Via Melaro 11 Alte di Montecchio M. (VI) - Italy
Tel. 0039 444 694333 Fax 0039 444 698322
E-mail: info@pcb-tecnomec.com
http: //www.pcb-tecnomec.com

TECHNOLOGICAL SPECIFICATIONS

	Standard IPC 600 produc. level B	**Speciale IPC 600 produc. level C**	**Critical with restrictions**	**Limit work in progress**
ϕ minimum hole (drilled)	0,3 mm	0,15 mm	0,1 mm	0,05 mm
ϕ minimum hole (finished)	0,2 mm	0,1 mm	0,05 mm	
tolerance ϕ plated holes	+0,1-0,05 mm	± 0,05 mm		
tolerance ϕ not plated holes	± 0,05 mm	+0,05-0 mm		
minimum plated holes distance	0,3 mm	0,25 mm	0,2 mm	
minimum not plated holes distance	0,25 mm	0,2 mm	0,15 mm	
positioning holes tolerance	± 0,025 mm	± 0,02 mm		
"Z" axis tolerance	± 0,1 mm	± 0,05 mm	± 0,025 mm	
aspect ratio (through holes)	(ϕ:Z) 1:8	1:10	1:14	1:16
aspect ratio (depth controlled holes)	(ϕ:Z) 1:1	1:1	Z=ϕ+0.2 (ϕmin:0.5mm)	
rigid pcb routing tolerance	± 0,1 mm	± 0,05 mm		
flex pcb routing tolerance	± 0,2 mm	± 0,1 mm		
plated slot tolerance (chemical surf.)	± 0,15 mm	± 0,1 mm		
minimum internal radius	0,5 mm	0,3 mm	0,2 mm	
scoring positioning tolerance	± 0,5 mm	± 0,2 mm	± 0,1 mm	
scoring core tolerance	± 0,15 mm	± 0,1 mm		
pcb tolerance after scoring breaking	± 0,5 mm			
minimum track	0,15 mm	0,8 mm	0,05 mm	0,04 mm
minimum isolation	0,15 mm	0,8 mm	0,05 mm	0,04 mm
pattern tolerance	± 25%	± 20 µm	± 10 µm	± 5 µm
minimum track (Base Cu>100µ)	= spessore rame x2	= spessore rame +50 µ	= spessore rame	
minimum isolation (Base Cu>100µ)	= spessore rame x2	= spessore rame +100 µ	= spessore rame +80 µ	
layer alignment	± 0,1 mm	± 0,05 mm	± 0,04 mm	
hole-pad alignment	± 0,1 mm	± 0,05 mm	± 0,02 mm	± 0,015 mm
routing-pad alignment	± 0,1 mm	± 0,05 mm		
hole (drilled)-pad anular ring	0,15 mm	0,05 mm	0,025 mm	
hole (drilled)-ground plane isolation (inner later)	0,25 mm	0,18 mm	0,14 mm	0,08 mm
internal hole copper thickness	20 µm	25-30 µm	35-50 µm	>50
galvanic copper increment tolerance	-5/+ 20 µm	-5/+ 10 µm	± 5 µm	
minimum pcb thickness	0,8 mm	0,2 mm	0,1 mm	0,05 mm
maximum pcb thickness	2,4 mm	3,2 mm	5 mm	7mm
thickness tolerance pcb rigid	± 10%			
thickness tolerance pcb flex	± 10% (min ±50 µm)			
max FR4 pcb dilatation	200ppm	100ppm	50ppm	
maximum pcb 2 layer size	500x800 mm	600x900 mm	>1000 mm	
maximum pcb multilayer size	400x500 mm	500x800 mm	550x850 mm	
maximum pcb electrolitic gold size	426x530 mm	External process		
solder thickness	10 µm	20 µm	30 µm	
pad-solder anular ring	0,05 mm	0,025 mm	0,015 mm	
solder alignment (rigid pcb)	± 0,05 mm	± 0,025 mm	± 0,015 mm	
solder alignment (flex pcb)	± 0,2 mm	± 0,15 mm	± 0,1 mm	
minimum solder bridge	0,2 mm	0,1 mm	0,08 mm	
max plugged hole (std screen solder)	0.5 mm			
max plugged hole (plugged solder)	0.7 mm			
minimum legend width	0,2 mm	0,1 mm		
legend alignment	± 0,2 mm	± 0,1 mm		
bow and twist	2%	1%	0,5%	
nickel thickness pcb rigid	3-6 µm			
nickel thickness pcb flex	3-6 µm (solo pad)			
chemical gold thickness	0,05 µm			
electrolytic gold thickness	1-4 µm			
chemical tin thickness	0,6 µm			
chemical silver thickness	0,3 µm			