Standard PCB Technics Capacity

No.	Item	Description	DataSheet
1	Layer	Layer	1-108
2	Material	Brand	SY, ITEQ, KB, NanYa, Doosan, Isola, TUC, EMC, Ventec
3	Surface treatment		HASL lead-free,Immersion Gold, OSP, Immersion Tin, Immersion Silver, Plating Gold, Plating Tin, ENEPIG
4	Selectivity surface treatment		ENIG+OSP, ENIG+G/F, Flash Gold+G/F, Immersion Silver+G/F, Immersion Tin+G/F
5	Solder mask color		Green, Yellow, Black, Matte black, Blue, Red, White,Matte green
6	Silkscreen color		White, Yellow, Black
7	Max board size with 2L	mm	2000*650mm
8	Max board size with 4L,6L	mm	570*850mm or 1150*430mm(Exceeding 570mm shall be reviewed)
9	Max board size with more than 8L	mm	570*670mm or 980*430mm(Exceeding 570mm shall be reviewed)
10	Min board size	mm	0.5*1.0mm(thickness≤0.5mm), 1.0*2.0mm(thickness≥0.5mm)
11	Min outline tolerance	mm	±0.05mm(Laser Routing), ±0.1mm(Mechanical Routing)
12	PCB Board Thickness	mm	0.13-8mm
13	Double side board thickness	mm	0.13-3.6mm

Standard PCB Technics Capacity

14	4Layers board thickness	mm	0.30-7mm
15	6Layers board thickness	mm	0.6-8mm(6L), 0.8-8mm(8L), 1.0-8mm(10L), 1.0-8mm(12L)
16	The tolerance of board thickness	mm	±0.1mm(thickness≤1.0mm), ±10%mm(thickness>1.0mm)
17	Min Drilling hole size	mm	0.075-0.1mm(Laser), 0.15mm(Mechanical)
18	Single Max Drilling	ww	6.5mm(Drill Bit)
19	Max Drilling	ww	50mm
20	Min PTH tolerance	mm	±0.05mm, ±0.075mm
21	Min NPTH tolerance	mm	±0.05mm(Limitation+0, -0.05mm or +0.05, -0mm)
22	Min hole tolerance	ww	±0.075mm
23	Max Drilling tolerance	ww	±0.1mm
24	Slot hole	mm	0.5-6mm
25	Min slot hole length	mm	1.0mm
26	Slot hole aspect ratio	mm	1:2
27	Min slot hole tolerance	mm	Slot width, ±0.15mm

Standard PCB Technics Capacity

28	Min slot hole tolerance	mm	Slot width directiont0.10, slot length direction±0.15
29	Countersink hole angle &size		Big hole82, 90, 120degree, dia≤10mm
30	Countersink hole angle & size		PTH&NPTH, Big hole angle 130degree, The dia of the large hole is not greater than 6.3mm
31	Min pattern width/spacing	mm	0.075mm/0.075mm
32	Pattern width tolerance	mm	±20um
33	Min pad	mm	0.15mm
34	FR-4 PP		106, 1080, 3313, 2116, 7628
35	Mult press blind buried hole production		Press on the same sides5
36	Max bore diameter of pad hole plug hole	mm	0.4 Multi press blind & buried hole board
37	Min thickness of inner	mm	0.05(none blind buried hole), 0.13(blind buried hole)
38	Min inner	mil	3(18um base copper), 4(35um base copper), ≥3mil
39	Inner layer treatment		Brown Oxygen
40	Min inner pattern spacing (105um base copper, after compensation)	mil	5
41	Min inner layer pattern spacing (140um base copper, after compensation)	mil	7

Standard PCB Technics Capacity

42	Min innner layer pattern spacing (18um base copper, after compensation)	mil	3
43	Min inner layer pattern spacing (35um base copper, after compensation)	mil	3.5
44	Min inner layer pattern spacing (70um base copper, after compensation)	mil	4
45	Min inner layer pattern width (105um base copper, before compensation)	mil	5
46	Min inner layer pattern width (140um base copper, before compensation)	mil	7
47	Min inner layer pattern width (18um base copper, before compensation)	mil	3
48	Min inner layer pattern width (35um base copper, before compensation)	mil	3
49	Min inner layer pattern width (70um base copper, before compensation)	mil	4
50	Min outer layer pattern spacing (105um base copper, after compensation)	mil	6
51	Min outer layer pattern spacing (12, 18um base copper, after compensation)	mil	3.0(18um), 2.5(12um)
52	Min outer layer pattern spacing (140um base copper, after compensation)	mil	7
53	Min outer layer pattern spacing (35um base copper, after compensation)	mil	3.5
54	Min outer layer pattern spacing (70um base copper, after compensation)	mil	5
55	Min outer layer pattern width (105um base copper, before compensation)	mil	8

Standard PCB Technics Capacity

56	Min outer layer pattern width (12, 18um base copper, before compensation)	mil	3.5(18um), 3(12um)
57	Min outer layer pattern width (140um base copper, before compensation)	mil	9
58	Min outer layer pattern width (35um base copper, before compensation)	mil	4.5
59	Min outer layer pattern width (70um base copper, before compensation)	mil	6
60	Min.spacing from pattern to pad, pad to pad for outer layer(after compensation)	mil	3(12, 18um), 3.5(35um), 5(70um), 6(105, 140um)
61	Min.outer pattern and spacing with blind/buried holes plated many times(>=2times)	mil	3.5/3.5 (before compensation)
62	Min distance from inner layer edge without copper leakage	mil	10
63	Min inner layer isolation width	mil	8
64	Min inner layer isolation ring	mil	8(≤6layer), 10(≥8layer)
65	Min single side width of inner pad (none blind buried hole)	mil	4.5(18, 35um, Can be partial 4), 6(70um), 8(105um)
66	Min single side width of inner pad (laser hole)	mil	3
67	Impedance tolerance	%	±5Ω(＜50Ω), ±10%(≥50Ω); ≥50Ω±5%(need to evaluate when it requests),
68	Min BGA pad diameter	mil	7mil
69	Min pad diameter	mil	12(0.10mmMechanical or laser drilling)

Standard PCB Technics Capacity

70	Min hole copper thinckness (none blind buried hole)	um	average 25, min single point≥20
71	Min hole copper thinckness (blind buried hole)	um	averager 20, min single point≥18
72	PP thickness(min)	um	0.075(only H oz base copper)
73	ENIG: gold thickness	um	0.025-0.10
74	ENIG: nickle thickness	um	3-5
75	Immersion silver.silver thickness	um	0.1-0.3
76	Min HASL LeadFree/pure tin thickness	um	0.4
77	Gold Finger:gold thickness	um	0.25-1.3(The required value is the thinnest point)
78	Gold Finger:nickle thickness	um	3-5
79	Flash Gold:gold thickness	um	0.025-0.10
80	Golden finger chamfer Angle tolerance		±5°
81	Golden finger chamfering margin tolerance	mil	±5
82	Min gold finger length	inch	2
83	Min distance between gold fingers	mil	6

Standard PCB Technics Capacity

84	Gold finger next to the TAB does not hurt the min distance	mm	7(Means automatic chamfering)
85	Long and short gold finger		Can be combined with various surface treatments
86	Surface treatment for long and short gold finger		Immersion gold;Flash gold
87	Immersion tin:Tin thickness	um	0.8-1.5
88	Electroplate hard gold thick	um	0.15-1.3
89	Flash Gold: nickle thickness	um	3-5
90	Max borad thickness of mechanical drilling 0.10mm	mm	0.60
91	Max borad thickness of mechanical drilling 0.15mm	ww	1.20
92	Max borad thickness of router bit 0.25mm	mm	5
93	Bow and twist capability limit	%	0.1(need to evaluate when it requests ≤0.3)
94	Max Dry film sealing slot		5mm*3.0mm;More than one side of sealing hole15mil
95	Min unilateral width of dry film sealing hole	mil	10
96	Max diameter of dry film sealing hole	mm	4.5
97	Min width of solder mask opening	mil	8

Standard PCB Technics Capacity

98	Min solder mask thickness	um	10
99	Min S/M bridge width	mil	3(green), 5(other color)(base copper≤10Z)(base coppe2-40Z, All in accordance with the 6mil)
100	Min unilateralI width of solder mask	mil	2.5(Allow local2mil)
101	Min solder mask opening (sing side)	mil	2(Flash gold local 1.5, other allow local 1)
102	Max diameter of ink plug hole(both side)	mm	0.65
103	Thickness of solder mask ink through hole cover	um	5/8
104	V-CUT Angle specifications		20°, 30°, 45°, 60°
105	V-CUT(1.0<H≤1.6mm)	mm	0.36(20°), 0.4(30°), 0.5(45°), 0.6(60°)
106	V-CUT(1.6<H≤2.4mm)	mm	0.42(20°), 0.51(30°), 0.64(45°), 0.8(60°)
107	V-CUT(2.5≤H≤3.0mm)	mm	0.47(20°), 0.59(30°), 0.77(45°), 0.97(60°)
108	V-CUT(H≤1.0mm)	mm	0.3(20°), 0.33(30°), 0.37(45°), 0.42(60°)
109	V-CUT Symmetry tolerance	mil	±4
110	V-CUT Angle tolerance	0	±5°
111	V-CUT Residue thickness	mil	±4
112	Blue glue white mesh plug hole max diameter	mm	2

Standard PCB Technics Capacity

113	Min single side of blue cover pattern or pad	mil	2
114	Max diameter of blue plastic aluminum plug hole	mm	4.5
115	Min isolation between blue glue and pad	mil	12
116	Min single side carbon cap pattern	mil	2
117	Min isolation between carbon and pad	mil	8
118	Min isolation between carbon and carbon	mil	12
119	Min gridding spacing	mil	5(12, 18, 35um), 8(70um)
120	Min gridding width	mil	5(12, 18, 35um), 10(70um)
121	Min silk width and height (12, 18um base copper)		width 4mil, height:23mil
122	Min silk width and height (35um base copper)		width 5mil, height:30mil
123	Min silk width and height (70um base copper)		width 6mil, height:45mil
124	Min isolation of silk and pad	mil	6
125	Min test on resistance	Ω	10
126	Min distance from test point to edge	mm	0.5

Standard PCB Technics Capacity

127	Max test current	mA	200
128	Max test voltage	V	250
129	WNH	mil	3.9
130	Min test pad	mil	3.9
131	Min etch logo width	mil	8(12, 18um), 10(35um), 12(70um)
132	Outline tolerance(edge to edge)	mil	±4(Complex outlin and inner grooves with this requirement shall be reviewed)
133	Min inner angular radius	mm	0.4
134	Depth control slot hole (edge) or Blind slot precision(NPTH)	mm	±0.10
135	Special tolerance requirements for board thickness (No interlayer structure	mm	⩽2.0±0.1, 2.0-3.0±0.15, ⩾3.0±0.2
136	Max ratio of plate thickness to hole		20:1(not inclue≤0.2mm diameter, more than 12:1 shall be reviewed))
137	Min hole diameter	mm	0.45
138	Outline method		Routing,V-CUT,Stamp-hole
139	Min router bit diameter of outline	mm	0.6
140	Min. distance from hole to trace (Not blind/buried holes)	mil	6(≤8layers), 8(≤14layers), 9(≤28layers)

Standard PCB Technics Capacity

141	Min.distance from hole to trace (blind/buried holes)	mil	9(Press one time);10(press two times or three times)
142	Min distance from hole to trace (Laser drill,1 or 2-step)	mil	6
143	Min single-sided width for via hole pad of outer layer	mil	4(12, 18um)3.5, 4.5(35um), 6(70um), 8(105um), 10(140um)
144	Min.distance without copper exposure when outline routing	mil	8
145	Maximum insulation resistance(for test)	MΩ	100
146	Hole resistance test board thickness limit	mm	0.38-5.0
147	Hole resistance test aperture limit	mm	min:0.62mm, max0.25mm
148	ionic soil	ug/cm2	≤1
149	Copper stripping strength	N/cm	7.8
150	Resistance weld hardness	H	6
151	Resistance		94V-0
152	RCC material	um	copper foil:12,resin:65,100um(complete55, 90um)
153	Thkickness of blue glue	mm	0.2-0.5
154	Min carbon pattern width	mm	0.5mm