

Surface Mount High Reliability Mixer

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

ADE-R11X+



Maximum Ratings

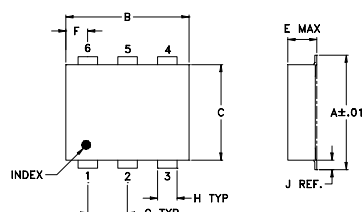
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

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

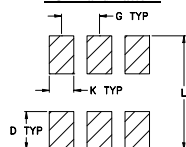
Pin Connections

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

Outline Drawing



PCB Land Pattern

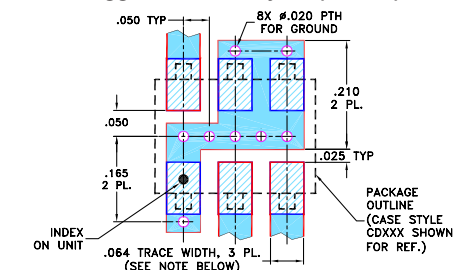


Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch)

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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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. (20)

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications



Available Tape and Reel
at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500
13"	500, 1000

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)			LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			IP3 at center band (dBm)							
LO/RF f_L - f_U	IF	Mid-Band m		Total Range Max.	L	M	U	L	M	U								
		$\overline{X}$	σ									Max.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.
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

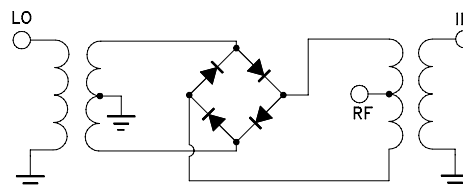
1 dB COMP: +1 dBm typ.

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	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

Electrical Schematic



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ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

For detailed performance specs
& shipping online see web site

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