

Power Splitter/Combiner

ADP-ED7796/1

5 Way-0°

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



Please click "Back", and then click "Contact Us" for Applications support.

CASE STYLE : CJ725

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency		0.3		400	MHz
Isolation	.3-3 MHz		32		dB
	3-200 MHz		33		dB
	200-400 MHz		27		dB
Insertion Loss Above 7.0 dB	.3-3 MHz		0.24		dB
	3-200 MHz		0.28		dB
	200-400 MHz		0.78		dB
Phase Unbalance	.3-3 MHz		0.249		deg.
	3-200 MHz		1.421		deg.
	200-400 MHz		5.200		deg.
Amplitude Unbalance	.3-3 MHz		0.024		dB
	3-200 MHz		0.036		dB
	200-400 MHz		0.224		dB
VSWR	SUM Port		1.15		(:1)
	OUT Ports		1.28		(:1)

MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C

electrical schematic



PIN CONNECTIONS	
SUM PORT	1
PORT 1	8
PORT 2	7
PORT 3	6
PORT 4	5
PORT 5	4
GROUND	2,3

5 Way-0° Power Splitter/Combiner

ADP-ED7796/1

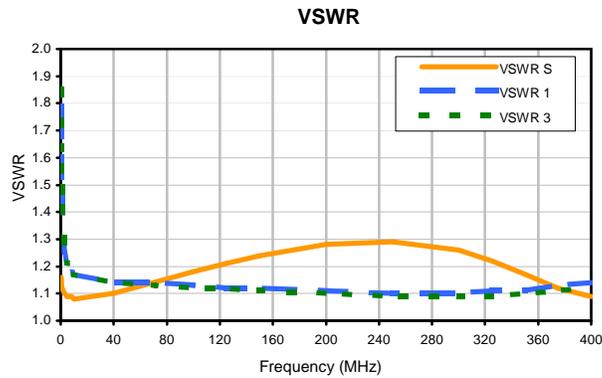
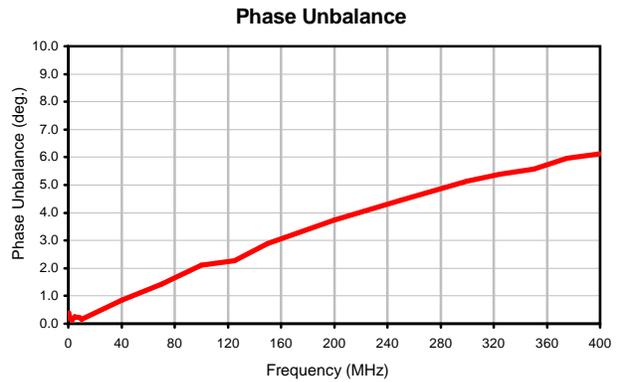
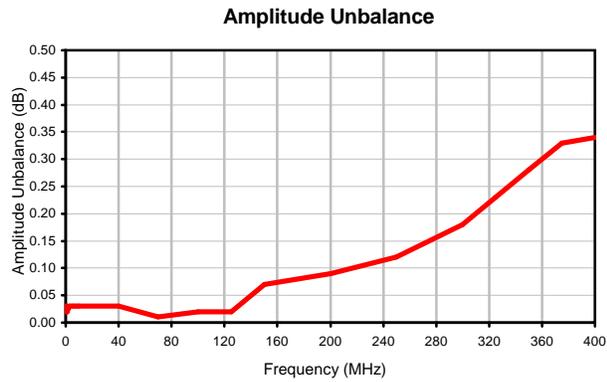
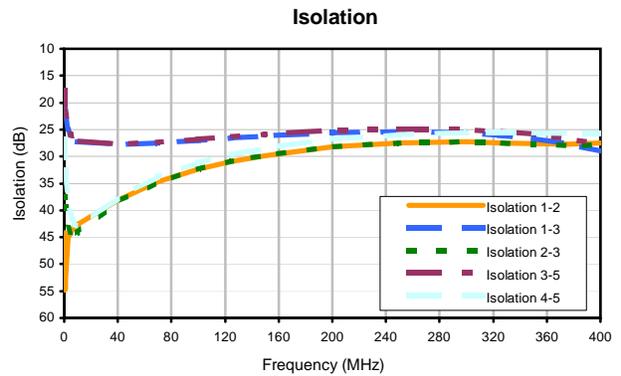
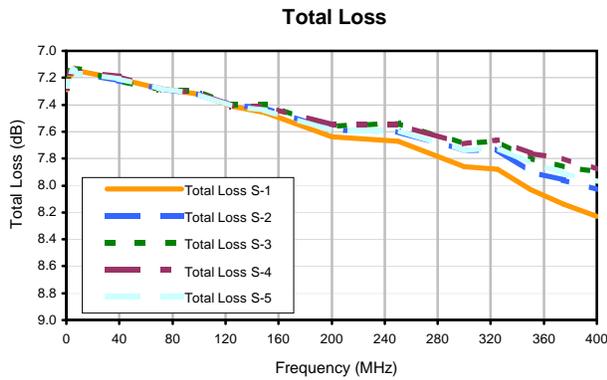
Typical Performance Data

FREQ. (MHz)	TOTAL LOSS ¹ (dB)					AMP. UNBAL. (dB)	ISOLATION (dB)					PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR (:1)		
	S-1	S-2	S-3	S-4	S-5		1-2	1-3	2-3	3-5	4-5			S	1	3
0.3	7.29	7.27	7.25	7.28	7.26	0.03	44.13	18.36	33.79	17.86	26.91	0.38	0.3	1.16	1.79	1.85
0.4	7.29	7.26	7.26	7.26	7.26	0.03	48.47	19.28	35.41	18.79	28.15	0.33	0.4	1.14	1.67	1.71
0.5	7.27	7.27	7.25	7.25	7.26	0.02	51.75	19.93	36.51	19.45	29.25	0.32	0.5	1.14	1.60	1.63
0.6	7.25	7.25	7.24	7.26	7.26	0.02	53.51	20.46	37.37	19.98	30.26	0.24	0.6	1.13	1.54	1.58
0.7	7.25	7.25	7.25	7.24	7.23	0.02	54.81	20.91	38.15	20.43	31.14	0.18	0.7	1.13	1.50	1.53
0.8	7.24	7.23	7.23	7.22	7.23	0.02	54.51	21.30	38.79	20.82	31.91	0.21	0.8	1.12	1.47	1.50
0.9	7.24	7.22	7.21	7.23	7.23	0.03	53.91	21.66	39.29	21.18	32.58	0.23	0.9	1.12	1.44	1.47
1.0	7.22	7.21	7.23	7.21	7.23	0.02	53.10	21.98	39.65	21.51	33.16	0.22	1.0	1.12	1.42	1.45
2.8	7.18	7.16	7.15	7.16	7.16	0.03	45.24	25.05	43.27	24.73	38.07	0.13	2.8	1.10	1.25	1.26
4.6	7.17	7.15	7.14	7.16	7.14	0.03	44.17	26.12	44.25	25.93	40.51	0.26	4.6	1.09	1.21	1.21
6.4	7.13	7.14	7.14	7.16	7.15	0.03	43.48	26.69	44.52	26.55	41.81	0.24	6.4	1.09	1.19	1.19
8.2	7.16	7.14	7.17	7.16	7.17	0.03	42.90	27.02	44.57	26.94	42.66	0.24	8.2	1.09	1.18	1.18
10.0	7.15	7.17	7.14	7.16	7.17	0.03	42.60	27.25	44.11	27.17	43.01	0.17	10.0	1.08	1.17	1.17
40.0	7.21	7.22	7.22	7.19	7.21	0.03	38.08	27.77	38.44	27.75	37.68	0.85	40.0	1.10	1.14	1.14
70.0	7.28	7.28	7.29	7.29	7.28	0.01	34.66	27.46	34.77	27.36	33.71	1.42	70.0	1.14	1.14	1.13
100.0	7.32	7.32	7.30	7.31	7.32	0.02	32.37	26.97	32.32	26.77	31.14	2.12	100.0	1.18	1.13	1.12
125.0	7.41	7.40	7.40	7.41	7.41	0.02	30.92	26.57	30.86	26.33	29.64	2.27	125.0	1.21	1.12	1.12
150.0	7.46	7.42	7.40	7.41	7.44	0.07	29.80	26.19	29.75	25.89	28.46	2.89	150.0	1.24	1.12	1.11
200.0	7.64	7.59	7.56	7.55	7.59	0.09	28.24	25.57	28.17	25.17	26.79	3.75	200.0	1.28	1.11	1.10
250.0	7.67	7.60	7.54	7.55	7.59	0.12	27.51	25.39	27.46	24.88	25.94	4.46	250.0	1.29	1.10	1.09
300.0	7.86	7.74	7.69	7.69	7.74	0.18	27.29	25.61	27.29	25.03	25.56	5.14	300.0	1.26	1.10	1.09
325.0	7.88	7.73	7.67	7.66	7.72	0.23	27.47	26.06	27.54	25.40	25.60	5.39	325.0	1.22	1.11	1.09
350.0	8.03	7.90	7.80	7.76	7.83	0.28	27.60	26.69	27.74	25.87	25.66	5.57	350.0	1.17	1.11	1.10
375.0	8.14	7.96	7.86	7.80	7.91	0.33	27.70	27.61	27.91	26.65	25.75	5.97	375.0	1.12	1.13	1.11
400.0	8.23	8.03	7.90	7.88	7.97	0.34	27.54	29.08	27.87	27.64	25.67	6.12	400.0	1.09	1.14	1.12

¹ Total Loss = Insertion Loss + 7dB Splitter Loss



Typical Performance Curves

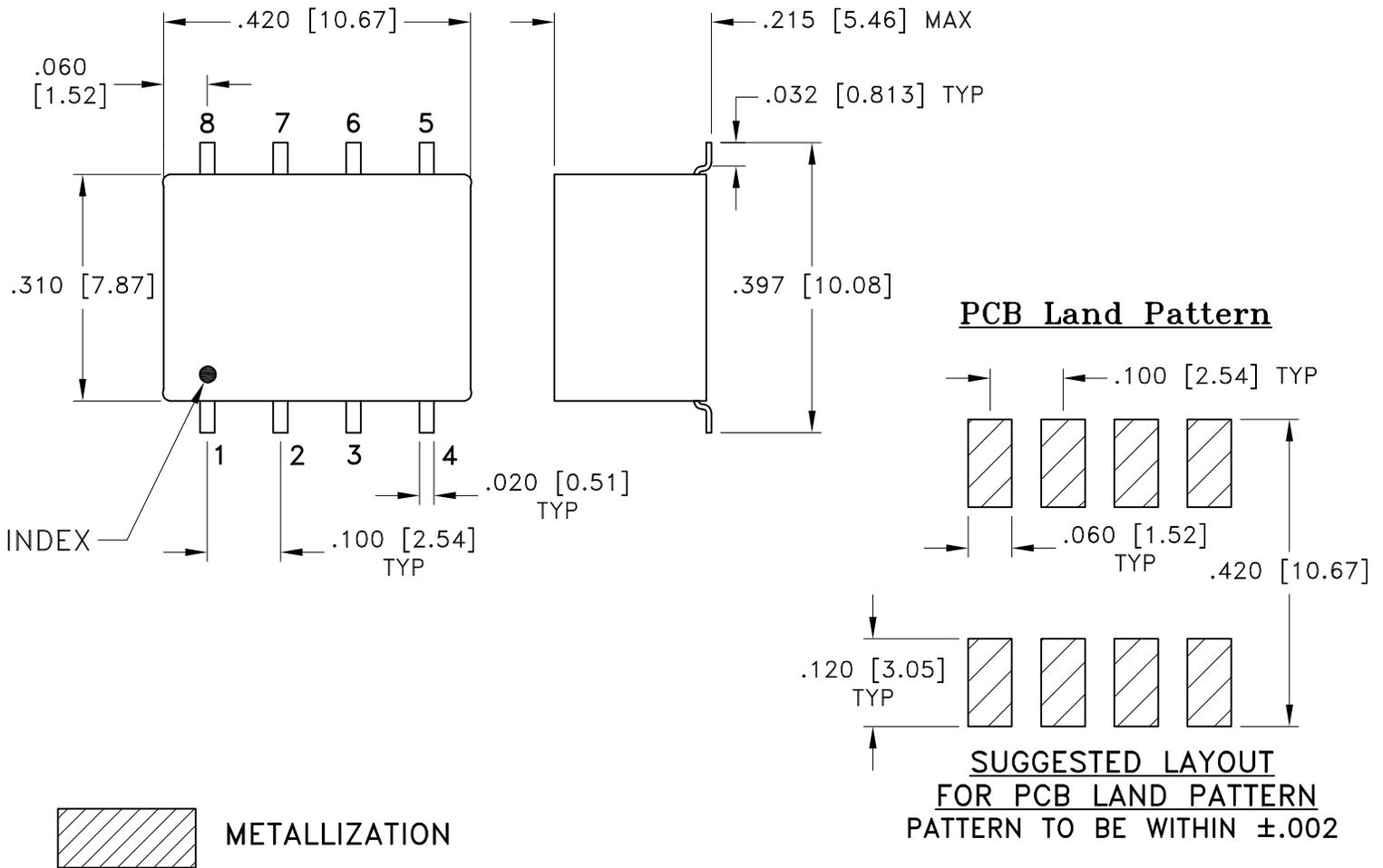


Case Style

CJ

Outline Dimensions

CJ725



Weight: .40 gram

Dimensions are in inches [mm]. Tolerances: 2 Pl. ± 0.01 ; 3 Pl. ± 0.005 Inch

Notes:

1. Case material: Plastic.
2. Termination finish:
Tin plate over Nickel plate.

Mini-Circuits[®]
ISO 9001 ISO 14001 CERTIFIED

ALL NEW
minicircuits.com

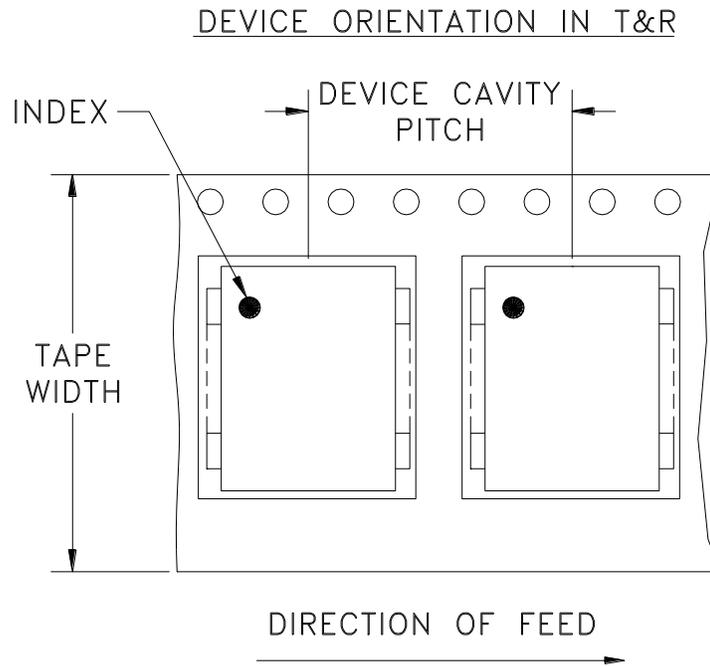
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS

Tape & Reel Packaging TR-F10



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel
24	16	7	10,20,50,100
		13	200,500

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

Note: Please consult individual model data sheet to determine device per reel availability.



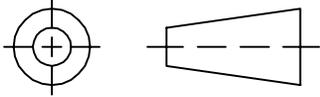
INTERNET <http://www.minicircuits.com>

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

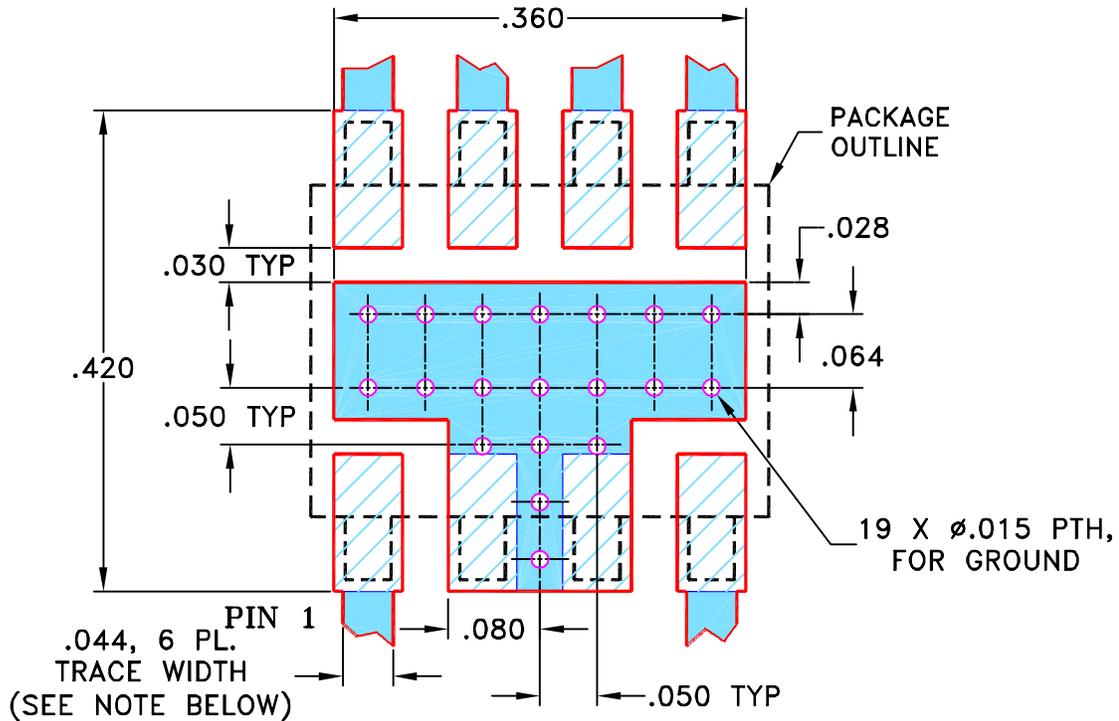
THIRD ANGLE PROJECTION



REVISIONS

REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	M82272	NEW RELEASE	08/05/02	GF	DJ
A	M102713	UPDATED NOTES, ADDED "...WITH SMOBC"	01/16/06	GT	IL

SUGGESTED MOUNTING CONFIGURATION FOR CJ725 CASE STYLE, "mb" PIN CONNECTION



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015". 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 07/22/02
	CHECKED	HY 08/01/02
	APPROVED	DJ 08/05/02

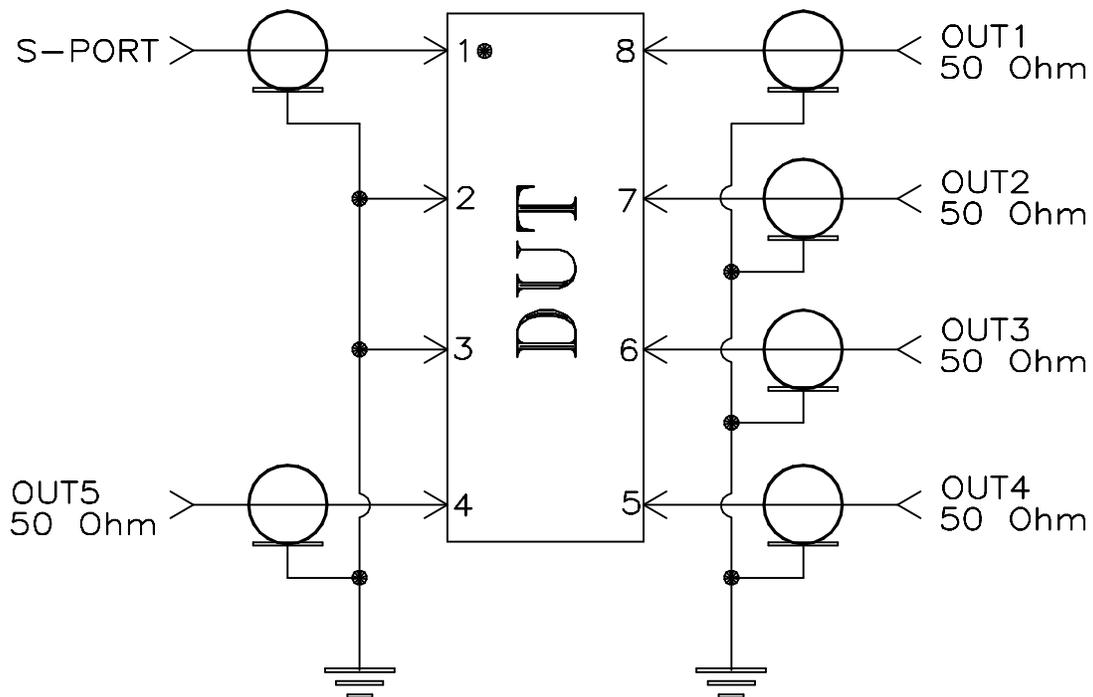
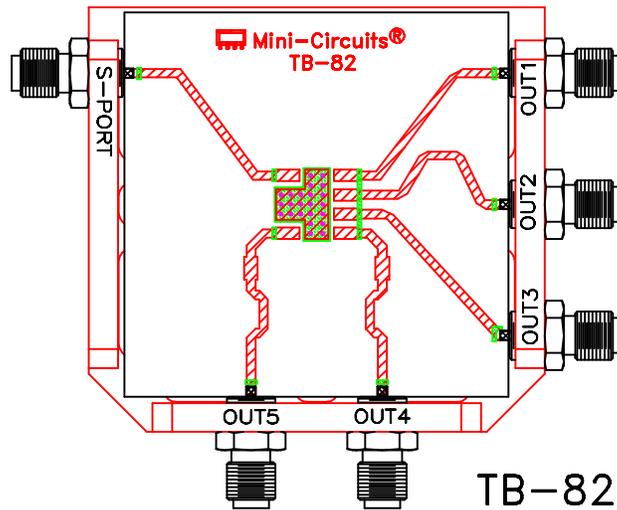
Mini-Circuits[®] 13 Neptune Avenue
Brooklyn NY 11235

PL, mb, CJ725, AD5PS, TB-82

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-088	REV: A
FILE: 98PL088	SCALE: 6:1	SHEET: 1 OF 1	

Evaluation Board and Circuit



Schematic Diagram

Notes:

1. SMA Female connectors.
2. PCB Material: Rogers R04350 or equivalent,
Dielectric Constant=3.5, Thickness=.020 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