

Surface Mount

High Reliability Mixer

ADE-R35LH+

Level 10 (LO Power +10 dBm) 1800 to 3500 MHz



CASE STYLE: CD542
PRICE: \$5.35 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.

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

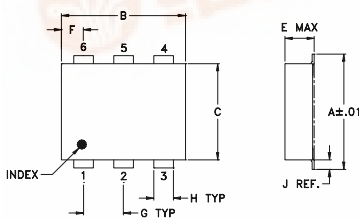
Features

- hermetically sealed ceramic quad
- low conversion loss, 6.8 dB typ.
- good isolation, 25 dB typ.
- low profile package
- aqueous washable
- protected by US Patent 6,133,525

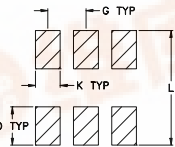
Applications

- MMDS

Outline Drawing



PCB Land Pattern



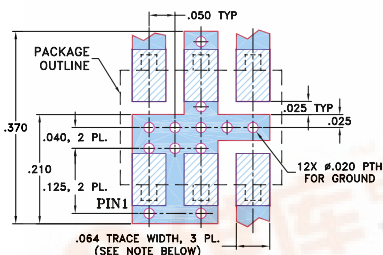
Suggested Layout,
Tolerance to be within ±.002

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

Electrical Specifications

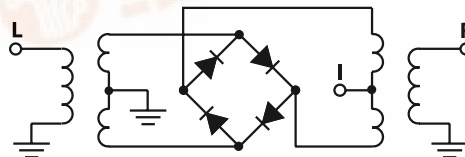
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)	LO-IF ISOLATION (dB)	IP3 at center band (dBm)	
					LO/RF
1800-3500	DC-1000	\bar{X} σ Max.	Typ. Min.	Typ. Min.	Typ.
		6.8 0.50 9.2	25 16	22 12	14

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

Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
1790.00	1820.00	6.91	25.19	22.69	2.57
1810.00	1840.00	6.84	25.05	22.52	2.37
1850.00	1880.00	6.63	24.78	22.41	2.27
1930.00	1960.00	6.40	24.29	22.08	1.74
2010.00	2040.00	6.24	24.22	21.70	1.45
2170.00	2200.00	6.30	24.20	21.45	1.58
2250.00	2280.00	6.26	23.90	21.76	1.47
2330.00	2360.00	6.45	23.63	22.34	1.37
2410.00	2440.00	6.53	23.66	23.15	1.35
2570.00	2600.00	6.95	23.38	23.53	1.32
2650.00	2680.00	6.64	33.32	23.86	1.62
2730.00	2760.00	6.51	30.55	25.03	1.68
2810.00	2840.00	6.45	28.46	26.55	1.70
2970.00	3000.00	6.47	26.33	28.41	1.68
3050.00	3080.00	6.57	25.77	29.10	1.66
3130.00	3160.00	6.56	25.03	29.10	1.56
3210.00	3240.00	6.59	24.27	28.34	1.51
3370.00	3400.00	6.51	24.79	27.19	1.72
3450.00	3480.00	6.47	25.44	27.42	1.84
3530.00	3560.00	6.55	25.28	27.40	1.80

Electrical Schematic



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RF/IF MICROWAVE COMPONENTS

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