PCB manufacturing capabilities

The capabilities below help designers understand how configuration settings affect manufacturability at the layout stage. If you need capabilities beyond those listed, contact us to discuss your requirements.

	STANDARD	ADVANCED
BUILDS		
1 layer, 2 layer	0.032" – 0.125" [0.80 – 3.20 mm]	0.008" – 0.031" [0.20 – 0.75 mm]
4 layer – 24 layer	Min. core thickness 0.005" [0.13 mm]	Min. core thickness 0.003" [0.076 mm]
Hybrid		Yes
Controlled impedance		Yes
LAMINATE MATERIALS		
FR4	Ventec, Nan Ya	Isola 370HR, Megtron 6, FR408-HR
High frequency	Rogers, Arlon, Isola	
Thermal management	Bergquist, Ventec, Laird	
High temperature	Isola P95 Polyimide, 1 & 2 layers only	Isola P95 Polyimide multilayer
DESIGN PARAMETERS		
Smallest drill diameter	0.0098" [0.25 mm]	0.0059" [0.15 mm]
Smallest via pad diameter	0.020" [0.50 mm]	0.014" [0.36 mm]
Plated hole to copper	0.010" [0.25 mm]	0.007" [0.18 mm]
Hole wall plating (min. avg.)	0.0008" [0.02 mm] IPC Class 2	0.001" [0.025 mm] IPC Class 3
Aspect ratio	10:1	13:1
Blind & buried via processing	N/A	Available
Heavy Cu plating (min. avg.)	N/A	Available
Blind microvia Cu fill	N/A	TBA
Non-conductive viafill		Yes
Conductive viafill		Yes
Solder mask swell (annular)	0.003" [0.075 mm]	0.001" [0.025 mm]
Solder mask dam	0.003" [0.075 mm], 0.004" for black	0.002" [0.050 mm]
Legend line width	0.005" [0.13 mm]	0.003" [0.075 mm]
Legend to copper clearance	0.005" [0.13 mm]	0.005" [0.13 mm]
Cu to board edge – V-score	0.020" [0.50 mm]	0.015" [0.38 mm]
Cu to board edge – routed	0.010" [0.25 mm]	0.005" [0.13 mm]
Cu to board edge – inner	0.015" [0.38 mm]	0.015" [0.38 mm]
Trace/space – ¼ oz Cu	N/A	0.003" [0.075 mm], outer foil only
Trace/space – ⅜ oz Cu	N/A	0.003" [0.075 mm], outer foil only
Trace/space – ½ oz Cu	0.005" [0.13 mm]	0.004" [0.10 mm]
Trace/space – 1 oz Cu	0.007" [0.18 mm]	0.005" [0.13 mm]
Trace/space – 2 oz Cu	0.010" [0.25 mm]	0.008" [0.20 mm]
Trace/space – 3 oz Cu	N/A	0.014" [0.35 mm]

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PCB manufacturing capabilities (continued)

	STANDARD	ADVANCED
SOLDER MASK		
Liquid photo-imageable		Green, Blue, Red, Black, Transparent, Purple, White
Direct imaging		Yes, all solder mask direct imaged
Via plug (IPC-4761, Type IV)		Yes
Filled (IPC-4761, Type VII)		Yes
LEGEND		
Inkjet		White
Liquid photo-imageable	White, Black, Yellow	Blue, Red, Green
FINAL FINISH		
ENIG		Yes
Immersion silver		Yes
Flash gold (full body)		Yes
HASL (tin/lead)		Yes
Hard gold		Yes
Carbon paste		Yes
OSP		Yes
Soft gold		Yes (outsourced)
ENEPIG		Yes (outsourced)
DI gold		Yes (outsourced)
Immersion tin		Yes (outsourced)
CNC MACHINING		
Router bit diameter	0.0945" [2.40 mm]	0.0157" [0.40 mm] – 0.125" [3.175 mm]
Countersink		82°, 90°, 100°, 110°
Back drill		Yes
Milling		Yes
Counterbore		Yes
V-score		Yes
Jump score		Yes
Edge bevel	Yes	Recessed
Edge plating		Yes
Castellated edges		Min. dia. 0.020" [0.50 mm]

QUALITY

✓ ISO 9001:2015 ✓ AS9100D ✓ UL approved, File E64339 ✓ IPC-A-600 certified inspectors
✓ Registered with Canada's Controlled Goods Program

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