

Item		Technical Specification				Remarks	
		IMP Manufactured		Imported			
Number of Layer		1-8 Layers		1-24 Layers			
Base Material		FR4, FR408, Rogers 4000 series		FR4, FR408, Rogers, Arlon, Metal based and most other substrates			
Finish Board Thickness		0.20 mm - 3.20 mm (8 mil - 126 mil)		0.13 mm - 4.5 mm (5 mil - 177 mil)			
Minimum Core Thickness		0.1 mm(4 mil)		0.08mm ( 3 mil)			
Copper Thickness		Min. 1/2 OZ, Max. 6 OZ		Min. 1/4 OZ, Max. 6 OZ		Selective Area Available, Thicker Cu On Request	
Min. Trace Wide & Line Space	Single Sided	0.125 mm ( 5 mil )		0.08 mm ( 3 mil)			
	Double Sided	0.125 mm ( 5 mil )		0.08 mm ( 3 mil)			
Min. Hole Diameter	Drilling /PTH	Dia 0.25 mm (10 mil )		Dia 0.10 mm ( 4 mil)			
	Punching	N/A		Dia 0.90 mm ( 36 mil )			
Dimension Tolerance	Hole Position	±0.08 ( 3 mil )		±0.05 ( 2 mil )			
	Conductor Width(W)	±20% Deviation of Master A/W		±1 mil Deviation of Master A/W			
	Hole Diameter(H)	NPTH: ±0.05 mm ( 2 mil )		NPTH: ±0.03 mm ( 1 mil )			
		PTH: ±0.08 mm ( 3 mil )		PTH: ±0.05 mm ( 2 mil )			
	Outline Dimension	±0.125 mm ( 5 mil )		±0.10 mm ( 4 mil )			
	Conductors & Outline ( C-O )	±0.15 mm ( 6 mil )		±0.13 mm ( 5 mil )			
	Warp and Twist	0.75%		0.50%			
Surface Treatment On Land Area		Hard Gold, Immersion Gold, Immersion Silver and HASL (Leaded and Lead Free)		Hard Gold, Immersion Gold, Immersion Silver and HASL Leaded and Lead Free, Entek and Immersion Tin			
V-Cutting	Panel Size	457.2mm X 610 mm ( max. )		457.2 mm X 1200 mm ( max. )			
	Board Thickness	0.80 mm (32mil) min.		0.30 mm (12mil) min.			
	Remain Thickness	1/3 board thickness		0.40 +/-0.10 mm ( 16+/-4 mil )			
	Tolerance	±0.13 mm(5mil)		±0.1 mm(4mil)			
	Groove Width	0.50 mm (20mil) max.		0.38 mm (15mil) max.			
	Groove to Groove	10 mm (394mil) min.		10 mm (394mil) min.			
	Groove to Trace	0.45 mm(18mil) min.		0.38 mm(15mil) min.			
Slot	Slot size tol. L~2W	PTH Slot: L~±0.13 mm (5mil)		PTH Slot: L~±0.10 mm (4mil)		(1) L=Length of slot (2) W=Width of slot (3) Min. drill bit size for multi-hit is 0.60mm	
		NPTH Slot: L~±0.10 mm (4mil)		NPTH Slot: L~±0.08 mm (3mil)			
Min Spacing from hole edge to hole edge	0.30-1.60 (Hole Dia)	0.15 mm (6mil)		0.10 mm (4mil)			
	1.61-6.50 (Hole Dia)	0.15 mm (6mil)		0.13 mm (5mil)			
Minimum Spacing between hole edge to circuitry pattern		PTH hole: 0.20 mm (8mil)		PTH hole: 0.13 mm (5mil)			
		NPTH hole: 0.18 mm (7mil)		NPTH hole: 0.10 mm (4mil)			
Image Transfer Registration Tolerance	Circuit vs.index hole pattern	±0.10 mm (4mil)		±0.08 mm (3mil)			
	Circuit pattern vs. 2nd drill hole	±0.15 mm (6mil)		±0.10 mm (4mil)			
Registration tolerance of front/back image		0.075 mm (3mil)		0.05 mm (2mil)			
Multilayers	Layer to Layer Mis-registration	4layers:	0.15 mm (6mil)max.		4layers:	0.10 mm (4mil)max.	
		6layers:	0.20 mm (8mil)max.		6layers:	0.13 mm (5mil)max.	
		8layers:	0.25 mm (10mil)max.		8layers:	0.15 mm (6mil)max.	
						8-22 Layers	0.25 mm (10mil)max.
	Min. Spacing From Hole Edge to Innerlayer Pattern		0.225 mm (9mil)		0.15 mm (6mil)		
	Min. Spacing From Outline to Innerlayer Pattern		0.38 mm (15mil)		0.225 mm (9mil)		
	Min. Board Thickness	4layers:0.50 mm (20mil)		4layers:0.20 mm (8mil)			
		6layers:0.80 mm (32mil)		6layers:0.50 mm (20mil)			
		8layers:1.1 mm (44mil)		8layers:0.75 mm (30mil)			
	Board Thickness Tolerance	4layers: +/-10%		4layers: +/-0.10 mm (4mil)			
6layers: +/-10%		6layers: +/-0.13 mm (5mil)					
8 layers: +/-10%		8-12 layers: +/-0.15 mm (6mil)					
		14-22 layers: +/-0.20 mm (8mil)					
Insulation Resistance				10K~20M~(typical:5M~)			
Conductivity				<50~(typical:25~)			
Test Voltage				250V			
Impedance Control				Typical: 50~ +/-10%			