

Surface Mount

Power Splitter/Combiner

ADP-2-20+ ADP-2-20

2 Way-0° 50Ω 20 to 2000 MHz



CASE STYLE: CD542

+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

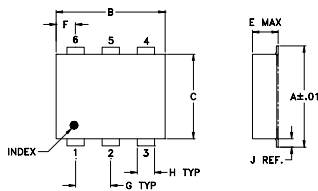
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.125W max.

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

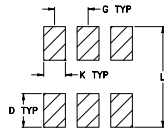
Pin Connections

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

Outline Drawing



PCB Land Pattern



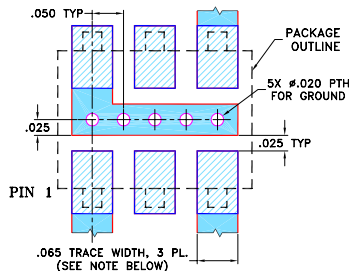
Suggested Layout, Tolerance to be within ±.002

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.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-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

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-Circuits' 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

Features

- low insertion loss, 0.7 dB typ.
- excellent insertion loss flatness, 0.4 dB peak to peak
- excellent amplitude unbalance, 0.1 dB typ.
- good phase unbalance, 1.1 deg. typ.
- aqueous washable
- protected under U.S. Patent 6,133,525

Applications

- instrumentation
- PCS/cellular
- GPS

Electrical Specifications

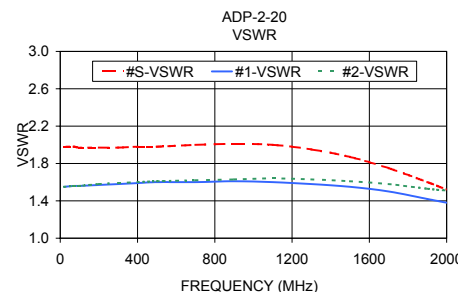
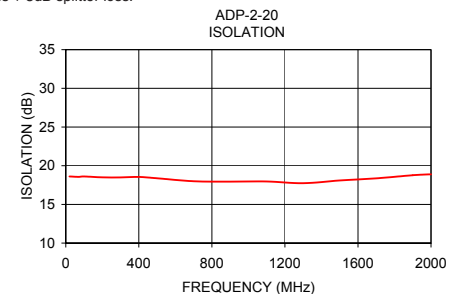
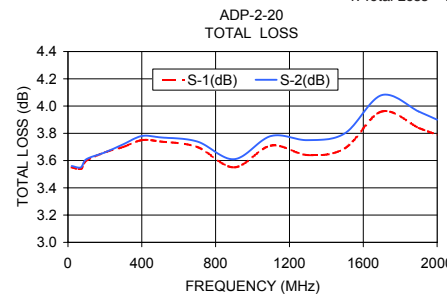
FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 3.0 dB			PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)								
	L	M	U	L	M	U	L	M	U	L	M	U						
f _c -f _u	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.					
20-2000	18	15	18	15	18	15	0.5	0.8	0.7	1.0	0.8	1.5	2.0	3.0	5.0	0.2	0.3	0.7

L = 20-200 MHz M = 200-1000 MHz U = 1000-2000 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						
20.00	3.55	3.56	0.00	18.61	0.00	1.98	1.55	1.55
70.00	3.54	3.55	0.01	18.56	0.18	1.98	1.56	1.56
100.00	3.60	3.61	0.01	18.61	0.19	1.97	1.56	1.56
200.00	3.66	3.66	0.00	18.50	0.45	1.97	1.57	1.58
300.00	3.70	3.72	0.02	18.49	0.59	1.97	1.58	1.59
400.00	3.75	3.78	0.02	18.55	0.68	1.98	1.59	1.60
500.00	3.74	3.77	0.03	18.38	0.88	1.98	1.60	1.61
700.00	3.70	3.74	0.03	17.99	1.04	2.00	1.60	1.62
900.00	3.55	3.61	0.06	17.94	1.35	2.01	1.61	1.63
1100.00	3.71	3.78	0.06	17.96	1.43	2.00	1.60	1.64
1300.00	3.64	3.75	0.11	17.74	1.43	1.95	1.58	1.63
1500.00	3.69	3.80	0.11	18.09	1.32	1.87	1.55	1.61
1700.00	3.96	4.08	0.12	18.37	1.26	1.75	1.50	1.58
1900.00	3.84	3.96	0.12	18.77	1.05	1.60	1.42	1.53
2000.00	3.79	3.90	0.11	18.89	0.78	1.52	1.38	1.51

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



electrical schematic

