

Surface Mount High Reliability Mixer

ADE-R5LH+

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



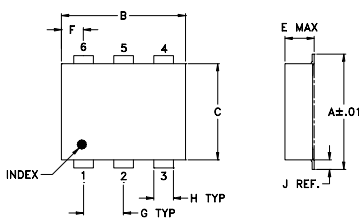
Maximum Ratings

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

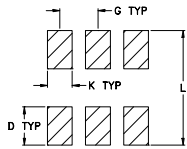
Pin Connections

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

Outline Drawing



PCB Land Pattern

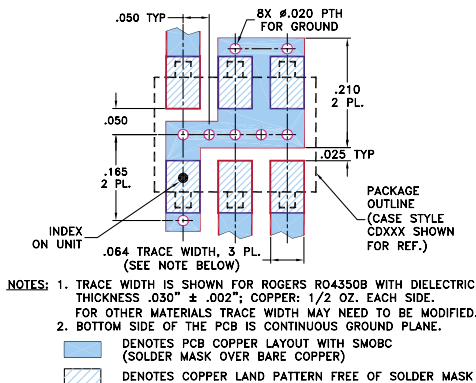


Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch)

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

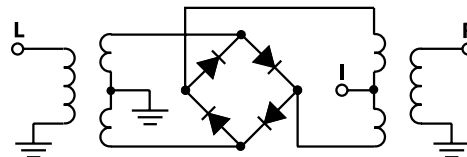
1 dB COMP.: +5 dBm typ.
Phase detection, positive polarity

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)	
						LO +10dBm
10.10	40.10	6.69	68.93	72.82	1.92	1.23
130.10	160.10	6.87	65.42	52.06	1.42	1.49
250.10	280.10	6.77	63.17	50.64	1.44	1.55
350.10	380.10	6.81	60.80	50.63	1.56	1.58
450.10	480.10	6.88	62.07	50.33	1.57	1.62
550.10	580.10	6.98	54.44	49.75	1.65	1.67
610.10	640.10	6.89	53.57	47.38	1.54	1.72
650.10	680.10	6.93	55.53	45.72	1.56	1.72
710.10	740.10	7.11	69.22	44.40	1.61	1.78
750.10	780.10	7.30	74.48	46.39	1.59	1.79
810.10	840.10	7.47	70.35	56.47	1.68	1.87
850.10	880.10	7.41	69.05	58.34	1.57	1.86
950.10	980.10	7.23	55.99	43.36	1.55	1.90
1010.10	1040.10	7.23	50.14	40.00	1.50	2.00
1050.10	1080.10	7.20	47.67	38.54	1.51	1.97
1150.10	1180.10	7.16	44.23	36.10	1.37	2.06
1250.10	1280.10	7.50	42.38	36.34	1.21	2.15
1350.10	1380.10	7.48	40.25	34.12	1.07	2.20
1450.10	1480.10	7.15	36.47	28.53	1.30	2.20
1510.10	1540.10	7.20	34.45	26.65	1.43	2.27

Electrical Schematic



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Page 1 of 2

