

Surface Mount Frequency Mixer

ADE-1L+ ADE-1L

Level 3 (LO Power +3 dBm) 2 to 500 MHz



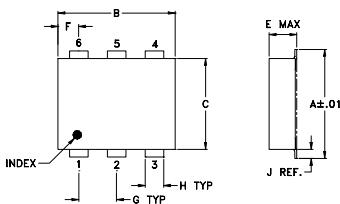
Maximum Ratings

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.	

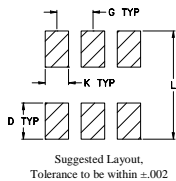
Pin Connections

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

Outline Drawing



PCB Land Pattern

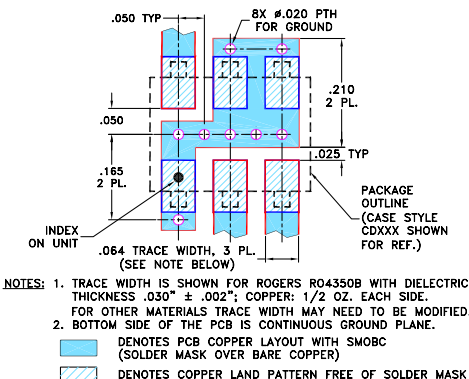


Outline Dimensions (inch/mm)

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

- low conversion loss, 5.2 dB typ.
- excellent L-R isolation, 55 dB typ.
- low profile package
- aqueous washable
- protected by US patent 6,133,525

Applications

- cellular
- instrumentation

CASE STYLE: CD542
PRICE: \$3.95 ea. QTY (10-49)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix identifies 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											
2-500	DC-500	5.2	0.10	7.2	8.0	68	50	55	30	44	30	55	40	45	30	35	25	16

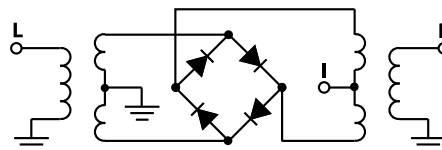
1 dB COMP: 0 dBm typ.

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)
RF	LO	LO +3dBm	LO +3dBm	LO +3dBm	LO +3dBm	LO +3dBm
2.00	32.00	5.88	68.80	57.20	1.32	1.67
5.00	35.00	5.44	68.30	56.40	1.19	1.66
10.00	40.00	5.32	68.00	55.40	1.14	1.66
20.00	50.00	5.25	67.40	54.20	1.10	1.80
50.00	80.00	5.34	63.80	49.80	1.08	1.84
75.00	105.00	5.30	60.80	47.40	1.07	1.84
80.09	110.09	5.32	60.50	46.90	1.07	1.85
100.00	130.00	5.32	59.20	45.40	1.06	1.85
150.00	180.00	5.32	56.30	43.20	1.05	1.96
160.09	190.09	5.31	50.60	42.90	1.10	1.67
200.00	230.00	5.34	48.80	41.60	1.10	1.69
240.08	270.08	5.37	47.40	40.30	1.10	1.73
250.00	280.00	5.38	47.20	40.00	1.10	1.73
300.00	330.00	5.52	44.30	39.10	1.11	1.80
320.07	350.07	5.50	43.30	38.60	1.12	1.82
400.00	430.00	5.68	41.80	35.30	1.19	2.01
450.00	480.00	5.73	41.50	34.20	1.23	2.04
470.00	500.00	5.69	41.50	33.70	1.24	2.16
480.00	510.06	5.67	40.90	33.40	1.24	2.18
500.00	530.00	5.69	40.70	33.00	1.25	2.25

Electrical Schematic



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ISO 9001 ISO 14001 AS 9100 CERTIFIED
The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

For detailed performance specs & shopping online see web site

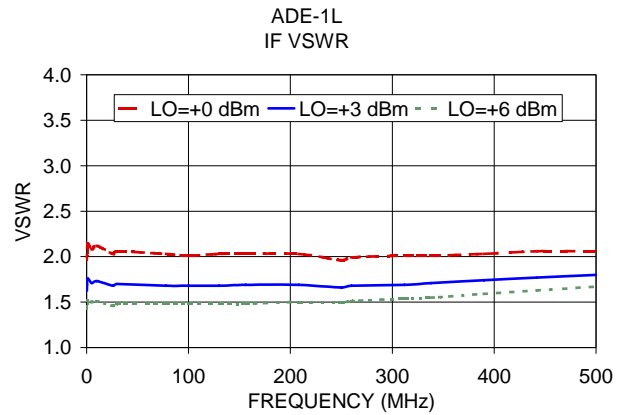
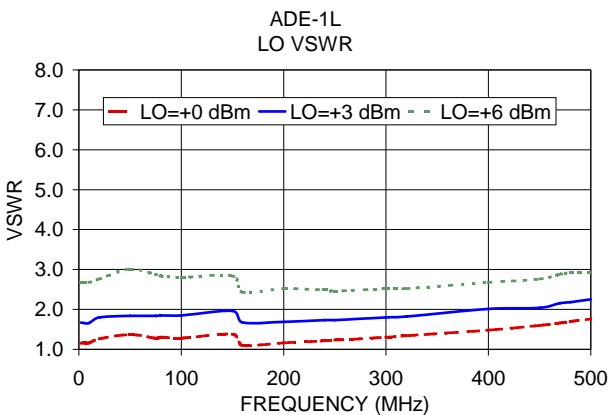
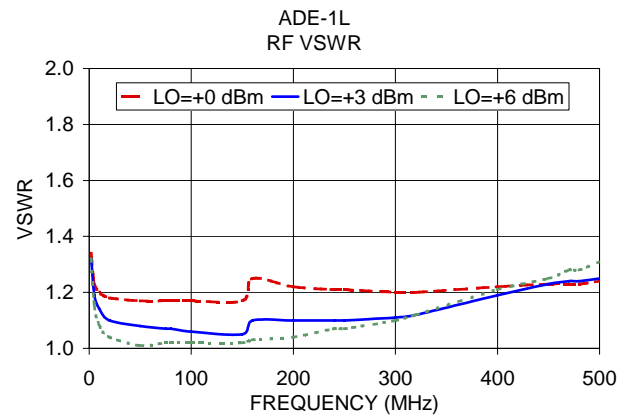
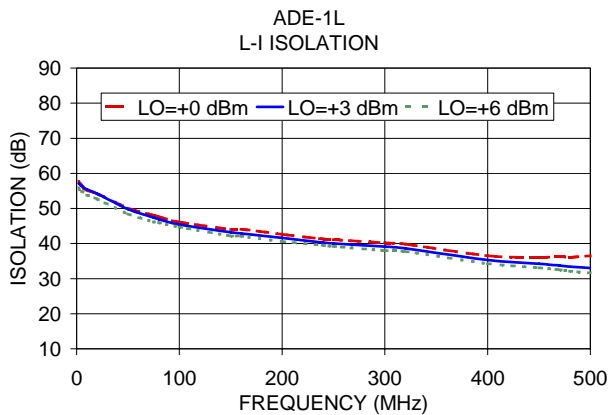
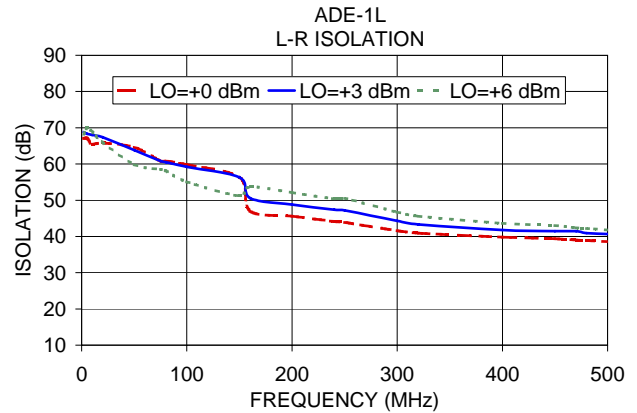
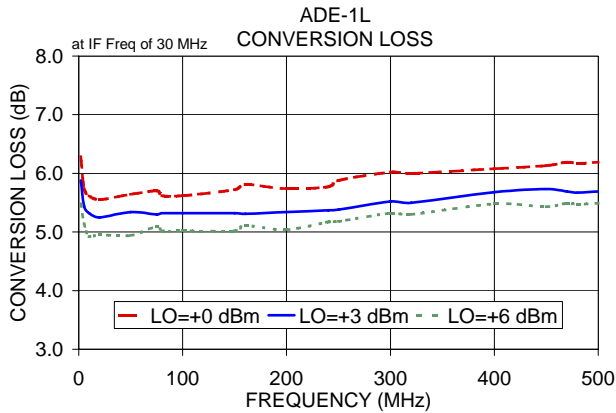
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Page 1 of 2

Performance Charts

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IF/RF MICROWAVE COMPONENTS

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