

工艺能力 Process Capability

项目 Items	工艺能力 Capabilities	工艺能力提升计划 Improved planing
板料品牌 Laminate Brand	生益、南亚、建滔、松下、ISOLA、长春、长兴、华正 Nan Ya, King Board, Panasonic, ISOLA, Chang Chun, Eternal Chemical, WAZAM	罗杰斯、台耀、富仕德 Rogers, TUC, FSD
板料类型 Laminate Type	CEM-1, CEM-3, FR-4, FR-4 High Tg, FR-4(Halogen-free), Aluminum Base Board	高速材料、高频材料 High speed material High frequency material
产品层数 Layer	1-18L	28L
最低板厚 Min Board Thickness	0.4mm (0.016")	0.3mm(0.012")
最高板厚 Max Board Thickness	3.2mm (0.126")	3.2mm (0.126")
底铜铜厚 Base Copper Thickness	内层 Inner layer: 1/3~3oz	内层 Inner layer: 1/3~4oz
	外层 Outer layer: 1/3~4oz	外层 Outer layer: 1/3~6oz
最大出货尺寸 Max Board Size	580×680mm (22.8" × 26.7")	580×680mm (22.8" × 26.7")
成品最小孔径 Min Hole Size	0.15mm (6mil)	0.1mm (4mil)
最大纵横比例 Aspect Ratio	10:1	12:1
最小线宽 Min Line Width	0.075mm (3mil)	0.065mm (2.6mil)
最小线距 Min Line Space	0.075mm (3mil)	0.065mm (2.6mil)
最小BGA尺寸 Min BGA PAD Size	0.2mm (8mil)	0.2mm (8mil)
板弯曲/翘曲度标准 Warpage/Twist	<=0.75%	<=0.5%
成品PTH孔径公差 PTH Hole Dia. Tolerance	±0.05mm (2mil)	±0.05mm (2mil)
成品NPTH孔径公差 NPTH Hole Dia. Tolerance	±0.05mm (2mil)	±0.05mm (2mil)
阻抗的控制 Control of Impedance	±10%	±8%
特殊工艺 Special Process	沉头孔 Counter Sink, 半孔 Half-PTH, 金属包边 Edge-plating	树脂塞孔 Resin Plug hole 控深台阶板 Depth control routing 一阶 HDI 1+N+1 HDI
表面处理类型 Final Surface Finishing	OSP、无铅喷锡、沉金、电金、沉锡、沉银、碳油、无铅喷锡+电金手指、沉金+电金手指 OSP, HASL-LF, ENIG, Gold Plating, Tin Immersion, Silver Immersion Carbon Printing, HASL-LF+Gold finger Plating, ENIG+Gold finger Plating	化镍金+OSP、沉金+长短金手指 (光模块) ENIG+OSP、ENIG+OSP Gold finger (Optical module)
	OSP	OSP: 0.2-0.4um
	无铅喷锡 HASL-LF	锡厚度 Tin thickness: 1-40um
	沉金 ENIG	镍Ni: 3-6um, 金Au: 0.025-0.125um
	沉锡 Tin Immersion	锡厚度 Tin thickness: 0.8-1.2um
	沉银 Silver Immersion	银厚度 Silver thickness: 0.15-0.4um
	电金手指 Gold finger Plating	镍 Ni: 3-6um, 金 Au: 0.076-1.0um
碳油 Carbon Printing	碳油厚度 Carbon Thickness: 0.02-0.04mm	