

Surface Mount Frequency Mixer

ADE-17H+ ADE-17H

Level 17 (LO Power +17 dBm) 100 to 1700 MHz



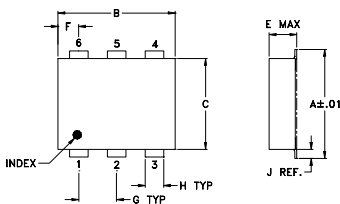
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

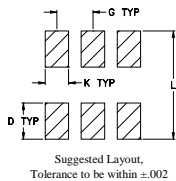
Pin Connections

LO	6
RF	3
IF	2
GROUND	1,4,5

Outline Drawing



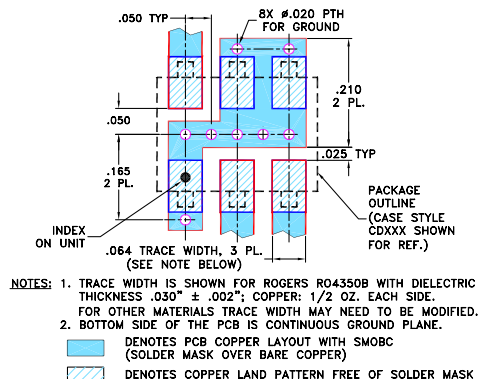
PCB Land Pattern



Outline Dimensions (inch)

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-03 Suggested PCB Layout (PL-052)



Features

- low conversion loss, 7.2 dB typ.
- excellent IP3, 25 dB typ.
- low profile package
- aqueous washable
- protected by US patent 6,133,525

Applications

- VHF/UHF TV

CASE STYLE: CD542
PRICE: \$8.95 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.

Electrical Specifications

FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
		L	U	L	U	
100-1700	7.2	32	36	32	37	25
	0.10	20	22	20	22	
	8.5					
	9.5					

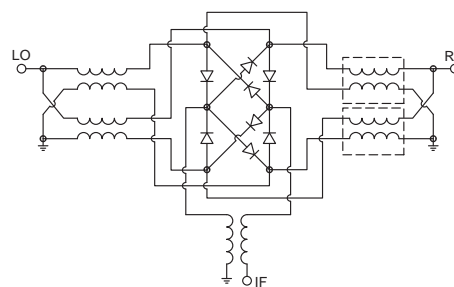
1 dB COMP.: +14 dBm typ.

L = 100 - 850 MHz U = upper range [f_r/2 to f_u] m = mid band [2f_l to f_u/2]

Typical Performance Data

Frequency (MHz)		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
RF	LO	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
70.1	130.1	7.93	31.80	31.03	1.53	1.74
130.1	190.1	7.55	32.42	31.72	1.31	1.64
190.1	250.1	7.56	33.32	33.00	1.21	1.67
250.1	310.1	7.42	34.53	34.19	1.18	1.66
370.1	430.1	7.47	35.43	36.79	1.17	1.70
430.1	490.1	7.43	35.75	38.14	1.17	1.73
610.1	670.1	7.52	34.33	38.77	1.29	1.84
730.1	790.1	7.51	32.80	37.87	1.36	1.93
850.1	910.1	7.59	32.28	37.73	1.47	2.02
910.1	970.1	7.60	32.06	38.47	1.47	2.05
1010.1	1070.1	7.53	31.97	39.54	1.52	2.12
1110.1	1170.1	7.69	31.10	34.66	1.49	2.17
1210.1	1270.1	7.57	30.13	32.52	1.47	2.15
1310.1	1370.1	7.58	29.87	31.70	1.54	2.17
1410.1	1470.1	7.47	29.82	31.12	1.65	2.22
1510.1	1570.1	7.56	29.17	30.84	1.72	2.31
1550.1	1610.1	7.54	29.25	30.70	1.70	2.37
1610.1	1670.1	7.64	29.11	30.47	1.66	2.39
1650.1	1710.1	7.60	28.71	30.66	1.64	2.47
1710.1	1770.1	7.78	29.39	30.92	1.60	2.48

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED
IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

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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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