

Company Presentation

| Focus | Quality | Honesty |



Sayfu Multilayer Circuits Co.,limited

Welcome

- **Our Mission:** to provide most kinds of PCB with high quality
- **Our Vision:** We believe that SAYFU will continue to grow and develop hand in hand with our valuable customers. Our goal is becoming a modern world-wide famous complex rigid, flex boards ODM, OEM group.
- **Our Core Values:** Customer success, Team-work Integrity, Continuous innovation and enterprising

Company Introduction

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- Product Category
- Organization Structure

* Company profile



Sayfu is from mainland China, with headquarter located in Shenzhen Guangdong, three plants and one office in HK in charge of finance and logistics. It was founded in Oct.2001, the PCB factory is focus on all kinds of printed circuit boards, including high multilayer PCB,FPC PCB,HDI PCB,Rigid-flexible PCB,Aluminium based pcb, heavy copper PCB, and PCB assembly as well. We are providing quick turn prototype pcb for with high quality, on time delivery, best service. With a special market position and excellent corporate culture, Sayfu has been gradually growing up to a company that can fabricate 1-24 layer rigid board, 30% is rigid-flexible pcb. Now there is 50,000 square meter of land with more than 1500 professional full time staffs in plants. We have been strongly focusing on quality, cost, service, and experienced continuable development. The factories have succeeded in passing the certification of international quality systems as ISO 9001, UL(Chenghe E334023,Hitech E354070) and ISO14001 ,TS16949.Our products used in telecommunication, computer application, industrial control, high - end consumer electronics, automobile, military etc. From quick turn prototypes for R&D to medium production for a diverse set of electronic industries and more over 90% of our products are exported to Europe, North America and Israel as well as Asia.

* Development History

SAYFU Technology set up,
Shenzhen Nanshan Office start to operate

2001

UL certificate awarded
Plant 2 Hitech established

2004
2005

Join Shenzhen PCB Industry Association
Fuyong, Songgang, Xixiang office established
Top 100 SMES in Innovation
AAA Customs High Credit Enterprise

2007
2008

ON

2002

Shenzhen Environmental Protection Advanced Unit
Certificate awarded: ISO9001:2000, ISO14001:2004,
TS16949:2002

2006

Start Wastewater Recycle System

2009

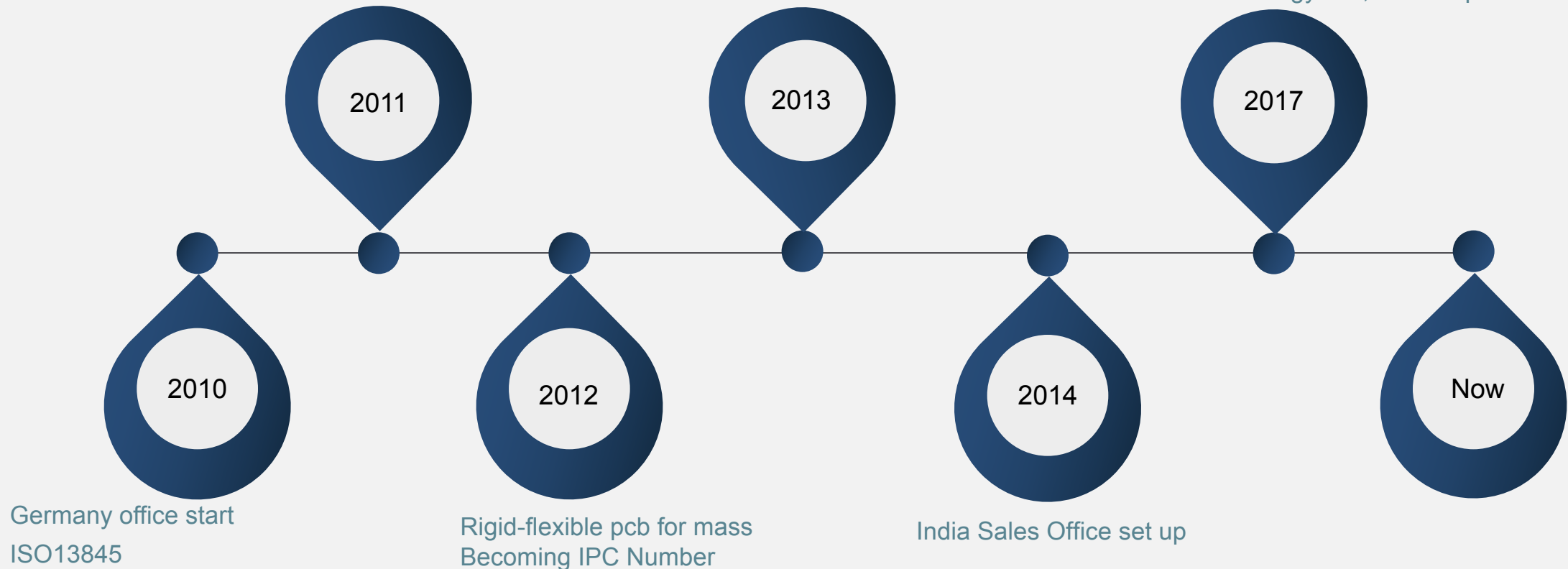
Rigid-flexible sample succeed
TS16949:2009

* Development History

Shenzhen Top 200 Enterprise
Buying second PCB shop ShenZhen chenghe Electronic Industry Co.,Ltd

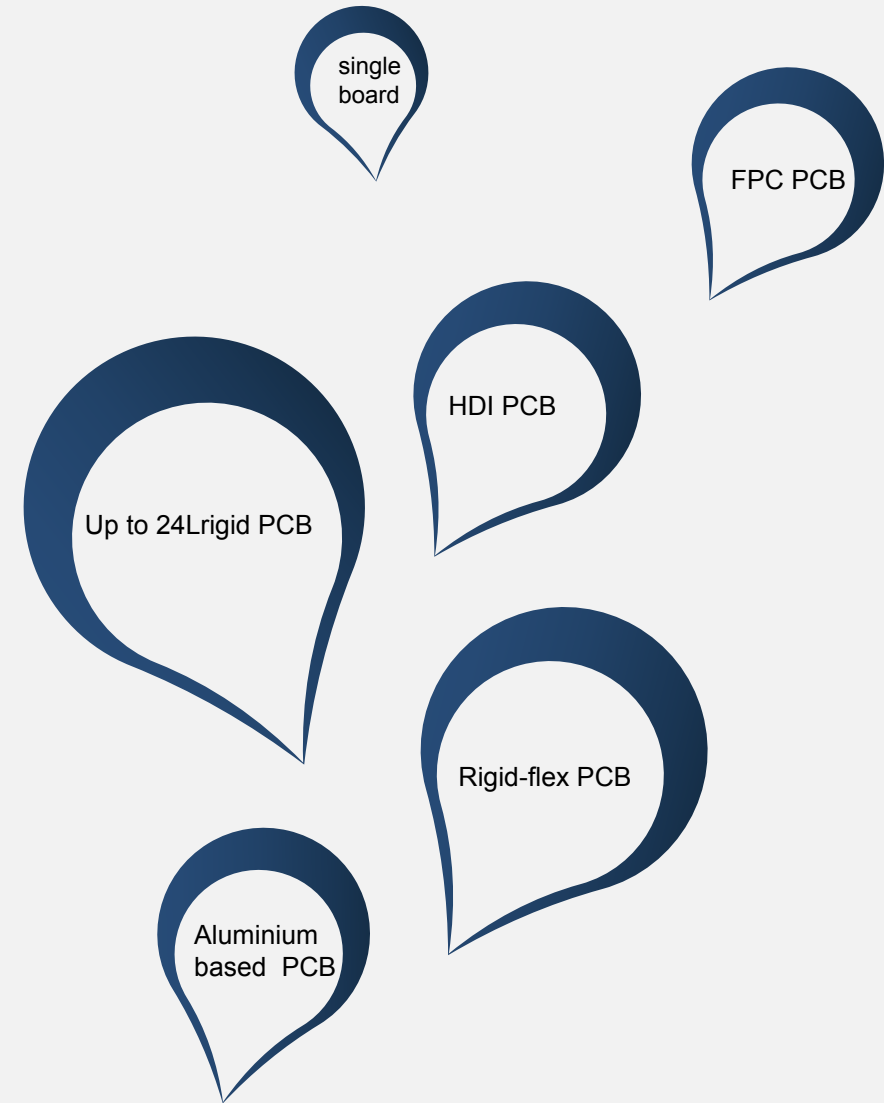
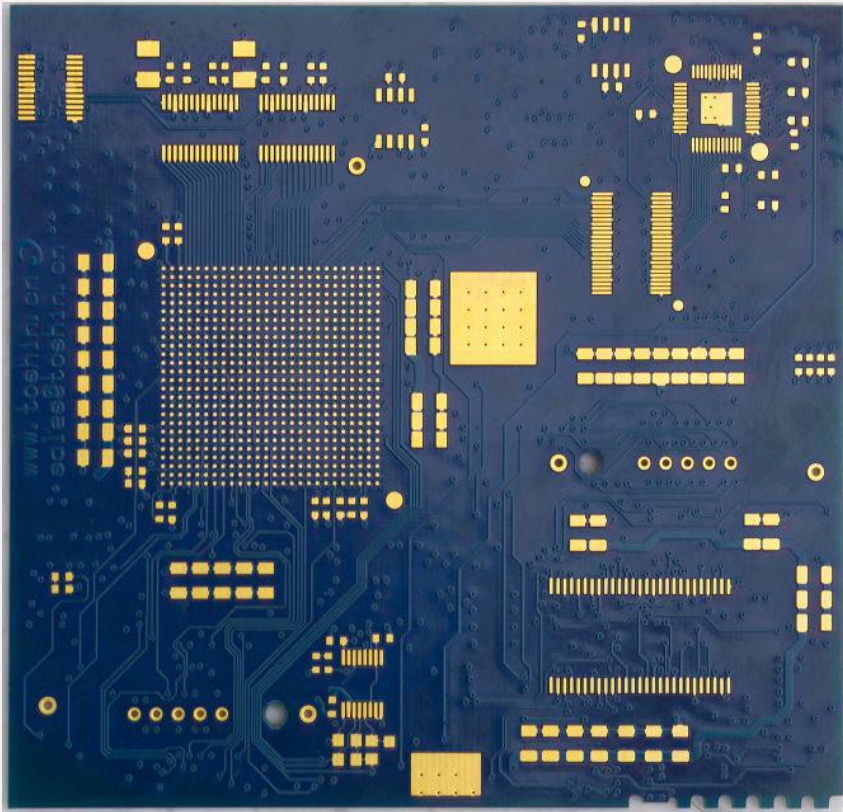
Country High-tech Enterprise
Changed name to Sayfu Multilayer Circuits Co.,Ltd

Winow New Energy Co.,Ltd set up

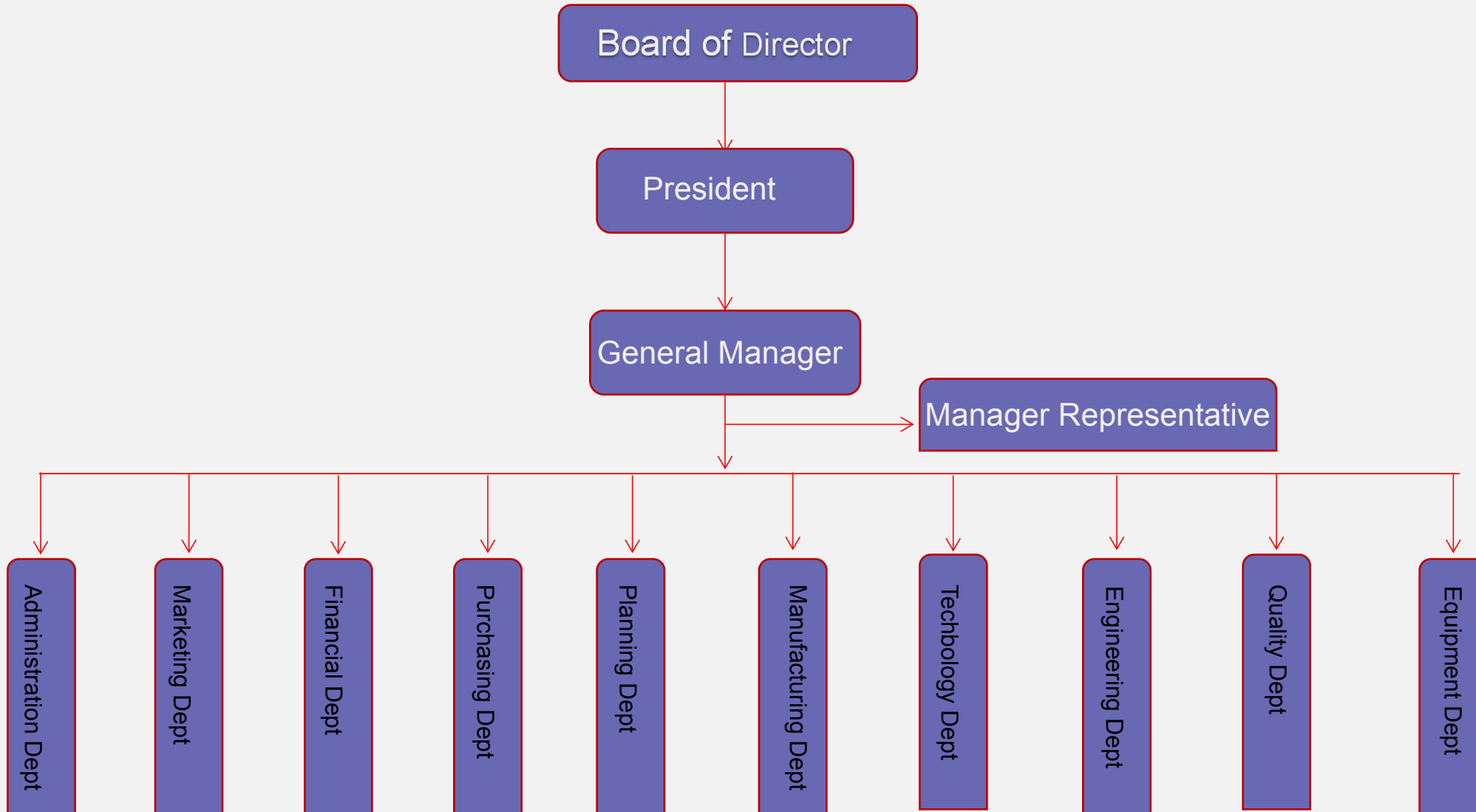


* Product Category

We have been focusing on high-quality PCB manufacturing all the time. Nowadays, we have a great deal of expertise in the 1-20 layer PTH board, flexible board, rigid-flex board, HDI board and aluminum based board, and our company is about to start a new service of PCBA.



* Organization Structure



Products and Services

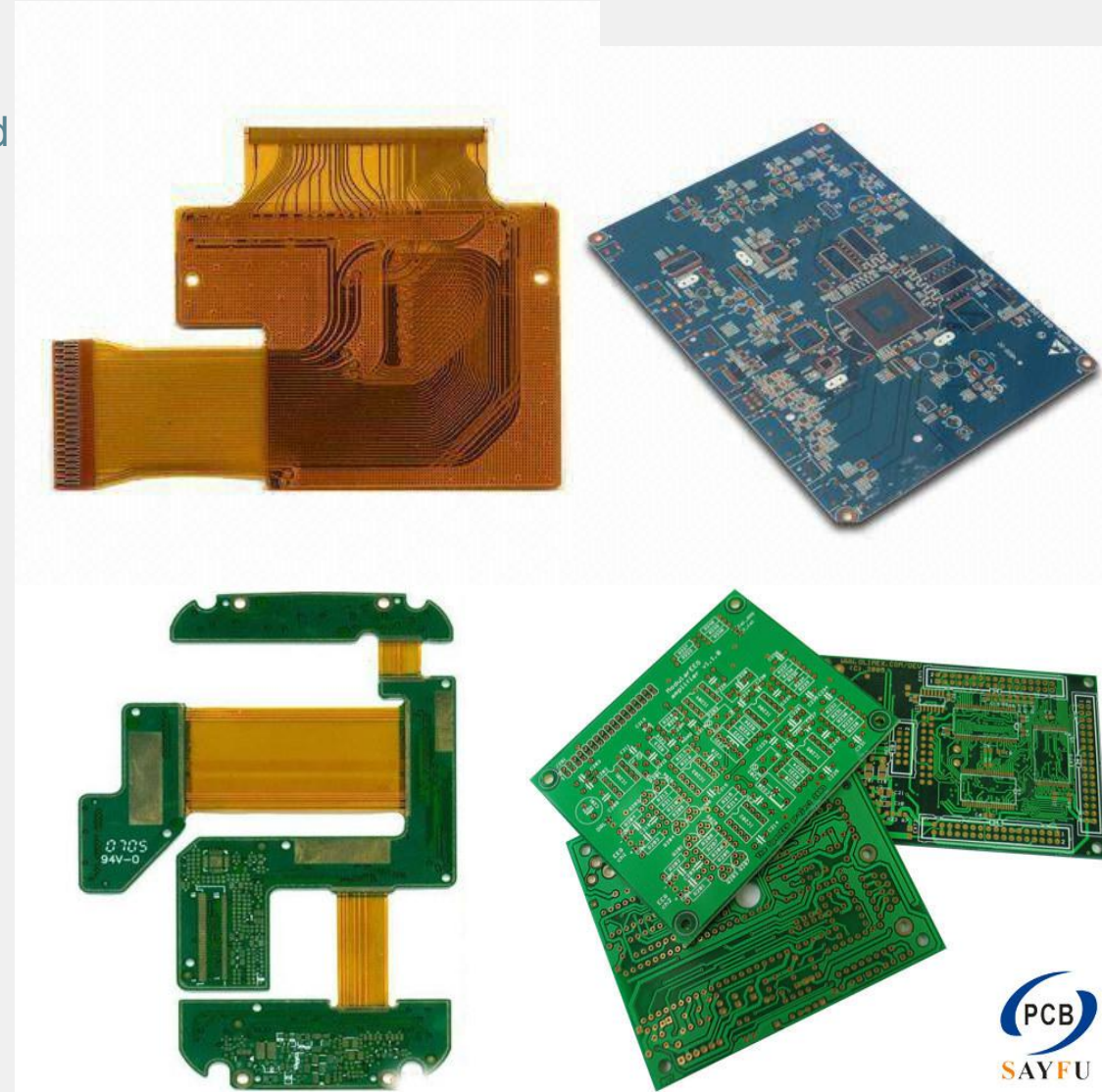


➤ Products

Rigid: Single sided, Double Sided, Multilayer & Aluminium based board
Rigid&Flex
FPC

We already work with several international companies throughout the electronics world although this doesn't mean that we are only interested in large orders. We don't have any minimum order quantities for new order, only MOQ 3sqm for repeat order. We are committed to helping the small to mid-sized company, as well as larger companies.

We specialize in Heavy copper(3-10 Oz) and thick gold boards . We have built up a large experienced workforce, ready to respond to the ever-increasing demand for high quality products in the international market place.



➤ Service Concept



Technical Capability

--Rigid PCB capacity

Item	Mass Production	Sample
Max. Layers	16layers	20layers
Max. Board Size	21"x24"	21"x26"
Material	FR4,CEM1,High Tg, Al base material etc.	Rogers, Nelco, etc.
Max. Board Thickness	0.4mm~6.0mm	<0.4mm and >7.00mm
Min. Core Thickness	0.10mm	0.10mm
Min. Track Width/Space	4mil/4mil	3mil/3mil
Max. Copper Thickness	Inner Layer: 6Oz	Inner Layer: 8Oz
	Outer Layer: 8Oz	Outer Layer: 10Oz
Min. Drill Size	0.2mm	0.15mm
Min. Laser Drill Size	0.1mm	0.076mm
PTH Diameter Tolerance	±3mil	±2mil
Aspect Ratio	8:1	12:1
PTH Wall Thickness	18um-25um	16um-35um
Min solder mask bridge	0.13mm	0.10mm
Min solder mask window	0.10mm	0.08mm
V-cutting Tolerance	±0.13mm	±0.10mm
Outline Dimension	±0.13mm	±0.10mm
Warp and Twist	≤0.7%	≤0.5%

➤ Technical Capability

--Rigid PCB capacity

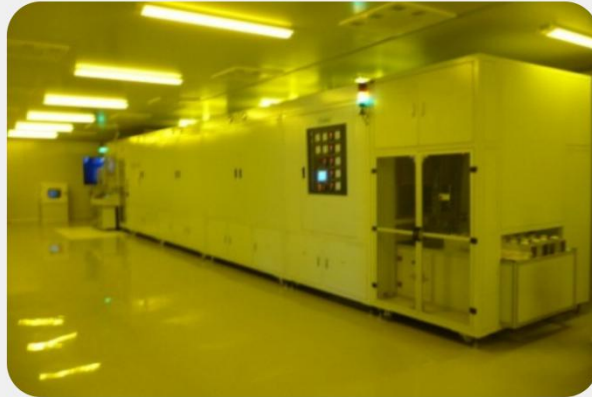
Item	Mass Production	Sample
Blinded and Buried Via Holes	Yes	Yes
Controlled Impedance	$\pm 10\%$	$\pm 7\%$
HDI Board	1+N+1	2+N+2
Surface Treatment	HASL	HASL
	HASL Lead Free	HASL Lead Free
	Immersion Gold	Immersion Gold
	Immersion Tin	Immersion Tin
	Immersion Silver	Immersion Silver
	Flash Gold	Flash Gold
	OSP	OSP
	Gold Finger	Gold Finger
	Selective/ thick hard gold	Selective/whole board thick hard gold

➤ Process Flow Chart

Cutting



Inner Layer



IL-AOI



Lamination



➤ Process Flow Chart

Drilling



PTH



Out Layer



Plating/Etching



➤ Process Flow Chart

OL-AOI

Solder Mask

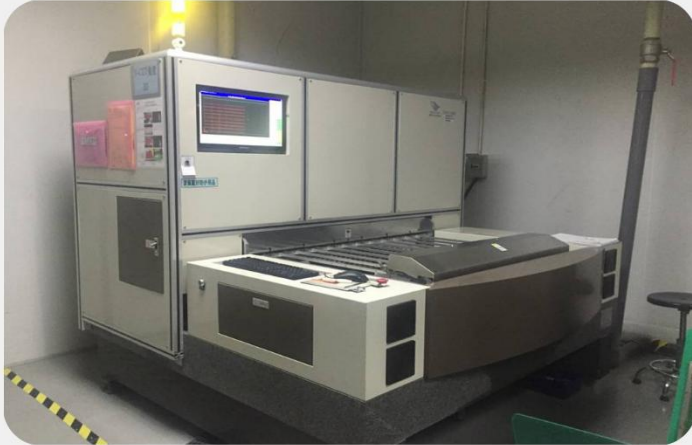
Legend

Surface Finish



➤ Process Flow Chart

V-cut&Routing



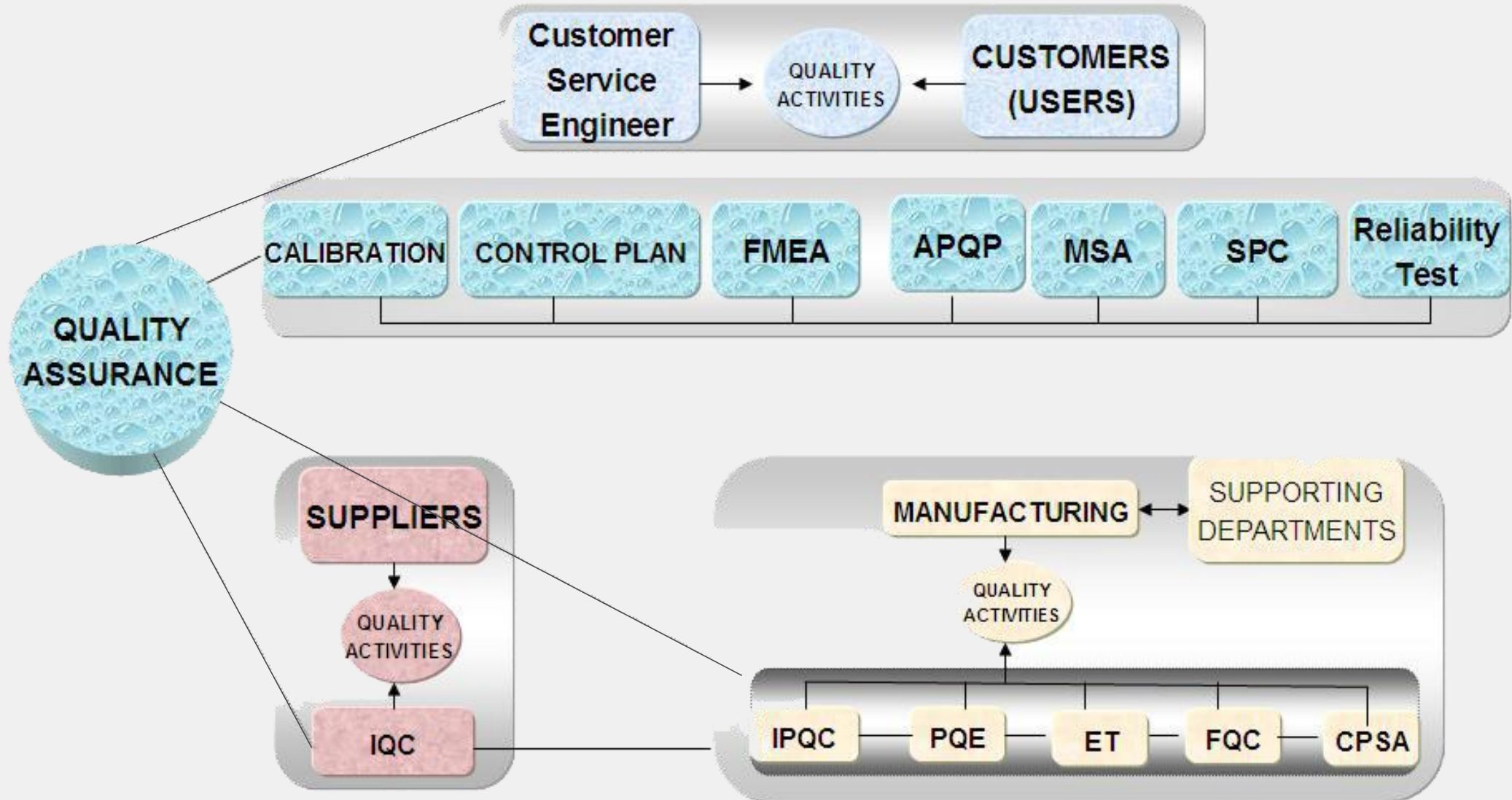
ET/FQC



Packaging



➤ Quality Control



➤ Quality Control

---Physics and Chemistry Lab

Test Item	Equipment
Solder Ability Test	Solder Machine
Copper peel strength test	Peel strength tester
Bow/ Twist test	Pin gauge
Copper thickness in hole wall	CMI/section
Surface copper thickness	CMI/section
Micron Section	Metallographic microscope
X-ray test	CMI 900
Impedance test	Polar SI9000
Ionic contamination	Ionic contamination machine
Dimension	3D inspection instrument
Hi-pot	Hi-pot tester
Delamination	IR-Reflow



➤ Raw Materials

Normal Material	Mass Production	Prototype
Solder mask material	Taiyo/Tumura/Nanya	Taiyo/Tumura/Nanya
Laminate material	Shengyi (S1141, S1170.S1180) ITEQ (IT140,IT158, IT180) King Board (KB-6165,/6160)	Shengyi(S1141, S1170, S1180) ITEQ(IT140,IT158,IT180) KingBoard(KB-6165,/6160) Rogers Isola
HASL Lead Free	SN100C	SN100C
Peelable Mask	SD2955	SD2955

➤ Main Customers

tyco



SANYO

SIEMENS

ZTE

Haier



➤ Future Development

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The concept of the sayfu group is to understand the real-time needs of customers, to accurately analyze the market, to seek and develop feasible and complete project development plans. In 2017, winow New Energy Co., Ltd. (www.winowpcb.com) was founded, which not only expresses our determination to meet more needs of customers, but also shows the role of sayfu in the future development of the PCB market. The pursuit of efficiency and high quality is a never-ending step, we are committed to delivering high quality products to our customers in a tight timeframe and flexible to meet individual demands.

We believe that with our business philosophy of providing more professional and comprehensive PCB service system are based on customer needs, Sayfu Group will be able to develop together with customers and contribute to the growth of the PCB market.

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— Sayfu Multilayer Circuits Co.,limited

THANK YOU

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