



29 Years of Quality Reputation



Additive Circuits (S) Pte Ltd

70 Different Board Type per Week!



A Technology Company
Your Reliable Partner in Accelerating Design

Leading Supplier of PCB

ACS Capabilities

: up to 32 Layers

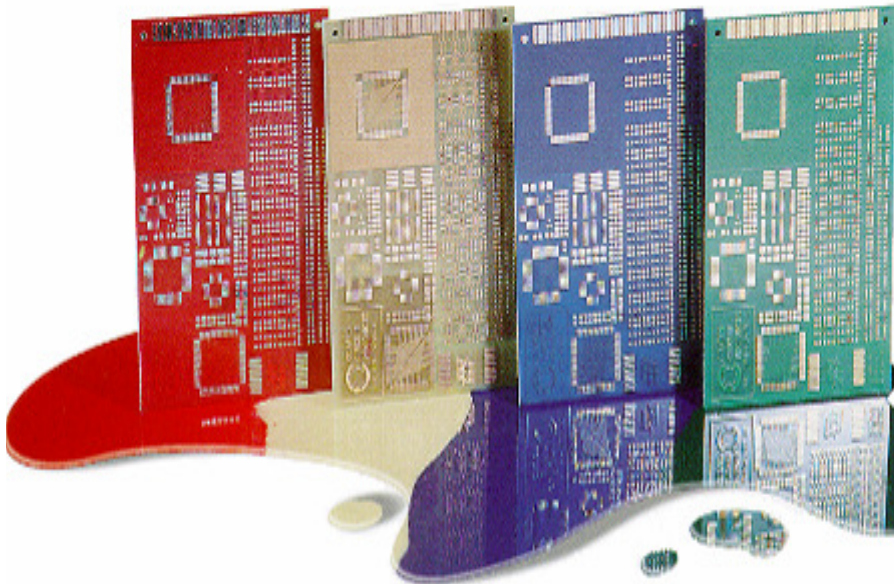
: 200mils thick board

: High Aspect Ratio 25:1

: 3.5mils/3.0mils trace/spacing

: fine pitch: 0.4mm

: 5% Tolerance Impedance Control





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Certifications

ISO 9001:2008
Quality Management System
Certificate No. CI/11720IQ

ISO 14001:2004
Environmental Management System
Certificate No. CI/11720IE

OHSAS 18001:2007
Occupational Health & Safety Management System
Certificate No. CI/11720IO

Underwriters Laboratories Inc
Approval File No. E87228





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Safety Compliance

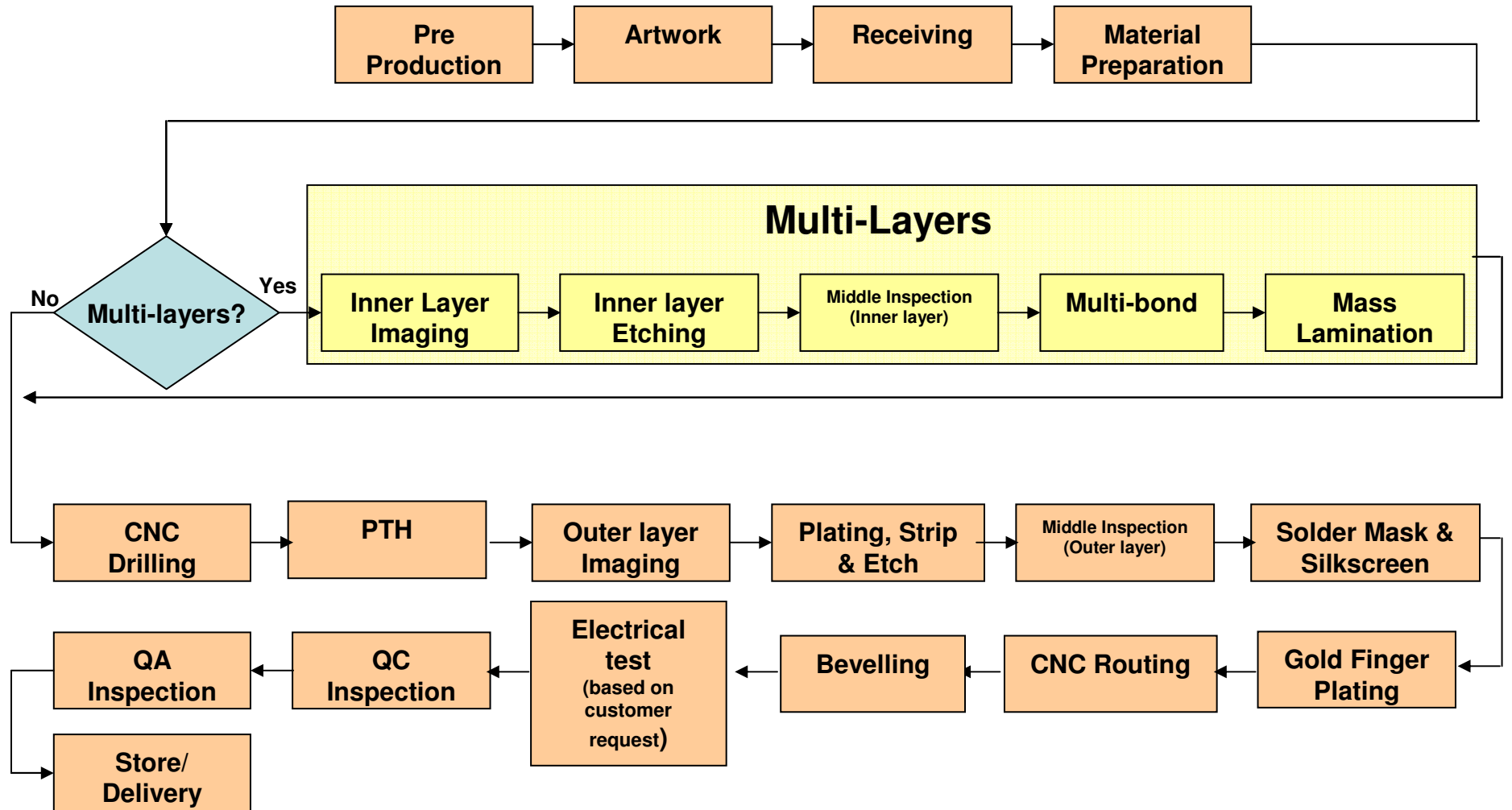
**IECQ - Hazardous Substance
Process Management System**

**EICC – Electronic Industry
Code Standard**





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MLB (Multi-Layer Board)

- Automatic alignment target drill for inner layer
- Automatic alignment target drill with X-Ray
- Mass press (innerlayer thin cores pressed together with prepreg)



Press M/C

Capability:

Thick board: 200mils
High layer count: 32 layers
Warpage : 1.0%



Before press



After press



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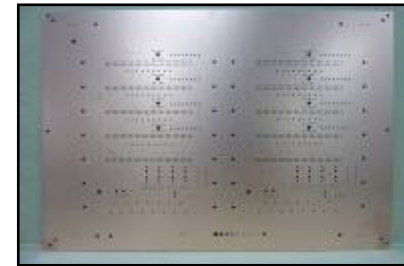
CNC Department



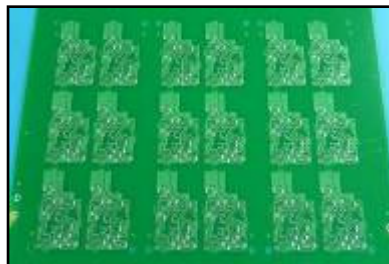
Drilling



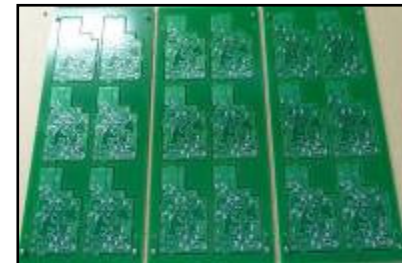
Drill



Routing



Rout



Capability:

Min Drill size: 0.15mm +/-3mils

Max drill size: 6.50mm +/-3mils



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PTH (Plated Thru Hole)

- Electroless copper plating
- DMSE
 - Direct Metallization Ethylenedioxythiophene
 - For High Aspect Ratio



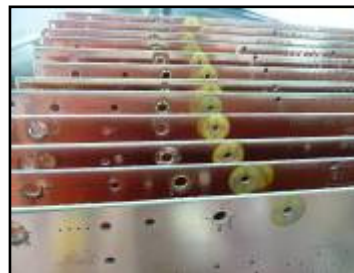
PTH Line



DMSE Line

Capability:

High aspect ratio: 25:1



Before PTH



After PTH



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Dryfilm (Image Transfer)

- CCD auto registration for inner layer Artwork
- Collimated/High resolution exposure
- Fine line width



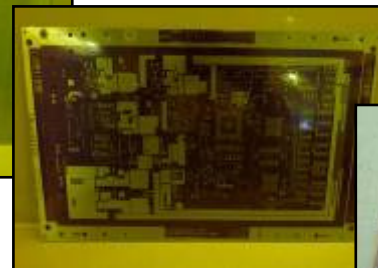
Lamination



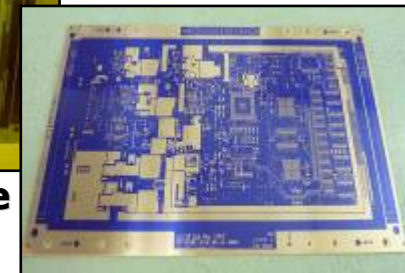
Exposure



After Lamination



After Exposure



After Developing

Capability:

Min trace width / spacing: 3.5 / 3.0mils



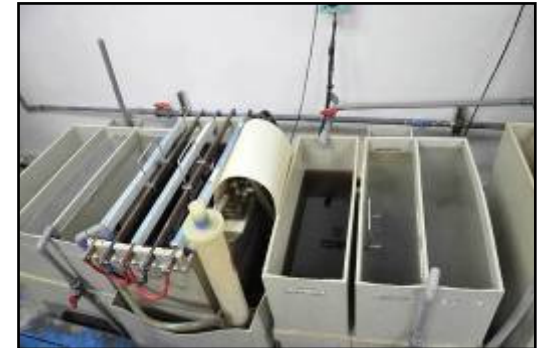
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Plating

- Cu plating
- Ni plating
- Au plating line
- ENIG line
- OSP line



Cu / Ni plating



Gold plating line



ENIG line



OSP line

Finishing Capability:

Ni E'lytic Plating: 350u" max

Au E'lytic Plating : 5~50u"

Selective Au E'lytic Plating: 80u" max

ENIG: 120u" <Ni> 200u" , 2u" <Au> 5u"



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Etching

- Alkaline etching
- Acid etching

Alkaline Etching



Acid Etching

Capability:

Max copper thickness: 4oz



Before Etch



After Etch



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Plug hole process – Nonconductive paste



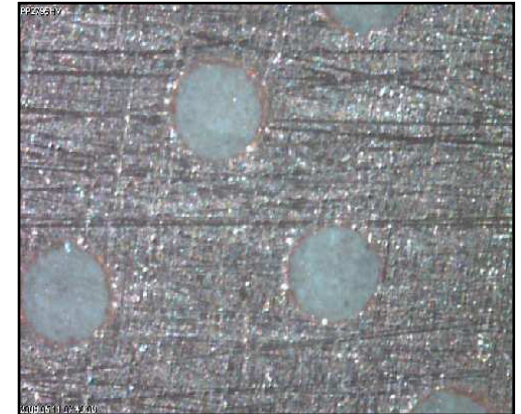
Plugging M/C



Sanding M/C



After plug



After sanding

Capability:
One side flatness



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Inspection & Verification



Automatic Optical Inspection
& Verification System



Coating Measurement
Instrument CMI XRX 950



Fischerscope MMS PC
Copper Measuring System



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Inspection & Verification



Electrical Testing Machine
(Flying Probe)



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Questions

