

Summarised Flex Process Capability

For full capability information please consult Merlin Flex Process Capability document (Latest Edition)

Parameter				
	IMPERIAL		METRIC	
Panel Sizes	48 " x 12 "		1220mm x 305mm	
	24 " x 18 "		610mm x 457mm	
	18 " x 12 "		457mm x 305mm	
Active Board Area	46 " x 10 "		1168mm x 205mm	
	22 " x 16 "		558mm x 406mm	
	16 " x 10 "		406mm x 250mm	
Number of Layers	24 Layers maximum			
	Standard		Advanced	
Parameter	Imperial	Metric	Imperial	Metric
General				
Minimum Board Thickness	0.002 "	0.05mm	0.001 "	0.025mm
Maximum Board Thickness	0.094 "	2.40mm	0.197 "	5.00mm
Material Tolerance +/-	10%	10%	10%	10%
Minimum Core Thickness	0.001 "	0.025mm	0.0005 "	0.012mm
Inner Layers				
Min Line (18 µm start Copper)	0.003 "	0.080mm	0.0025 "	0.065mm
Min Space (18 µm start Copper)	0.004 "	0.100mm	0.003 "	0.075mm
Outer Layers				
Min Line (18µm start Copper)	0.004 "	0.100mm	0.003 "	0.075mm
Min Space (18µm start Copper)	0.005 "	0.125mm	0.004 "	0.100mm
Holes				
Minimum Hole Size (as drilled)	0.008 "	0.200mm	0.005 "	0.120mm
Min Annular Ring at design Inner to meet IPC 2223	0.008 "	0.200mm	n/a	n/a
Min Annular Ring at design Outer to meet IPC 2223	0.009 "	0.225mm	n/a	n/a
NPTH Hole Size Tolerance +/-	0.002 "	0.050mm	0.001 "	0.025mm
Positional Tolerance	0.003 "	0.075mm	0.002 "	0.050mm
Maximum Aspect Ratio	6.1:1		8:1	
Polyimide Coverlay				
Minimum Clearance from Copper	0.004 "	0.100mm	0.003 "	0.075mm
Minimum Encapsulation	0.006 "	0.150mm	0.004 "	0.100mm
Minimum Web between Apertures	0.007 "	0.175mm	0.006 "	0.150mm
Liquid Photoimageable Solder Mask				
Minimum Clearance from Copper	0.004 "	0.100mm	0.003 "	0.075mm
Minimum Encapsulation	0.004 "	0.100mm	0.003 "	0.075mm
Minimum Web between Apertures	0.006 "	0.150mm	0.004 "	0.100mm
Notation Inkjet (White only)				
Minimum Gap to features	0.006 "	0.150mm	0.004 "	0.100mm
Minimum Line Width	0.005 "	0.125mm	0.004 "	0.100mm
Silver Ink				
Minimum Clearance from Board Edge	0.040 "	1.000mm	0.030 "	0.750mm
Surface Finish				
Hot Air Solder Level Thickness Range	Coverage to 35 microns		Coverage to 35 microns	
ENIG (Nickel Plating Range)	3 to 6 microns			
ENIG (Gold Plating Range)	0.05 to 1.25 microns			
Profile				
Positional Accuracy	0.010 "	0.250mm	0.002 "	0.050mm
Minimum Internal Radius	0.020 "	0.50mm	0.016 "	0.40mm
Impedance				
Tolerance	10%		8%	

Any boards using development tolerances must have prior agreement of the Technical department.

*Depends on IPC Class requirement Class 3 may require more land – See technical or QA.