

Surface Mount High Reliability Mixer

ADE-R901LH+

Level 10 (LO Power +10 dBm) 300 to 1000 MHz



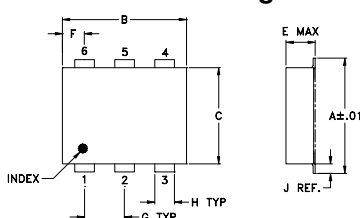
Maximum Ratings

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

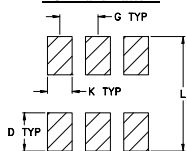
Pin Connections

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

Outline Drawing



PCB Land Pattern



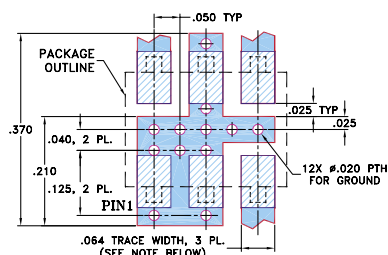
Suggested Layout,
Tolerance to be within ±.002

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-02 Suggested PCB Layout (PL-051)



- 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, 6.4 dB typ.
- excellent L-R isolation, 42 dB typ.
- low profile package
- aqueous washable
- protected by US Patent 6,133,525

Applications

- cellular
- ISM/GSM

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

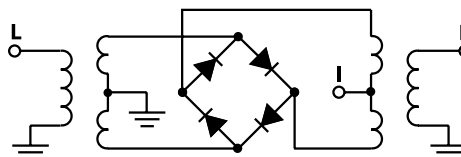
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)	LO-IF ISOLATION (dB)	IP3 at center band (dBm)					
					LO/RF	IF	$f_L - f_U$	\bar{X}	σ
300-1000	DC-800	6.4	0.10	7.8	42	32	35	20	18

1 dB COMP.: +5 dBm typ.

Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
291.24	321.24	6.45	47.15	43.59	1.86
331.44	361.44	6.37	46.19	43.53	1.76
391.75	421.75	6.24	45.07	42.79	1.67
431.96	461.96	6.19	44.03	42.11	1.61
492.27	522.27	6.11	43.64	40.26	1.57
532.47	562.47	6.20	43.05	39.91	1.52
592.78	622.78	6.11	42.54	37.39	1.51
632.99	662.99	6.19	42.06	36.09	1.47
693.30	723.30	6.27	41.77	35.79	1.47
733.51	763.51	6.44	41.51	34.44	1.44
793.81	823.81	6.47	41.27	32.97	1.44
834.02	864.02	6.44	41.24	31.75	1.42
894.33	924.33	6.42	40.57	30.76	1.40
994.85	1024.85	6.40	41.22	31.23	1.33
1035.05	1065.05	6.44	41.30	30.42	1.29

Electrical Schematic



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