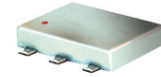


Surface Mount Frequency Mixer

Level 13 (LO Power +13 dBm) 5 to 4200 MHz

ADE-42MH+ ADE-42MH



Maximum Ratings

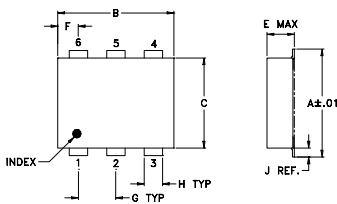
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

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

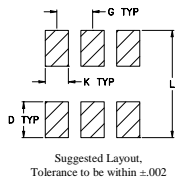
Pin Connections

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

Outline Drawing



PCB Land Pattern

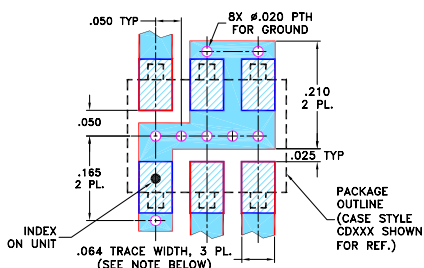


Outline Dimensions (inch/mm)

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)



- 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 conversion loss, 7.5 dB typ.
- low profile package
- aqueous washable
- protected by U.S. Patent 6,133,525

Applications

- cellular
- PCS
- instrumentation
- satellite communication

CASE STYLE: CD542
PRICE: \$14.95 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	M	U	L	M	U	
5-4200	7.5	47	28	30	34	23	26	17

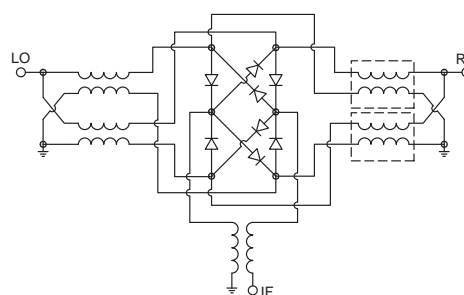
1 dB COMP.: +9 dBm typ.

L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ 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)
5.00	35.00	7.36	49.90	1.35	2.37
25.00	55.00	6.76	51.40	1.20	2.32
75.00	105.00	6.54	54.00	1.20	2.25
100.00	130.00	6.52	52.70	1.19	2.30
250.00	280.00	7.05	42.40	1.10	2.18
500.00	530.00	7.02	35.40	1.10	2.16
884.28	914.28	7.09	32.20	1.55	1.91
1000.00	1030.00	7.22	32.20	1.64	1.91
1326.38	1356.38	7.87	33.40	2.37	1.84
1547.43	1577.43	7.39	35.80	2.40	1.81
1768.47	1798.47	7.30	38.90	2.16	1.78
2000.00	2030.00	7.30	40.00	2.04	1.63
2431.62	2461.62	7.45	39.50	2.18	1.30
3000.00	2970.00	7.66	31.10	2.20	1.56
3315.81	3285.81	7.39	28.10	1.92	1.87
3536.85	3506.85	7.97	27.10	1.71	2.06
3757.90	3727.00	8.23	26.30	1.63	2.06
4000.00	3970.00	8.23	25.00	1.46	2.20
4100.00	4070.00	8.18	24.30	1.46	2.20
4200.00	4170.00	8.41	24.20	1.27	2.20

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED
The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

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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Performance Charts

