

Date: Wed Nov 28 00:11:13 2018
 Customer Name: MISTRAL SOLUTIONS PVT LTD
 Customer P/N: J7 SOM
 Customer Rev:
 Customer Mat: I-SPEED
 Plant: Wuxi
 Cat/Tool Num: RFS_0296

Lay #	Thick (in)	Picture	Type Dk Df	Description	Drill Picture
0.0006/0.0013			4.5 0.019	Soldermask	
1	0.0018		F / S	0.333oz w/plating	
	0.0044		2.94 0.0058	fill	
2	0.0013		P	1oz	
	0.0040		3.34 0.0060	core	
3	0.0013		S	1oz	
	0.0042		3.20 0.0059	fill	
4	0.0013		P	1oz	
	0.0040		3.34 0.0060	core	
5	0.0013		S	1oz	
	0.0042		3.20 0.0059	fill	
6	0.0013		P	1oz	
	0.0040		3.34 0.0060	core	
7	0.0013		S	1oz	
	0.0042		3.20 0.0059	fill	
8	0.0013		P	1oz	
	0.0040		3.34 0.0060	core	
9	0.0013		P	1oz	
	0.0042		3.20 0.0059	fill	
10	0.0013		S	1oz	
	0.0040		3.34 0.0060	core	
11	0.0013		P	1oz	
	0.0042		3.20 0.0059	fill	
12	0.0013		S	1oz	
	0.0040		3.34 0.0060	core	
13	0.0013		P	1oz	
	0.0042		3.20 0.0059	fill	
14	0.0013		S	1oz	
	0.0040		3.34 0.0060	core	
15	0.0013		P	1oz	
	0.0044		2.94 0.0058	fill	
16	0.0018		F / S	0.333oz w/plating	
0.0006/0.0013			4.5 0.019	Soldermask	
0.0840	Total thickness (in) Over mask on plated copper				
0.0800	After lamination thickness (in)				
0.0819	Over laminate thickness (in) (with soldermask)				
0.0834	Customer Requirement (in)				
+/-0.0083	Customer Tolerance (in)				

Notes and Recommendations:

1. Assume copper rate 80% for power ground layer, 30% for single layer
 2. Can not meet 66ohms single ended & 132ohms diff ended, suggest ignore these impedance requirement
- Trace widths measured at base of trace
 All dimensions in inches (unless otherwise noted)

Products built using these specified nominal dimensions will have variation in physical and electrical results based on acceptable manufacturing materials and process tolerance.
 This data is intended to provide one possible solution to meet a particular set of impedance and thickness requirements.
 If any of these values are attached to fabrication prints, they should be marked as 'reference'.

Impedance Constraint Information (I)

Imp #	Impedance Type	Inflect	Lyr	Cut	Line High	CenterToCenter	Ref Plane	Targ	Tol	Predicted
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	EC RS	1	None	0.015	0.015	0.015	None	2	66	66.35
2	EC RS	1	None	0.009	0.009	0.009	None	2	80	79.73
3	EC RS	1	None	0.0078	0.0078	0.0078	None	2	85	84.82
4	EC RS	1	None	0.007	0.007	0.007	None	2	90	88.66
5	EC RS	1	None	0.005	0.005	0.005	None	2	100	100.34
6	EC RS	1	None	0.003	0.003	0.003	None	2	132	132.00
7	Surf RS	1	None	0.018	0.018		None	2	33	32.79
8	Surf RS	1	None	0.013	0.013		None	2	40	40.22
9	Surf RS	1	None	0.009	0.009		None	2	50	49.32
10	Surf RS	1	None	0.0048	0.0048		None	2	66	65.38
11	EC SL	3	None	0.0075	0.0075	0.0075	None	2	66	64.96
12	EC SL	3	None	0.005	0.005	0.005	None	2	80	80.34
13	EC SL	3	None	0.0045	0.0045	0.0045	None	2	85	84.36
14	EC SL	3	None	0.0038	0.0038	0.0038	None	2	90	90.79
15	EC SL	3	None	0.003	0.003	0.003	None	2	100	99.65
16	EC SL	3	None	0.003	0.003	0.003	None	2	132	109.79
17	Stripline	3	None	0.008	0.008		None	2	33	33.33
18	Stripline	3	None	0.006	0.006		None	2	40	39.52
19	Stripline	3	None	0.0038	0.0038		None	2	50	49.78
20	Stripline	3	None	0.003	0.003		None	2	66	55.07
21	EC SL	5	None	0.0075	0.0075	0.0075	None	4	66	64.96
22	EC SL	5	None	0.005	0.005	0.005	None	4	80	80.34
23	EC SL	5	None	0.0045	0.0045	0.0045	None	4	85	84.36
24	EC SL	5	None	0.0038	0.0038	0.0038	None	4	90	90.79
25	EC SL	5	None	0.003	0.003	0.003	None	4	100	99.65
26	EC SL	5	None	0.003	0.003	0.003	None	4	132	109.79
27	Stripline	5	None	0.008	0.008		None	4	33	33.33
28	Stripline	5	None	0.006	0.006		None	4	40	39.52
29	Stripline	5	None	0.0038	0.0038		None	4	50	49.78
30	Stripline	5	None	0.003	0.003		None	4	66	55.07
31	EC SL	7	None	0.0075	0.0075	0.0075	None	6	66	64.96
32	EC SL	7	None	0.005	0.005	0.005	None	6	80	80.34
33	EC SL	7	None	0.0045	0.0045	0.0045	None	6	85	84.36
34	EC SL	7	None	0.0038	0.0038	0.0038	None	6	90	90.79
35	EC SL	7	None	0.003	0.003	0.003	None	6	100	99.65
36	EC SL	7	None	0.003	0.003	0.003	None	6	132	109.79
37	Stripline	7	None	0.008	0.008		None	6	33	33.33
38	Stripline	7	None	0.006	0.006		None	6	40	39.52
39	Stripline	7	None	0.0038	0.0038		None	6	50	49.78
40	Stripline	7	None	0.003	0.003		None	6	66	55.07
41	EC SL	10	None	0.0075	0.0075	0.0075	None	11	66	64.96
42	EC SL	10	None	0.005	0.005	0.005	None	11	80	80.34
43	EC SL	10	None	0.0045	0.0045	0.0045	None	11	85	84.36
44	EC SL	10	None	0.0038	0.0038	0.0038	None	11	90	90.79
45	EC SL	10	None	0.003	0.003	0.003	None	11	100	99.65
46	EC SL	10	None	0.003	0.003	0.003	None	11	132	109.79
47	Stripline	10	None	0.008	0.008		None	11	33	33.33
48	Stripline	10	None	0.006	0.006		None	11	40	39.52
49	Stripline	10	None	0.0038	0.0038		None	11	50	49.78
50	Stripline	10	None	0.003	0.003		None	11	66	55.07
51	EC SL	12	None	0.0075	0.0075	0.0075	None	13	66	64.96
52	EC SL	12	None	0.005	0.005	0.005	None	13	80	80.34
53	EC SL	12	None	0.0045	0.0045	0.0045	None	13	85	84.36
54	EC SL	12	None	0.0038	0.0038	0.0038	None	13	90	90.79
55	EC SL	12	None	0.003	0.003	0.003	None	13	100	99.65
56	EC SL	12	None	0.003	0.003	0.003	None	13	132	109.79
57	Stripline	12	None	0.008	0.008		None	13	33	33.33
58	Stripline	12	None	0.006	0.006		None	13	40	39.52
59	Stripline	12	None	0.0038	0.0038		None	13	50	49.78
60	Stripline	12	None	0.003	0.003		None	13	66	55.07
61	EC SL	14	None	0.0075	0.0075	0.0075	None	15	66	64.96
62	EC SL	14	None	0.005	0.005	0.005	None	15	80	80.34
63	EC SL	14	None	0.0045	0.0045	0.0045	None	15	85	84.36
64	EC SL	14	None	0.0038	0.0038	0.0038	None	15	90	90.79
65	EC SL	14	None	0.003	0.003	0.003	None	15	100	99.65
66	EC SL	14	None	0.003	0.003	0.003	None	15	132	109.79
67	Stripline	14	None	0.008	0.008		None	15	33	33.33
68	Stripline	14	None	0.006	0.006		None	15	40	39.52
69	Stripline	14	None	0.0038	0.0038		None	15	50	49.78
70	Stripline	14	None	0.003	0.003		None	15	66	55.07
71	EC RS	16	None	0.015	0.015	0.015	None	15	66	66.35
72	EC RS	16	None	0.009	0.009	0.009	None	15	80	79.73
73	EC RS	16	None	0.0078	0.0078	0.0078	None	15	85	84.82
74	EC RS	16	None	0.007	0.007	0.007	None	15	90	88.66
75	EC RS	16	None	0.005	0.005	0.005	None	15	100	100.34
76	EC RS	16	None	0.003	0.003	0.003	None	15	132	132.00
77	Surf RS	16	None	0.018	0.018		None	15	33	32.79
78	Surf RS	16	None	0.013	0.013		None	15	40	40.22
79	Surf RS	16	None	0.009	0.009		None	15	50	49.32
80	Surf RS	16	None	0.0048	0.0048		None	15	66	65.38

