

# Surface Mount Power Splitter/Combiner

## ADP-2-10-75M+

2 Way-0° 75Ω

5 to 1200 MHz



Generic photo used for illustration purposes only

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"	20, 50, 100, 200
13"	500, 1000

### Maximum Ratings

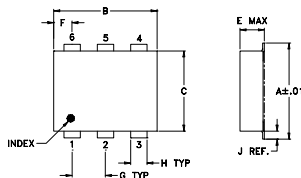
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.125W max.

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

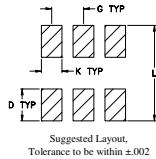
### Pin Connections

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

### Outline Drawing



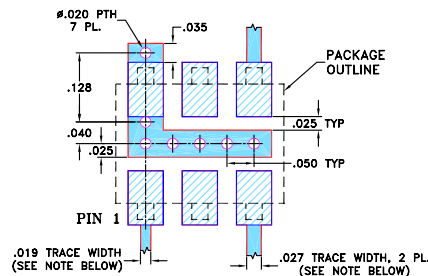
### PCB Land Pattern



### Outline Dimensions (inch/mm)

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/MCStore/terms.jsp](http://www.minicircuits.com/MCStore/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<sub>AMB</sub>=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

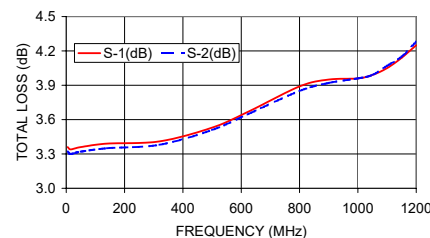
\* Above 50°C add 0.2 dB to Insertion Loss.

### Typical Performance Data

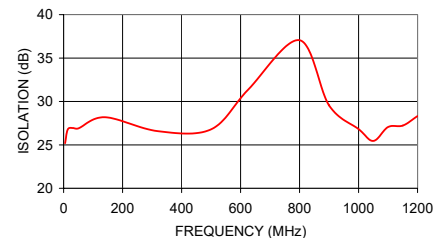
Frequency (MHz)	Total Loss <sup>1</sup> (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
5.00	3.36	3.32	0.04	25.19	0.09	1.10	1.16	1.16
14.00	3.34	3.30	0.04	26.78	0.12	1.09	1.10	1.10
32.00	3.35	3.31	0.03	26.94	0.13	1.09	1.10	1.10
50.00	3.36	3.32	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.

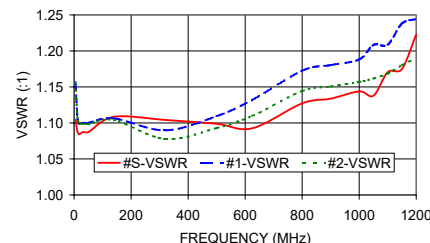
ADP-2-10-75M+  
TOTAL LOSS



ADP-2-10-75M+  
ISOLATION



ADP-2-10-75M+  
VSWR



### electrical schematic

