Surface Mount

Power Splitter/Combiner

ADP-2-20-75+
ADP-2-20-75

2 Way-0° 75Ω 5 to 2000 MHz

CASE STYLE: CD542
PRICE: $17.95 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

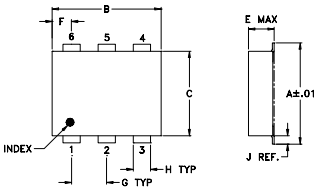
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.25W max.

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

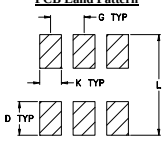
Pin Connections

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

Outline Drawing



PCB Land Pattern



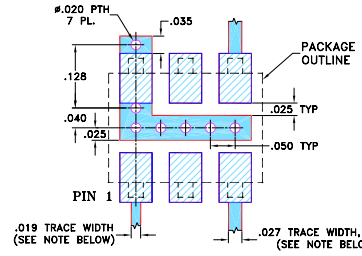
Suggested Layout,
Tolerance to be within ±.002

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-243
Suggested PCB Layout (PL-141)



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

- wide bandwidth, 5 to 2000 MHz
- low insertion loss, 0.5 dB typ.
- excellent amplitude unbalance, 0.05 dB typ.
- excellent phase unbalance, 0.5 deg. typ.
- aqueous washable
- protected under U.S. Patent 6,133,525

Applications

- instrumentation
- PCS/cellular

Electrical Specifications

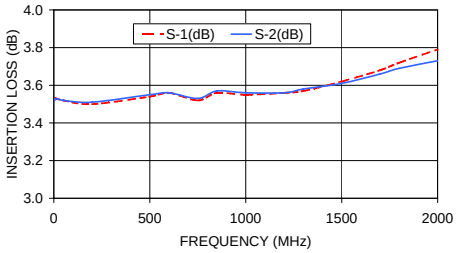
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
f_L-f_U	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
5-2000	16	12	16	13	28	15	0.4	0.9	0.5	1.2	0.6	1.4	1.0	4.0	5.0	0.15	0.3	0.6

L = 5-50 MHz M = 50-1000 MHz U = 1000-2000 MHz

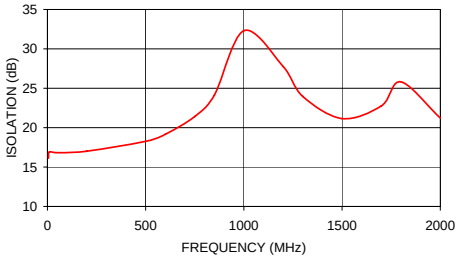
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
5.00	3.53	3.52	0.01	16.13	0.06	1.98	1.48	1.48
10.00	3.53	3.53	0.00	16.92	0.05	1.98	1.49	1.49
50.00	3.52	3.52	0.00	16.83	0.09	1.97	1.48	1.48
200.00	3.50	3.51	0.01	17.01	0.35	1.95	1.51	1.51
500.00	3.54	3.55	0.01	18.26	0.77	1.97	1.62	1.61
600.00	3.56	3.56	0.01	19.16	0.88	2.00	1.64	1.65
750.00	3.52	3.53	0.01	21.42	1.04	2.05	1.68	1.67
850.00	3.56	3.57	0.02	24.14	1.13	2.06	1.69	1.69
1000.00	3.55	3.56	0.02	32.31	1.20	2.05	1.72	1.71
1200.00	3.56	3.56	0.01	27.75	1.30	1.87	1.75	1.78
1300.00	3.57	3.58	0.01	23.96	1.24	1.74	1.77	1.81
1500.00	3.62	3.61	0.01	21.15	1.24	1.48	1.84	1.84
1700.00	3.68	3.66	0.03	22.76	1.07	1.18	1.82	1.84
1800.00	3.72	3.69	0.03	25.81	0.93	1.05	1.77	1.81
2000.00	3.79	3.73	0.06	21.22	0.36	1.29	1.64	1.62

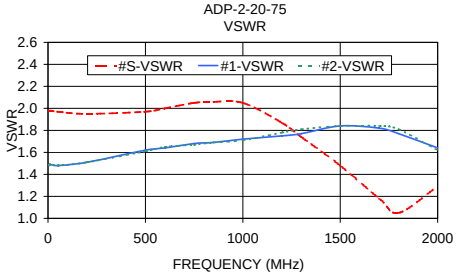
ADP-2-20-75
INSERTION LOSS



ADP-2-20-75
ISOLATION



ADP-2-20-75
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.

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