

# Power Splitter/Combiner

## ADP-2-10W-75+

2 Way-0° 75Ω 5 to 1000 MHz



CASE STYLE: CD636

### Maximum Ratings

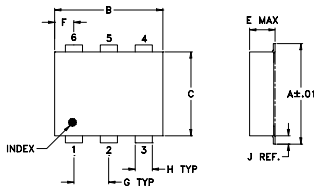
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.125W max.

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

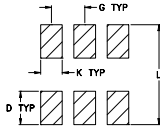
### Pin Connections

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

### Outline Drawing



#### PCB Land Pattern

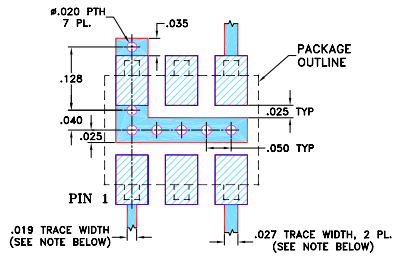


Suggested Layout, Tolerance to be within ±.002

### 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

### Features

- wideband, 5 to 1000 MHz
- low insertion loss, 0.3 dB typ.
- aqueous washable
- protected under U.S. Patent 6,133,525

### Applications

- cellular
- VHF/UHF
- communication systems
- CATV

### Electrical Specifications

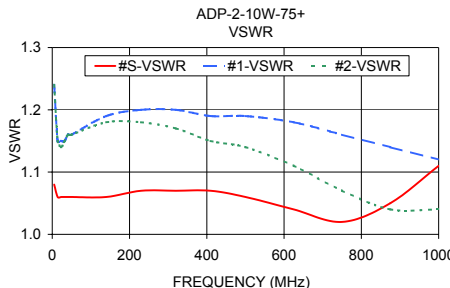
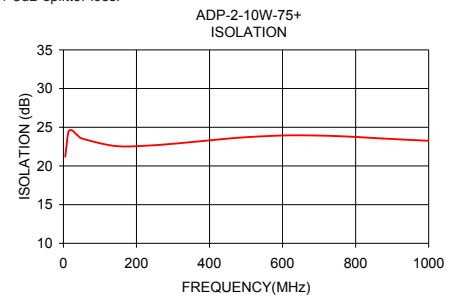
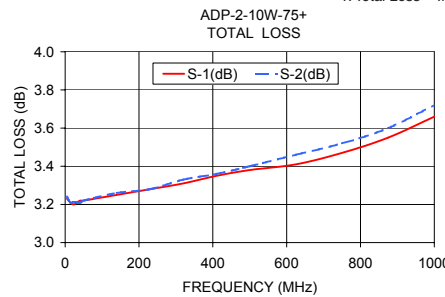
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
$f_L$ - $f_U$	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
5-1000	24	14	23	18	24	18	0.2	0.6	0.3	0.9	0.5	1.1	1.0	3.0	5.0	0.1	0.2	0.3

L = low range [ $f_L$  to  $10 f_L$ ] M = mid range [ $10 f_L$  to  $f_U/2$ ] U = upper range [ $f_U/2$  to  $f_U$ ]

### 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	3.23	3.24	0.01	21.20	0.03	1.08	1.24	1.24
14.00	3.21	3.21	0.00	24.46	0.01	1.06	1.15	1.15
23.00	3.20	3.21	0.01	24.61	0.06	1.06	1.15	1.14
32.00	3.21	3.21	0.00	24.23	0.07	1.06	1.15	1.15
41.00	3.22	3.21	0.00	23.86	0.16	1.06	1.16	1.16
50.00	3.22	3.22	0.01	23.55	0.12	1.06	1.16	1.16
140.00	3.25	3.26	0.00	22.59	0.38	1.06	1.19	1.18
230.00	3.28	3.28	0.00	22.63	0.64	1.07	1.20	1.18
320.00	3.31	3.33	0.02	22.95	0.87	1.07	1.20	1.17
410.00	3.35	3.36	0.01	23.35	1.06	1.07	1.19	1.15
500.00	3.38	3.40	0.02	23.72	1.27	1.06	1.19	1.14
625.00	3.41	3.46	0.05	23.96	1.61	1.04	1.18	1.11
750.00	3.47	3.52	0.05	23.86	1.85	1.02	1.16	1.07
875.00	3.55	3.60	0.06	23.54	2.10	1.05	1.14	1.04
1000.00	3.66	3.72	0.06	23.25	2.21	1.11	1.12	1.04

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



### electrical schematic



### 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.  
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