

Surface Mount High Reliability Mixer

ADE-R11X+

Level 7 (LO Power +7 dBm) 10 to 2000 MHz



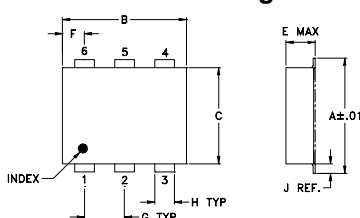
Maximum Ratings

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

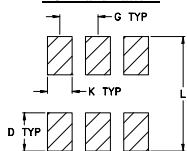
Pin Connections

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

Outline Drawing



PCB Land Pattern

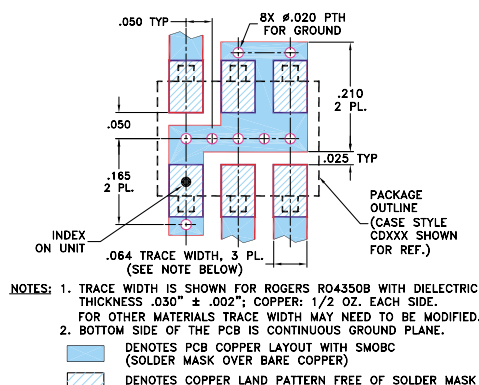


Suggested Layout,
Tolerance to be within ±.002

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)



Features

- hermetically sealed ceramic quad
- low conversion loss, 7.5 dB typ.
- excellent L-R isolation, 40 dB typ. and L-I isolation, 42 dB typ.
- low profile package
- aqueous washable
- protected by US Patent 6,133,525

Applications

- cellular
- PCN
- VHF & UHF
- communication receivers & transmitters

CASE STYLE: CD542

PRICE: \$3.35 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

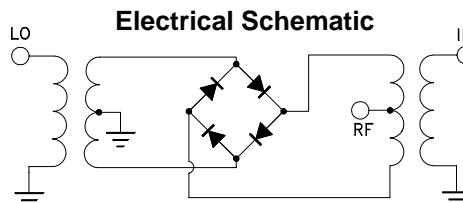
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			IP3 at center band (dBm)										
		L	M	U	L	M	U											
LO/RF $f_L - f_U$	Mid-Band \bar{X} σ Max. Total Range Max.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ.										
10-2000	10-1000	7.5	0.10	8.5	9.8	62	45	40	23	30	20	60	45	42	30	33	22	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)
	RF	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
10.10	40.10	6.45	67.93	79.41	1.02	2.85
130.10	160.10	7.36	65.68	60.43	1.04	2.91
250.10	280.10	7.49	56.25	55.31	1.14	2.87
370.10	400.10	7.41	51.12	51.53	1.28	2.90
490.10	520.10	7.56	47.66	48.27	1.46	3.00
550.10	580.10	7.62	45.95	47.41	1.54	3.06
610.10	640.10	7.79	45.53	46.25	1.61	3.11
730.10	760.10	7.92	41.36	44.01	1.80	3.19
850.10	880.10	7.72	41.52	41.70	1.92	3.26
910.10	940.10	7.7	39.11	40.49	1.91	3.33
1090.10	1120.10	7.38	32.22	40.52	1.76	3.52
1150.10	1180.10	7.47	32.32	39.41	1.77	3.62
1270.10	1300.10	7.74	34.73	37.46	1.98	3.70
1390.10	1420.10	7.7	35.59	36.31	1.86	3.67
1510.10	1540.10	7.82	34.24	35.95	1.74	3.75
1630.10	1660.10	7.92	31.15	35.10	1.61	3.87
1750.10	1780.10	8.17	27.34	33.79	1.46	3.87
1870.10	1900.10	8.51	25.71	31.20	1.32	3.87
1990.10	2020.10	8.86	26.13	30.31	1.24	4.12
2070.10	2100.10	9.25	26.67	30.14	1.19	4.27



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-R11X+
ED-12872/5
WL/TD/QL
071224
Page 1 of 2

