

FLEX MANUFACTURING PROCESS CAPABILITIES

Specification	Standard Production	Advanced or Proto-type
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General		
Panel Sizes (inches)	12" x 18"	18" x 24"
Number of Copper Layers	10	12+
Workmanship Specification	Per IPC 6013A Class II & III	
Materials:		
Polyimide Film	DuPont Rogers Shin-Etsu	
Foil Weight: (inner layer)	1/2, 1 oz, 2 oz, 3 oz	>3oz
Foil Weight: (outer layer)	1/2, 1 oz, 2 oz, 3 oz	>3oz
Material Thickness:		
Base Material	1/2, 1, 2, 3, 5 mil	Call for Specifics
Cover Film	1/2, 1, 2, 3, 5 mil	Call for Specifics
Adhesive	1/2, 1, 2, 3, 5 mil	Call for Specifics
Copper RA	1/2, 1, 2, 3, 5 mil	Call for Specifics
PSA	1/2, 1, 2, 3, 5 mil	Call for Specifics
Line Width and Space :		
1 oz. Min. line width / spacing	0.005" / 0.005"	
1/2 oz. Min. line width / spacing	0.004" / 0.004"	0.003" / 0.003"
Etch Tolerance	+/- .0005" (Design Specified)	
(Base Copper) 1/2 oz. copper	+/- .001" (Design Specified)	
1 oz. copper	+/- .002" (Design Specified)	
2 oz. copper	+/- .002" (Design Specified)	
Tolerances:		
Edge to Edge	0.003"	0.002"
Edge to Hole	0.005"	
Edge to Feature	0.005"	0.004"
PTH diameter tolerance	+/- 0.003"	+/- 0.002" (after OSP/NiAu/Tin/Silver)
NPTH diameter tolerance	+/- 0.002"	+ /- 0.001"
Hole location tolerance	+/- 0.003"	