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PRODUCTION CAPABILITIES FOR RIGID-FLEX BOARDS					
Sr. No.	Parameters	Standard		Complex	
A.	MATERIAL				
	1. Rigid Section	Normal Tg FR4, High Tg FR4, FR5, BT, Polyimide, Metal			
	2. Flex Section	Polyimide, LCP, Thin Core FR-4			
	3. Copper Foils (RA or ED)	0.25 oz (9um), 0.33 oz (12um),0.5 oz (18um), 1.0 oz (35um), 2 oz (70um)			
B.	LAMINATION (Flex Section)	MM	MIL	MM	MIL
	1. Max, Layer Count	8 L		10 L	
	2. Min. Dielectric, Thickness	0.05	2	0.05	2
	3. Min. Base Copper Thickness	0.018	0.7	0.07	3
C.	PATTERN CAPABILITIES AND TOLERANCES				
	1. Min Trace and space (0.25oz)	0.076 / 0.076	3/3	0.076 / 0.076	3/3
	2. Min. Trace and space (0.33oz)	0.10 / 0.10	4/4	0.10 / 0.10	4/4
	3. Min. Trace and space (0.5oz)	0.127 / 0.127	5/5	0.10 / 0.10	4/4
	4. Min Trace and space (1.0oz)	0.127 / 0.127	5/5	0.10 / 0.10	4/4
	5. Min Outer layer Pad size = FHS plus	dr+0.30	12/12	dr+0.25	10/10
	6. Min Inner layer Pad size = FHS plus	dr+0.35	14/14	dr+0.30	12/12
	7. Min. Inner layer Plane Clearance = FHS plus	dr+0.60	24	dr+0.55	22
	8. Min. Legend Line Width	0.18	7	0.15	6
D.	DRILL CAPABILITIES				
	1. Finish Hole Diameter Tolerance				
	● Plated	+/-0.075	3	+/-0.050	2
	● Non-plated	+/-0.050	2	+/-0.050	2
	2. Cu Thickness in Through Hole	>0.025	1	>0.025	1
	3. Via Formation				
E.	MECHANICAL DRILLING				
	1. Aspect Ratio	8 : 1		10 : 1	
	2. Min. Drilled Micro via Diameter	0.25	10	0.20	8
	3. Min. Finished Micro via Diameter	0.20	8	0.15	6
	4. True Position Tolerance (Rigid Section)	0.15	6	0.10	4
	5. Min Hole-edge-to-Hole edge (depend on Board Thick. And drill bit size)	0.30	12	0.25	10
F.	PLASMA ETCHING				
	1. Min. etched Micro via Diameter	0.25	10	0.20	8
	2. Min. Finished Micro via Diameter	0.20	8	0.15	6
	3. True Position Tolerance (Rigid Section)	+/-0.15	6	+/-0.15	6
G.	FABRICATION TOLERANCES				
	1. Min. Trace to Route Edge Dimension	0.20	8	0.20	8
	2. Min. Route Dimensional Tolerance	+/-0.15	6	+/-0.13	5
	3. Min. Tolerance of ZIF Connector to Edge of Flex	+/-0.13	5	+/-0.13	5
	4. Min. Feature to Feature Dimensional Tolerance	+/-0.13	5	+/-0.13	5
	5. Impedance Tolerance (design dependent) (500hm+)	+/-10%		+/-5 %	
H.	SOLDER MASK & PHOTOIMAGABLE COVERLAY				
	1. Min. clearance				
	● Via Hole	Covered		Covered	
	● Component Hole	0.05	2	0.05	2
	● Feature definition	0.15	6	0.15	6
I.	COVERLAY				
	1. Min. clearance				
	● Via Hole	Covered		Covered	
	● Component Hole	0.15	6	0.10	4
	● Feature definition	0.20	8	0.15	6
J.	SURFACE FINISH				
	1. Gold / Nickel (Electrolytic Pure Gold)	yes		yes	
	2. Gold / Nickel (Electrolytic Hard Gold	yes		yes	
	3. Gold / Nickel (immersion / electro less)				
	a. Nickel Thickness	>3.8um	>0.15	>3.8um	>0.15
	b. Immersion Gold thickness	0.05-0.1um	0.002 to 0.004	0.05-0.1um	0.002 to 0.004
	4. Selective EN / IMG	yes		yes	
	5. HASL, Solder thickness	4 - 8um	0.16 to 0.32	4 - 8um	0.16 to 0.32
	6. Immersion Silver	yes		yes	
	7. Immersion Tin	yes		yes	
	8. Lead free Compatible	yes		yes	
K	ELECTRICAL TEST CAPABILITIES				
	1. Smallest SMD Pitch	0.50	20	0.50	20
	2. Smallest BGA Pitch	0.78	31	0.78	31
L	CONTROLLED IMPEDANCE				
	1. Impedance Control Tolerance	+/-10%		+/-5%	
	2. Differential Impedance Control Tolerance	+/-10%		+/-5%	