

# Summarised Capability - Merlin Flex Limited

version 6

	Standard Capability	Advanced Capability	Roadmap
<b>General</b>			
Minimum Board Thickness	0.025mm	0.012mm	-
Maximum Board Thickness	2.40mm	5.00mm	-
Board Thickness Tolerance	±10%	-	-
Minimum Core Thickness	0.025mm	0.012mm	-
Layer Count	12	16	24
<b>Inner Layer Track / Gap Width</b>			
Minimum Track - 18 micron copper	80 µm	65 µm	-
Minimum Track - 35 micron copper	100 µm	75 µm	-
Minimum Gap - 18 micron copper	100 µm	75 µm	-
Minimum Gap - 35 micron copper	125 µm	100 µm	-
<b>Outer Layer Track / Gap Width</b>			
Minimum Track - 18 micron plus plated copper	100 µm	75 µm	-
Minimum Track - 35 micron plus plated copper	125 µm	100 µm	-
Minimum Gap - 18 micron plus plated copper	125 µm	100 µm	-
Minimum Gap - 35 micron plus plated copper	150 µm	120 µm	-
<b>Holes</b>			
Minimum Hole Size (as drilled)	0.20mm	0.12mm	0.10mm
Minimum Annular Ring Inner (IPC class 3)	0.20mm	0.20mm	-
Minimum Annular Ring Outer (IPC class 3)	0.225mm	0.225mm	-
Hole Size Tolerance (non plated)	±0.050mm	±0.025mm	-
Hole Size Tolerance (plated)	±0.075mm	±0.050mm	-
Positional Tolerance	±0.075mm	±0.050mm	-
Maximum Aspect Ratio	6:1	8:1	10:1
<b>Polyimide Coverlayer</b>			
Minimum Clearance From Copper	0.10mm	0.075mm	-
Minimum Encapsulation	0.15mm	0.10mm	-
Minimum Web Between Apertures	0.15mm	0.10mm	-
<b>Liquid Photoimageable Solder Mask</b>			
Minimum Clearance From Copper	0.075mm	0.050mm	-
Minimum Encapsulation	0.10mm	0.075mm	-
Minimum Web Between Apertures	0.10mm	0.075mm	-
<b>Notation Ink - White (other colours available)</b>			
Minimum Gap To Features	0.15mm	0.10mm	-
Minimum Line Width	0.125mm	0.10mm	-
<b>Silver Ink</b>			
Minimum Clearance From Board Edge	1.00mm	0.75mm	-
<b>Surface Finish (other finishes available)</b>			
Hot Air Solder Level Thickness Range	Coverage-35µm	5 – 20µm	
ENIG (Nickel) Thickness Range	IPC-4552	-	Per IPC-4552
ENIG (Gold) Thickness Range	IPC-4552	-	Per IPC-4552
<b>Profile Tolerances (subject to tool type)</b>			
Positional Accuracy	±0.20mm	±0.050mm	-
Minimum Internal Radius	0.50mm	-	-
<b>Impedance</b>			
Tolerance	± 10%	± 8%	±8%