STACKUP CROSSECTION - 607-13737-1000-A05

NOTES:
1. UNLESS OTHERWISE SPECIFIED ON THE 606 FAB DRAWING: WHERE GOLD EDGE FINGERS EXIST, TARGET THICKNESS APPLIES ONLY TO THE GOLD FINGER REGION, AND DOES NOT INCLUDE SOLDERMASK.
2. STRIPLINE LAYERS MAY BE USED FOR PLANE REFERENCES (REF). LAYERS WITHOUT TRACES SHOULD BE CONSIDERED PLANES.
3. *DESIGN USES TRACE WIDTHS WITH VARIATION OF +/- 1um COMPARED TO TARGET WIDTH. CONSIDER IMPEDANCE CONTROLLED BASED ON TARGET WIDTH.
4. DK VALUES: IMPEDANCE CALCULATIONS ASSUME A DK VALUE BASED ON THE DISTRIBUTION OF MATERIALS AVAILABLE. THE FABRICATOR IS ALLOWED TO ADJUST TRACE WIDTHS +/- 20% FOR NOMINAL LINE WIDTHS OF >0.127mm or +/-0.0254mm FOR TRACE WIDTHS <0.127mm TO COMPENSATE FOR THE Dk VALUE OF THE ACTUAL MATERIAL USED IN THE STACK-UP.
5. MULTI PLY CORE IS DENOTED BY x2, x3 IN THE MATERIAL NAME, e.g. EM-890K 0.006 1078(rc63.5)x2 Core
6. DIELECTRIC CONSTANT MUST MATCH WITHIN +/-0.1 DK @ 1GHz.
7. MATERIAL: HALOGEN FREE.

Target Thickness: 1.57

Tolerance: +0.15/-0.15

Name	Negative Artwork	Layer Usage	Eff. Dk	Material	Thickness
				Air	
			3.5	Soldermask	0.018
TOP		Signal Layer	3.5	Copper 38um (Plated)	0.038
			4.11	EM-370(Z)-15 0.003 1080(rc63)x1 Prepreg	0.069
L2		Plane Layer	4.11	Copper 23um (Plated)	0.023
			4.07	EM-370(Z)-15 0.0032 1080(rc65)x1 Prepreg	0.076
L3		Signal Layer	4.07	Copper 23um (Plated)	0.023
			4.07	EM-370(Z)-15 0.0032 1080(rc65)x1 Prepreg	0.076
L4		Plane Layer	4.07	Copper 38um (Plated)	0.038
			3.91	EM-370(Z)-15 0.0027 1067(rc73)x1 Prepreg	0.06
L5		Signal Layer	3.91	Copper 1oz	0.03
			4.51	EM-370(Z)-15 0.028 7628x4 Core	0.711
L6		Signal Layer	3.91	Copper 1oz	0.03
			3.91	EM-370(Z)-15 0.0027 1067(rc73)x1 Prepreg	0.06
L7		Plane Layer	4.07	Copper 38um (Plated)	0.038
			4.07	EM-370(Z)-15 0.0032 1080(rc65)x1 Prepreg	0.076
L8		Signal Layer	4.07	Copper 23um (Plated)	0.023
			4.07	EM-370(Z)-15 0.0032 1080(rc65)x1 Prepreg	0.076
L9		Plane Layer	4.11	Copper 23um (Plated)	0.023
			4.11	EM-370(Z)-15 0.003 1080(rc63)x1 Prepreg	0.069
BOTTOM		Signal Layer	3.5	Copper 38um (Plated)	0.038
			3.5	Soldermask	0.018
				Air	

LEGEND:

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STACKUP IMPEDANCES - 607-13737-1000-A05

(Impedance Tolerance = +/- 10% unless otherwise noted)

Single Ended	SEZ	LW	Ref(above)	Ref(below)
TOP	48.0	0.113		L2
L3	48.0	0.061	L2	L4
L5	48.0	0.079	L4	L7
L8	48.0	0.061	L7	L9
BOTTOM	48.0	0.113	L9	

Differential (Edge)	DEZ	SEZ	LW	LineGap	NeckLW	NeckLineGap	Ref(above)	Ref(below)
TOP	85.0		0.105	0.12				L2
TOP	90.0		0.115	0.27				L2
TOP	95.0		0.103	0.24				L2
L3	85.0		0.067	0.1			L2	L4
L3	90.0		0.071	0.22			L2	L4
L3	95.0		0.062	0.23			L2	L4
L5	85.0		0.076	0.127			L4	L7
L5	90.0		0.081	0.22			L4	L7
L5	95.0		0.077	0.34			L4	L7
L8	85.0		0.067	0.1			L7	L9
L8	90.0		0.071	0.22			L7	L9
BOTTOM	85.0		0.105	0.12			L9	
BOTTOM	90.0		0.115	0.27			L9	

LEGEND:

SEZ = Single Ended Impedance
DEZ = Differential Edge Coupled Impedance (pair on one layer)
DBZ = Differential Broadside Coupled Impedance (pair on two layers)

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