Surface Mount

Power Splitter/Combiner

ADP-2-1W+

2 Way-0° 50Ω 1 to 650 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

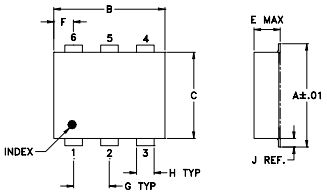
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	2W max.
Internal Dissipation	0.125W max.

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

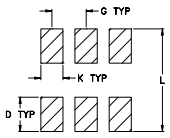
Pin Connections

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

Outline Drawing



PCB Land Pattern



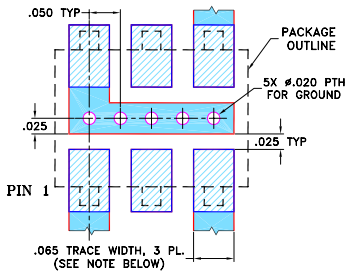
Suggested Layout,
Tolerance to be within ±.002

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-48+
Suggested PCB Layout (PL-035)



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, 0.25 dB typ.
- excellent amplitude unbalance, 0.01 dB typ.
- very good phase unbalance, 0.2 deg. typ.
- aqueous washable
- protected under U.S. Patent 6,133,525

Applications

- VHF/UHF receivers/transmitters

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.
1-650	30	20	30	20	24	20	0.2	0.8	0.25	0.8	0.5	1.0	2.0	2.0	3.0	0.15	0.2	0.3

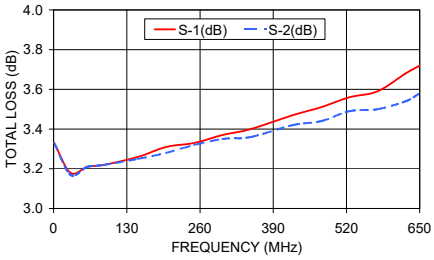
L = 1-10 MHz M = 10-325 MHz U = 325-650 MHz

Typical Performance Data

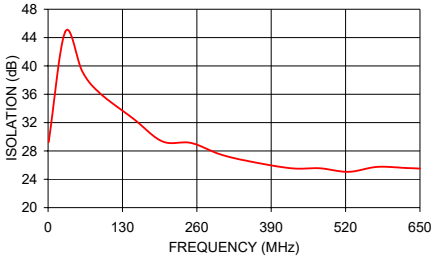
Frequency (MHz)	Total Loss[1] (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1.00	3.33	3.33	0.00	29.22	0.03	1.08	1.26	1.26
30.00	3.18	3.17	0.01	44.81	0.03	1.11	1.15	1.15
60.00	3.21	3.21	0.00	39.19	0.01	1.13	1.15	1.15
90.00	3.22	3.22	0.00	36.18	0.00	1.11	1.14	1.15
150.00	3.26	3.25	0.01	32.49	0.12	1.14	1.14	1.15
200.00	3.31	3.28	0.03	29.34	0.09	1.17	1.14	1.13
250.00	3.33	3.32	0.02	29.13	0.06	1.18	1.14	1.13
300.00	3.37	3.35	0.02	27.54	0.17	1.16	1.15	1.15
350.00	3.40	3.36	0.04	26.57	0.09	1.18	1.14	1.14
425.00	3.47	3.42	0.05	25.55	0.28	1.22	1.15	1.13
475.00	3.51	3.44	0.07	25.55	0.30	1.23	1.17	1.16
525.00	3.56	3.49	0.07	25.05	0.30	1.23	1.17	1.16
575.00	3.59	3.50	0.09	25.75	0.30	1.25	1.18	1.15
625.00	3.68	3.54	0.14	25.60	0.47	1.23	1.22	1.16
650.00	3.72	3.58	0.14	25.51	0.52	1.26	1.23	1.18

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

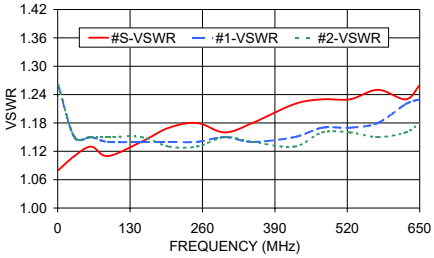
ADP-2-1W+
TOTAL LOSS



ADP-2-1W+
ISOLATION



ADP-2-1W+
VSWR



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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