

Prodigy Electronics

Your partner

Supplier of quality Printed Circuit Board

Jan 2025



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About Us

Prodigy® is an original design manufacturer of quality electronic components and products.

Founded in 2001, Prodigy's in-house design innovation centers and sales offices are in Hong Kong, China, India and USA.

Prodigy Value-Add



Supply Chain Management

Plan and Forecasting

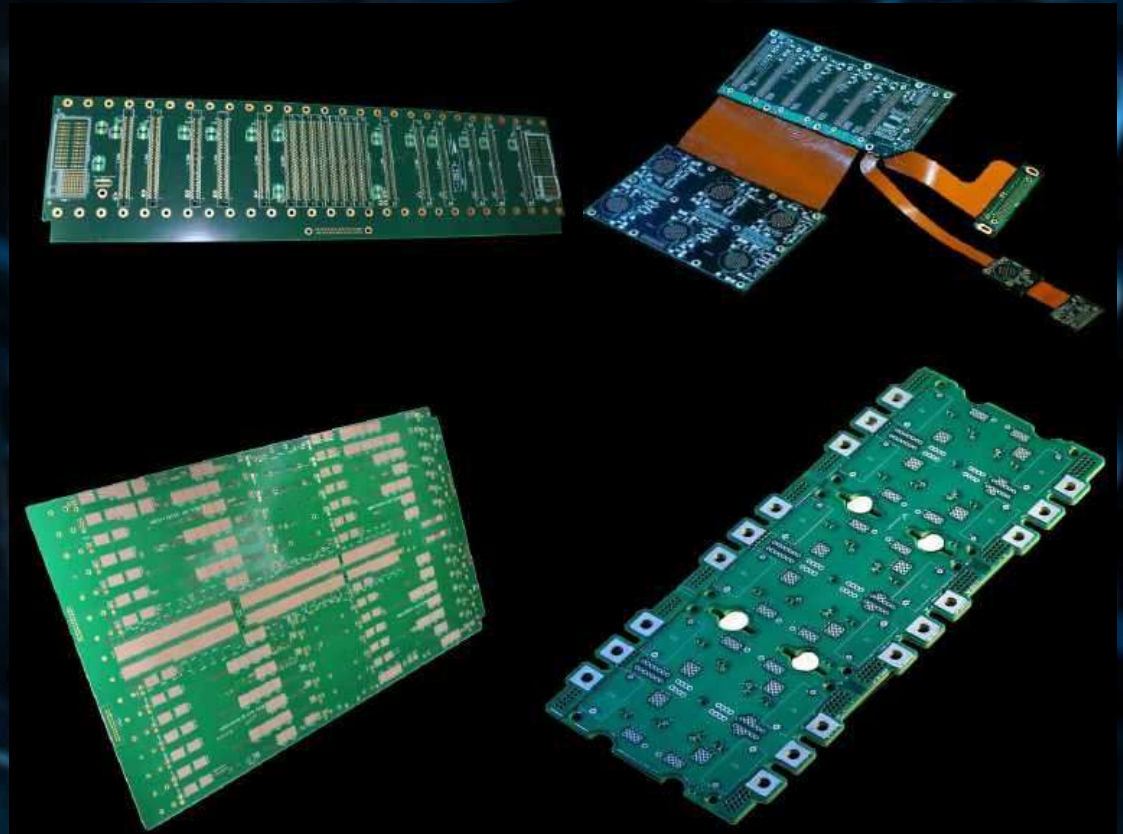
Production Control

Delivery FCA/ CIF/ DDU

Managed Inventory (VMI) and Warehousing

PCB Technologies

- Rigid
- Rigid Flex
- HDI
- Metal Clad
- Single Layer



Rigid and HDI PCB

ITEM	RIGID CAPABILITY	HDI CAPABILITY
Layer Count	1 to 64 Layers	48L(4+N+4)
Board Thickness	0.25 to 10mm	0.3 to 8.0mm
Dimensions (max)	1092mm*660mm	250*330mm
Material	FR4 Normal/ Mid/ High	FR4 Normal/ Mid/ High TG
Final Cu Thickness (max)	12oz	6 Oz
Line Width/ Space (min)	3mil/3mil	3mil/3mil
Drilling Diameter	0.15mm	0.1mm
Aspect Ratio	15:1	1:1
Impedance control tolerance	+/-8%	+/-8%

HDI PCB Reference



Blind/ Buried Via

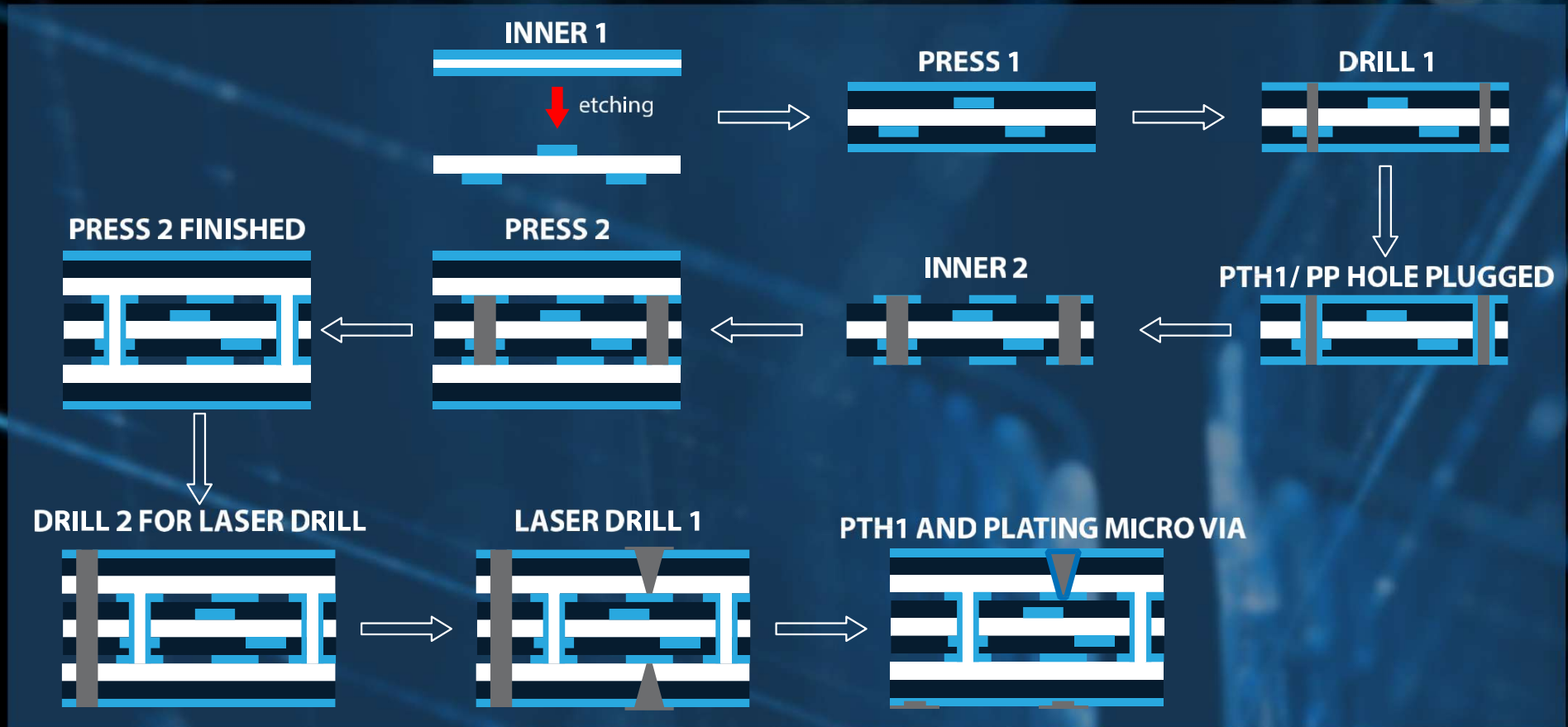


High Layer Count



Back Drill

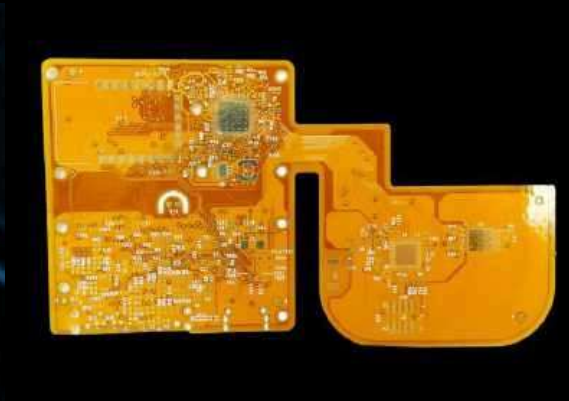
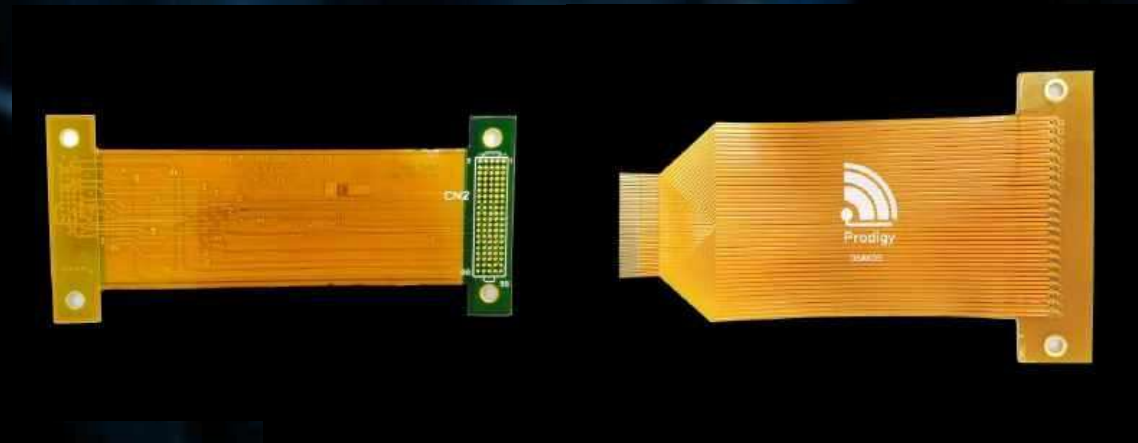
HDI PCB - Manufacturing Process



Flexible and Rigid Flex –Capability

Layer Count	6L
Board Thickness	Min 0.03mm (1L FPC) Tolerance Min +/- 0.03mm
Dimensions	Max 500*650mm Min 10*10mm
Material	FCCL, Stiffener, Cover-lay
Final Cu Thickness	1/3-1oz (Inner layer base Cu) 1/3-2oz (Outer layer base Cu)
Line Width/ Space	0.075/ 0.075mm Finished Cu 0.5oz inner layer Finished Cu 1oz outer layer
Finished Drilling	CNC Drill: Min ϕ 0.15mm Laser Drill: Min ϕ 0.1mm
Aspect Ratio	Laser Drill: Max 1.2:1 CNC Drill: Max 15:1

Flexible PCB –Reference



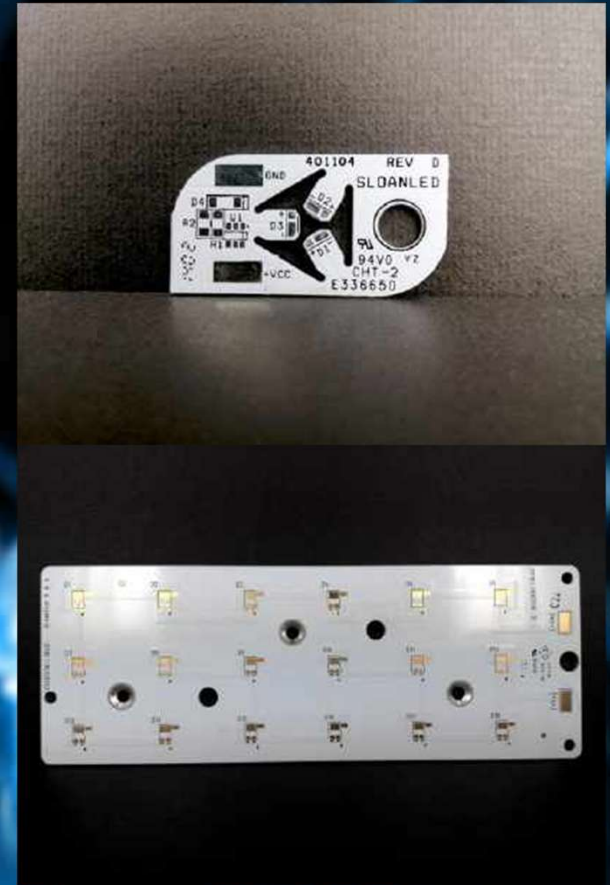
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Metal Clad PCB –Capability

ITEM	CAPABILITY
Layer Count	1L to 4l
Board Thickness	0.6 to 3.0mm
Dimensions	18*24inch
Final Cu Thickness	Outer 2oz / Inner 2oz (Max)
Line Width/ Space	4mil/4mil
Drilling Diameter	0.15 to 6.35mm
Drilling tolerance	PTH +/-3mil (Min 2mil) NPTH +/-2mil

Metal Clad PCB –Applications

LED Light
High Density Power Module
Automotive
Headlight, Backlight, Brake, In Car
Lighting, Tailgate



Metal Clad PCB Cross Section



Single Side

1. Cu
2. Dielectric Layer
3. Metal Substrate (Al, Cu, Iron etc.)



Double Side

1. Double Side Laminate
2. Dielectric Layer
3. Metal

Advanced Equipment



Vacuum Laminating Machine



Laser Drilling Machine



Vertical Continuous Plating Line



AOI



Automatic Hot Roll Laminator Machine



Automatic UV Exposure Machine



LDI in Line



Solder mask E-Spray



The Etching Line



SEM&EDS



Legend Printer Machine



AVI

Surface Treatment Process



ENIG Line



Immersion Silver Line



Immersion Tin Line



Soft Gold Line



OSP Line



HASL-Lead Free



Flash Nickel Gold



Gold Finger Line

Qualified Material Vendors

nelco

EMC



Panasonic

tuc

TACONIC



ITEQ

isola

ThinFlex



Applications/ Industries

- Aviation & Aerospace
- Communication Systems
- Medical Equipment
- Automotive
- Security Control
- Consumer Electronics

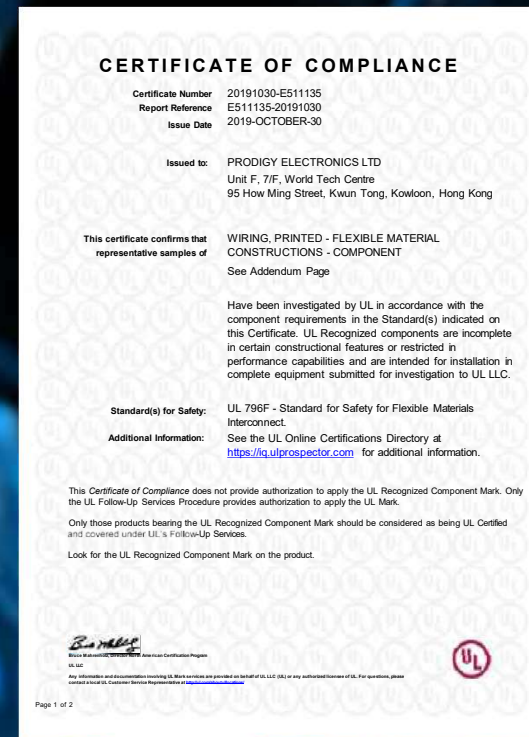
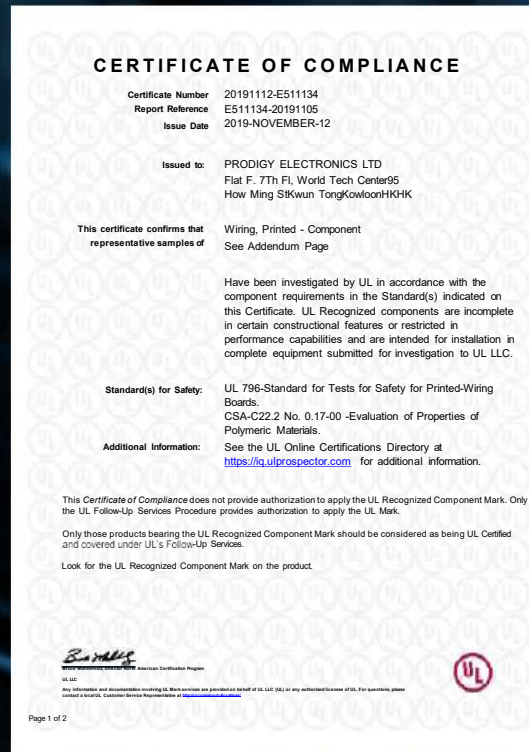


Manufacturing Locations





Quality System Certificates



Key Customers



Microsoft



thyssenkrupp



Tejas

Contact Us



- Asia, Oceania and Europe: +852 2335 9916
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