

Feature	FR4	Metal PCB
Acceptance Standard	IPC-A-600 Class 2 and IPC-A-600 Class 3	
Base Material	Standard and High TG	Aluminium, Copper 0.4 to 8 W/mK
Layer Count	1 to 24	
Finished Board Thickness in mm	0.5 to 3.2	0.5 to 3.2
Minimum Inner Layer Core	0.10mm	
Maximum Circuit Size in MM (Inch in Brackets)	1 to 2 Layers = 572 x 435 (22.5 x 17) Multilayer = 514 x 417 (20.25 x 16.4)	Single Layer = 584 x 435 (23 x 17)
Finish Copper Thickness (Surface)	18µm to 175µm (½ to 5oz)	35µm to 175µm (1 to 5oz)
Finish Copper Thickness (Hole)	25µm	
Min Track, Gap and Annular Ring	<u>Track and Annular Ring</u> 18µm = 0.10mm 35µm = 0.10mm 70µm = 0.15mm 105µm = 0.20mm 140µm = 0.30mm	<u>Gaps</u> 18µm = 0.10mm 35µm = 0.15mm 70µm = 0.20mm 105µm = 0.30mm 140µm = 0.40mm
Minimum Finished Hole Size	0.15mm = up to 1.6mm thickness 0.25mm = 1.6mm to 2.4mm thickness 0.35mm = 2.4mm to 3.2mm thickness	
Aspect Ratio	8:1	
Minimum Hole to Copper	0.20mm Clearance	
General Tolerances (mm)	Plated Though Hole = +/- 0.05 Unplated Holes = +/- 0.05 Routed Features = +/- 0.10	
V-Cut Angle	30 degree	
V-Score Tolerances (mm)	Score line to circuit pattern = +/- 0.25 Score line to score line = +/- 0.15 Minimum air gap from copper edge to centre of score line = 0.50	
	Remaining web thickness = 0.4 +/- 0.1	Remaining web thickness = 0.3 +/- 0.1
Edge Chamfer	Between 30° and 45°	
Minimum Distance Between Copper And Chamfered Edge	$(([Material\ Thickness]/3) * \tan[Angle]) + 0.1\text{mm}$	
Solder Mask	<u>Dam/web width</u> 0.075mm for 1oz base copper 0.100mm for 2oz base copper 0.125mm for 3oz base copper 0.150mm for 4oz base copper	<u>Clearance to Copper</u> 0.050mm for 1oz base copper 0.075mm for 2oz base copper 0.100mm for 3oz base copper 0.125mm for 4oz base copper
Solder Mask Colours	Matt Green – Light Green Gloss – White Gloss – Dark Blue Gloss – Red Gloss – Black Gloss	
Peelable Mask	Minimum feature = 0.50mm Maximum tented hole = 3.00mm	
Silk Screen/Ident	Minimum feature = 0.15mm Minimum Clearance = 0.20mm	
Silk Screen Inks	White – Yellow – Black	
Minimum Hole to Copper	0.20mm Clearance	
Standard Surface Finish	Electroless Nickel Gold, Immersion Silver, Leaded, Lead Free Hot Air Solder Level, Hard Gold, and OSP.	