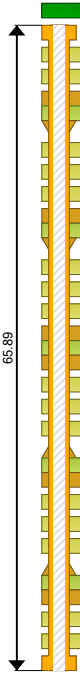


Layer	Stack up	Supplier	Supplier Description	Description	Type	Impedance ID	ϵ_r	Base Thickness	Processed Thickness
1		Polar Samples	SM/001	Liquid PhotoImageable Mask	SolderMask			4.000	1.000
		GOULD	COPPER FOIL	12+35 m	NA	1, 2, 3, 4		1.850	2.550
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	2.082
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	2.082
2								0.709	0.709
		ISOLA	185HR	0.114 0.5/0.5	FR4	5, 6, 7, 8	4.420	4.488	4.488
								0.709	0.709
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	1.911
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	1.911
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	1.911
4								0.709	0.709
		ISOLA	185HR	0.114 0.5/0.5	FR4	9, 10, 11	4.420	4.488	4.488
								0.709	0.709
5									
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	1.911
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	1.911
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	1.911
6								0.709	0.709
		ISOLA	185HR	0.114 0.5/0.5	FR4		4.420	4.488	4.488
								0.709	0.709
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	1.911
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	1.911
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	1.911
8						12, 13, 14		0.709	0.709
		ISOLA	185HR	0.114 0.5/0.5	FR4		4.420	4.488	4.488
								0.709	0.709
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	1.911
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	1.911
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	1.911
10						15, 16, 17, 18		0.709	0.709
		ISOLA	185HR	0.114 0.5/0.5	FR4		4.420	4.488	4.488
								0.709	0.709
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	2.082
		ISOLA	185 HR	# 106	Dielectric		3.890	2.100	2.082
12		GOULD	COPPER FOIL	12+35 m	NA	19, 20, 21, 22		1.850	2.550
		Polar Samples	SM/001	Liquid PhotoImageable Mask	SolderMask			4.000	1.000

Copper Thickness = 12.187 | Dielectric Thickness = 53.701 | Solder Mask Thickness = 2.000 | Stack Up Thickness = 65.888 | Stack Up Thickness with Soldermask = 67.888 | Stack Up Cost = 24.00 |

Impedance ID	Structure Name	Impedance Signal Layer	Ref. Plane 1 in Layer	Ref. Plane 2 in Layer	Lower Trace Width (W1)	Trace Separation (S1)	Calculated Impedance	Target Impedance	Tol (+/- %)	Ground Strip Separation (D1)
1	Coated Microstrip 1B	1	2	0	9.000	0.000	42.540	42.000	10.000	0.000
2	Coated Microstrip 1B	1	2	0	5.656	0.000	51.870	50.000	10.000	0.000
3	Edge Coupled Coated Microstrip 1B	1	2	0	4.252	4.948	90.100	90.000	10.000	0.000
4	Edge Coupled Coated Microstrip 1B	1	2	0	3.700	6.300	101.560	100.000	10.000	0.000
5	Offset Stripline 1B1A	3	2	4	6.000	0.000	41.970	42.000	10.000	0.000
6	Offset Stripline 1B1A	3	2	4	4.000	0.000	51.540	50.000	10.000	0.000
7	Edge Coupled Offset Stripline 1B1A	3	2	4	4.000	4.500	91.150	90.000	10.000	0.000
8	Edge Coupled Offset Stripline 1B1A	3	2	4	4.000	8.000	98.940	100.000	10.000	0.000
9	Offset Stripline 1B1A	5	4	7	6.000	0.000	41.970	42.000	10.000	0.000
10	Offset Stripline 1B1A	5	4	7	4.000	0.000	51.540	50.000	10.000	0.000

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Date: 24/08/2018	Associated Documents:						
Author:							
Department:							
Site:							

Impedance ID	Structure Name	Impedance Signal Layer	Ref. Plane 1 in Layer	Ref. Plane 2 in Layer	Lower Trace Width (W1)	Trace Separation (S1)	Calculated Impedance	Target Impedance	Tol (+/- %)	Ground Strip Separation (D1)	
11	Edge Coupled Offset Stripline 1B1A	5	4	7	4.000	8.000	98.940	100.000	10.000	0.000	
12	Offset Stripline 1B1A	8	6	9	6.000	0.000	41.970	42.000	10.000	0.000	
13	Offset Stripline 1B1A	8	6	9	4.000	0.000	51.540	50.000	10.000	0.000	
14	Edge Coupled Offset Stripline 1B1A	8	6	9	4.000	8.000	98.940	100.000	10.000	0.000	
15	Offset Stripline 1B1A	10	9	11	6.000	0.000	41.970	42.000	10.000	0.000	
16	Offset Stripline 1B1A	10	9	11	4.000	0.000	51.540	50.000	10.000	0.000	
17	Edge Coupled Offset Stripline 1B1A	10	9	11	4.000	4.500	91.150	90.000	10.000	0.000	
18	Edge Coupled Offset Stripline 1B1A	10	9	11	4.000	8.000	98.940	100.000	10.000	0.000	
19	Coated Microstrip 1B	12	11	0	9.000	0.000	42.540	42.000	10.000	0.000	
20	Coated Microstrip 1B	12	11	0	5.656	0.000	51.870	50.000	10.000	0.000	
21	Edge Coupled Coated Microstrip 1B	12	11	0	4.252	4.948	90.100	90.000	10.000	0.000	
22	Edge Coupled Coated Microstrip 1B	12	11	0	3.700	6.300	101.560	100.000	10.000	0.000	

Drill Image	1st Layer	2nd Layer	Column Position	Drill Type	
	1	12	1	Mechanical PTH	

Notes

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Author:							
Department:							
Site:							