

Surface Mount High Reliability Mixer

Level 10 (LO Power +10 dBm) 2 to 1000 MHz

ADE-R2ASKLH+



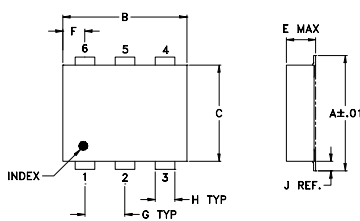
Maximum Ratings

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.	

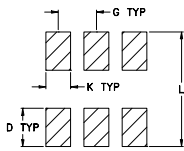
Pin Connections

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

Outline Drawing



PCB Land Pattern

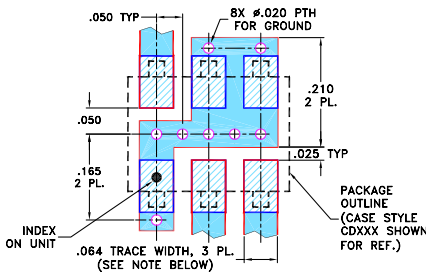


Suggested Layout,
Tolerance to be within ±.002

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)



- 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, 5.7 dB typ.
- excellent L-R isolation, 45 dB typ.
- low profile package
- aqueous washable
- protected by US Patent 6,133,525

Applications

- VSAT systems
- instrumentation
- cellular

CASE STYLE: CD542
PRICE: \$4.65 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)
		L	M	U	L	M	U	
2-1000	DC-1000	68	45	36	55	40	22	15

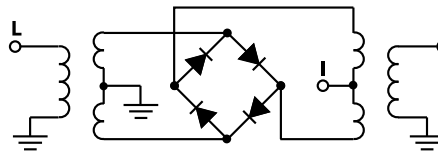
1 dB COMP: +5 dBm typ.
Phase detection, positive polarity

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)
2.00	32.00	6.04	86.65	1.48	2.33
5.00	35.00	5.39	87.44	1.22	2.33
10.00	40.00	5.25	88.82	1.13	2.33
55.00	85.00	5.19	84.09	1.06	2.30
100.00	130.00	5.22	69.23	1.05	2.31
200.00	230.00	5.30	57.05	1.01	2.40
260.00	290.00	5.22	53.30	1.02	2.29
300.00	330.00	5.32	49.85	1.03	2.53
360.00	390.00	5.39	46.44	1.05	2.36
400.00	430.00	5.50	45.05	1.10	2.66
460.00	490.00	5.70	43.50	1.11	2.52
500.00	530.00	5.64	42.39	1.15	2.67
600.00	630.00	5.59	40.59	1.21	2.64
650.00	680.00	5.91	39.93	1.17	3.00
700.00	730.00	6.30	38.50	1.19	2.68
750.00	780.00	6.65	38.25	1.31	3.40
800.00	830.00	6.97	35.97	1.48	2.68
850.00	880.00	7.13	36.40	1.67	3.45
900.00	930.00	6.99	33.46	1.85	2.87
1000.00	1030.00	7.18	29.74	2.25	3.16

Electrical Schematic



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