

Surface Mount

Frequency Mixer

ADE-25MH

Level 13 (LO Power +13 dBm) 5 to 2500 MHz



CASE STYLE: CD542

Maximum Ratings

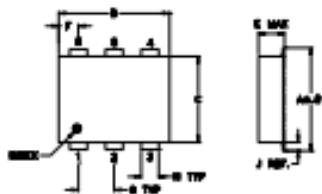
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

Permanent damage may occur if any of these limits are exceeded.

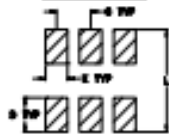
Pin Connections

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

Outline Drawing



PCB Lead Pattern



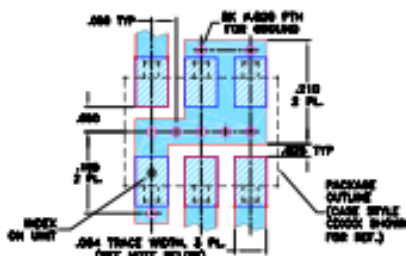
Suggested Layout, Refer to the website for details.

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	.028	.085	.300	grams
0.76	0.68	1.85	7.62	0.20

Demo Board MCL PIN: TB-03
Suggested PCB Layout (PL-052)



- NOTE 1. TRACE WIDTH IS SHOWN FOR ROHSER BOARD WITH DIELECTRIC THICKNESS .001" & .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 SOLDER (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- low conversion loss, 6.9 dB typ.
- good L-R isolation, 34 dB typ.; L-I isolation, 32 dB typ.
- low profile package
- aqueous washable
- protected by U.S. Patent 6,133,525

Applications

- PCS
- MMDS
- ISM
- instrumentation

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	
5-2500	6.9	47	34	34	34	32	23	18

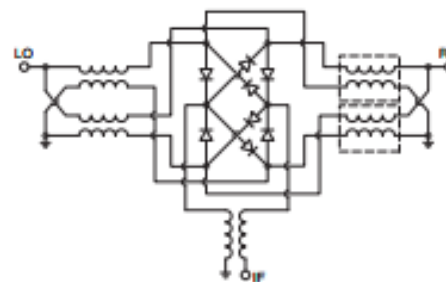
1 dB COMP: +9 dBm typ.

L = low range [f_1 to $10 f_1$] M = mid range [$10 f_1$ to $f_1/2$] U = upper range [$f_1/2$ to f_1]
m = mid band [$2 f_1$ to $f_1/2$]

Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation (dB)		VSWR RF Port (-1)		VSWR LO Port (-1)	
		L-R	L-I	LO	LO	LO	LO
RF	LO	+13dBm	+13dBm	+13dBm	+13dBm	+13dBm	+13dBm
5.00	35.00	7.36	49.90	34.20	1.35	2.37	
25.00	55.00	6.76	51.40	34.10	1.20	2.32	
75.00	105.00	6.54	54.00	33.90	1.20	2.25	
100.00	130.00	6.52	52.70	34.00	1.19	2.30	
250.00	280.00	7.05	42.40	33.80	1.10	2.18	
500.00	530.00	7.02	35.40	31.50	1.10	2.16	
884.28	914.28	7.09	32.20	27.50	1.55	1.91	
1000.00	1030.00	7.22	32.20	26.30	1.64	1.91	
1326.36	1356.36	7.87	33.40	24.70	2.37	1.84	
1547.43	1577.43	7.39	35.80	24.00	2.40	1.81	
1768.47	1798.47	7.30	38.90	23.00	2.16	1.78	
2000.00	2030.00	7.30	40.00	23.30	2.04	1.63	
2431.62	2461.62	7.45	39.50	24.20	2.18	1.30	
3000.00	2970.00	7.66	31.10	24.50	2.20	1.56	

Electrical Schematic



Performance Charts

