

Surface Mount Power Splitter/Combiner

ADP-2-10-75M+

2 Way-0° 75Ω

5 to 1200 MHz



CASE STYLE: CD636

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Available Tape and Reel at no extra cost	
Reel Size	Devices/Reel
7"	10, 20, 50, 100, 200, 500
13"	500, 1000

Maximum Ratings

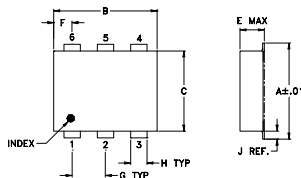
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.125W max.

Permanent damage may occur if any of these limits are exceeded.

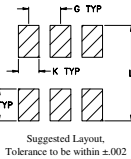
Pin Connections

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

Outline Drawing



PCB Land Pattern



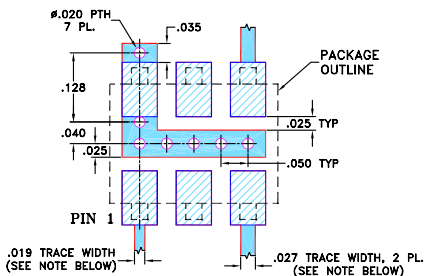
Suggested Layout.
Tolerance to be within ±0.02

Outline Dimensions (inch)

A	B	C	D	E	F	G
.272	.310	.220	.100	.162	.055	.100
6.91	7.87	5.59	2.54	4.11	1.40	2.54

H	J	K	L	wt
.030	.026	.065	.300	grams
0.76	0.66	1.65	7.62	0.25

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

Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

Features

- wide bandwidth, 5 to 1200 MHz
- high isolation, 27dB typ.
- excellent VSWR, 1.22:1 typ.
- small size
- low cost
- aqueous washable
- protected by US Patent 6,133,525

Applications

- CATV

Electrical Specifications (T_{AMB}=25°C)

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.	Max.	Max.
5-50	26	20	0.2	0.5	1.0	0.1
50-500	27	22	0.4	0.8	2.0	0.2
500-1000	29	20	0.7	1.3*	4.0	0.3
1000-1200	27	18	1.0	1.6*	5.0	0.4

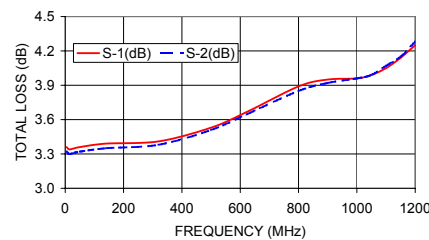
* Above 50°C add 0.2 dB to Insertion Loss.

Typical Performance Data

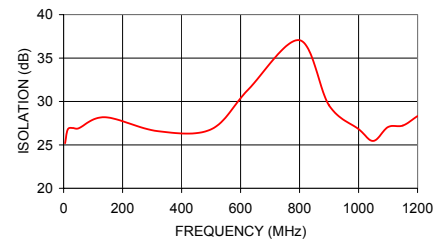
Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
5.00	3.36	3.32	0.04	25.19	0.09	1.10	1.16	1.16
14.00	3.34	3.30	0.04	26.78	0.12	1.09	1.10	1.10
32.00	3.35	3.31	0.03	26.94	0.13	1.09	1.10	1.10
50.00	3.36	3.32	0.04	26.90	0.15	1.09	1.10	1.10
140.00	3.39	3.35	0.03	28.19	0.20	1.11	1.11	1.10
320.00	3.41	3.38	0.03	26.58	0.13	1.10	1.09	1.08
500.00	3.53	3.51	0.02	26.79	0.17	1.10	1.11	1.09
625.00	3.67	3.65	0.02	31.34	0.20	1.09	1.13	1.11
800.00	3.89	3.85	0.04	37.06	0.10	1.13	1.17	1.14
900.00	3.95	3.92	0.03	29.55	0.31	1.13	1.18	1.15
1000.00	3.96	3.96	0.00	26.82	0.47	1.14	1.19	1.16
1050.00	3.99	3.99	0.01	25.46	0.24	1.14	1.21	1.16
1100.00	4.05	4.07	0.03	27.06	0.07	1.17	1.21	1.17
1150.00	4.14	4.15	0.01	27.23	0.02	1.17	1.24	1.18
1200.00	4.25	4.28	0.03	28.32	0.25	1.22	1.24	1.19

1. Total Loss = Insertion Loss + 3dB splitter loss.

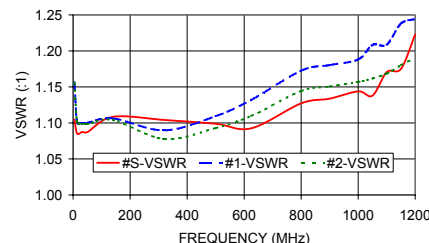
ADP-2-10-75M+
TOTAL LOSS



ADP-2-10-75M+
ISOLATION



ADP-2-10-75M+
VSWR



electrical schematic

