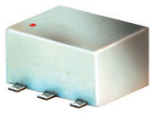
Surface Mount

Power Splitter/Combiner

ADP-2-1+
ADP-2-1

2 Way-0° 50Ω 0.5 to 400 MHz



CASE STYLE: CD636
PRICE: $7.95 ea. QTY. (10-49)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

Maximum Ratings

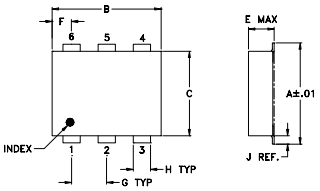
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.125W max.

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

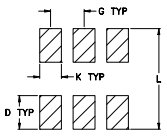
Pin Connections

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

Outline Drawing



PCB Land Pattern



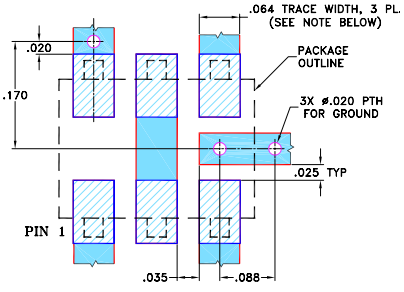
Suggested Layout,
Tolerance to be within ±.002

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 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

- low insertion loss, 0.3 dB typ.
- excellent amplitude unbalance, 0.10 dB typ.
- very good phase unbalance, 0.5 deg. typ.
- aqueous washable
- protected under U.S. Patent 6,133,525

Applications

- instrumentation
- VHF/UHF

Electrical Specifications

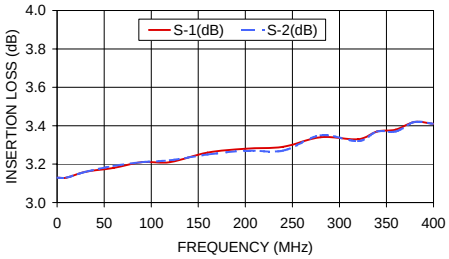
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
f_L-f_U	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
0.5-400	25	20	25	20	25	20	0.2	0.4	0.3	0.6	0.5	1.0	1.0	2.0	3.0	0.1	0.2	0.3

L = 0.5-5 MHz M = 5-200 MHz U = 200-400 MHz
See Notes below.

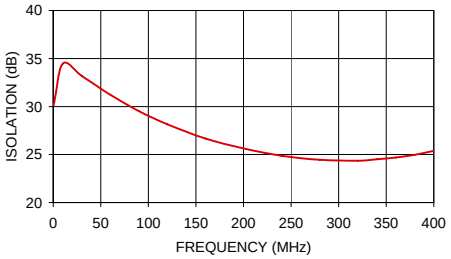
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
0.50	3.13	3.13	0.00	30.12	0.03	1.06	1.08	1.08
10.00	3.13	3.13	0.00	34.46	0.05	1.03	1.01	1.01
30.00	3.16	3.16	0.00	33.18	0.04	1.03	1.01	1.01
60.00	3.18	3.19	0.01	31.23	0.04	1.04	1.01	1.01
90.00	3.21	3.21	0.00	29.53	0.11	1.05	1.01	1.01
120.00	3.21	3.22	0.01	28.15	0.07	1.06	1.02	1.02
160.00	3.26	3.25	0.01	26.67	0.12	1.08	1.02	1.02
200.00	3.28	3.27	0.01	25.63	0.08	1.09	1.03	1.03
240.00	3.29	3.27	0.01	24.87	0.14	1.09	1.04	1.04
280.00	3.34	3.35	0.00	24.45	0.19	1.09	1.05	1.05
320.00	3.33	3.32	0.00	24.36	0.26	1.08	1.07	1.07
340.00	3.37	3.37	0.01	24.50	0.29	1.07	1.08	1.08
360.00	3.38	3.37	0.00	24.69	0.24	1.07	1.09	1.09
380.00	3.42	3.42	0.00	24.97	0.28	1.05	1.10	1.10
400.00	3.41	3.41	0.00	25.39	0.37	1.04	1.11	1.12

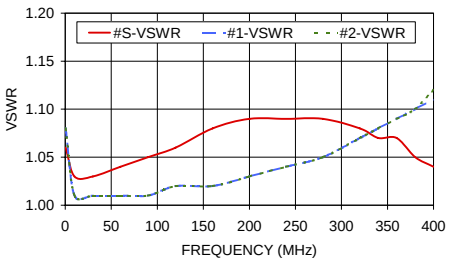
ADP-2-1
INSERTION LOSS



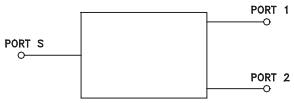
ADP-2-1
ISOLATION



ADP-2-1
VSWR



electrical schematic



Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. **2.** Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. **3.** The parts covered by this specification sheet 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.

REV. D
M102713
ED-7586/2
ADP-2-1
HY/TD/CP
090824