

Surface Mount Power Splitter/Combiner

ADP-2-20-75+ ADP-2-20-75

2 Way-0° 75Ω 5 to 2000 MHz



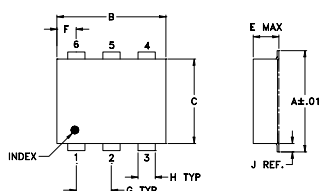
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.25W max.

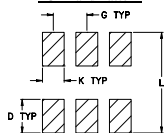
Pin Connections

SUMPORT	1
PORT 1	3
PORT 2	4
GROUND	6
NOT USED	2,5

Outline Drawing



PCB Land Pattern

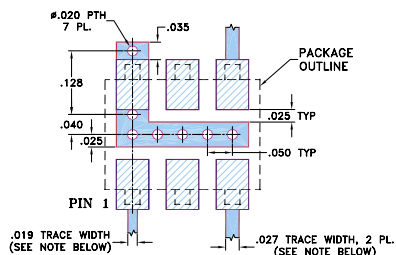


Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G		
.272	.310	.220	.100	.112	.055	.100		
6.91	7.87	5.59	2.54	2.84	1.40	2.54		
H	J	K	L				wt	
.030	.026	.065	.300				grams	
0.76	0.66	1.65	7.62				0.20	

Demo Board MCL P/N: TB-243 Suggested PCB Layout (PL-141)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- wide bandwidth, 5 to 2000 MHz
- low insertion loss, 0.5 dB typ.
- excellent amplitude unbalance, 0.05 dB typ.
- excellent phase unbalance, 0.5 deg. typ.
- aqueous washable
- protected under U.S. Patent 6,133,525

Applications

- instrumentation
- PCS/cellular

Splitter Electrical Specifications

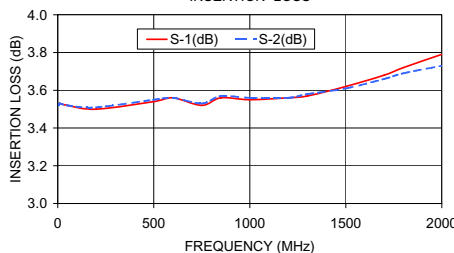
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
f _c -f _u	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
5-2000	16	12	16	13	28	15	0.4	0.9	0.5	1.2	0.6	1.4	1.0	4.0	5.0	0.15	0.3	0.6

L = 5-50 MHz M = 50-1000 MHz U = 1000-2000 MHz

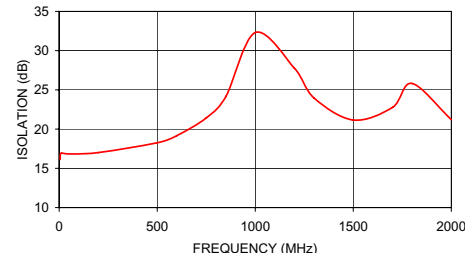
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
5.00	3.53	3.52	0.01	16.13	0.06	1.98	1.48	1.48
10.00	3.53	3.53	0.00	16.92	0.05	1.98	1.49	1.49
50.00	3.52	3.52	0.00	16.83	0.09	1.97	1.48	1.48
200.00	3.50	3.51	0.01	17.01	0.35	1.95	1.51	1.51
500.00	3.54	3.55	0.01	18.26	0.77	1.97	1.62	1.61
600.00	3.56	3.56	0.01	19.16	0.88	2.00	1.64	1.65
750.00	3.52	3.53	0.01	21.42	1.04	2.05	1.68	1.67
850.00	3.56	3.57	0.02	24.14	1.13	2.06	1.69	1.69
1000.00	3.55	3.56	0.02	32.31	1.20	2.05	1.72	1.71
1200.00	3.56	3.56	0.01	27.75	1.30	1.87	1.75	1.78
1300.00	3.57	3.58	0.01	23.96	1.24	1.74	1.77	1.81
1500.00	3.62	3.61	0.01	21.15	1.24	1.48	1.84	1.84
1700.00	3.68	3.66	0.03	22.76	1.07	1.18	1.82	1.84
1800.00	3.72	3.69	0.03	25.81	0.93	1.05	1.77	1.81
2000.00	3.79	3.73	0.06	21.22	0.36	1.29	1.64	1.62

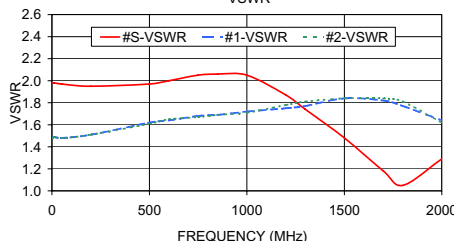
ADP-2-20-75
INSERTION LOSS



ADP-2-20-75
ISOLATION



ADP-2-20-75
VSWR



electrical schematic



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