

THREE TEK
实锐泰

www.threetek.com.cn

Profile

Threetek Group Limited established in 2008, is a leading provider of time-critical and technology complex Flex /Rigid-flex PCB to the world's top electronic products.



Plant Area : 12500m²

Employee : 350

Work time : 2 shifts, 24H*7days

Monthly Capacity : 40,000 m²

- 1L Flex PCB : 10,000 m²

- 2L /Multilayer Flex PCB:20,000 m²

- Rigid-flex PCB : 10,000 m²

Capacity Milestone+Rigid-flex

Year	Item	2017	2018	2019
	Max. Lay Count	16L	28L	32L
	Max.Board Size	500mmx500mm	500mmx630mm	500mmx800mm
	Min.Laser Drilled Hole Size	0.125mm	0.1mm	0.075mm
	Min.Mechanical Drilled Hole Size	0.2mm	0.15mm	0.1mm
	Max.Mechanical Through Hole Aspect Ratio	10:1	13:1	15:1
	Min.Inner Layer Trace Width/Spacing	0.075mm/0.075mm	0.05mm/0.05mm	0.04mm/0.04mm
	Min.Outer Layer Trace Width/Spacing	0.1mm/0.1mm	0.075mm/0.075mm	0.05mm/0.05mm
	Soldermask Registration	0.05mm	0.038mm	0.035mm
	Min.Soldermask Bridge	0.1mm	0.08mm	0.06mm
	Min BGA Pitch	0.5mm	0.5mm	0.45mm
	Min.Single-ended Impedance Tolerance	± 10%	± 10%	± 7%
	Min.Differential Impedance Tolerance	± 10%	± 10%	
	Base Material	General Tg,Middle Tg,High Tg,Halogen Free, Low Dk, Low Loss. High CTI,PTFE		
	Surface Finish	ENIG,ENPIG,OSP,Glod Plating, Gold Plating+ENIG, Gold Plating+OSP,Imm Silver,Imm Tin,Plating Tin		
Advanced Product	Rigid-flex+HDI	R&D	Mass Production (1+N+1)	Mass Production (2+N +2)

Capacity Milestone+FPC

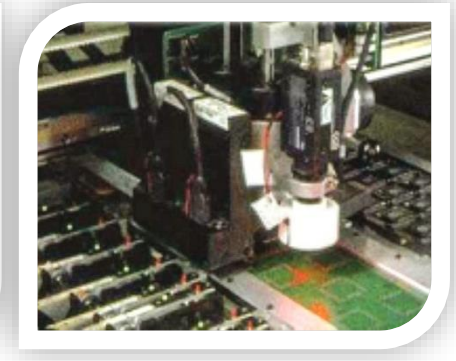
Item \ year		2017	2018	2019
Min.Finished Board Thickness		0.07mm	0.062mm	0.05mm
Max.Board Size		500mmx500mm	500mmx850mm	500mmx1000mm
Min.Laser Drilled Hole Size		0.1mm	0.05mm	0.025mm
Min.Mechanical Drilled Hole Size		0.1mm	0.1mm	0.1mm
Min.Trace Width/Spacing		0.05mm/0.05mm	0.04mm/0.04mm	0.035mm/0.035mm
Min.Annular Ring of Single/Double-side Board		0.1mm	0.075mm	0.075mm
Min.Inner Layer Annular Ring of Multi-layer Board		0.125mm	0.125mm	0.1mm
Min.Outer Layer Annular Ring of Multi-layer Board		0.1mm	0.1mm	0.1mm
Min.Coverlay Bridge		0.15mm	0.1mm	0.1mm
Min.Soldermask Opening		0.3mm	0.2mm	0.15mm
Min.Coverlay Opening		0.4mmx0.4mm	0.35mmx0.35mm	0.35mmx0.35mm
Min.Single-ended Impedance Tolerance		±10%	±10%	±7%
Min.Differential Impedance Tolerance		±10%	±10%	
Coverlay R	Manul Alignment	0.2mm	0.1mm	
	General Fixture	0.1mm		
	Precise Fixture	0.05mm		
Max.Layer	Flex Board	8L	10L	12L
Material Type		PI, PET		
Material Brand		Shengyi, Taiflex,Thinflex, Allstar, DuPont,JiuJiang,Panasonic		
Stiffener Material Type		FR4, PI, PET,Steel, Al, Adhesive Tape		
Coverlay Thickness		12.5um/25um/50um		
Surface Finish		ENIG,ENPIG,OSP,Glod Plating, Gold Plating+ENIG, Gold Plating+OSP,Imm Silver,Imm Tin,Plating Tin		

One-stop Solution

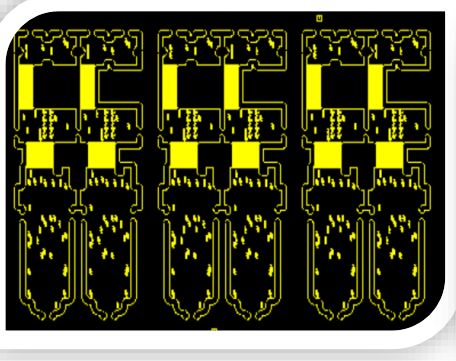
Precision Flex PCB
Fabrication



PCB In House Assembly &
Full System Integration



Flex PCB Engineering &
Process Design



Components Management,
Sourcing Solution



Production workshop



Black hole



VCP



Etch line



CCD exposed machine



LDI exposed Machine



AOI

Production workshop



Flying probe tester



Laser cutting



3D measurement



Laminate



Routing



AVI



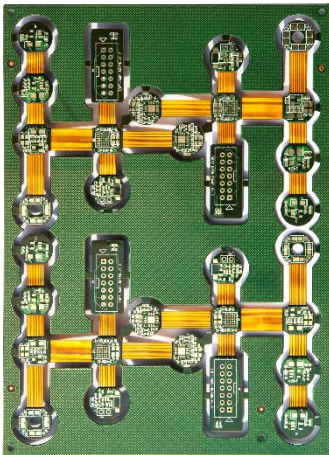
Automotive silkscreen printer

Production workshop



Products

6L Rigid-flex PCB
Application: Consumer Electronics



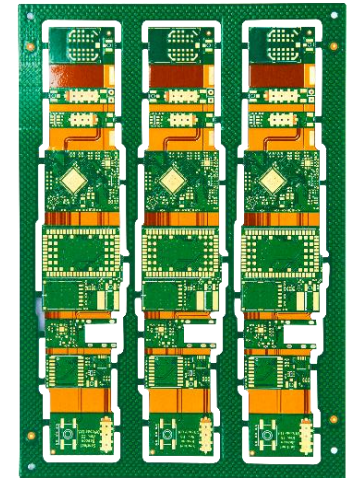
4L Rigid-flex PCB
Application: Consumer Electronics



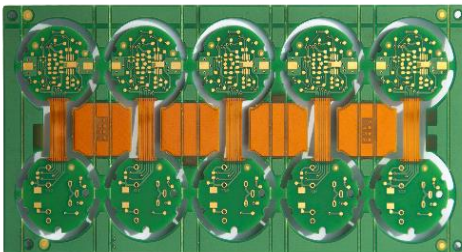
4L Rigid-flex PCB
Application: Consumer Electronics



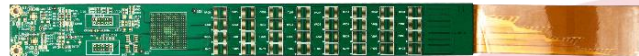
4L Rigid-flex PCB
Application: Consumer Electronics



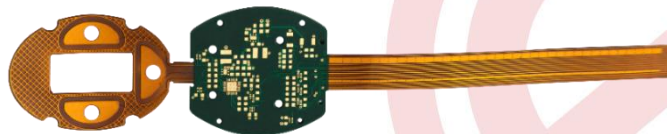
2L Rigid-flex PCB
Application: Industry Control



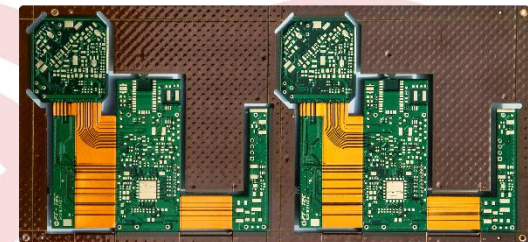
10L Rigid-flex PCB
Application: Industry Control Buried via hole



4L Rigid-flex PCB
Application: Industry Control



6L Rigid-flex PCB
Application: Industry Control

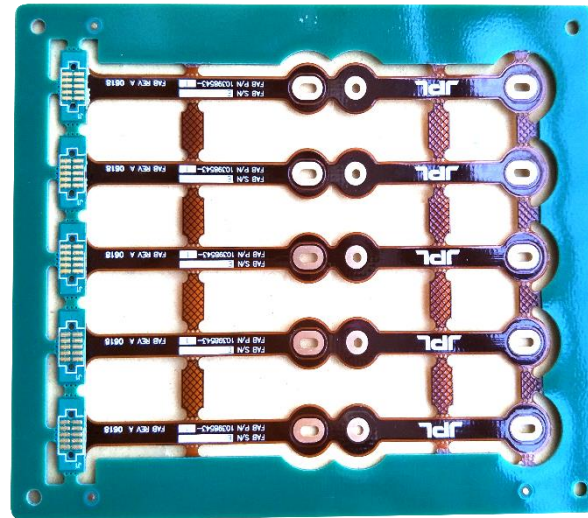


Products

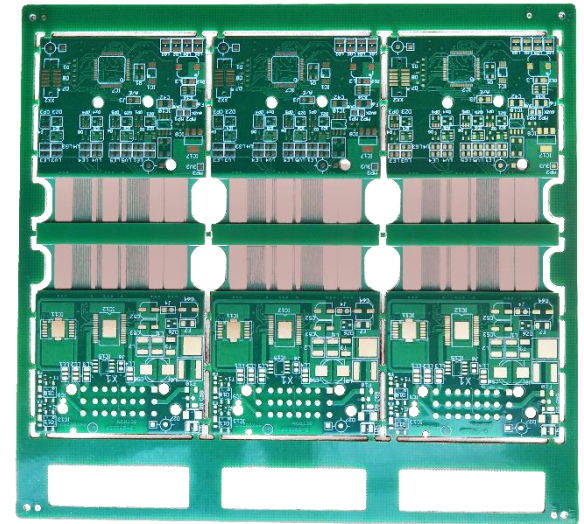
4L Rigid-flex PCB +EMI+Steel
Application: Consumer Electronics



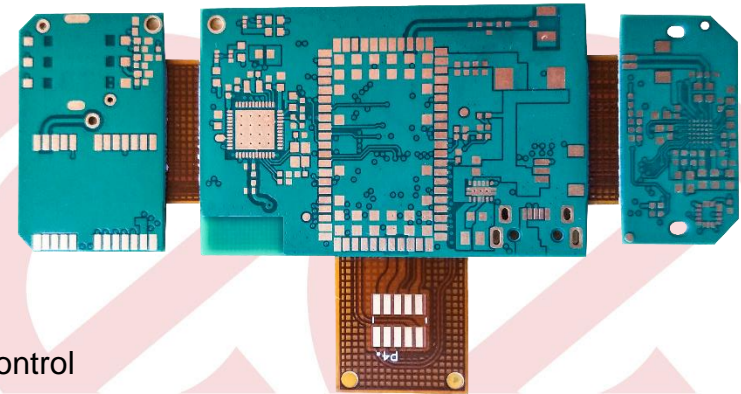
5L Rigid-flex PCB+Buried hole
Application: Industry Control



4L Semi-flex PCB
Application: Industry Control



2L Rigid-flex PCB+ Half hole
Application: Industry Control

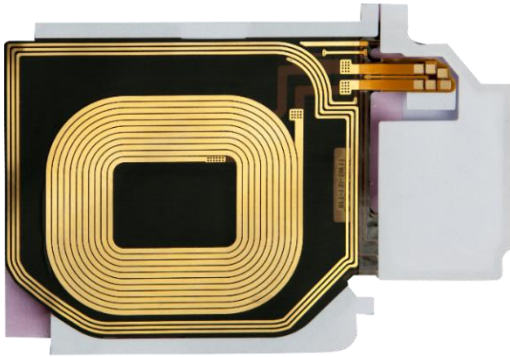


6L Rigid-flex PCB
Application: Industry Control

Products

2L Flex PCB

Application: Mobile Phone battery charger, resistance control +/- 10%



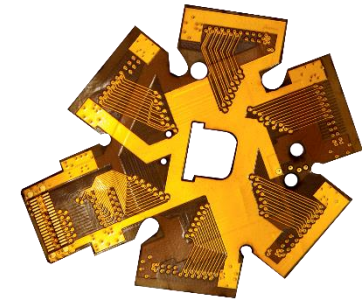
1L Flex PCB with PI stiffener

Application: Seat adjuster for LandRover



4L Flex PCB

Application: Industry Control
Blind via hole



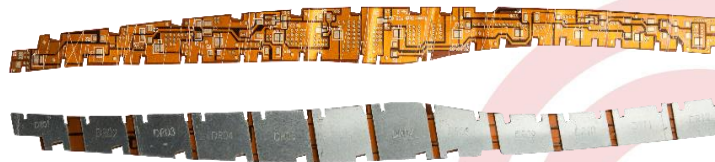
2L Flex PCB

Application: Industry Control, FR4 stiffener for whole panel



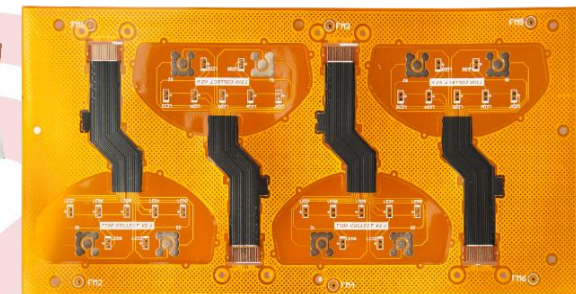
1L Flex PCB with AL stiffener

Application: Automotive product



4L Flex PCB with hard gold plating

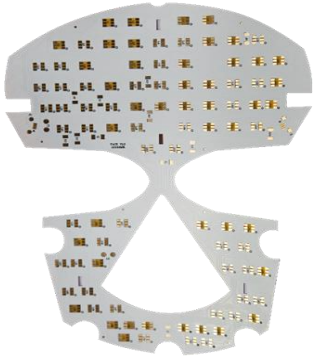
Application: Consumer electronics



Products

1L Flex PCB

Application: Medical Equipment



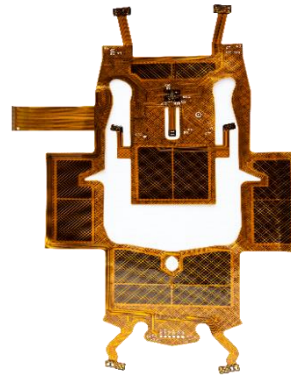
2L Flex PCB

Application: Recreational Machine



2L Flex PCB

Application: Robot Product



2L Flex PCB

Application: Automotive Display



3L Flex PCB (Airgap)

Application: UAV



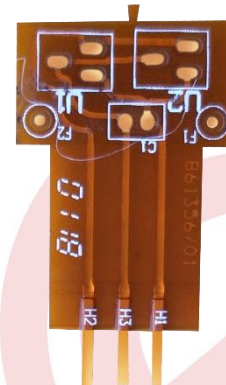
2L Flex PCB

Application: Speaker for Apple
ENIG+plating Tin



1L Flex PCB+7OZ Cu

Application: Industry Control



4L Flex PCB with impedance control

Application: Tester for Iphone



Lead Time

Project	Prototype	Mass production
Single-side	2-6days	5-10days
Double-side	3-7days	5-14days
Multi-layer	7-10days	9-16days
Rigid-Flex	7-12days	10-21days

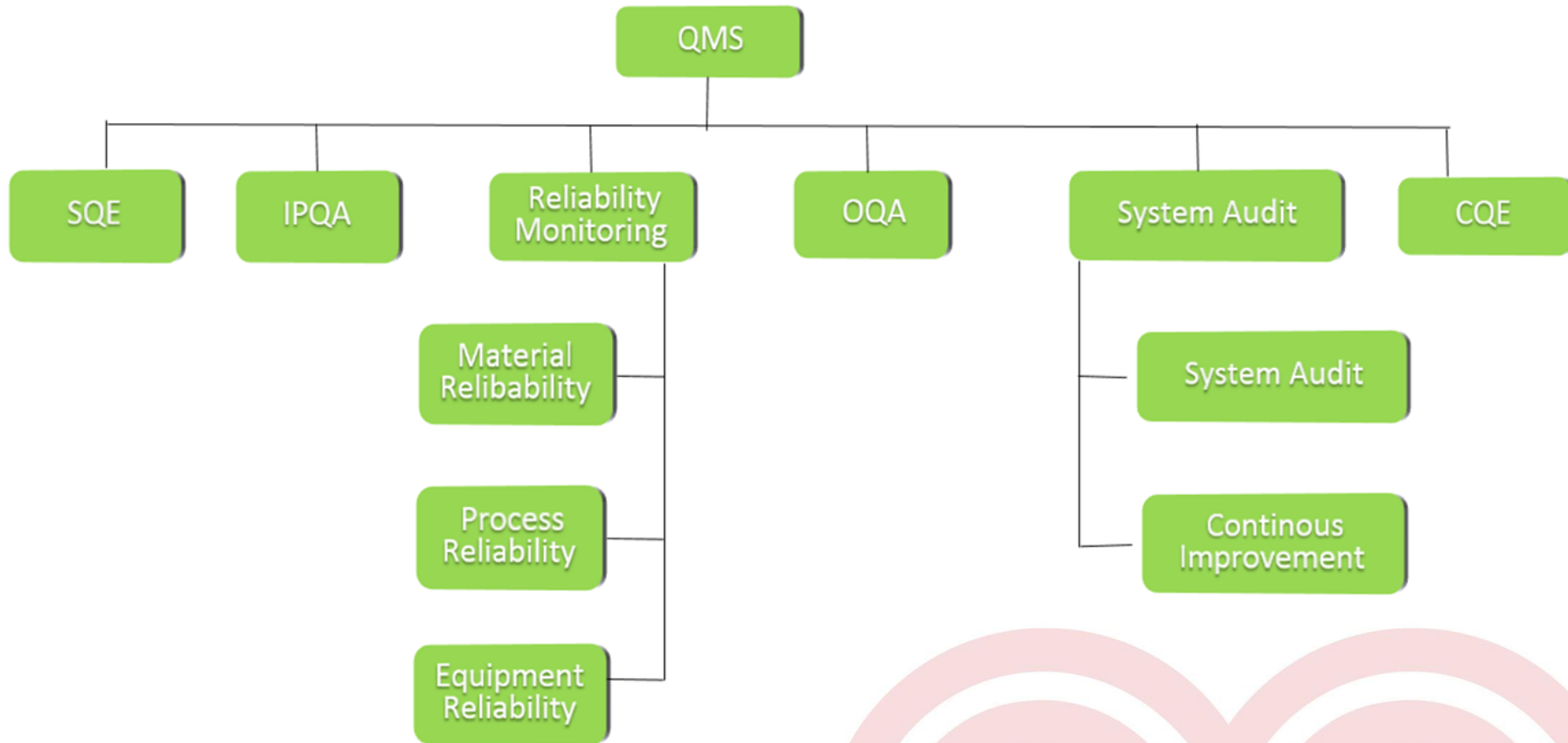
Global Logistics



- Close to perfect inventory management system
- Strictly implement FIFO on every PCBs
- Quick turn around to HK
- Global export experiences by forwarder & different couriers with account open for years.



Quality Assurance



Incoming Quality Control

In-Process Quality Control

Final Quality Control

Lab Test Instrument



Impedance instrument



Salt Spray Tester



XRF fluorescence spectrometer1



Two-dimension measurement



Peel strength tester



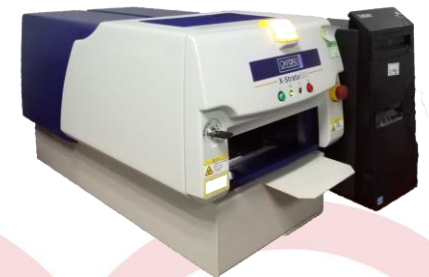
Bending stress tester



Metallographic microscope



Constant temperature and humidity test chamber



X-RAY Gold / Nickel thickness tester

Industry certificate

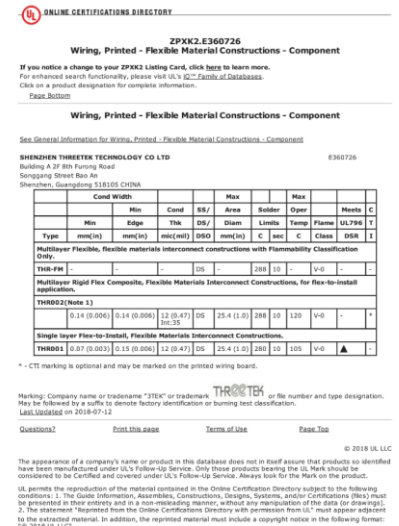
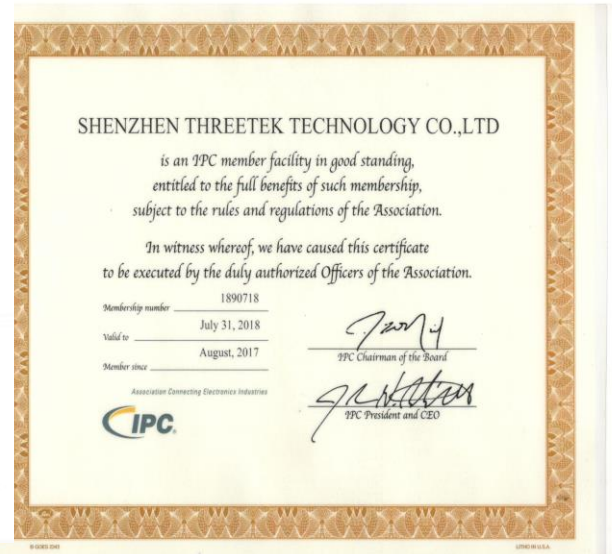


ISO9001:2015



IATF16949:2016

Industry certificate

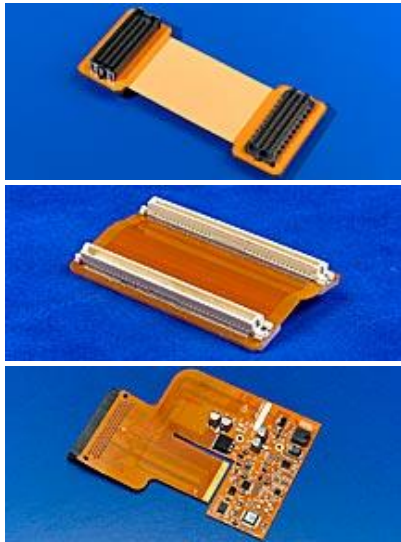
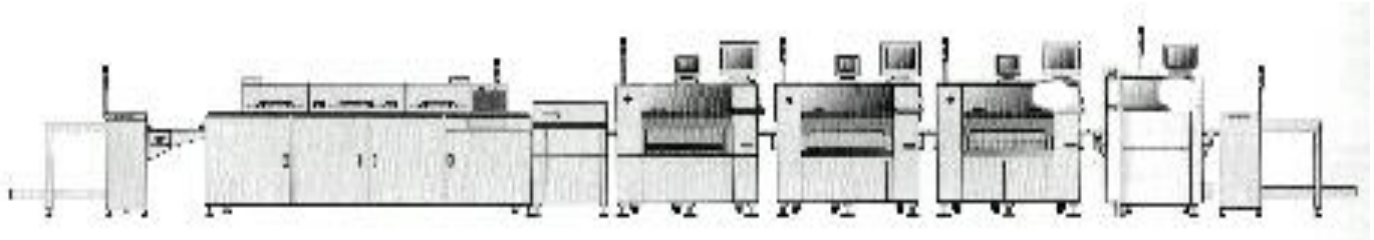


Hi-Tech Enterprises

IPC Member

UL

PCB Assembly



Reflow Technology

Lead Free Soldering

A Forced Convection Oven could create a Thermal Profile unique to each assembly

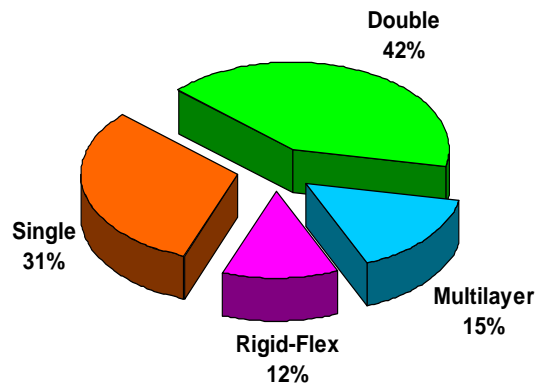
Currently through our strategic partners

In House SMT Production Line

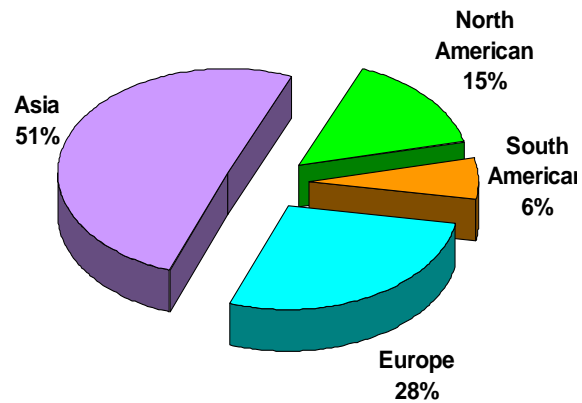


Product Distribution

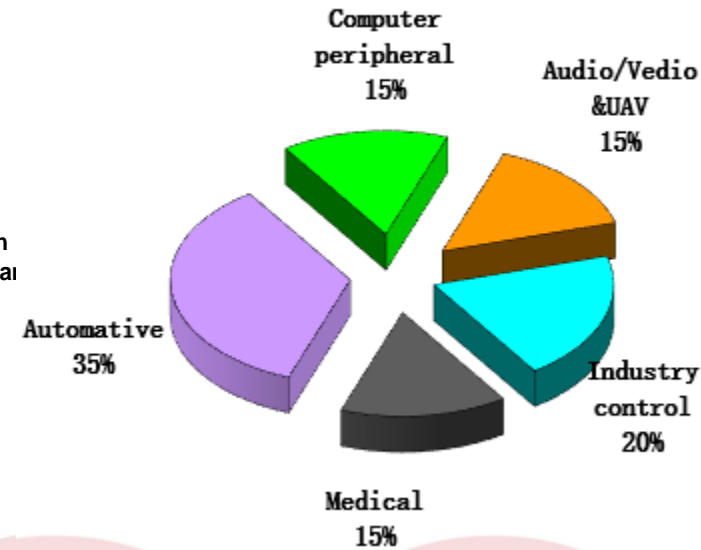
Revenue By Layer Count



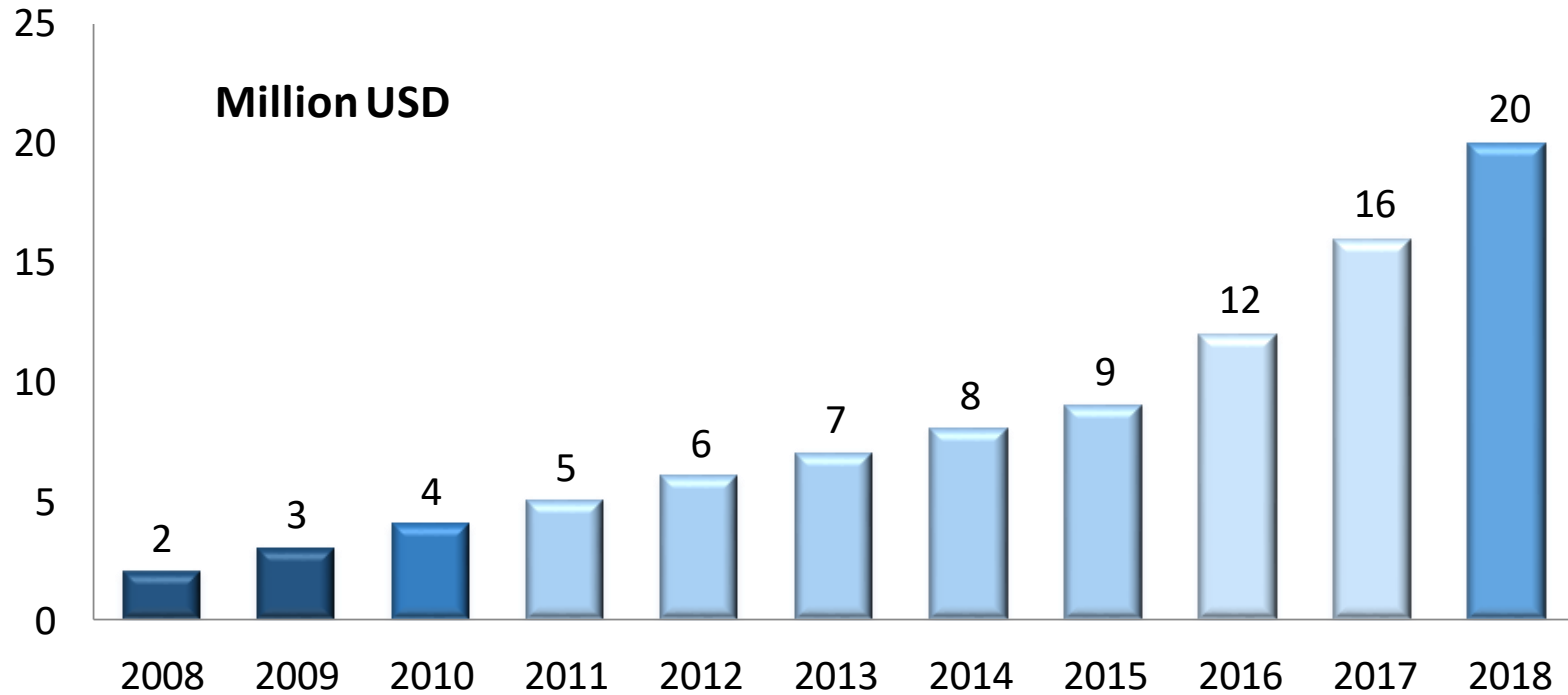
Sales Area



Products Application



Sales Revenue



Key Customers



**Digital
Phone**



**Automotive
Medical**



**Computer
Industry
Control**

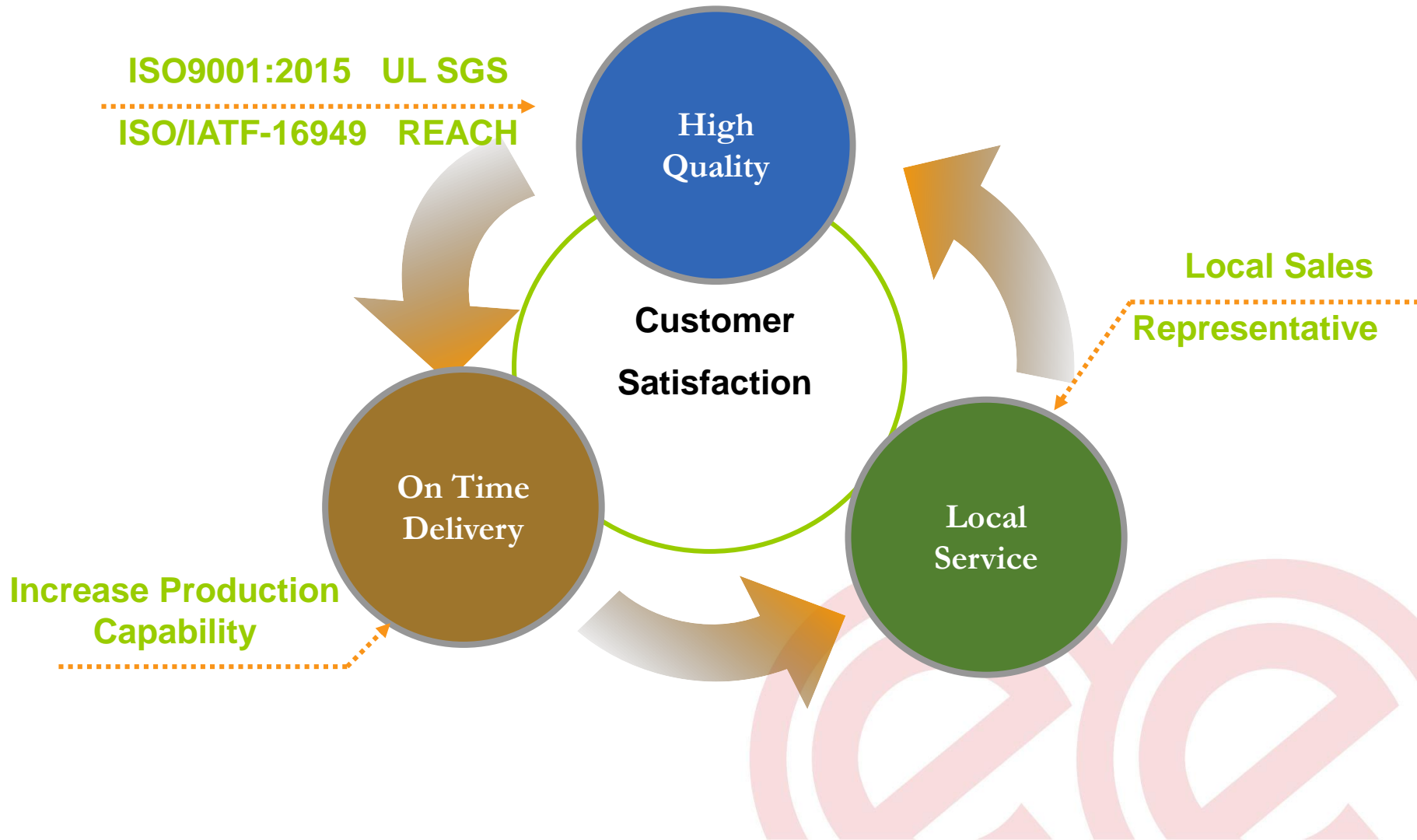


**Audio
UAV**

Value Vendor



Management Goal



Internal Management Plan

Importation of new technologies & Auto Equipment.

Cost reduction and efficiency program

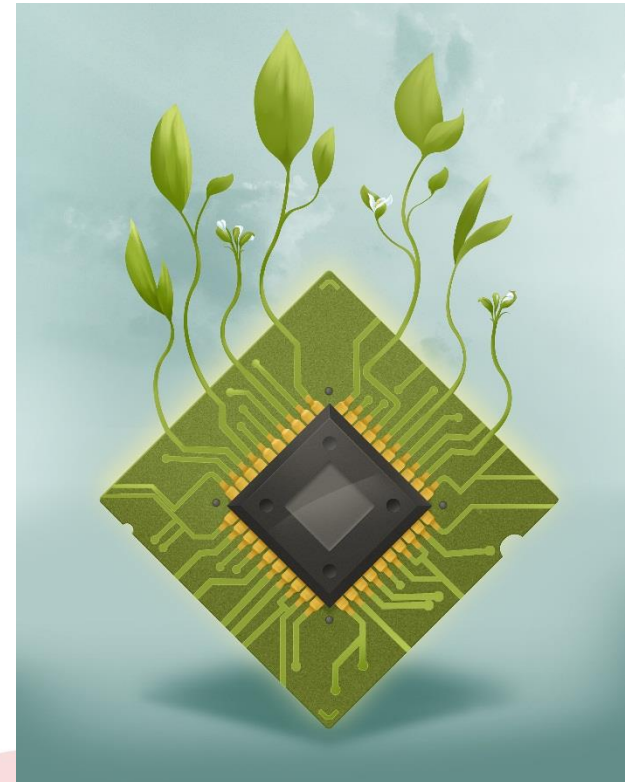


Earth Friendly Commitment

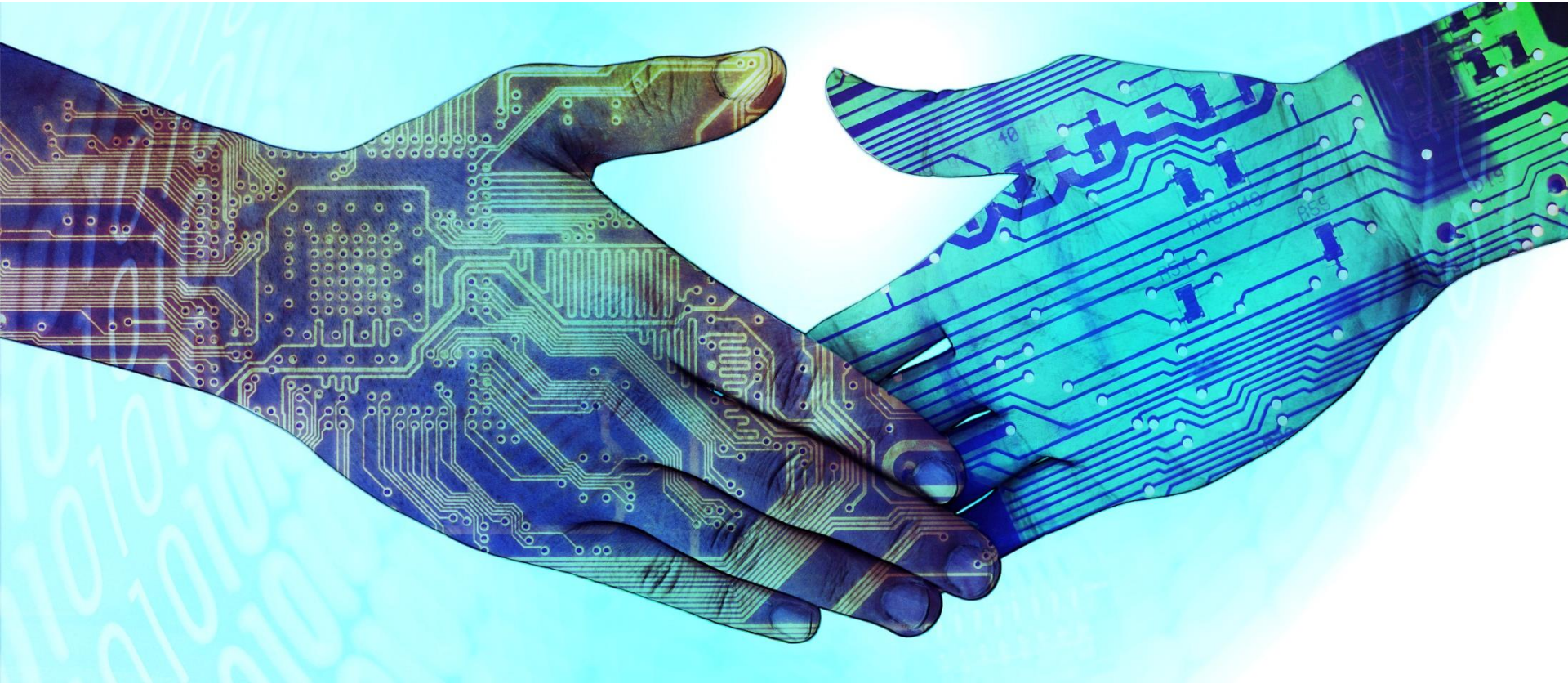
**RoHS Compliant - European Union (EU) Directive
for the Restriction of Hazardous Substances.**

Lead-Free = RoHS Compliant = Green

- ✓ Recycling, waste reduction, energy management programs in place
- ✓ Going to apply the ISO 14001 program
- ✓ Driving removal of potentially harmful materials from all products
- ✓ Provide Lead-free solutions that enable customers to meet environmental-friendly manufacturing goals with the lowest risk and lowest cost



LISTEN FOR NEED, ENVISION THE FUTURE



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