

FLEX & RIGID FLEX CAPABILITIES

Flexible Printed Circuit (FPC)		
Item	Sample (Order Area < 3 m ²)	Batch (Order Area ≥ 3 m ²)
Main materials		
Insulating layer	CVL, Ink	CVL, Ink
Colour of coverlay	Yellow, Black, White	Yellow, Black, White
Colour of ink	Yellow, Green	Yellow, Green
Dielectric layer	0.012mm-0.1mm	0.025-0.1mm
Additional materials		
FR-4 Stiffener	0.1-3.2mm	0.1-3.2mm
PI Stiffener	0.075-0.225mm	0.075-0.225mm
Steel reinforcement	0.2-0.6mm	0.2-0.4mm
Other Materials	3M tape, snap dome ,electromagnetic shielding ,lid-off film, micro-sticking film	3M tape, snap dome ,electromagnetic shielding ,lid-off film, micro-sticking film
Structure	1+n+1 ; 1+1+n+1+1 ; 2+n+2 (needs review) F+R(needs review),cu+F+cu(needs review),R+F+R+F+R(needs review),R+F+R	1+n+1 ; 1+1+n+1+1 ; 2+n+2(needs review) R+F+R
Layers	≤14L	≤8L
Board Thickness	0.06-0.35mm	0.1-0.35mm
Tolerance of Board Thickness	Flexible Area 0.03mm;PI Stiffener Area 0.05mm;FR-4 Stiffener Area 0.1mm	Flexible Area 0.03mm;PI Stiffener Area 0.05mm;FR-4 Stiffener Area 0.1mm
Min single unit Size	PCB Size: 5mm*15mm-310mm*510mm	PCB Size:5mm*15mm-310mm*510mm
Copper Thickness	Outer layer 2oz, Inner layer 2oz	Outer layer 1oz, Inner layer 1oz
Outline	Breakaway Tab, Single PCB	Breakaway Tab, Single PCB
Surface Treatment	HASL, HASL lead free (single-side FPC only), ENIG, OSP (no-stiffener only)	ENIG



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Rigid Flex Printed Circuit			
Item	Sample (Order Area < 3m ²)		Batch (Order Area ≥ 3m ²)
Material			
Tg170	S1000-2M,IT180A		S1000-2M,IT180A
Hi-Tg FR4 (halogen-free)	S1165		S1165
Hi-speed material:	needs review		needs review
Structure	1+n+1 ; 1+1+n+1+1 ; 2+n+2(needs review)		
	F+R(needs review),cu+F+cu(needs review),R+F+R+F+R(needs review),R+F+R		R+F+R
Layer	≤18L		≤16L
Board Thickness	0.5-3.2mm		0.5-3.2mm
Copper Thickness	Outer layer 2oz, Inner layer 2oz		Outer layer 2oz, Inner layer 2oz
Outline			
Processes	Rigid Area	Single PCB; V-Cut; Breakaway Tab; Breakaway Tab+Stamp Holes; Breakaway Tab+V-Cut; Breakaway Tab+V-Cut+Stamp Holes	Single PCB;V-Cut; Breakaway Tab; Breakaway Tab+Stamp Holes Breakaway Tab+V-Cut; Breakaway Tab+V-Cut+Stamp Holes
	Flexible Area	Breakaway Tab, Single PCB	Breakaway Tab, Single PCB
Tolerance of Size	Rigid Area	0.1mm	0.15mm
	Flexible Area	0.05mm	0.1mm
Drilling			
Drill bit(min) for mechanical drill		0.15(Board Thk≤1.2mm)-6.2mm	0.2-6.2mm
The gap between hole wall for different webs (CAF):	IPC standard	12mil	12mil
	Military standard	16mil	16mil
Hole to trace distance (after compensation) for one lamination		4L-5.5mil;6L-6.5mil;8L-7mil;10L-8mil;12-18L-10mil	4L-6mil;6L-7mil;8L-8mil;10L-10mil;12-18L-12mil
Surface treatment		HASL, HASL lead free, ENIG, Immersion Tin(needs review), Immersion Silver(needs review), OSP, HASL+Gold Finger(needs review), ENIG+Gold Finger, ENEPIG, OSP+Gold, Finger(needs review), ENIG+OSP(needs review)	HASL, HASL lead free, ENIG, Immersion Tin(needs review), Immersion Silver(needs review), OSP, HASL+Gold Finger(needs review), ENIG+Gold Finger, ENEPIG,OSP+Gold, Finger(needs review), ENIG+OSP(needs review)
Solder Mask	Colour	Green, Yellow, Black, Blue, Red, White, Matt Green, Matt Black	Green, Yellow, Black, Blue, Red, White, Matt Green, Matt Black
Silkscreen	Colour	White, Yellow, Black	White, Yellow, Black



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