



# GLOBAL EXPERT TECHNOLOGIES LIMITED

## Technical Capabilities

General	Products	Rigid PCB	
		Double Sided	
		Multi-layer $\leq$ 26 Layers	
		Aluminium PCB	
		Heavy Copper PCB ( up to 6 oz )	
	Maximum Panel Size	476 mm $\times$ 620 mm (18.7" $\times$ 24")	
Laminates	Types	FR-4, High Tg FR-4, Halogen Free FR-4 FR-5, G-10 Rogers, Al Base Metal Laminate	
	Flammability	94V-0	
	Base Copper Thickness	0.5 ~ 5 oz	
Board Thickness	Thickness	0.20 ~ 5.0 mm (8 - 200 mil)	
	Tolerance	$\geq$ 1.00 mm	$\pm$ 10%
$<$ 1.00 mm		$\pm$ 0.10 mm ( $\pm$ 4 mil)	
Drilling	Minimum Finished Hole Size	0.15 mm (6 mil)	
		Blind / Buried Via	0.1 mm (4 mil)
	Hole Size	PTH	$\pm$ 0.076 mm ( $\pm$ 3 mil)
		NPTH	$\pm$ 0.03 mm ( $\pm$ 1.2 mil)
	Hole To Hole Position	$\pm$ 0.05 mm ( $\pm$ 2 mil)	
	Aspect Ratio	Through Holes	1:10
Blind Via		1:1	
Imaging	Line Width / Spacing	0.076 mm / 0.10 mm (3 mil / 4 mil)	
	SMT Pitch	0.20 mm (8 mil)	
Soldermask	Type	LPI Soldermask	
		Peelable Soldermask	
	Thickness	Minimum	0.01 mm (0.4 mil)
		Maximum	0.05 mm (2.0 mil)
	Abrasion Strength	$>$ 5 H	
Pitch	Minimum	0.076 mm (3 mil)	

Surface Finishing	Type	Hot Air Leveling / HASL / HAL Hot Air Leveling (Lead Free) / LF-HAL Immersion Gold Gold Fingers Immersion Tin Immersion Silver Carbon Ink OSP		
	Immersion Gold	Minimum	0.05 $\mu\text{m}$ (0.002 mil)	
	Immersion Tin	Minimum	0.10 $\mu\text{m}$ (0.004 mil)	
		Maximum	1.30 $\mu\text{m}$ (0.051 mil)	
	Immersion Silver	Minimum	0.05 $\mu\text{m}$ (0.002 mil)	
		Maximum	0.30 $\mu\text{m}$ (0.012 mil)	
	Gold Fingers / Hard Gold	Minimum	0.08 $\mu\text{m}$ (0.0315 mil)	
		Maximum	1.50 $\mu\text{m}$ (0.06 mil)	
	Nickle Plating Thickness	Minimum	2.54 $\mu\text{m}$ (0.10 mil)	
		Maximum	7.60 $\mu\text{m}$ (0.30 mil)	
Outline	V-Grooving Tolerance	Remain Thickness	$\pm 0.10$ mm ( $\pm 4$ mil)	
	Outline Profile	Punching		
		Routing		
		Punch and Push Back		
Outline Tolerance	$\pm 0.10$ mm ( $\pm 4$ mil)			
Thermal Stress	Thermal Stress	288°C / 20 sec		
Mechanical Properties	Peel Strength	1.4 N / mm		
	Twist and Bow	$\leq 0.5\%$		
Electrical Properties	Impedance Control	$\pm 10\%$		
	Electric Strength	$> 1.3$ KV / mm		
	Electrical Testing	Test Voltage	50 ~ 300V	
		Isolation Resistance	500 M $\Omega$	
Through Hole Resistance	$< 300 \Omega$ Normal			