

Surface Mount High Reliability Mixer

ADE-R11XLH+

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



Maximum Ratings

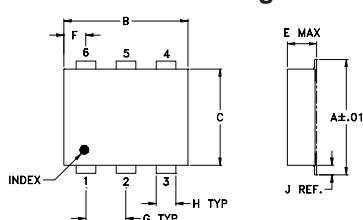
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

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

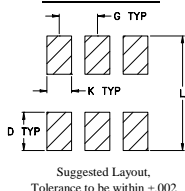
Pin Connections

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

Outline Drawing



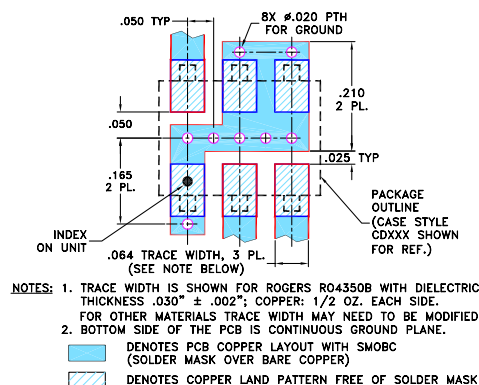
PCB Land Pattern



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.
- good L-R isolation, 30 dB typ. and L-I isolation, 37 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.										
10-2000	10-1000	7.5	0.10	8.6	9.8	55	40	36	23	28	18	65	50	45	30	38	22	11

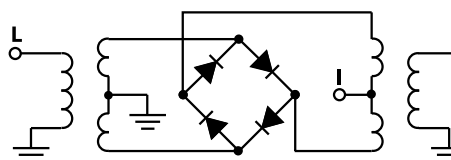
1 dB COMP: +5 dBm typ.

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)	
						LO +10dBm
RF	LO	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	
10.10	40.10	6.77	56.91	69.62	1.68	2.46
70.10	100.10	7.24	49.85	61.63	1.03	2.34
190.10	220.10	7.32	44.40	54.10	1.15	2.38
250.10	280.10	7.39	43.78	51.73	1.18	2.36
370.10	400.10	7.51	41.53	48.30	1.35	2.43
490.10	520.10	7.64	39.35	45.15	1.42	2.54
550.10	580.10	7.66	36.88	44.27	1.54	2.56
790.10	820.10	8.05	31.99	41.42	1.88	2.80
850.10	880.10	8.00	30.73	39.82	1.94	2.80
970.10	1000.10	7.74	30.04	38.61	1.82	2.99
1090.10	1120.10	7.57	28.49	37.93	1.70	3.26
1270.10	1300.10	7.93	25.95	36.18	1.90	3.40
1390.10	1420.10	8.09	24.78	34.14	1.96	3.42
1450.10	1480.10	7.99	24.97	33.05	1.70	3.30
1570.10	1600.10	7.62	25.97	31.74	1.51	3.43
1690.10	1720.10	7.61	26.02	30.29	1.26	3.67
1750.10	1780.10	7.67	25.90	29.59	1.21	3.76
1870.10	1900.10	7.96	25.91	28.80	1.07	4.11
1990.10	2020.10	8.35	26.52	28.47	1.06	4.47
2070.10	2100.10	8.72	27.50	28.56	1.10	4.78

Electrical Schematic



Mini-Circuits
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The Design Engineers Search Engine
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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