

Surface Mount High Reliability Mixer

ADE-R5LH+

Level 10 (LO Power +10 dBm) 10 to 1500 MHz



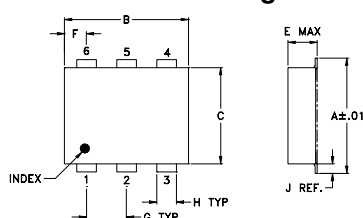
Maximum Ratings

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

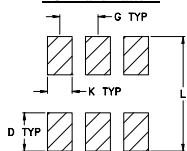
Pin Connections

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

Outline Drawing



PCB Land Pattern

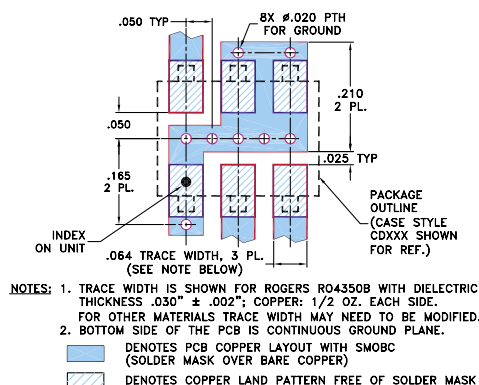


Suggested Layout,
Tolerance to be within ±.002

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)



Features

- hermetically sealed ceramic quad
- low conversion loss, 7.2 dB typ.
- excellent L-R isolation, 55 dB typ.
- excellent IP3, 17 dBm
- low profile package
- aqueous washable
- protected by US Patent 6,133,525

Applications

- cellular
- PCS

CASE STYLE: CD542

PRICE: \$3.85 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							
10-1500	DC-1000	65	50	55	40	42	27	50	37	45	28	30	20	15

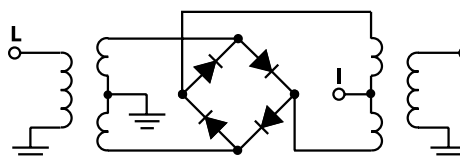
1 dB COMP.: +5 dBm typ.
Phase detection, positive polarity

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 [$2f_L$ 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)
10.10	40.10	6.69	68.93	1.92	1.23
130.10	160.10	6.87	65.42	1.42	1.49
250.10	280.10	6.77	63.17	1.44	1.55
350.10	380.10	6.81	60.80	1.56	1.58
450.10	480.10	6.88	62.07	1.57	1.62
550.10	580.10	6.98	54.44	1.65	1.67
610.10	640.10	6.89	53.57	1.54	1.72
650.10	680.10	6.93	55.53	1.56	1.72
710.10	740.10	7.11	69.22	1.61	1.78
750.10	780.10	7.30	74.48	1.59	1.79
810.10	840.10	7.47	70.35	1.68	1.87
850.10	880.10	7.41	69.05	1.57	1.86
950.10	980.10	7.23	55.99	1.55	1.90
1010.10	1040.10	7.23	50.14	1.50	2.00
1050.10	1080.10	7.20	47.67	1.51	1.97
1150.10	1180.10	7.16	44.23	1.37	2.06
1250.10	1280.10	7.50	42.38	1.21	2.15
1350.10	1380.10	7.48	40.25	1.07	2.20
1450.10	1480.10	7.15	36.47	1.30	2.20
1510.10	1540.10	7.20	34.45	1.43	2.27

Electrical Schematic



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