

Surface Mount

# Power Splitter/Combiner

2 Way-0° 75Ω

50 to 1000 MHz

ADP-2-10-75+  
ADP-2-10-75



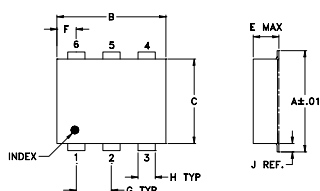
## Maximum Ratings

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.

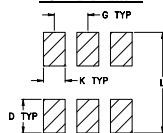
## Pin Connections

SUMPORT	1
PORT 1	3
PORT 2	4
GROUND	6
Externally connect together & isolate	2,5

## Outline Drawing



### PCB Land Pattern



Suggested Layout,  
Tolerance to be within ±.002

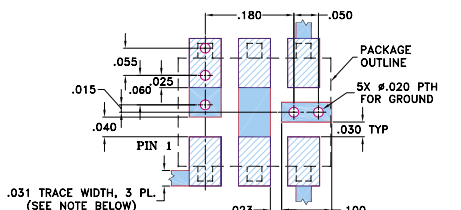
## Outline Dimensions (inch/mm)

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-09 Suggested PCB Layout (PL-105)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B 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

- low insertion loss, 0.6 dB typ.
- excellent insertion loss flatness, 0.4 dB peak to peak
- very good input VSWR, 1.10 typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 0.5 deg. typ.
- aqueous washable
- protected under U.S. Patent 6,133,525

## Applications

- CATV
- communications

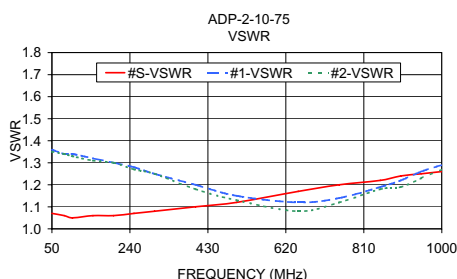
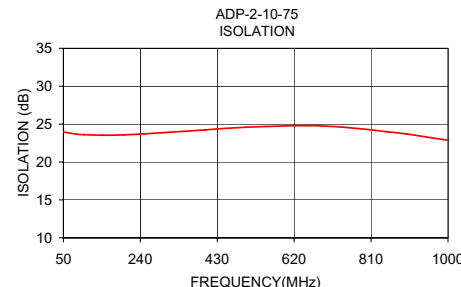
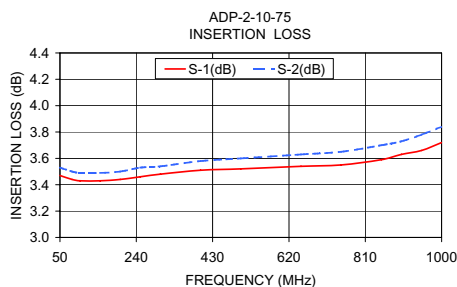
## Splitter Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)				INSERTION LOSS (dB) ABOVE 3.0 dB				PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)	
	L		U		L		U		L	U	L	U
$f_L - f_U$	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.
50-1000	26	20	22	18	0.6	1.0	0.8	1.4	2.0	3.0	0.15	0.3

L = 50-500 MHz U = 500-1000 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						
50.00	3.47	3.53	0.06	23.97	0.07	1.07	1.36	1.35
80.00	3.44	3.50	0.07	23.69	0.12	1.06	1.34	1.34
100.00	3.43	3.49	0.06	23.61	0.19	1.05	1.34	1.33
150.00	3.43	3.49	0.06	23.54	0.23	1.06	1.32	1.31
200.00	3.44	3.50	0.06	23.59	0.42	1.06	1.30	1.30
250.00	3.46	3.53	0.07	23.72	0.38	1.07	1.28	1.27
300.00	3.48	3.54	0.07	23.89	0.52	1.08	1.25	1.25
400.00	3.51	3.58	0.07	24.24	0.71	1.10	1.20	1.18
500.00	3.52	3.60	0.08	24.59	0.87	1.12	1.15	1.13
650.00	3.54	3.63	0.09	24.80	1.00	1.17	1.12	1.08
750.00	3.55	3.65	0.09	24.56	1.14	1.20	1.14	1.12
850.00	3.59	3.70	0.11	23.99	1.11	1.22	1.19	1.18
900.00	3.63	3.73	0.10	23.68	1.16	1.24	1.22	1.19
950.00	3.66	3.78	0.12	23.27	1.21	1.25	1.26	1.23
1000.00	3.72	3.84	0.12	22.87	1.21	1.26	1.29	1.27



## electrical schematic



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