier supply system recognized by major international auto brands, and products have also achieved good results in the retail market.</p>

Automotive PCB Application

Logo	Customer	City	Our PCB application	Picture	Other
	chinatsp Inc.	BeiJing, China	Antenna module		<p>Chinatsp is one of the earliest enterprises engaged in Telematics business in China. It has provided vehicle terminal products for more than 20 models of car manufacturers of 4 self-owned brands and 2 joint venture brands, mainly including Changan in Call and Geely G-netlink system.</p> <p>http://www.chinatsp.com</p>
	Faurecia Coagent Electronics Co. Ltd.	FoShan, China	GPS & CAR DVR		<p>Faurecia Coagent Electronic Electronics Co., Ltd. is a joint venture established in November 2017 between Faurecia, the world's leading auto parts supplier, and Jiangxi Coagent, the domestic famous auto front fitting supplier. Faurecia Coagent Electronics is committed to becoming the world's leading innovative intelligent cockpit solution integrator.</p> <p>http://www.coagent.cn/</p>
	BDStar Intelligent & Connected Vehicle Technology Co., Ltd. (BICV)	ChongQing, China	T box		<p>BDStar Intelligent & Connected Vehicle Technology Co., Ltd. (BICV) is a subsidiary of Beijing BDStar Navigation Co., Ltd.(stock code: 002151). The company has more than 20 years of experiences in automotive electronics R&D, manufacturing and delivery. It is the TIER1 enterprise ranking first in the shipment of China's independent brand automobile enterprises. It is also the only company in China with R&D and mass production capacity of front loading automotive</p>

Automotive PCB Application

Logo	Customer	City	Our PCB application	Picture	Other
	Sound group	XiangTan, China	EV battery		<p>Sound Group is one of China Lithium new energy reserach and production institutions. their main products are battery cell product, power battery pack, energy storage system, etc.</p> <p>http://en.e-soundon.com</p>
	Mobicool electronic (Shenzhen) co., ltd.	ShenZhen, China	Car refrigerator		<p>Mobicool is the earlist China car refrigerator productor, the world's top professional portable refrigeration products manufacturer, with a market share of 50% in Europe. It is also the OEM/ODM supplier of embedded automotive refrigerators for BMW, Mercedes-Benz, Land Rover, MAN, VOLVO and other top automobile manufacturers.</p> <p>https://www.mobicool.com</p>
	TATA AUTOCOMP SYSTEMS LTD	Pune, Indian	BLDC (brushless DC electric motor), ECU(Electronic Control Unit)		<p>Tata AutoComp Systems Limited (Tata AutoComp) provides products and services to the Indian and Global automotive OEMs as well as Tier 1 suppliers.</p> <p>https://tataautocomp.com</p>

ShenZhen Factory Production Line – 1/3



Automatic material cutting machine



EIE photoplottter



Film AOI



Vertical coating roaster



CCD exposure machine



Auto film laminator



Inner layer etching machine



Inner layer inline AOI

ShenZhen Factory – Production Line – 2/3



Copper foil cutting machine



CCD fusion machine



Auto stacking line



Laminator



X-RAY drilling machine



CNC



Hole inspector



Dimensional measurement

ShenZhen Factory - Equipment – Production Line – 3/3



PTH



Pattern plating



Tunnel oven



Solder mask developing line



E/T



Low resistance flying probe tester



V-CUT



AVI

ShenZhen Factory - Equipment – Rigid & Flex PCB



FPC material cutting machine



FPC coverlay laminator



FPC laminator



Laser cutting machine



Punching machine

GuangZhou Factory Production Line – 1/3



Automatic material cutting machine



Inner layer coating room



Inner layer AGV(Automotive Guided Vehicle) room



LDI



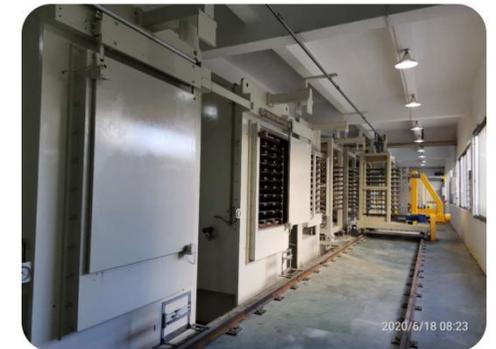
Browning line



Inline AOI



Etching line



Lamination system

GuangZhou Factory Production Line – 2/3



X-ray



Drilling machine



PTH line



Panel
Plating



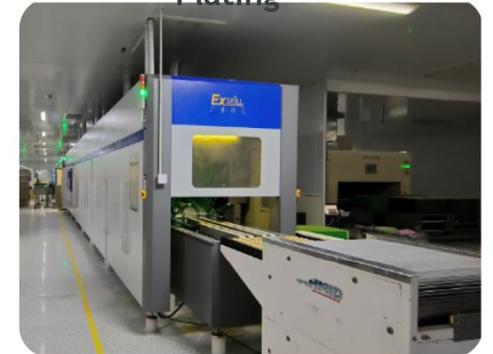
Pattern plating



Solder
Mask
pretreat
ment



Automotive
silkscreen
printing
machine



Solder mask tunnel
oven

GuangZhou Factory Production Line – 3/3



Production line of ink jet printing



CNC



V-cut



E/T machine



E/T



Low resistance flying probe tester



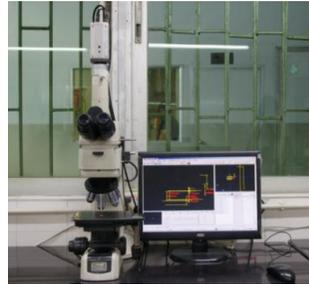
OSP



AVI

ShenZhen Factory Lab Equipment – Reliability Test

1. Solderability
2. Peel strength
3. Micro Section
4. S/M Adhesion
5. Gold Adhesion
6. Thermal Shock
7. Impedance
8. Ionic Contamination
9. Dimension Stability



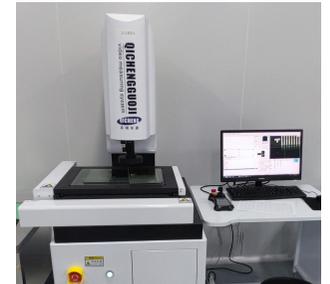
Metal microscope



Line width / space tester



Impedance control tester



2D / Quadratic element



ROHS tester



Ionic contamination tester



X-RAY plating thickness tester



Copper wall tester

GuangZhou Factory Lab Equipment



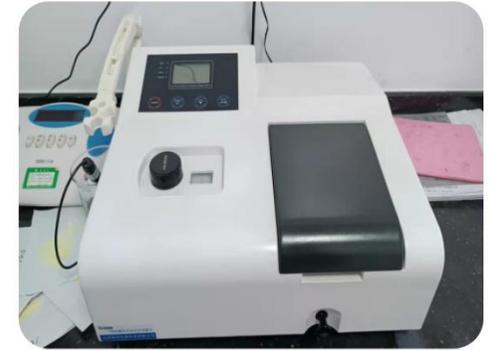
metalloscope



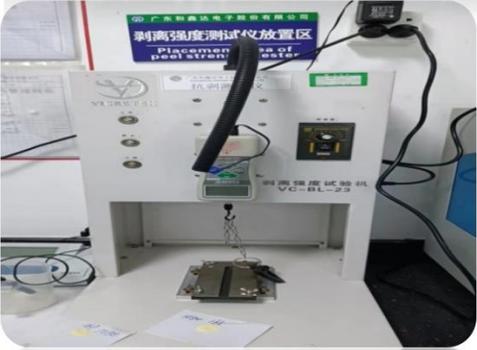
Line width measuring instrument



Two dimensional measuring instrument



Gold thickness tester



Peelable strength tester



Impedance control tester

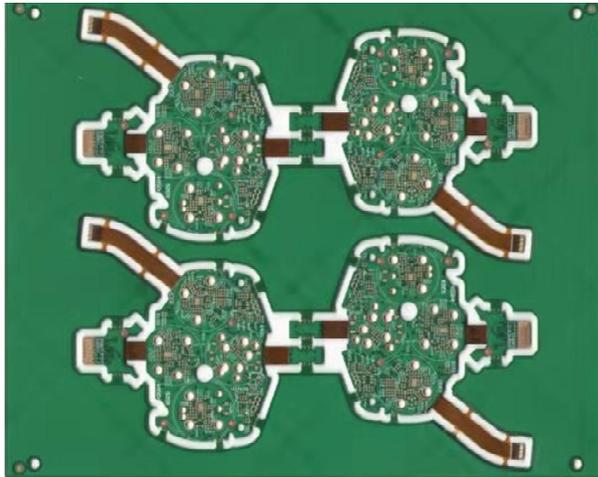


CMI 900



Board thickness tester

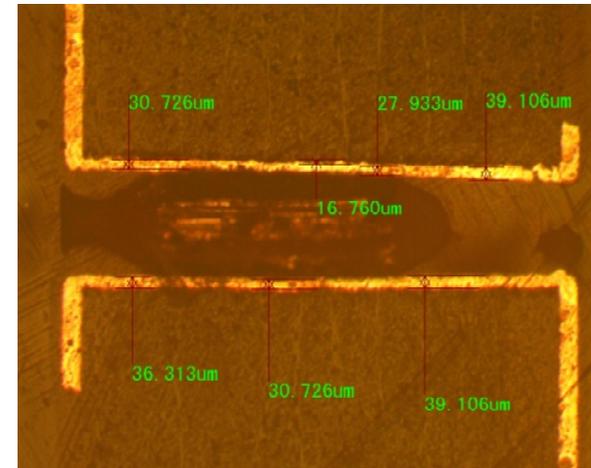
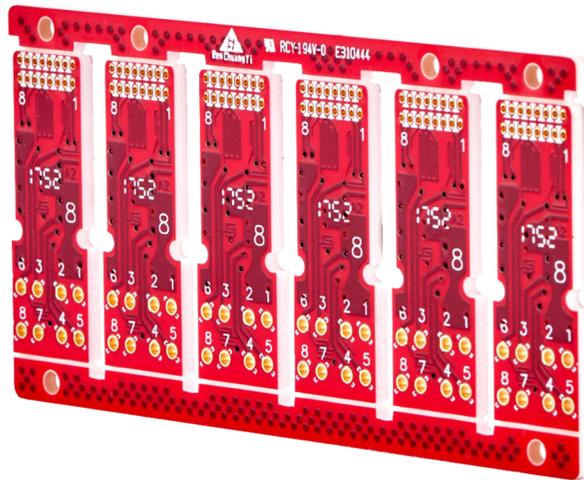
Products – 2/11



Soldermask 20.0 20.0			Soldermask 20.0 20.0		
Panel platin 20.0 20.0			Panel platin 20.0 20.0		
L1	Copper	18.0 17.0	L1	Copper	18.0 17.0
	FR4	250.0 250.0		FR4	250.0 250.0
L2	Copper	18.0 17.0	L2	Copper	18.0 17.0
	PP	85.0 75.0		PP	85.0 75.0
		PI Coverlay 12.5 12.5			PI Coverlay 12.5 12.5
		Adhesive 25.0 20.0			Adhesive 25.0 20.0
L3	Copper	18.0 17.0	L3	Copper	18.0 17.0
	PI Base	25.0 25.0		PI Base	25.0 25.0
L4	Copper	18.0 17.0	L4	Copper	18.0 17.0
		Adhesive 25.0 20.0			Adhesive 25.0 20.0
		PI Coverlay 12.5 12.5			PI Coverlay 12.5 12.5
	PP	85.0 70.0		PP	85.0 70.0
		PI Coverlay 12.5 12.5			PI Coverlay 12.5 12.5
		Adhesive 25.0 20.0			Adhesive 25.0 20.0
L5	Copper	18.0 17.0	L5	Copper	18.0 17.0
	PI Base	25.0 25.0		PI Base	25.0 25.0
L6	Copper	18.0 17.0	L6	Copper	18.0 17.0
		Adhesive 25.0 20.0			Adhesive 25.0 20.0
		PI Coverlay 12.5 12.5			PI Coverlay 12.5 12.5
	PP	85.0 75.0		PP	85.0 75.0
L7	Copper	18.0 17.0	L7	Copper	18.0 17.0
	FR4	250.0 250.0		FR4	250.0 250.0
L8	Copper	18.0 17.0	L8	Copper	18.0 17.0
	Panel platin	20.0 20.0		Panel platin	20.0 20.0
Soldermask 20.0 20.0			Soldermask 20.0 20.0		

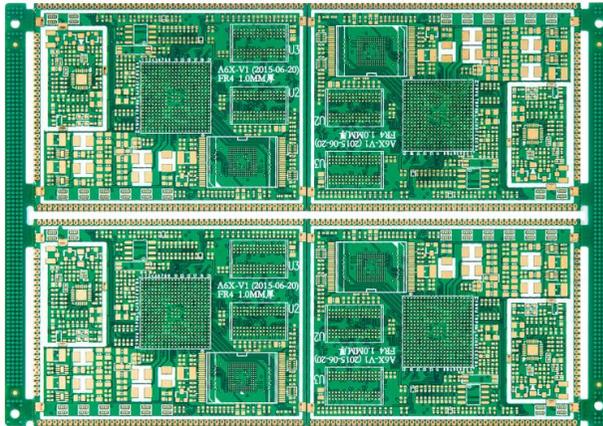


Layer: 8L, (2R-4F-2R) flex air gap
 Surface: ENIG
 Min hole: 0.2 mm
 PCB thickness: 1.6mm
 Material: IT180+ Dupont AP9141R
 Application: Industrial Control
 Technology: Air gap, Gold finger, half laser routing.



Layer: 2L
Surface : ENIG
Min hole: 0.3 mm
PCB thickness:
1.2mm

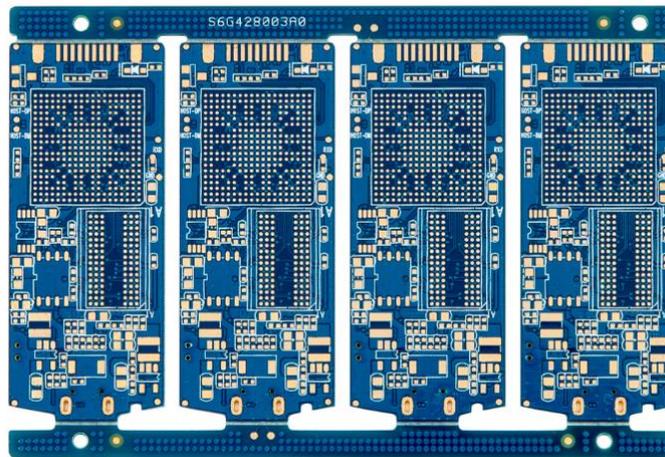
Material : Rogers 4350B
Application : 5G fiber interface
Technology : High requirements on line width
space and solder mask.



L1	1/3oz(0.012)
L2-L3	2116 RC53% TG:150(0.114)
	FR4 0.1mm H/HOZ(不含铜)(0.13)
	2116 RC56% TG:150(0.127)
	1080 RC63% TG:150(0.075)
	2116 RC56% TG:150(0.127)
L4-L5	FR4 0.1mm H/HOZ(不含铜)(0.13)
	2116 RC56% TG:150(0.127)
	1080 RC63% TG:150(0.075)
	2116 RC56% TG:150(0.127)
L6-L7	FR4 0.1mm H/HOZ(不含铜)(0.13)
	2116 RC53% TG:150(0.114)
L8	1/3oz(0.012)

Layer: 8L
 Surface : ENIG
 Min hole size: 0.15mm
 PCB thickness: 1.2mm

Material : ShengYi TG150
 Application : Automobile Navigation
 Technology: 1/3 oz copper +0.5mm half-via



L1	1/3oz(0.012)
L2	1080 RC63% TG:170(0.075)
L3	1/3oz(0.012)
L4-L5	7628 RC48% TG:170(0.21)
	FR4 0.7mm H/HQZ (含铜)(0.7)
L6	7628 RC48% TG:170(0.21)
L7	1/3oz(0.012)
L8	1080 RC68% TG:170(0.089)
	1/3oz(0.012)

Layer: 8L

Surface: ENIG

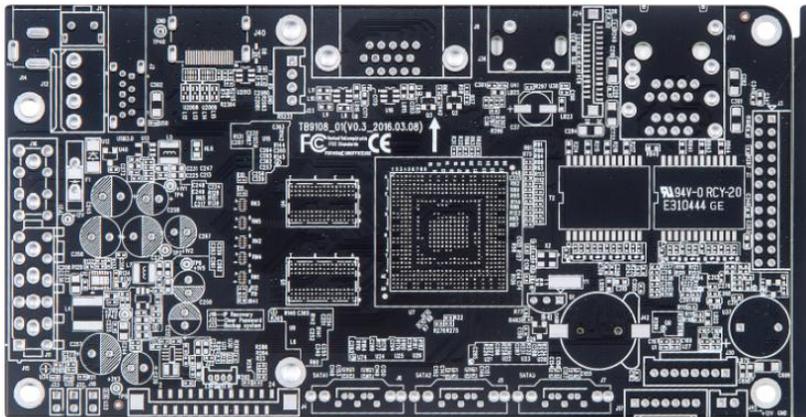
Min hole size: 0.10 mm

PCB thickness: 1.6mm

Material : ShengYi TG170

Application : On-screen display

Technology : HDI + Impedance control



L1		1/3oz(0.012)
		3313 RC58%(0.1)
L2-L3		FR4 0.2 mm 1/1oz(含铜)(0.2)
		7628 RC43%(0.175)
		7628 RC48%(0.21)
L4-L5		FR4 0.2 mm 1/1oz(含铜)(0.2)
		7628 RC48%(0.21)
		7628 RC43%(0.175)
L6-L7		FR4 0.2 mm 1/1oz(含铜)(0.2)
		3313 RC58%(0.1)
L8		1/3oz(0.012)



Layer: 8L

Surface: HASL

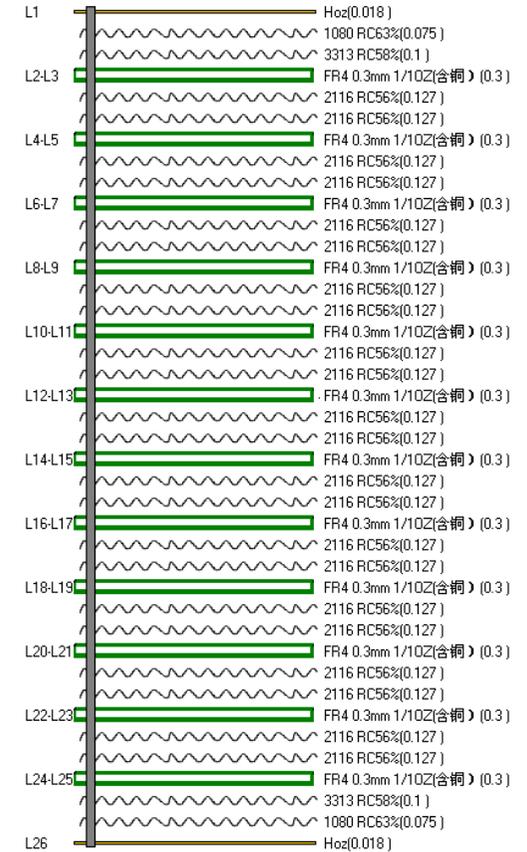
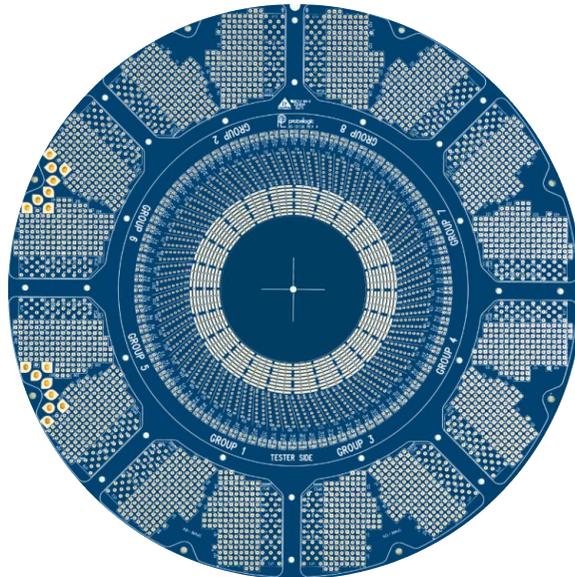
Min hole size: 0.25 mm

PCB thickness: 1.6mm

Material : ShengYi TG150

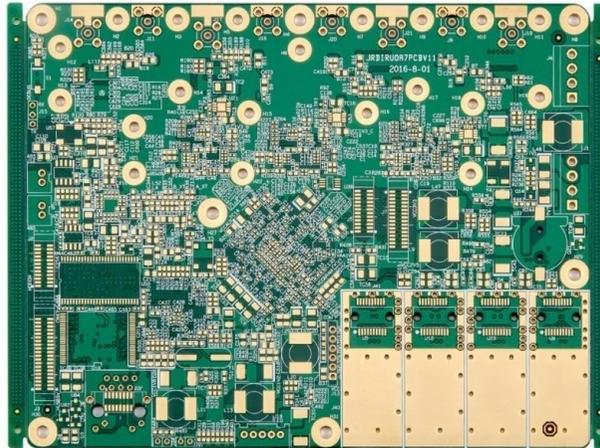
Application: Camera

Technology: 1/3 oz copper + 0.5mm Half via



Layer : 26L
 Surface : ENIG
 Min hole size : 0.8 mm
 PCB thickness: 6.6mm

Material : Panasonic M6
 Application : IC inspector
 Technology : 50U”Au + Hi-layer + Impedance control



L1		1/3oz(0.012)
L2-3		FR4 0.2 mm 1/1oz(含铜)(0.2)
		2116 RC55%(0.127)
L4-5		FR4 0.2 mm 1/1oz(含铜)(0.2)
		2116 RC55%(0.127)
L6-7		FR4 0.2 mm 1/1oz(含铜)(0.2)
		2116 RC55%(0.127)
L8-9		FR4 0.2 mm 1/1oz(含铜)(0.2)
		2116 RC55%(0.127)
L10-11		FR4 0.2 mm 1/1oz(含铜)(0.2)
		7628 RC48%(0.21)
L12		1/3oz(0.012)



Layer : 12L

Surface : ENIG

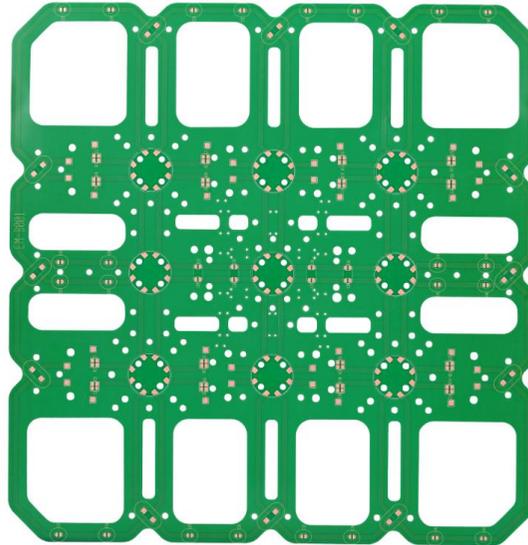
Min hole size : 0.25 mm

PCB thickness: 2.0mm

Material : ShengYi TG170

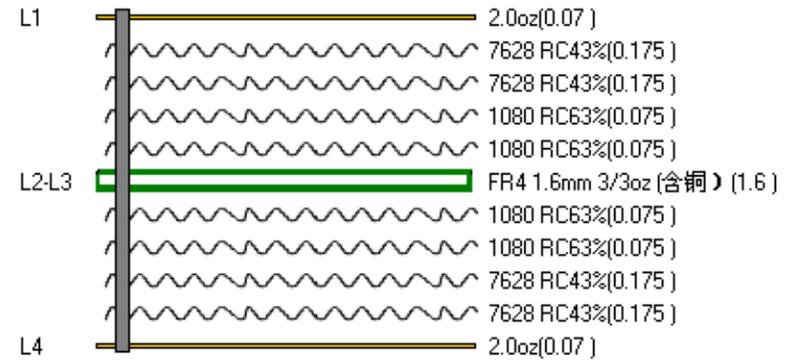
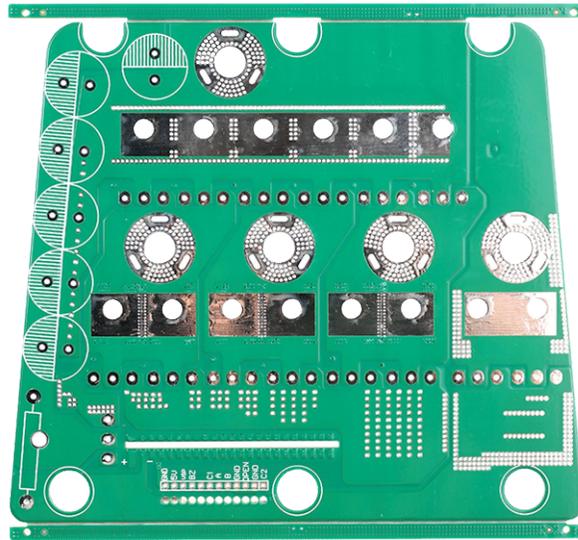
Application : Base station

Technology : Hi-Layer



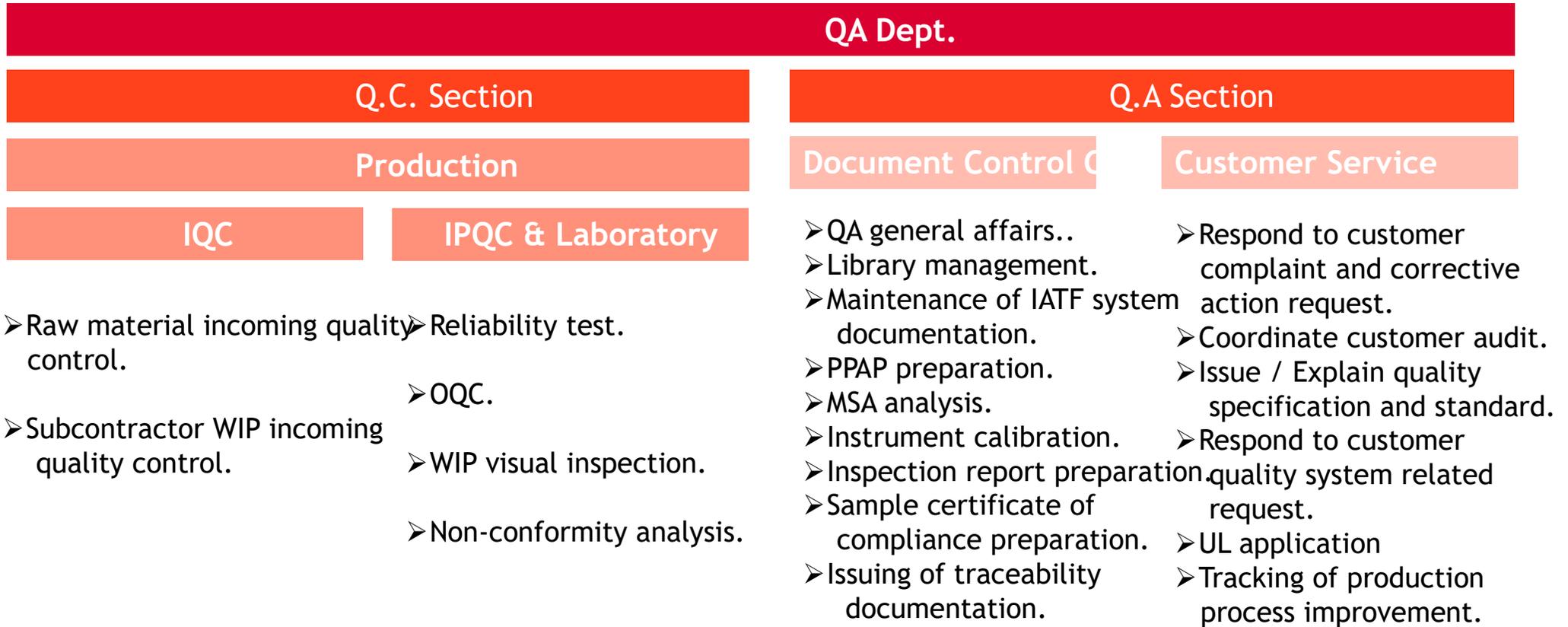
Layer : 1L (FR4+CCL)
Surface : SOP
Min hole size : /
PCB thickness:
0.3mm

Material : ShengYi
Application : MRI
Technology : Big size 555 * 545mm +
CCL



Layer: 4L
 Surface : HASL
 Min hole size : 0.4mm
 PCB thickness : 3.0mm

Material : ShengYi CTI > 600V
 Application : Inverter
 Technology : 3oz heavy copper





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THE END

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