

PCB Manufacturing Capability



Category	Item	Standard
Basic		
	Rigid PCB Layer Count	1-64L
	Flex & Rigid-Flex PCB Layer Count	Flex PCB: 1-18L Rigid-flex PCB: 2-20L
	Min. Finished Board Thickness	0.15 ± 0.025 mm (6 ± 1mil)
	Max. Finished Board Thickness	10.0 ± 10% mm (394 ± 10%mil)
	Max. Board/Array Size	1490 mm x 610 mm
	Min. Core Thickness	0.05 mm (2mil)
Stackup		
	Through-hole PCB	YES
	Mechanical-Blind/buried via PCB	YES
	Metal Base PCB	YES
	HDI	1+N+1 1+1+N+1+1, 2+N+2 1+1+1+N+1+1+1,3+N+3 Rigid-flex PCB+HDI Anylayer
Base Material		
	Normal Tg, Middle Tg, High Tg	Yes
	Lead Free, Halogen Free	Yes
	Low Dk Laminate	Yes
	Low Loss Laminate	Yes
	High Frequency Laminate	Yes
	PI Laminate	Yes
	BT Laminate	Yes
	Teflon Laminate	Yes
Material Supplier		
	Shengyi, ITEQ, KB, TUC, Grace	Yes
	Isola, Ventec, Nanya, Dopont	
	Arlon, Rogers, Wangling, Taconic	
	Bergquist, Boyu, Nelco	
Hole		
	Min. Mechanical Drill Size	0.10 mm (4mil)
	Min. Laser Drill Size	0.075 mm (3mil)
	Drilling Hole to Hole Accuracy	± 0.05 mm (± 2mil)
	PTH Tolerance	± 0.05 mm (± 2mil)
	NPTH Tolerance	± 0.038 mm (± 1.5mil)
	Controlled Depth Drilling Tolerance	± 0.05 mm (± 2mil)
	PTH Aspect Ratio	1:15
	Lower Aspect Ratio	1:1
	Min. Distance of hole to trace	6.5 mil
Trace, Soldermask		
	Min. Trace Width/Space	0.05 mm/0.05 mm (2/2mil)
	Trace Width Tolerance	± 8%
	Min. Base Cu Thickness	9 μm (1/4 oz)
	Max. Base Cu Thickness	12 oz
	Impedance Control Tolerance	± 5%
	Registration < 10L	± 0.038 (± 1.5mil)
	Registration ≥ 10L	± 0.05 (± 2mil)
	Min. SMT/QFP Pitch	0.15 mm (6mil)
	Min. BGA Pitch	0.20 mm (8mil)
	Min. Solder Bridge Width	3 mil
	S/M Registration Tolerance	± 0.038 mm (± 1.5mil)
Mechanical		
	Routing Tolerance	± 0.10 mm (± 4mil)
	Punch Tolerance	± 0.05 mm (± 2mil)
	V-cut Location Tolerance	± 0.075 mm (± 3mil)
	V-cut Residual Tolerance	± 0.05 mm (± 2mil)
	Angle & Tolerance of Beveling of G/F	20°/30°/45°, ± 5°
	Depth & Tolerance of Beveling of G/F	1.2 ± 0.10 mm (47 ± 4mil)
Surface Finishing		
	Carbon ink	Yes
	Peelable Mask	Yes
	OSP	Yes
	ENIG	Au: 0.03μm -0.06 μm, Ni: 3 μm -6 μm
	ENIG+OSP	Yes
	Immersion Tin	0.8-1.2 μm
	Immersion Silver	Yes
	HASL(Free)	0.5-40 μm
	ENEIPG	Au: 0.015-0.075 μm; Pd: 0.02-0.075 μm; Ni: 2-6 μm
	Electro. Hard Gold	Au: 0.125-1.270 μm; Ni: 2.50-6.25 μm
Special Process		
	Platd edge	Yes
	Half Hole	Yes
	Sidestep hole	Yes
	Via in Pad	Yes
	Back Drill	Yes
	Countersink Hole	Yes
Advanced		
	Buried Capacitor	Yes
	Buried Resistor	Yes
	Embedded coin	Yes
	Rigid-Flex	Yes
	Rigid-Flex + HDI	Yes
	Rigid-Flex + Metal Base	Yes