

## 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	X
> 10 Layers			X	X	X	X

\* Prototype and Production Quantities Available

## STANDARD PCB FEATURES

Solder Mask.....	Green, Blue, Red, Black, Clear
Min Solder Mask Web.....	.004"
Max Board Thickness.....	.250"
Maximum Board Size.....	22" x 42"
Max Copper Weight.....	6 oz
Standard SMD Pitch.....	.016"

## PRINTED CIRCUIT BOARD CAPABILITIES

### Surface Finishes

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

### Materials

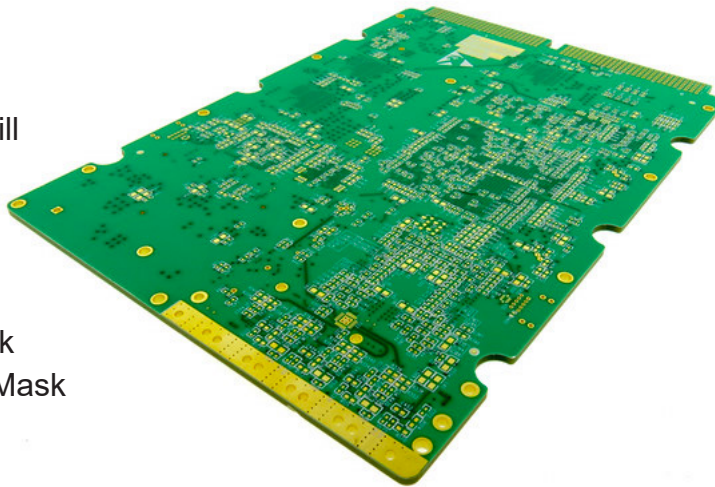
- FR-4 – ALL Types
- CEM-1 & CEM-3
- Heavy Copper
- RF and High Speed Materials
- Mixed Materials / FR-4 Teflon
- Metal Backed Boards
- Polyimide

### Drill & Rout

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

### Plating

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

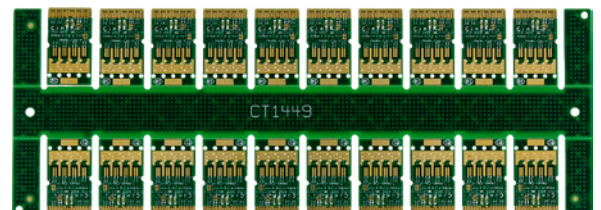


### Design

- 1 to 18 Layers
- 3 Mil Lines & Spaces
- IPC Class 2 / Class 3
- Impedance Control +/-10%
- Down to .006" Holes
- Blind & Buried Vias
- Silver Thru Hole
- Via in Pad
- Laser Direct Imaging
- MicroVia's

## 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
<b>Mechanical</b>		
Maximum Layer Count	18	26
Maximum Board Thickness	.250"	.287"
Maximum Board Size	20" x 23"	20" x 24"
Smallest Hole Size (Finished)	.006"	.005"
Aspect Ratio	11:01	12:01
Minimum Component Pitch	.020" (soldermask between pins)	.016" (gang masked)
Minimum Core Thickness	.003"	.002"
Jump Scoring	Yes	Yes
Countersinks/Counterbores	Yes	Yes
Plated Hole Tolerance	+/- .003"	+/- .002
Warpage	1%	0.75%
<b>Copper Weight</b>		
Inner Layers	4 ounces	4 ounces
Outer Layers	6 ounces	8 ounces
<b>Technology</b>		
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
<b>Available Surface Finishes</b>		
	HASL	Immersion Silver
	ENIG	OSP
	Pb Free HASL	Immersion Gold
	Immersion Tin	Electroplated Gold
<b>Materials</b>		
	FR-4 (140-220 Tg)	Teflon
	Polyimide	Thermagon
	CEM-1	Arlon
	Rogers	Getek
<b>Agency Qualifications</b>		
UL (File #E86319) ISO-9001:2008 TS-16949 IPC-6012 Class 3		

Standard - Everyday Capability

Advanced - Everyday Capability with a small premium.