

Surface Mount

High Reliability Mixer

Level 7 (LO Power +7 dBm) 2 to 1000 MHz

ADE-R2ASK+



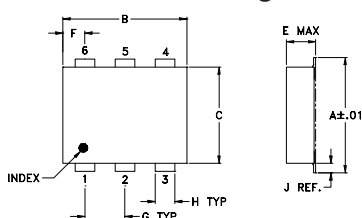
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

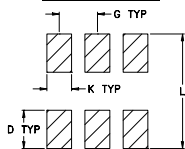
Pin Connections

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

Outline Drawing



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

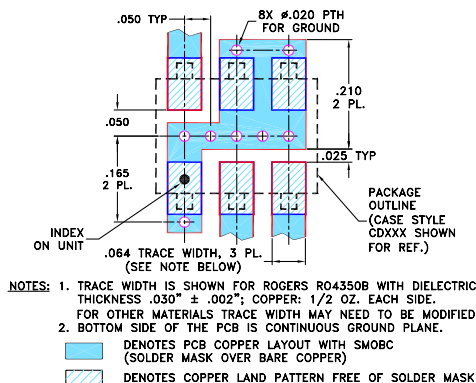
Outline Dimensions (inch)

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, 5.4 dB typ.
- excellent L-R isolation, 48 dB typ.
- low profile package
- aqueous washable
- protected by US Patent 6,133,525

Applications

- VSAT systems
- instrumentation
- cellular

CASE STYLE: CD542
PRICE: \$4.65 ea. QTY. (20)

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications



Available Tape and Reel
at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500
13"	500, 1000

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)		
LO/RF f_L - f_U	IF	Mid-Band m		Total Range Max.		L	M	U	L	M	U	L	M	U						
		$\bar{X}$	σ	Max.	Typ. Min.										Typ. Min.	Typ. Min.	Typ. Min.		Typ. Min.	Typ. Min.
		Typ.																		
2-1000	DC-1000	5.4	0.10	6.8	9.5	65	50	48	32	36	20	55	40	32	22	22	11	14		

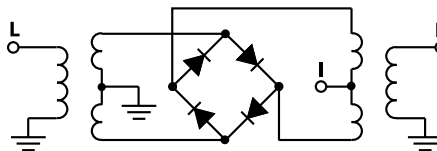
1 dB COMP: +1 dBm typ.
Phase detection, positive polarity

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 [$2 f_L$ 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)
RF	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
2.00	32.00	6.03	72.03	52.20	1.52	2.50
5.00	35.00	5.57	71.56	51.50	1.24	2.57
10.00	40.00	5.43	70.83	50.43	1.13	2.50
55.00	85.00	5.38	67.43	43.90	1.04	2.49
100.00	130.00	5.30	67.45	40.86	1.03	2.49
180.00	210.00	5.40	59.66	37.51	1.06	2.53
200.00	230.00	5.26	57.60	37.02	1.06	2.58
280.00	310.00	5.51	50.66	34.64	1.10	2.63
360.00	390.00	5.53	45.06	32.95	1.12	2.65
400.00	430.00	5.52	43.09	31.12	1.17	2.82
480.00	510.00	5.77	40.13	28.99	1.20	2.94
600.00	630.00	5.55	36.80	24.83	1.28	2.95
650.00	680.00	5.90	35.47	22.94	1.29	3.22
700.00	730.00	6.14	34.14	21.76	1.38	3.10
750.00	780.00	6.46	33.55	21.26	1.54	3.47
800.00	830.00	6.89	32.71	20.63	1.79	3.10
850.00	880.00	7.17	32.37	20.01	2.01	3.45
900.00	930.00	6.94	31.48	19.03	2.24	3.15
950.00	980.00	6.92	30.21	17.82	2.41	3.29
1000.00	1030.00	6.96	28.25	16.35	2.57	3.26

Electrical Schematic



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ISO 9001 ISO 14001 AS 9100 CERTIFIED

The Design Engineers Search Engine

IF/RF MICROWAVE COMPONENTS

For detailed performance specs
& shipping online see web site

Provides ACTUAL Data Instantly at minicircuits.com

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