

Surface Mount

Power Splitter/Combiner

ADP-2-1+

2 Way-0° 50Ω 0.5 to 400 MHz



CASE STYLE: CD636

Maximum Ratings

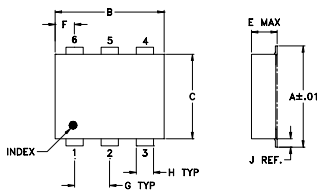
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.125W max.

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

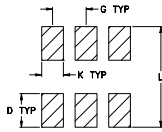
Pin Connections

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

Outline Drawing



PCB Land Pattern

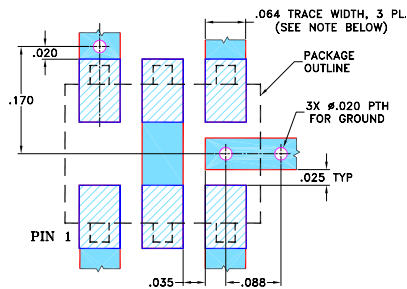


Suggested Layout, Tolerance to be within ±.002

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

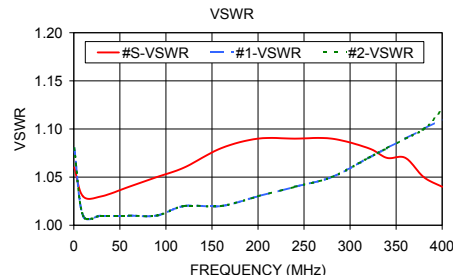
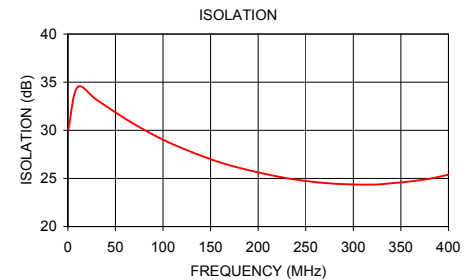
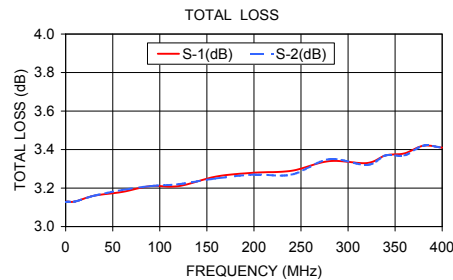
FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 3.0 dB			PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)								
	L	M	U	L	M	U	L	M	U	L	M	U						
f_L - f_U	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Max.	Typ. Max.	Typ. Max.	Max.	Max.	Max.	Max.	Max.	Max.						
0.5-400	25	20	25	20	25	20	0.2	0.4	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)	Total Loss ¹ (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

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



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.
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