

Surface Mount High Reliability Mixer

ADE-R2ASKLH+

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



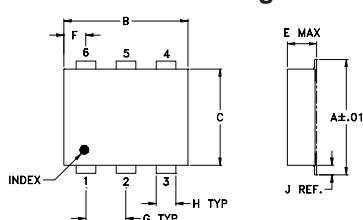
Maximum Ratings

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.	

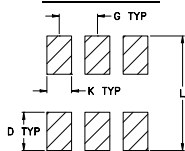
Pin Connections

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

Outline Drawing



PCB Land Pattern

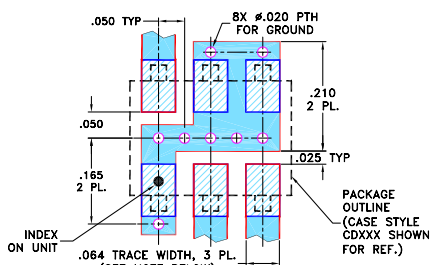


Suggested Layout,
Tolerance to be within ±.002

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. (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	
2-1000	DC-1000	68	45	36	55	40	22	15

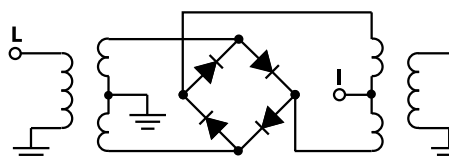
1 dB COMP: +5 dBm typ.
Phase detection, positive polarity

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)
	LO	+10dBm	LO	LO	LO	LO
2.00	32.00	6.04	86.65	52.03	1.48	2.33
5.00	35.00	5.39	87.44	51.43	1.22	2.33
10.00	40.00	5.25	88.82	50.52	1.13	2.33
55.00	85.00	5.19	84.09	43.63	1.06	2.30
100.00	130.00	5.22	69.23	40.93	1.05	2.31
200.00	230.00	5.30	57.05	37.28	1.01	2.40
260.00	290.00	5.22	53.30	35.30	1.02	2.29
300.00	330.00	5.32	49.85	34.96	1.03	2.53
360.00	390.00	5.39	46.44	33.40	1.05	2.36
400.00	430.00	5.50	45.05	32.18	1.10	2.66
460.00	490.00	5.70	43.50	30.28	1.11	2.52
500.00	530.00	5.64	42.39	29.49	1.15	2.67
600.00	630.00	5.59	40.59	25.59	1.21	2.64
650.00	680.00	5.91	39.93	24.64	1.17	3.00
700.00	730.00	6.30	38.50	23.90	1.19	2.68
750.00	780.00	6.65	38.25	24.38	1.31	3.40
800.00	830.00	6.97	35.97	23.21	1.48	2.68
850.00	880.00	7.13	36.40	22.85	1.67	3.45
900.00	930.00	6.99	33.46	21.20	1.85	2.87
1000.00	1030.00	7.18	29.74	18.61	2.25	3.16

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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For detailed performance specs & shopping online see web site

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