

PCB LEAD TIMES

STANDARD LEAD TIME - 20 Working Day

Technology	1 Day	2 Day	3 Day	5 Day	7 Day	10 Day
1 - 4 Layers	X	X	X	X	X	X
6 - 10 Layers			X	X	X	X
> 10 Layers				X	X	X

* Prototype and Production Quantities Available

STANDARD PCB FEATURES

Solder Mask.....Green, Blue, Red, Black, Clear
 Min Solder Mask Web..... 0.004"
 Max Board Thickness..... 0.250"
 Maximum Board Size..... 22" x 42"
 Max Copper Weight..... 6 oz
 Standard SMD Pitch.....0.016" with gang mask
0.020" with mask between pins

PRINTED CIRCUIT BOARD CAPABILITIES

Surface Finishes

- ENIG
- HASL
- Pb Free HASL
- Immersion Silver & Tin
- ENEPIG
- Hard Body Gold
- Soft Bondable Gold
- OSP

Materials

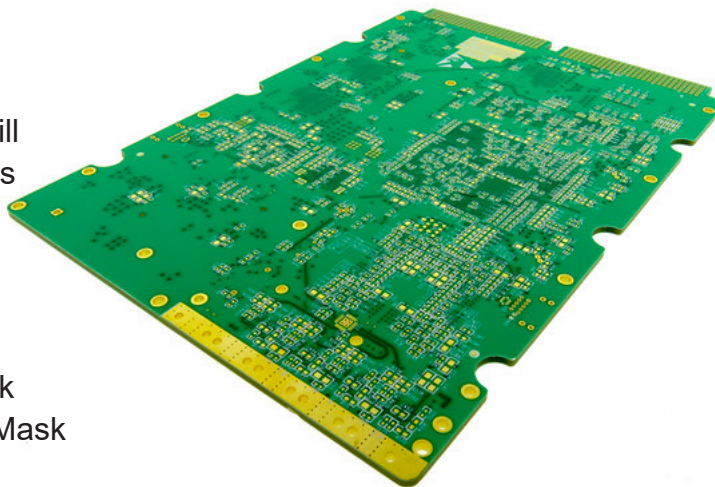
- FR-4 – ALL Types
- CEM-1 & CEM-3
- Heavy Copper
- RF and High Speed Materials
- Mixed Materials / FR-4 Teflon
- Metal Backed Boards
- Polyimide

Drill & Rout

- Jump Score
- Counter Sinks / Counter Bores
- Control Depth & Laser Drilling
- 12:1 Aspect Ratio
- Depth Controlled Milling

Plating

- Conductive Via Fill
- Copper Filled Vias
- Edge Plating
- Castellations
- Plated Slots
- Gold Tabs
- Plasma Etch Back
- Peelable Solder Mask

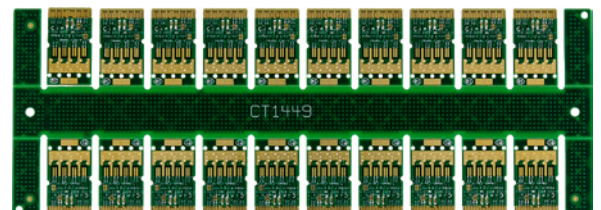


Design

- 1 to 40 Layers
- 0.003" traces and spacing
- IPC Class 2 / Class 3
- Impedance Control +/-10%
- Mechanical drill min. 0.006"
- Blind & Buried Vias
- Silver Thru Hole
- Via in Pad
- Laser Direct Imaging
- Laser MicroVia's 0.003"

ADVANCED PCB TECHNOLOGY

- Design Services
- Flex & Rigid Flex
- ITAR Registered
- Thermal Management
- High Density Interconnects
- MIL-PRF-55110
- Sequential Lamination
- Net List Compare
- Ionic Cleanliness
- Free DFx File Check



TECHNOLOGY ROAD MAP

	Standard	Advanced
Mechanical		
Maximum Layer Count	40	60
Maximum Board Thickness	0.250"	0.287"
Maximum Board Size	16.50" x 22.50"	46" x 22"
Smallest Hole Size (Finished)	0.005"	0.004"
Aspect Ratio	12:1	15:1
Minimum Component Pitch	0.020" (soldermask between pins)	0.016" (gang masked)
Minimum Core Thickness	0.003"	0.002"
Jump Scoring	Yes	Yes
Countersinks/Counterbores	Yes	Yes
Plated Hole Tolerance	+/- 0.003"	+/- 0.002
Warpage	1%	0.75%
Copper Weight		
Inner Layers	0.5 ounces	0.5 ounces
Inner Layers (Heavy Copper)	6 ounces	8 ounces
Outer Layers	0.5 ounces	0.25 ounces
Outer Layers (excludes extreme copper to 120 oz.)	6 ounces	10 ounces
Technology		
Impedance Control	+/- 10%	+/- 5%
Via Technology	Blind/Buried	Blind/Buried
Laser Drilling (Microvias)	Yes	Yes
Plasma Etching	Yes	Yes
Laser Direct Imaging	Yes	Yes
Via Filling	Non-Conductive	Conductive
Available Surface Finishes		
	HASL	Immersion Silver
	ENIG	OSP
	Pb Free HASL	ENEPIG
	Immersion Tin	Electroplated Gold
Materials		
	FR-4 (140-220 Tg)	PTFE/Teflon
	Polyimide	Thermagon
	CEM-1	Arlon
	Rogers	Thermal/Metal Clad

Standard - Everyday Capability / Advanced - Everyday Capability with a small premium.

