

Product Range	Single and Double Sided Rigid	IPC 6012 / 6018 types 1 and 2
	Single and Double Sided Flexibles	IPC 6013 types 1 and 2
	Rigid Multilayer	IPC 6012 / 6018 type 3
	Rigid Multilayer with blind and / or buried vias (inc micro-vias)	IPC 6012 / 6018 types 4 and 5
	Multilayer Flexibles	IPC 6013 type 3
	Multilayer Flexi-rigid	IPC 6013 type 4
	Mixed dielectric Multilayer	IPC 6018 type 4
	Mixed dielectric Multilayer with blind and / or buried vias	IPC 6018 type 6

Additional Features	Controlled Impedance
	Controlled Expansion
	Blind and / or buried vias (may require resin fill)
	Blind and / or buried micro-vias - laser or mechanical
	Copper Filled Micro-Vias
	Stacked Vias
	Sequential build-up - mechanical or laser drill
	Back Drilled Holes
	Buried Resistance
	Buried Capacitance
	Bonded Heatsinks
	Embedded RFID

Materials	FR4 - High Tg	(IPC 4101 / 98, 99, 126)
	Polyimide, BT and Cyanate Ester (glass reinforced)	
	PTFE (various types)	
	High Speed / Low Loss Materials	
	Polyimide Film (flexible material) adhesiveless	IPC 4204 /11
	Polyimide Film (flexible material) with adhesive	IPC 4204 /1
	Advanced / other substrates (check list)	
	Copper-Invar-Copper	IPC 6012 types 5 and 6 & IPC 6013 type 4
	Carbon Fibre (Stablcor)	

Construction	Maximum Finished Board Thickness	6.00 mm
	Thinnest glass re-inforced layer	50 micron
	Thinnest Layer (used as a core)	25 micron
	Maximum Layer Count	Limited only by board thickness and dielectric requirements

Feature Sizes	Blind micro-via stop pad	0.200 mm
	Blind micro-via top pad	0.250 mm
	Minimum annular ring for mechanical drill	0.090 mm
	Minimum copper to drilled hole clearance	0.150 mm
	Conductor spacing to solderable feature	0.050 mm
	Conductor Width	0.050 mm
	Conductor Spacing	0.050 mm

Anti-pad clearance (moat) and spacing for thermals	0.090 mm
Surface Feature to Flexible Hinge - min	0.200 mm
Plated Hole to Flexible Hinge - min	0.800 mm
Solder Mask Radial Clearance	0.025 mm
Solder Mask Feature	0.075 mm
Ident Text Line Width	0.1 mm

Drilling	Minimum Drilled Hole	0.15 mm	
	Maximum Aspect Ratio	Through holes	20 : 1
		Blind micro-via	1 : 1
	Plated Hole Diameter Tolerance	+ / - 0.05 mm	

In-House Finishes	Hot Air Solder Level (SnPb not RoHS compliant)
	Electroless Nickel / Immersion Gold
	Hard Gold (Edge Connector Finish)
Sub-con Finishes	Hot Air Solder Level (RoHS compliant)
	Electroless Nickel / Electroless Palladium / Immersion Gold
	Immersion Silver Immersion Gold
	OSP [Entek (Lead free assembly compatible)]
	Soft Gold
	Immersion Tin

	Immersion Silver	
Via Fill	Conductive	
	Non-conductive	
Maximum Size	Manufacturing panel	608 x 457mm
	Working area	419 mm x 571.5 mm
Electrical Test	Maximum Automated Test Voltage	500 Volts
	Maximum Hi-Pot Test Voltage	5000 Volts
	Maximum Isolation Threshold	500 Mohm
	Minimum Continuity Threshold	2 ohm
Data Accepted	ODB++ (.TGZ) preferred	
	Extended Gerber - RS274X	
	Standard Gerber - RS274D	
	IPC-2581	
Netlist Data	IPC-D-356, Mentor Neutral File or embedded in ODB++	

Not all features are available in combination, and some feature limits may be reduced when in combination with other features. Some feature limits are copper thickness / technology dependent.