

Technical Roadmap PCB



Yan Tat Printed Circuit (Shenzhen) Co., Ltd.
恩達電路(深圳)有限公司

Item	Year	2016	2017	2018
Max. Layer Count		14L	16L	18L
Min. Core Thickness excl.CU		0.075 mm	0.075 mm	0.05 mm
Max. Copper thickness		6 oz	6 oz	8 oz
Min. Finished Board Thickness		0.25 mm	0.25 mm	0.2 mm
Max. Finished Board Thickness		4.5 mm	5.0 mm	6.0 mm
Min. Inner Layer Trace Width/Spacing		0.089 mm / 0.089 mm	0.075 mm / 0.075 mm	0.075 mm / 0.075 mm
Min. Outer Layer Trace Width/Spacing		0.10 mm / 0.10 mm	0.089 mm / 0.089 mm	0.075 mm / 0.075 mm
Min. Mechanical Drilled Hole Size		0.15 mm	0.15mm	0.15 mm
Copper Plating Through Hole Aspect Ratio (1.6 mm)		10 : 1	12 : 1	14 : 1
Solder mask Registration		0.05 mm	0.05 mm	0.035 mm
Min. Soldermask Bridge		0.076 mm	0.076 mm	0.063 mm
Min. BGA Pitch		0.6 mm	0.55 mm	0.5 mm
Via In Pad		Sample Production	Mass Production	Mass Production
Depth Control Blind Routing Accuracy		± 0.15 mm	± 0.1 mm	± 0.05 mm
Min. Single-ended Impedance Tolerance		± 10%	± 8%	± 5%
Min. Differential Impedance Tolerance		± 10%	± 8%	± 5%
Surface Finish	HASL, Lead Free HASL, Immersion Tin, Immersion Ag, ENIG, OSP, ENIG + OSP, Gold finger, Carbon print, Peel able Mask			
Base Material	General Tg、Middle Tg、High Tg、Halogen Free、Low Dk、Low Loss、High CTI、PTFE, Ceramic,			
Advanced product	Buried/Embedded Coin	Mass Production	Mass Production	Mass Production
	Rigid-flex	Sample run	Mass Production	Mass Production
	Rigid-flex + Metal Base	R & D	Sample Run	Mass Production
	HDI (1+)	/	Sample Run	Mass Production

Technical Roadmap MPCB



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Item (Metal Backed Pcb) Year	2016	2017	2018
Max. Layer Count (Metal pcbs)	4L	6L	6L
Min. Metal Base Thickness	0.35 mm	0.35 mm	0.35 mm
Max. Metal Base Thickness	6.0 mm	6.0 mm	6.0 mm
Min. Thermal Conductive Layer Thickness	50 um	50 um	50 um
Min. Core Thickness	0.2 mm	0.2 mm	0.2 mm
Min. Inner Layer Trace Width/Spacing	0.089 mm / 0.089 mm	0.089 mm / 0.089 mm	0.076 mm / 0.076 mm
Min. Outer Layer Trace Width/Spacing	0.1 mm / 0.1 mm	0.1 mm / 0.1 mm	0.076 mm / 0.076 mm
Min. Drilled Hole Size	0.55 mm	0.55 mm	0.50 mm
Countersink Hole Depth Tolerance	± 0.1 mm	± 0.075 mm	± 0.075 mm
Voltage Test Value	DC 2700V	DC 3000V	DC 4000V
Breakdown Voltage	6KV AC	6KV AC	6KV AC
Max. Finished Copper Thickness	6 OZ	8 OZ	8 OZ
Metal Base Type	AL Base、Copper Base、Stainless Steel Base,		
Thermal Conductivity	1W/mk, 2W/mk, 3W/mk, 5W/mk,		
Surface Finish	OSP, ENIG, Immersion Ag, Immersion Tin, HASL, HASL Lead Free		

Technical Roadmap FPC



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Item	Year	2016	2017	2018
Min. Finished Board Thickness		0.05 mm	0.05 mm	0.04 mm
Max. Finished Board Thickness		4.00 mm	4.00 mm	5.00 mm
Min. Laser Drilled Hole Size		0.07 mm	0.07 mm	0.05 mm
Min. Mechanical Drilled Hole Size		0.20 mm	0.20 mm	0.15 mm
Max. Mechanical Drilled Hole Size		6.30 mm	6.30 mm	6.30 mm
Min. Trace Width/Spacing		0.040 mm / 0.040 mm	0.035 mm / 0.035 mm	0.035 mm / 0.035 mm
Min. Annular Ring of Single/Double-sided Board		0.100 mm	0.075 mm	0.075 mm
Min. Inner Layer Annular Ring of Multi-layer Board		0.150 mm	0.125 mm	0.125 mm
Min. Coverlay Bridge		0.150 mm	0.150 mm	0.150 mm
Min. Outer Layer Annular Ring of Multi-layer Board		0.150 mm	0.125 mm	0.125 mm
Min. Soldermask Opening		0.300 mm	0.300 mm	0.250 mm
Min. Single-ended Impedance Tolerance		± 10%	± 10%	± 8%
Min. Differential Impedance Tolerance		± 10%	± 10%	± 8%
Min. Coverlay Opening		0.4 mm	0.4 mm	0.4 mm
		0.5 mm x 0.5 mm	0.5 mm x 0.5 mm	0.5 mm x 0.5 mm
Coverlay Registration	Manul Alignment	±0.100 mm	±0.100 mm	±0.100 mm
	General Fixture	±0.090 mm	±0.090 mm	±0.090 mm
	Precise Fixture	±0.075 mm	±0.075 mm	±0.075 mm
	CCD Alignment	/	/	±0.050mm
Max. Layer Count	Flex Board	4L	4L	6L
	Stiffner Board	4L	4L	6L
	Rigid-flex Board	4L	4L	6L
	HDI	/	/	6L
Surface Finish		Gold Plating, ENIG、OSP、ENIG + OSP, Gold Plating + OSP, Gold Plating + ENIG		