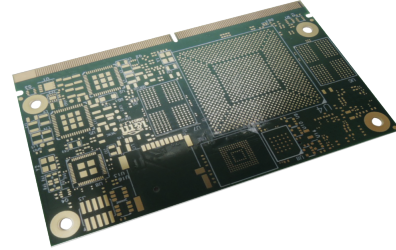


Rigid Circuit Board

ERM-0012021

We've got the basics covered



Features	Standard	Advanced
Number Of Layers	2-26 Layers	64 Layers
Base Materials	FR-4(Tg≥130, Tg≥150, CTI≥175, CTE≤300)	High TG, Low CTE, High CTI, Anti-CAF, Halogen Free, Rogers, Telfon, BT, Aron, FR5, Nelco
Finished Board Thickness	0.8mm, 1.0mm, 1.6mm, 2.0mm	0.4mm - 10mm
Maximum Panel Size of Board	610mm x 460mm	1092mm x 660mm
Finished Copper Thickness	Inner Layer: 1/3oz - 3oz Outer Layer: 1/2oz - 6oz	Inner Layer: 6oz Outer Layer: 12oz
Minimum Trace Width	75um	50um
Minimum Trace Space	100um	75um
Surface Finish	Electro-less Nickel Immersion Gold (ENIG) HAL (Lead Free)	HAL (Tin Lead) Immersion Tin Immersion Silver Organic Solder-ability Preserve (OSP) Electrolytic Nickel and Gold
Minimum CNC Hole Diameter	0.2mm	0.15mm
Aspect Ratio (Through Hole)	8:1	16:1

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Features	Standard	Advanced
Minimum Laser Hole Diameter	75um	50um
Aspect Ratio (Laser Hole)	0.9:1	1.3:1
Form Tolerance of Holes	PTH $\pm 0.075\text{mm}$ NPTH $\pm 0.05\text{mm}$	PTH $\pm 0.05\text{mm}$ NPTH $\pm 0.025\text{mm}$
Positional Tolerance of Holes	$\pm 0.1\text{mm}$	$\pm 0.05\text{mm}$
Minimum Space of Hole Edge to Conductor	0.4mm	0.25mm
Minimum Space between Hole Edges	0.3mm	0.2mm
Minimum Space of Hole Edge to Routing Line	0.3mm	0.15mm
Minimum Space of Conductor to Routing Line	0.2mm	0.15mm
Solder Mask Thickness	Coverage in accordance with IPC-6012	On Conductor Surface: $>10\mu\text{m}$ On Conductor Corner: $>5\mu\text{m}$
Minimum Solder Mask Clearance	0.1mm	0.05mm
Minimum Solder Mask Dam	0.1mm	0.075mm
Maximum Hole Plugged by Solder Mask	0.5mm	0.65mm
Filled Material in Via Holes	Solder Mask	Epoxy Resin Copper Paste Silver Paste
Minimum Legend Width	0.2mm	0.1mm
Routing Tolerance	$\pm 0.127\text{mm}$	$\pm 0.075\text{mm}$

Rigid Circuit Board

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Features	Standard	Advanced
V-Cut Tolerance	±0.1mm	±0.08mm
V-Cut Angle	30°	45°,60°
Bow and Twist	≤0.75%	≤0.5%
Impedance Tolerance	±8%	±5%
ENIG Thickness	Minimum 0.05um Au over Minimum 3um Ni	Minimum 0.075um Au over Minimum 5um Ni
Gold Thickness for Edge Connector Lands	Minimum 0.8um	Minimum 1.25um
Electrolytic Nickel and Gold Plating Thickness	Minimum 0.02um Au over Minimum 2.54um Ni	0.02um - 2um Au over 3um – 8um Ni
HAL Thickness	Coverage in accordance with IPC-6012	1-40um
Immersion Silver Thickness	Minimum 0.12um in accordance with IPC-4553	
Immersion Tin Thickness	Minimum 1um in accordance with IPC-4554	
Solder Mask Color	Green, Red, Blue, White, Yellow, Black	
Legends Color	White, Yellow, Black, Red	
Flammability Classification	UL 94V-0	
Additional Processes	Beveling, Controlled Depth Milling, Back Drilling, Peelable Mask, Kapton Tape, Carbon Ink	
Special Technology	Via In Pad Embedded Capacitor/ Resistor Blind and Buried Via (kindly refer to the HDI capability)	
Other Types of PCB	Rigid Flex PCBs Flexible PCBs Semi-Flexible PCBs Aluminum PCBs	