

2 Way-0° 75Ω 50 to 1000 MHz



CASE STYLE: CD542

Maximum Ratings

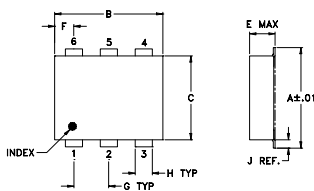
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.125W max.

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

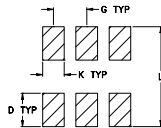
Pin Connections

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

Outline Drawing



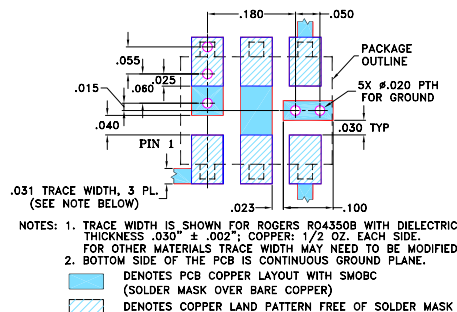
PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	wt grams
.272	.310	.220	.100	.112	.055	.100	.030	.026	.065	.300	0.20
6.91	7.87	5.59	2.54	2.84	1.40	2.54	0.76	0.66	1.65	7.62	

Demo Board MCL P/N: TB-09
Suggested PCB Layout (PL-105)

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, 0.6 dB typ.
- excellent insertion loss flatness, 0.4 dB peak to peak
- very good input VSWR, 1.10 typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 0.5 deg. typ.
- aqueous washable
- protected under U.S. Patent 6,133,525

Applications

- CATV
- communications

Electrical Specifications

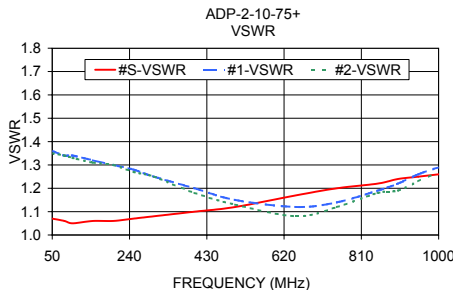
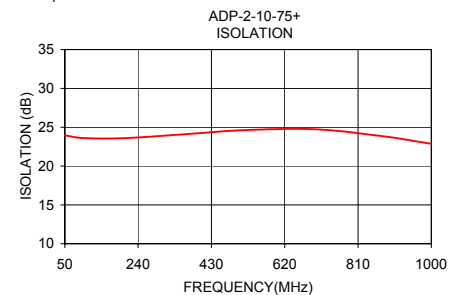
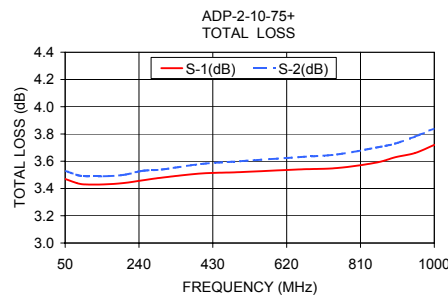
FREQ. RANGE (MHz)	ISOLATION (dB)				INSERTION LOSS (dB) ABOVE 3.0 dB				PHASE UNBALANCE (Degrees)		AMPLITUDE UNBALANCE (dB)	
	L		U		L		U		L	U	L	U
$f_L - f_U$	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.
50-1000	26	20	22	18	0.6	1.0	0.8	1.4	2.0	3.0	0.15	0.3

L = 50-500 MHz U = 500-1000 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						
50.00	3.47	3.53	0.06	23.97	0.07	1.07	1.36	1.35
80.00	3.44	3.50	0.07	23.69	0.12	1.06	1.34	1.34
100.00	3.43	3.49	0.06	23.61	0.19	1.05	1.34	1.33
150.00	3.43	3.49	0.06	23.54	0.23	1.06	1.32	1.31
200.00	3.44	3.50	0.06	23.59	0.42	1.06	1.30	1.30
250.00	3.46	3.53	0.07	23.72	0.38	1.07	1.28	1.27
300.00	3.48	3.54	0.07	23.89	0.52	1.08	1.25	1.25
400.00	3.51	3.58	0.07	24.24	0.71	1.10	1.20	1.18
500.00	3.52	3.60	0.08	24.59	0.87	1.12	1.15	1.13
650.00	3.54	3.63	0.09	24.80	1.00	1.17	1.12	1.08
750.00	3.55	3.65	0.09	24.56	1.14	1.20	1.14	1.12
850.00	3.59	3.70	0.11	23.99	1.11	1.22	1.19	1.18
900.00	3.63	3.73	0.10	23.68	1.16	1.24	1.22	1.19
950.00	3.66	3.78	0.12	23.27	1.21	1.25	1.26	1.23
1000.00	3.72	3.84	0.12	22.87	1.21	1.26	1.29	1.27

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



electrical schematic

