

Surface Mount High Reliability Mixer

ADE-R6+

Level 7 (LO Power +7 dBm) 0.15 to 250 MHz



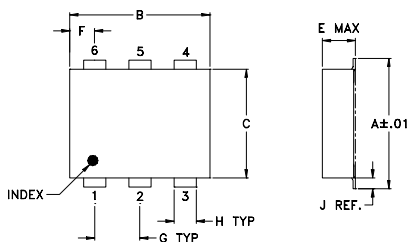
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

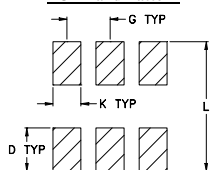
Pin Connections

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

Outline Drawing



PCB Land Pattern

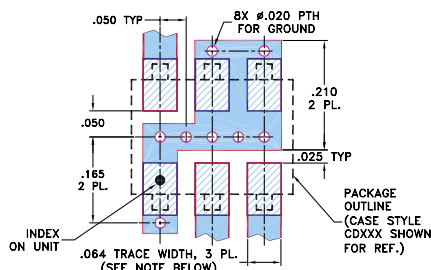


Suggested Layout,
Tolerance to be within ±0.02

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.206	.055	.100
6.91	7.87	5.59	2.54	5.23	1.40	2.54
H	J	K	L	wt		
.030	.026	.065	.300	grams		
0.76	0.66	1.65	7.62	0.40		

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

- hermetically sealed ceramic quad
- low conversion loss, 4.6 dB typ.
- excellent L-R isolation, 55 dB typ.
- low profile package
- aqueous washable
- protected by US Patent 6,133,525

Applications

- cellular

CASE STYLE: CD637

PRICE: \$5.35 ea. QTY. (10-49)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify 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											
0.15-250	DC-200	4.6	0.05	7.0	7.5	70	50	55	40	42	28	65	45	45	27	32	18	10

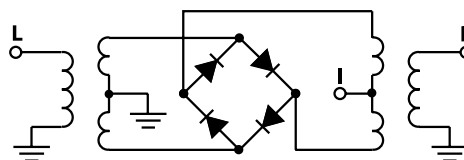
1 dB COMP.: +1 dBm typ.

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 [$2 f_L$ 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)
0.15	30.10	4.77	67.20	1.23	2.57
0.20	30.20	4.76	67.02	1.21	2.57
0.50	30.50	4.74	66.81	1.21	2.57
1.00	31.00	4.71	67.12	1.22	2.56
5.00	35.00	4.65	65.59	1.22	2.56
10.00	40.00	4.64	64.80	1.22	2.54
22.00	52.00	4.65	62.28	1.21	2.56
42.00	72.00	4.71	59.58	1.17	2.55
52.00	82.00	4.75	58.11	1.17	2.54
72.00	102.00	4.80	53.23	1.14	2.52
92.00	122.00	4.76	60.22	1.08	2.57
102.00	132.00	4.86	55.06	1.10	2.64
120.00	150.00	5.03	47.68	1.12	2.70
140.00	170.00	5.03	42.60	1.14	2.66
160.00	190.00	5.13	41.55	1.16	2.67
180.00	210.00	5.32	41.37	1.05	2.88
200.00	230.00	5.71	40.03	1.16	3.05
220.00	250.00	5.76	38.44	1.30	3.05
240.00	270.00	5.80	36.97	1.42	2.87
250.00	280.00	5.85	35.69	1.48	2.78

Electrical Schematic



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

REV. OR
M109914
ADE-R6+
ED-12872/7
WL/TD/QL
070516
Page 1 of 2

