

Surface Mount

# Power Splitter/Combiner

**ADP-2-9+**  
**ADP-2-9**

2 Way-0° 50Ω 200 to 900 MHz



CASE STYLE: CD636  
PRICE: \$9.95 ea. QTY. (10)

**+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

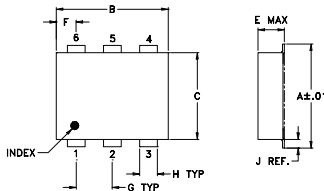
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.125W max.

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

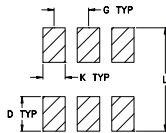
## Pin Connections

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

## Outline Drawing



### PCB Land Pattern

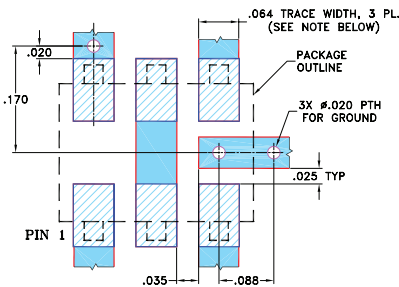


Suggested Layout,  
Tolerance to be within ±.002

## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G		
.272	.310	.220	.100	.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-208 Suggested PCB Layout (PL-116)



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

### 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-Circuits 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-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)

## Features

- low insertion loss, 0.4 dB typ.
- excellent amplitude unbalance, 0.05 dB typ.
- very good phase unbalance, 0.3 deg. typ.
- aqueous washable
- protected under U.S. Patent 6,133,525

## Applications

- VHF/UHF receivers/transmitters
- cellular

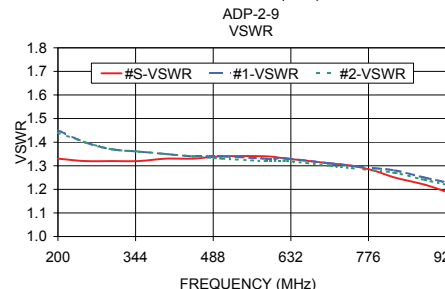
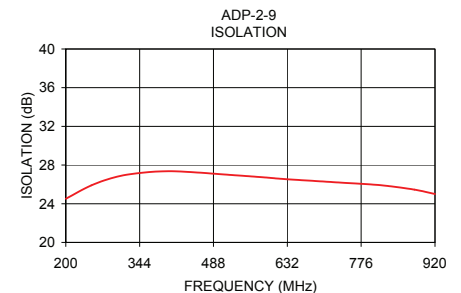
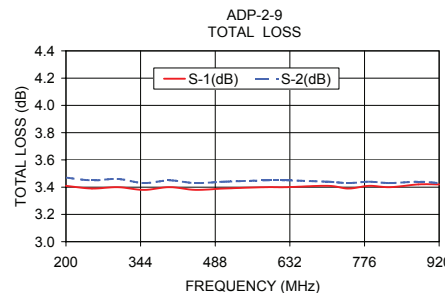
## Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.	Max.	Max.
$f_L - f_U$						
200-900	27	20	0.4	0.8	2.0	0.3

## 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						
200.00	3.41	3.47	0.06	24.51	0.17	1.33	1.45	1.44
250.00	3.39	3.45	0.06	25.90	0.15	1.32	1.40	1.40
300.00	3.40	3.46	0.06	26.80	0.16	1.32	1.37	1.37
350.00	3.38	3.43	0.06	27.21	0.17	1.32	1.36	1.36
400.00	3.40	3.45	0.06	27.36	0.16	1.33	1.35	1.35
450.00	3.38	3.43	0.05	27.25	0.17	1.33	1.34	1.34
505.00	3.39	3.44	0.05	27.04	0.18	1.34	1.34	1.33
585.00	3.40	3.45	0.05	26.73	0.23	1.34	1.33	1.32
625.00	3.40	3.45	0.05	26.56	0.20	1.33	1.33	1.32
705.00	3.41	3.44	0.03	26.29	0.24	1.31	1.31	1.30
745.00	3.39	3.43	0.04	26.15	0.23	1.30	1.30	1.29
785.00	3.41	3.44	0.03	26.03	0.23	1.28	1.29	1.28
825.00	3.40	3.43	0.03	25.85	0.26	1.25	1.28	1.27
880.00	3.42	3.44	0.02	25.46	0.22	1.22	1.25	1.24
920.00	3.42	3.43	0.01	25.01	0.21	1.19	1.23	1.22

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



## electrical schematic

