

Surface Mount Power Splitter/Combiner

ADP-2-10-75M+

2 Way-0° 75Ω

5 to 1200 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

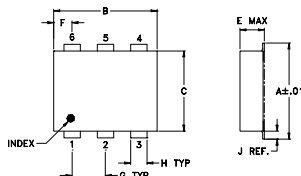
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.125W max.

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

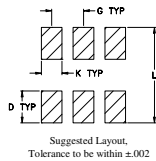
Pin Connections

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

Outline Drawing



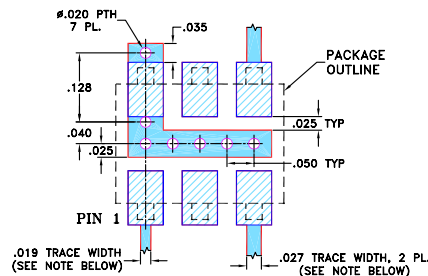
PCB Land Pattern



Outline Dimensions (inch)

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-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

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.
C. The parts covered by this specification document are subject to Mini-Circuit's 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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

Features

- wide bandwidth, 5 to 1200 MHz
- high isolation, 27dB typ.
- excellent VSWR, 1.22:1 typ.
- small size
- low cost
- aqueous washable
- protected by US Patent 6,133,525

Applications

- CATV

Electrical Specifications (T_{AMB}=25°C)

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.	Max.	Max.
5-50	26	20	0.2	0.5	1.0	0.1
50-500	27	22	0.4	0.8	2.0	0.2
500-1000	29	20	0.7	1.3*	4.0	0.3
1000-1200	27	18	1.0	1.6*	5.0	0.4

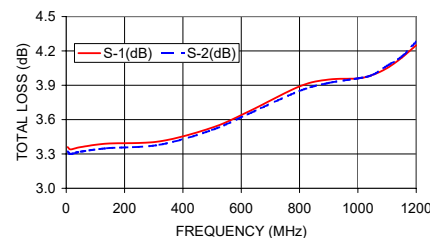
* Above 50°C add 0.2 dB to Insertion Loss.

Typical Performance Data

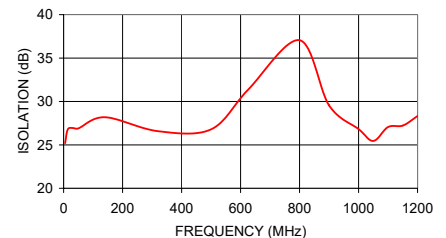
Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
5.00	3.36	3.32	0.04	25.19	0.09	1.10	1.16	1.16
14.00	3.34	3.30	0.04	26.78	0.12	1.09	1.10	1.10
32.00	3.35	3.31	0.03	26.94	0.13	1.09	1.10	1.10
50.00	3.36	3.32	0.04	26.90	0.15	1.09	1.10	1.10
140.00	3.39	3.35	0.03	28.19	0.20	1.11	1.11	1.10
320.00	3.41	3.38	0.03	26.58	0.13	1.10	1.09	1.08
500.00	3.53	3.51	0.02	26.79	0.17	1.10	1.11	1.09
625.00	3.67	3.65	0.02	31.34	0.20	1.09	1.13	1.11
800.00	3.89	3.85	0.04	37.06	0.10	1.13	1.17	1.14
900.00	3.95	3.92	0.03	29.55	0.31	1.13	1.18	1.15
1000.00	3.96	3.96	0.00	26.82	0.47	1.14	1.19	1.16
1050.00	3.99	3.99	0.01	25.46	0.24	1.14	1.21	1.16
1100.00	4.05	4.07	0.03	27.06	0.07	1.17	1.21	1.17
1150.00	4.14	4.15	0.01	27.23	0.02	1.17	1.24	1.18
1200.00	4.25	4.28	0.03	28.32	0.25	1.22	1.24	1.19

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

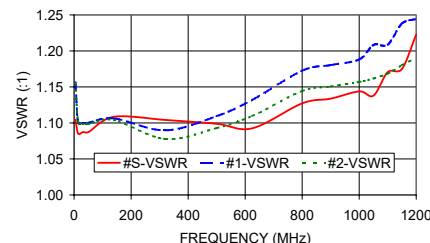
ADP-2-10-75M+
TOTAL LOSS



ADP-2-10-75M+
ISOLATION



ADP-2-10-75M+
VSWR



electrical schematic



2 Way-0° Power Splitter/Combiner ADP-2-10-75M+

Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C

FREQ. (MHz)	TOTAL LOSS ¹ (dB)		AMP. UNBAL. (dB)	PHASE UNBAL. (deg.)	ISOLATION (dB)	VSWR (:1)		
	S-1	S-2				S	1	2
5	3.33	3.33	0.00	0.01	25.75	1.11	1.14	1.14
10	3.32	3.32	0.00	0.02	26.59	1.09	1.11	1.11
20	3.33	3.33	0.00	0.01	26.74	1.09	1.10	1.10
30	3.34	3.33	0.01	0.01	26.73	1.09	1.10	1.10
40	3.35	3.34	0.01	0.01	26.76	1.09	1.10	1.10
50	3.36	3.35	0.01	0.02	26.85	1.09	1.10	1.10
75	3.38	3.37	0.01	0.03	26.98	1.09	1.10	1.10
100	3.39	3.38	0.01	0.03	27.17	1.09	1.10	1.10
125	3.41	3.40	0.01	0.06	27.26	1.08	1.09	1.09
150	3.42	3.41	0.01	0.04	27.50	1.08	1.09	1.09
175	3.43	3.42	0.01	0.06	27.61	1.08	1.09	1.09
200	3.44	3.43	0.01	0.06	27.83	1.09	1.09	1.09
250	3.46	3.45	0.01	0.08	28.19	1.09	1.09	1.09
300	3.49	3.48	0.01	0.08	28.38	1.09	1.09	1.09
350	3.51	3.50	0.01	0.09	28.56	1.09	1.10	1.09
400	3.53	3.53	0.00	0.11	28.80	1.09	1.10	1.09
450	3.56	3.55	0.01	0.13	28.83	1.09	1.10	1.09
500	3.59	3.58	0.01	0.13	28.89	1.09	1.10	1.09
550	3.62	3.61	0.01	0.18	28.96	1.09	1.10	1.09
600	3.65	3.64	0.01	0.19	28.84	1.08	1.11	1.09
650	3.69	3.68	0.01	0.17	28.81	1.07	1.11	1.09
700	3.73	3.71	0.02	0.16	28.76	1.07	1.12	1.09
750	3.77	3.75	0.02	0.11	28.34	1.07	1.12	1.10
800	3.82	3.79	0.03	0.05	27.91	1.07	1.13	1.10
850	3.86	3.84	0.02	0.01	27.49	1.07	1.14	1.11
900	3.91	3.90	0.01	0.02	27.21	1.07	1.15	1.12
925	3.94	3.92	0.02	0.10	27.38	1.07	1.15	1.13
950	3.96	3.96	0.00	0.02	27.30	1.07	1.16	1.14
975	4.00	3.97	0.03	0.01	27.05	1.08	1.16	1.14
1000	4.01	4.01	0.00	0.01	27.34	1.08	1.17	1.15
1025	4.06	4.04	0.02	0.04	27.43	1.08	1.18	1.15
1050	4.08	4.07	0.01	0.04	27.49	1.09	1.18	1.16
1075	4.12	4.10	0.02	0.11	28.21	1.09	1.19	1.16
1100	4.14	4.13	0.01	0.10	28.27	1.10	1.19	1.17
1125	4.17	4.16	0.02	0.16	29.56	1.10	1.20	1.18
1150	4.20	4.20	0.00	0.15	29.50	1.11	1.21	1.18
1175	4.25	4.23	0.02	0.31	31.77	1.12	1.21	1.19
1200	4.27	4.28	0.01	0.25	30.93	1.14	1.22	1.19
1225	4.33	4.32	0.02	0.44	32.36	1.16	1.23	1.20
1250	4.36	4.38	0.02	0.39	30.15	1.19	1.24	1.21
1275	4.43	4.43	0.01	0.63	29.59	1.21	1.25	1.22
1300	4.50	4.49	0.01	0.47	26.39	1.24	1.26	1.23
1350	4.68	4.67	0.01	0.65	22.84	1.31	1.29	1.25
1400	4.93	4.91	0.02	0.86	19.74	1.41	1.33	1.28
1450	5.28	5.25	0.03	1.07	17.26	1.53	1.37	1.32
1500	5.73	5.68	0.04	1.30	15.25	1.66	1.43	1.36
1600	7.00	6.94	0.06	1.70	12.15	2.02	1.56	1.47
1700	8.57	8.50	0.07	2.08	10.11	2.44	1.69	1.60
1800	10.42	10.35	0.07	2.51	8.57	2.89	1.82	1.72
1900	12.65	12.65	0.00	3.10	7.24	3.33	1.91	1.81
2000	15.37	15.49	0.12	4.01	6.17	3.61	1.94	1.85

¹Total Loss = Insertion Loss + 3dB Splitter Loss



2 Way-0° Power Splitter/Combiner ADP-2-10-75M+

Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = -40°C

FREQ. (MHz)	TOTAL LOSS ¹ (dB)		AMP. UNBAL. (dB)	PHASE UNBAL. (deg.)	ISOLATION (dB)	VSWR (:1)		
	S-1	S-2				S	1	2
5	3.38	3.38	0.00	0.01	20.79	1.14	1.29	1.28
10	3.30	3.30	0.00	0.03	24.26	1.10	1.17	1.16
20	3.28	3.27	0.01	0.04	26.62	1.07	1.10	1.09
30	3.28	3.27	0.01	0.07	27.41	1.05	1.08	1.06
40	3.29	3.28	0.01	0.08	27.97	1.04	1.07	1.04
50	3.30	3.29	0.01	0.12	28.41	1.04	1.06	1.03
75	3.31	3.30	0.01	0.20	28.88	1.04	1.05	1.04
100	3.32	3.31	0.01	0.22	29.11	1.06	1.04	1.05
125	3.33	3.31	0.02	0.32	29.18	1.07	1.04	1.05
150	3.34	3.32	0.02	0.36	29.46	1.06	1.04	1.05
175	3.34	3.33	0.01	0.46	29.56	1.05	1.04	1.04
200	3.35	3.33	0.02	0.51	29.71	1.05	1.04	1.04
250	3.36	3.34	0.02	0.66	29.82	1.08	1.05	1.06
300	3.38	3.36	0.02	0.78	29.88	1.08	1.06	1.06
350	3.39	3.38	0.01	0.91	29.90	1.09	1.08	1.07
400	3.41	3.39	0.02	1.07	30.04	1.10	1.09	1.09
450	3.43	3.41	0.02	1.22	29.97	1.11	1.11	1.10
500	3.45	3.42	0.03	1.36	30.03	1.11	1.12	1.11
550	3.47	3.45	0.02	1.53	30.08	1.10	1.13	1.12
600	3.50	3.47	0.03	1.67	29.88	1.10	1.14	1.13
650	3.53	3.49	0.04	1.79	29.78	1.08	1.15	1.14
700	3.56	3.52	0.04	1.87	29.48	1.06	1.16	1.14
750	3.60	3.55	0.05	1.96	28.87	1.04	1.17	1.16
800	3.63	3.58	0.05	2.06	28.11	1.02	1.18	1.17
850	3.66	3.62	0.04	2.15	27.35	1.04	1.19	1.18
900	3.70	3.67	0.03	2.28	26.84	1.06	1.20	1.19
925	3.74	3.68	0.06	2.47	27.00	1.08	1.20	1.19
950	3.74	3.72	0.02	2.43	26.84	1.09	1.20	1.19
975	3.78	3.73	0.05	2.46	26.63	1.10	1.20	1.18
1000	3.80	3.76	0.04	2.53	26.84	1.10	1.20	1.18
1025	3.83	3.78	0.05	2.55	26.91	1.12	1.20	1.17
1050	3.85	3.81	0.04	2.64	27.09	1.13	1.20	1.17
1075	3.88	3.83	0.05	2.64	27.74	1.14	1.20	1.17
1100	3.90	3.86	0.04	2.75	27.97	1.14	1.20	1.16
1125	3.93	3.89	0.04	2.73	29.26	1.14	1.20	1.15
1150	3.95	3.91	0.04	2.83	29.33	1.15	1.19	1.15
1175	3.99	3.94	0.05	2.74	31.87	1.18	1.19	1.15
1200	4.01	3.98	0.03	2.88	31.20	1.21	1.19	1.15
1225	4.06	4.02	0.05	2.77	32.56	1.23	1.19	1.14
1250	4.09	4.06	0.03	2.92	29.81	1.26	1.20	1.13
1275	4.15	4.12	0.04	2.81	28.95	1.28	1.21	1.13
1300	4.21	4.17	0.04	3.01	25.53	1.32	1.23	1.16
1350	4.38	4.34	0.03	3.02	21.76	1.43	1.27	1.25
1400	4.63	4.58	0.05	2.98	18.66	1.53	1.34	1.35
1450	4.99	4.94	0.05	2.95	16.24	1.69	1.42	1.44
1500	5.47	5.41	0.06	2.86	14.30	1.85	1.51	1.55
1600	6.83	6.74	0.09	2.77	11.39	2.10	1.67	1.71
1700	8.44	8.35	0.09	2.68	9.48	2.33	1.78	1.77
1800	10.27	10.21	0.06	2.77	8.04	2.63	1.84	1.69
1900	12.45	12.46	0.02	3.19	6.76	3.21	1.87	1.64
2000	15.18	15.36	0.18	2.34	5.66	4.29	1.91	1.60

¹Total Loss = Insertion Loss + 3dB Splitter Loss

2 Way-0° Power Splitter/Combiner ADP-2-10-75M+

Typical Performance Data

TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +85°C

FREQ. (MHz)	TOTAL LOSS ¹ (dB)		AMP. UNBAL. (dB)	PHASE UNBAL. (deg.)	ISOLATION (dB)	VSWR (:1)		
	S-1	S-2				S	1	2
5	3.42	3.42	0.00	0.01	23.06	1.12	1.20	1.20
10	3.42	3.41	0.01	0.01	23.86	1.11	1.17	1.17
20	3.42	3.42	0.00	0.01	23.97	1.11	1.16	1.17
30	3.43	3.43	0.00	0.02	23.97	1.12	1.16	1.17
40	3.44	3.44	0.00	0.02	23.99	1.13	1.16	1.18
50	3.45	3.45	0.00	0.02	24.02	1.13	1.16	1.19
75	3.47	3.47	0.00	0.05	24.15	1.14	1.16	1.19
100	3.49	3.48	0.01	0.09	24.34	1.12	1.16	1.17
125	3.51	3.50	0.01	0.07	24.47	1.11	1.16	1.15
150	3.52	3.52	0.00	0.07	24.68	1.10	1.16	1.15
175	3.54	3.53	0.01	0.07	24.78	1.11	1.16	1.15
200	3.55	3.55	0.00	0.10	24.99	1.11	1.15	1.15
250	3.58	3.57	0.01	0.12	25.37	1.10	1.14	1.13
300	3.61	3.60	0.01	0.15	25.58	1.09	1.13	1.12
350	3.64	3.64	0.00	0.18	25.79	1.09	1.12	1.11
400	3.67	3.67	0.00	0.19	26.02	1.08	1.11	1.10
450	3.70	3.70	0.00	0.18	26.13	1.08	1.10	1.09
500	3.74	3.74	0.00	0.22	26.21	1.08	1.10	1.08
550	3.78	3.78	0.00	0.21	26.36	1.09	1.09	1.07
600	3.82	3.82	0.00	0.24	26.39	1.09	1.09	1.07
650	3.87	3.86	0.01	0.28	26.53	1.09	1.08	1.06
700	3.92	3.90	0.02	0.31	26.69	1.10	1.08	1.06
750	3.97	3.95	0.02	0.40	26.66	1.11	1.09	1.06
800	4.02	4.00	0.02	0.44	26.62	1.11	1.09	1.06
850	4.07	4.06	0.01	0.51	26.68	1.11	1.10	1.07
900	4.12	4.12	0.00	0.61	26.76	1.11	1.12	1.09
925	4.16	4.14	0.02	0.51	26.93	1.11	1.12	1.10
950	4.18	4.18	0.00	0.69	27.03	1.10	1.13	1.11
975	4.22	4.21	0.01	0.68	26.87	1.10	1.14	1.12
1000	4.24	4.24	0.00	0.78	27.24	1.10	1.15	1.13
1025	4.29	4.28	0.01	0.82	27.43	1.10	1.16	1.14
1050	4.31	4.32	0.01	0.90	27.47	1.10	1.17	1.15
1075	4.36	4.35	0.01	0.94	28.43	1.10	1.18	1.16
1100	4.39	4.39	0.00	0.97	28.46	1.11	1.20	1.18
1125	4.43	4.42	0.01	1.04	29.87	1.11	1.21	1.19
1150	4.46	4.46	0.00	1.08	30.20	1.12	1.22	1.20
1175	4.51	4.50	0.01	1.25	32.87	1.12	1.22	1.21
1200	4.54	4.55	0.01	1.26	33.40	1.13	1.24	1.21
1225	4.61	4.59	0.02	1.45	37.33	1.15	1.24	1.22
1250	4.65	4.66	0.01	1.46	36.38	1.17	1.25	1.23
1275	4.72	4.72	0.01	1.71	36.14	1.19	1.26	1.24
1300	4.79	4.79	0.00	1.57	30.77	1.21	1.27	1.24
1350	4.99	4.96	0.02	1.74	25.80	1.26	1.29	1.24
1400	5.24	5.20	0.04	1.98	22.01	1.35	1.32	1.25
1450	5.58	5.53	0.05	2.22	19.15	1.46	1.35	1.26
1500	6.02	5.95	0.07	2.53	16.90	1.59	1.39	1.29
1600	7.22	7.12	0.10	3.05	13.46	1.99	1.52	1.40
1700	8.71	8.59	0.12	3.55	11.20	2.49	1.68	1.58
1800	10.47	10.33	0.14	4.21	9.50	2.98	1.85	1.79
1900	12.61	12.52	0.09	4.62	8.05	3.31	1.97	1.95
2000	15.26	15.21	0.05	5.84	6.90	3.34	1.97	2.00

¹Total Loss = Insertion Loss + 3dB Splitter Loss

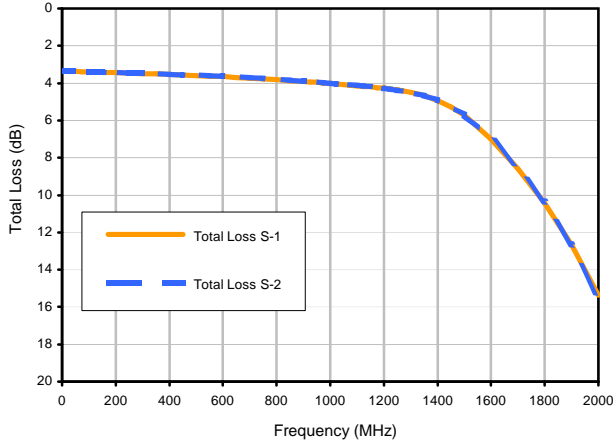


2 Way-0° Power Splitter/Combiner

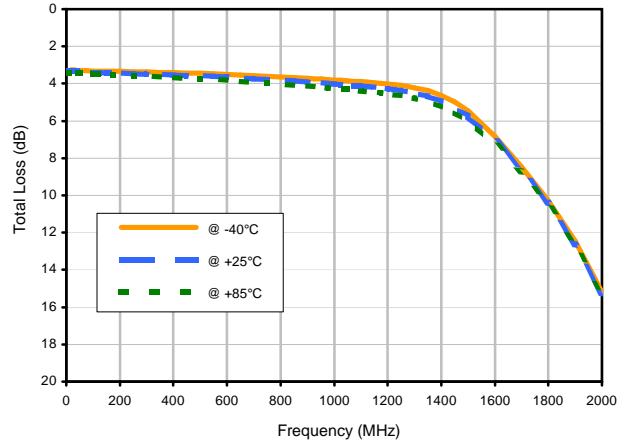
ADP-2-10-75M+

Typical Performance Curves

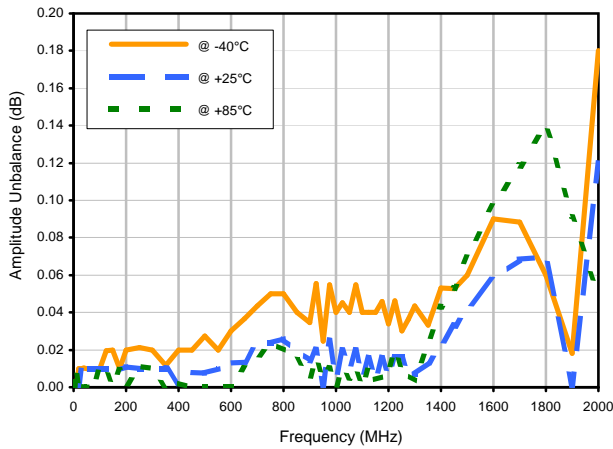
Total Loss



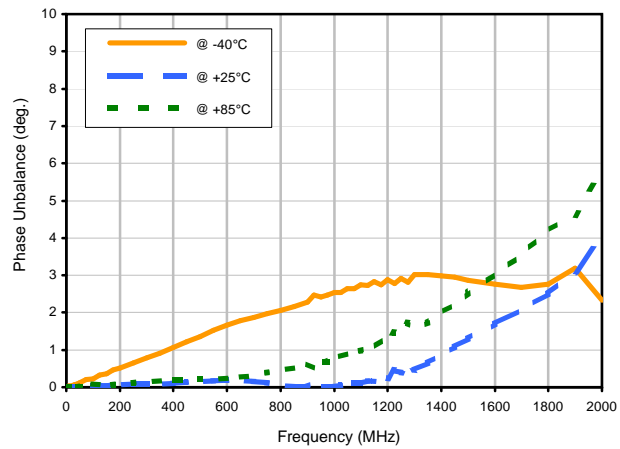
Total Loss S-1 vs. TEMPERATURE



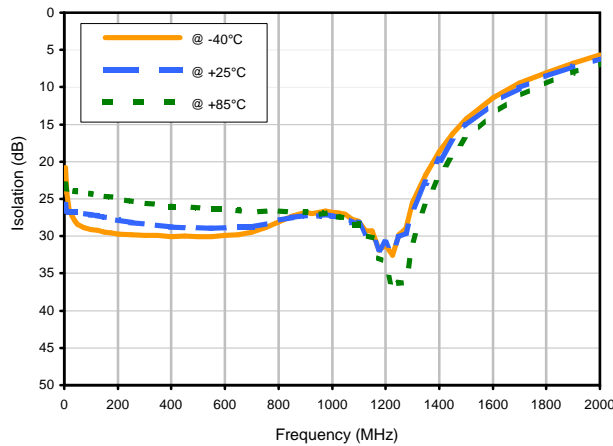
Amplitude Unbalance vs. TEMPERATURE



Phase Unbalance vs. TEMPERATURE



Isolation 1-2 vs. TEMPERATURE



REV. X2
ADP-2-10-75M+
100623
Page 1 of 2



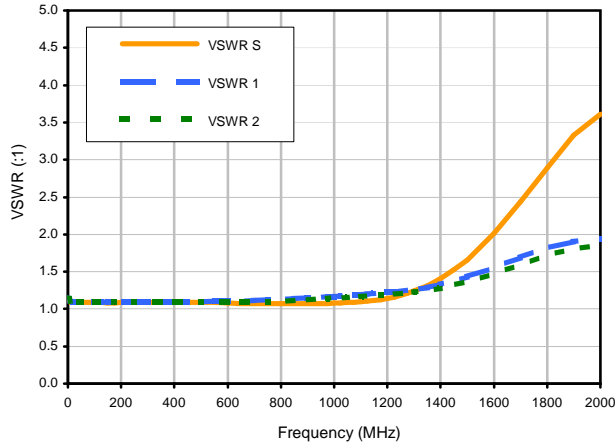
IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED • RoHS compliant
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



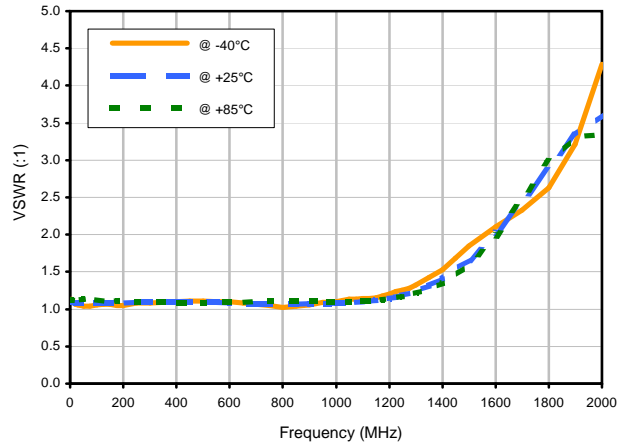
The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see minicircuits.com

Typical Performance Curves

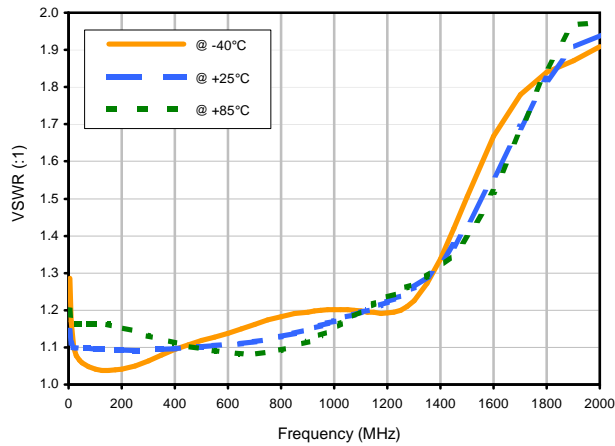
VSWR



VSWR SUM vs. TEMPERATURE



VSWR OUT1 vs. TEMPERATURE

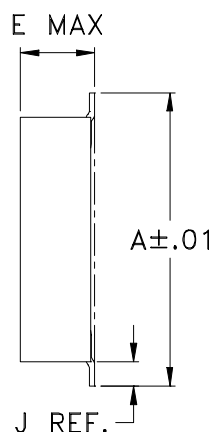


Case Style

CD

CD541
CD542
CD636
CD637

Outline Dimensions



PCB Land Pattern



Suggested Layout,
Tolerance to be within $\pm .002$

CASE#	A	B	C	D	E	F	G	H	J	K	L	WT, GRAM
CD541					.082 (2.08)							.15
CD542	.272 (6.91)	.310 (7.87)	.220 (5.58)	.100 (2.54)	.112 (2.84)	.055 (1.40)	.100 (2.54)	.030 (0.76)	.026 (0.66)	.065 (1.65)	.300 (7.62)	.20
CD636					.162 (4.11)							.25
CD637					.206 (5.23)							.40

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .01$; 3 Pl. $\pm .005$

Notes:

- Case material: Plastic.
- Termination finish:
 - For RoHS Case Styles: Tin plate over Nickel plate. All models, (+) suffix.
 - For RoHS-5 Case Styles: Tin-Lead plate. All models, no (+) suffix.

Mini-Circuits®

INTERNET <http://www.minicircuits.com>

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified

Tape & Reel Packaging TR-F34



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel see note	
16	12	7	Small quantity standard (see note)	20
				50
				100
				200
		13	Standard	500
				1000

Note: Availability of small reel quantity varies by model.
Refer to pricing and availability on individual model dashboard.

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

Go to: www.minicircuits.com/pages/pdfs/tape.pdf



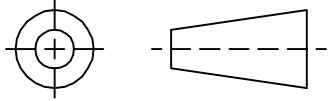
INTERNET <http://www.minicircuits.com>

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified

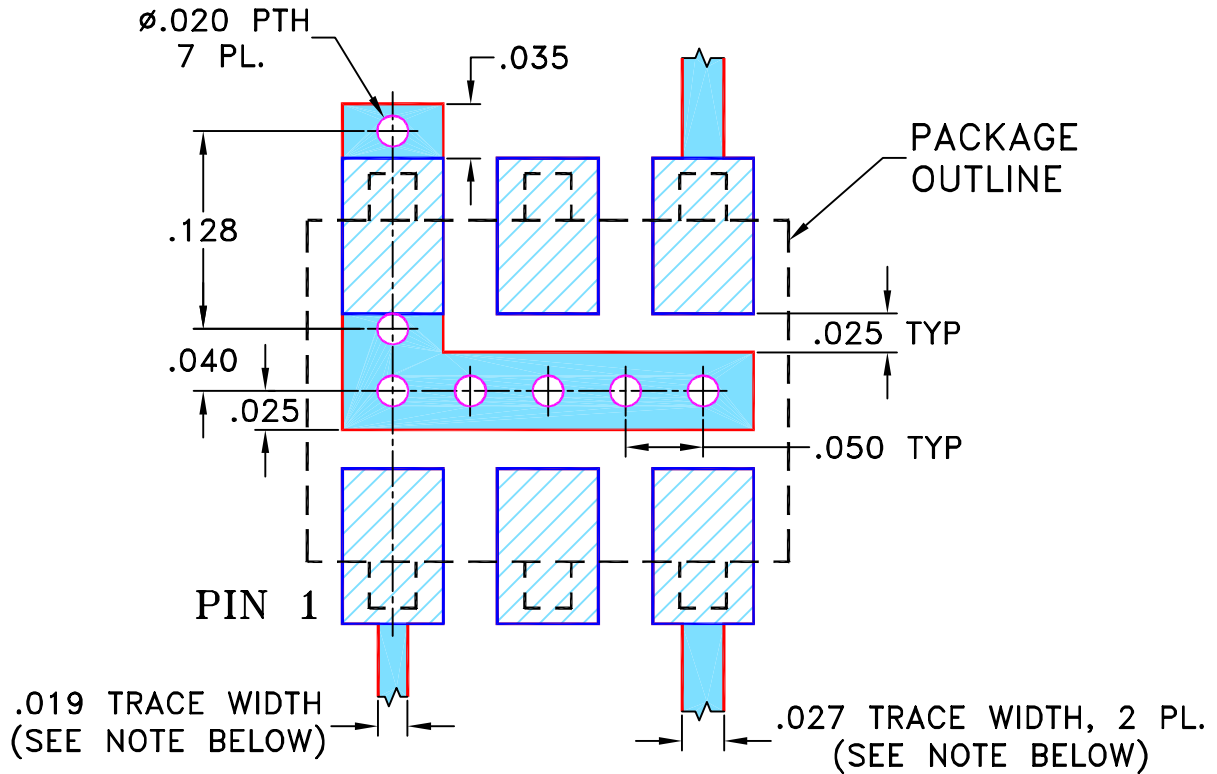
THIRD ANGLE PROJECTION



REVISIONS

REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	M88803	NEW RELEASE	10/20/03	GF	HY
A	M102713	ADDED "...WITH SMOBC"	01/17/06	MMG	IL

SUGGESTED MOUNTING CONFIGURATION
FOR CD542 CASE STYLE, "hv" PIN CONNECTION



- 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

UNLESS OTHERWISE SPECIFIED	INITIALS		DATE
DIMENSIONS ARE IN INCHES TOLERANCES ON: 2 PL DECIMALS ± 3 PL DECIMALS ± .005 ANGLES ± FRACTIONS ±	DRAWN	GF	09/18/03
	CHECKED	IL	10/20/03
	APPROVED	HY	10/20/03

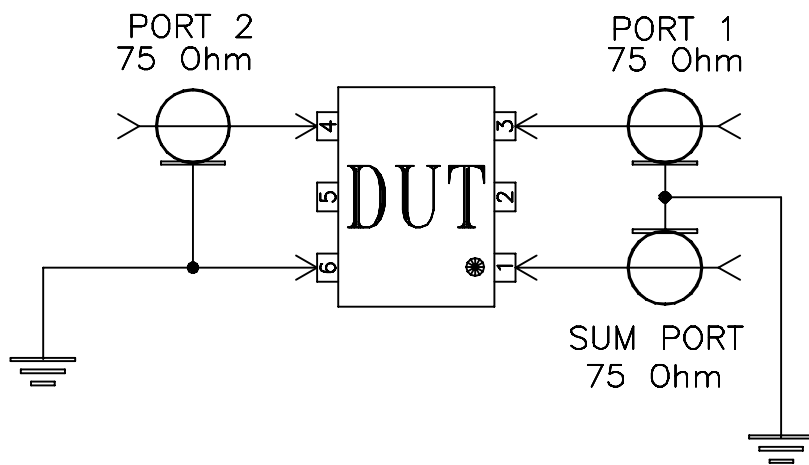
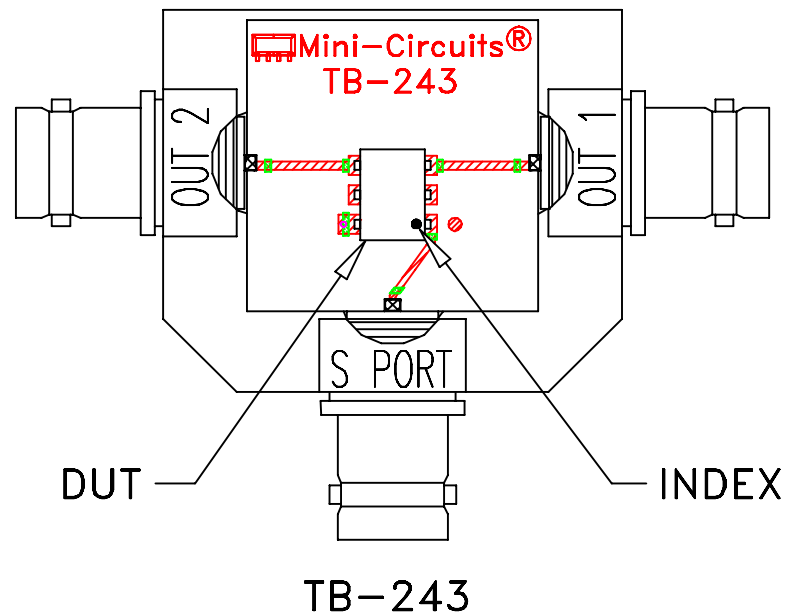
Mini-Circuits® 13 Neptune Avenue
Brooklyn NY 11235

PL, hv, 75, CD542, ADP, TB-243

Mini-Circuits®
THIS DOCUMENT AND ITS CONTENTS ARE THE PROPERTY OF MINI-CIRCUITS. EXCEPT FOR USE EXPRESSLY GRANTED, IN WRITING, TO ITS VENDORS, VENDEE AND THE UNITED STATES GOVERNMENT, MINI-CIRCUITS RESERVES ALL PROPRIETARY DESIGN, USE, MANUFACTURING AND REPRODUCTION RIGHTS THERETO. THESE CONTENTS SHALL NOT BE USED, DUPLICATED OR DISCLOSED TO ANY OUTSIDE PARTY, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION OF MINI-CIRCUITS.

SIZE A	CODE IDENT 15542	DRAWING NO: 98-PL-141	REV: A
FILE: 98PL141	SCALE: 8:1	SHEET: 1 OF 1	


Evaluation Board and Circuit



Schematic Diagram

Notes:

1. BNC Female connectors.
2. PCB Material: Rogers R04350 or equivalent,
Dielectric Constant=3.5, Thickness=.030 inch.

 Mini-Circuits®



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Humidity	90 to 95% RH, 240 hours, 50°C	MIL-STD-202, Method 103, Condition A, Except 50°C and end-point electrical test done within 12 hours
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Solder Reflow Heat	Sn-Pb Eutetic Process: 225°C peak Pb-Free Process 245° - 250°C peak	J-STD-020, Table 4-1, 4-2 and 5-2, Figure 5-1
Solderability	10X Magnification	J-STD-002, 95% Coverage
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215