SYNERGY ELECTRONICS - RIGID-FLEX PCB MANUFACTURE CAPABILITIES			
No	ITEM		STANDARD
1	Material	FCCL (adhesive)	Shengyi SF305:PI=0.5mil&1mil&2mil; Cu=0.33oz&0.5pz & 1 oz
2		FCCL (adhesiveless)	Panasonic R-F775(ER):PI=1mil&2mil; Cu=0.33oz&0.5oz & 1oz
			DuPont Pyralux AP:PI=1mil&2mil&3mil;Cu=0.5oz & 1oz
3		Coverlay	Shengyi SF305C: 0515&0525&1025&2030
			Taiflex FHK: 1025 & 2035
4		Adhesive	Taiflex BT: AD=10um & 25um & 40um
			Shengyi SF302B: AD= 35um & 40 um
5		PI Stiffener	Taiflex MHK: PI=3mil & 5mil & 7mil & 9mil
6		3M	9077 & 6677 & 9058
7		NO FLOW PP	Ventec:VT-47N (TG 170ºC) & EM-285B (TG 150ºC)
8		CCL	ITEQ:IT-180A; Shengyi: S1141 & S1000-2
9		Other CCL	Arlon: 85N; Rogers: R04000 series; Nelco: N4000-13 series Ventec: VT-901
10	Others	Design Software	CAM350,PROTEL,PADS,POWERPCB,AUTOCAD,GENESIS,ORCAD
11		Gerber format	RS-274-D RS-274-X
12		Drill format	EXCELLON format
13		Layer	2-12 (10 flex layers)
14		Board thickness	0.3-3.0mm
15		Tolerance of board thickness (thickness>1.0mm)	±10%
16		Tolerance of board thickness (thickness≤1.0mm)	±0.1mm
17		Min. board size	10mm*15mm
18		Max. board size	406.4mm*558.8mm
19		Impedance control tolerance	Single-ended: ±5Ω(≤50Ω),±10%(>50Ω)
			Differential: ±5Ω(≤50Ω), ±10%(>50Ω)
20		HDI	/
21		Min. bow & twist	0.75% (symmetrical), 2% (non-symmetrical)
		Ecobond width	1.5±0.5mm (flex window width≥5mm)
22	Inner layer	Min. line width/spacing (12/18um copper)	3.5/3.5mil (3.2/3.2mil)
23		Min. line width/spacing (35um copper)	4.0/4.0mil (3.6/3.7mil)
24		Min. line width/spacing (70um copper)	6/6.5 (5.5/6mil)
25		Annular ring (blind via)	4 mil
26		Max. copper thickness	2oz
27	Outer Layer	Min. line width/spacing (18um copper)	3.5/3.8mil (3.2/3.5mil)
28		Min. line width/spacing (35um copper)	4.0/4.3mil (3.5/3.8mil)
29		Min. line width/spacing (70um copper)	6.5/6mil (6/5.5mil)
30		Min. line width/spacing (105um copper	10/13mil (9.5/12.5mil)
31		Min. line width/ spacing (18um copper, flex on the surface of board)	5/5mil (4.5/4.5mil)
32		Min. line width/ spacing (35um copper, flex on the surface of board)	5.5/6mil (5/5.5mil)
33		Min. line width/ spacing (70um copper, flex on the surface of board)	7.0/8.0mil (6.5/7.5mil)
34		Min BGA pad size	12mil (8mil for electrical soft gold board)
35		Max. finished copper thickenss	3oz
36	Drilling	Blind via	/
37		Max. buried via	0.4mm
38		Aspect ratio (mechanical drill)	10:01
39		Aspect ratio (laser drill)	/
40		Min. distance between via and conductors	6 mil (≤6 layer)
			9 mil (7~11 layer)
			12 mil (≥12 layer)
41		Min. distance between blind via and conductors	/
42		Tolerance of non-plated holes	±2mil (limited is +0/-2mil or +2mil/-0)
43	Solder mask and silk screen	Soler mask color	green, blue, red, matte green
44		Min. solder dam (copper ≤1oz)	4mil (green, red and blue), 5.0mil (black and white)
45		Min. solder dam (copper2-4oz)	8 mil
46		Min. clearance	2.5mil (2.0mil)
47		Diameter of plugged hole	/
48		Aspect ratio (hole plugged with non-conductive resin)	/
49		Silk color	white, yellow, black
50	Surface treatment	Surface treatment	HASL/LF HASL, ENIG, ENEPIG, Electrolytic Nickel Gold, Soft Gold Hard Gold, Immersion silver, Immersion tin and OSP
51		Mixed surface treatment	ENIG+OSP, ENIG+Gold finger, Electrical gold + Gold fingers
52		Gold thickness (ENIG)	0.05 - 0.10um
53		Nickel thickness (ENIG)	3-8um
54		Gold thickness (ENEPIG)	0.05-0.10um
55		Palladium thickness (ENEPIG)	0.05-0.15um
56		Nickel thickness (ENEPIG)	3-8um
57		Hard gold thickness (leadless)	0.1-1.5um

58		Hard gold thickness (including lead)	0.1 - 4.0um
59		Electrolytic Nickel thickness	≥3um
60		Electrolytic Gold thickness	0.05-0.10um
61		Immersion silver thickness	0.2-0.4um
62		OSP thickness	0.1 - 0.3um
53	**Routing**	Tolerance of board outline	±6mil (exclude complicated board outline and cutout)