

Surface Mount Frequency Mixer

ADE-6+ ADE-6

Level 7 (LO Power +7 dBm) 0.05 to 250 MHz



CASE STYLE: CD637
PRICE: \$4.95 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

Maximum Ratings

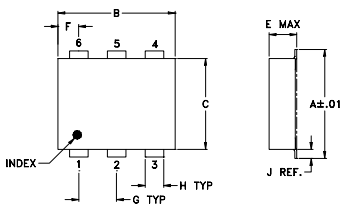
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

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

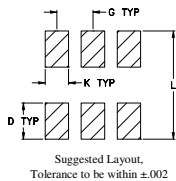
Pin Connections

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

Outline Drawing



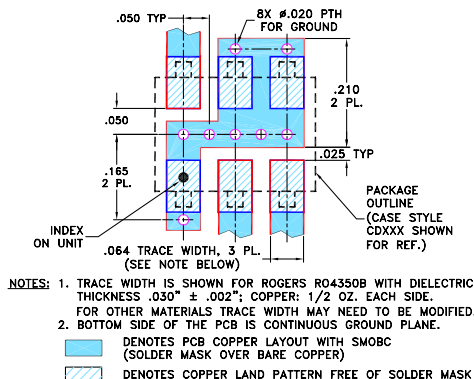
PCB Land Pattern



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.206	.055	.100
6.91	7.87	5.59	2.54	5.23	1.40	2.54
H	J	K	L			wt
.030	.026	.065	.300			grams
0.76	0.66	1.65	7.62			0.40

Demo Board MCL P/N: TB-03 Suggested PCB Layout (PL-052)



Features

- low conversion loss, 4.6 dB typ.
- excellent L-R isolation, 40 dB typ.
- low profile package
- aqueous washable
- protected by U.S. Patent 6,133,525

Applications

- cellular

Electrical Specifications

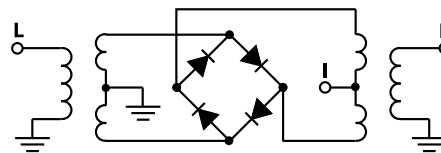
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)				
		Mid-Band		Total Range		L	M	U	L	M	U							
LO/RF f_L - f_U	IF \bar{X} σ Max.	\bar{X}	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.				
0.05-250	DC-200	4.6	0.05	7.0	8.4	62	49	40	30	40	20	58	44	45	24	25	15	10

1 dB COMP.: +1 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]

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
0.05	30.05	4.68	59.77	56.14	1.58	2.30
10.00	40.00	4.13	66.00	52.10	1.27	2.52
26.76	56.76	4.22	68.60	49.00	1.23	2.55
40.00	70.00	4.19	66.80	46.10	1.21	2.58
53.42	83.42	4.35	57.30	45.60	1.18	2.55
60.00	90.00	4.32	54.40	44.40	1.18	2.61
80.00	110.00	4.18	56.90	41.50	1.13	2.55
100.00	130.00	4.49	48.70	40.80	1.14	2.65
106.74	136.74	4.62	43.60	42.00	1.15	2.68
120.00	150.00	4.62	40.20	40.00	1.12	2.80
133.40	163.40	4.54	38.00	37.00	1.13	2.76
140.00	170.00	4.64	37.00	35.70	1.15	2.80
150.00	180.00	4.68	36.30	34.30	1.13	2.84
160.06	190.06	4.75	53.20	32.70	1.07	2.68
170.00	200.00	4.81	54.40	32.20	1.02	2.76
186.72	216.72	5.14	54.50	31.20	1.16	2.92
200.00	230.00	5.19	53.80	31.80	1.28	2.96
213.38	243.38	5.26	61.60	31.60	1.41	2.92
240.04	270.04	5.44	42.00	26.40	1.62	2.72
250.00	280.00	5.44	39.40	24.50	1.69	2.65

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED
IF/RF MICROWAVE COMPONENTS

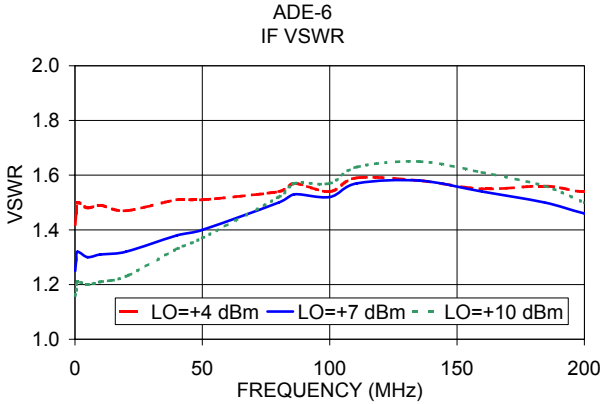
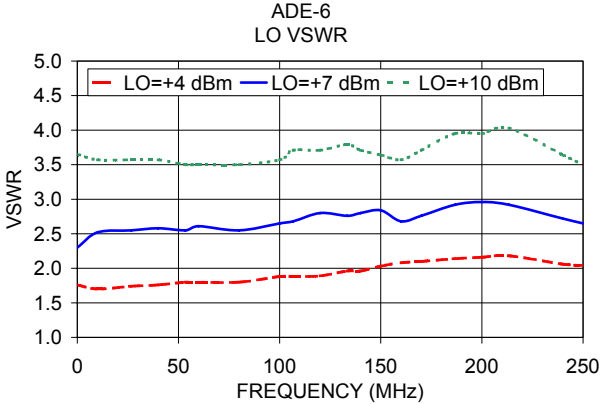
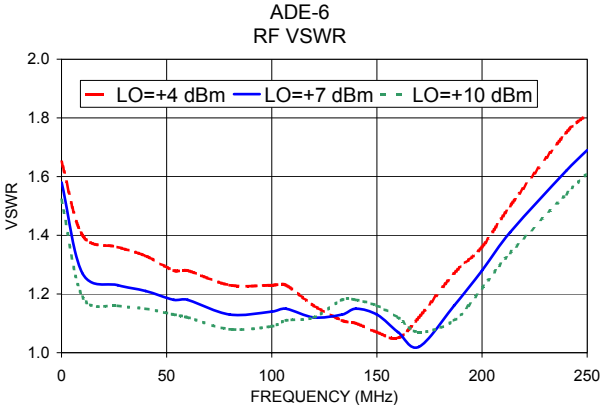
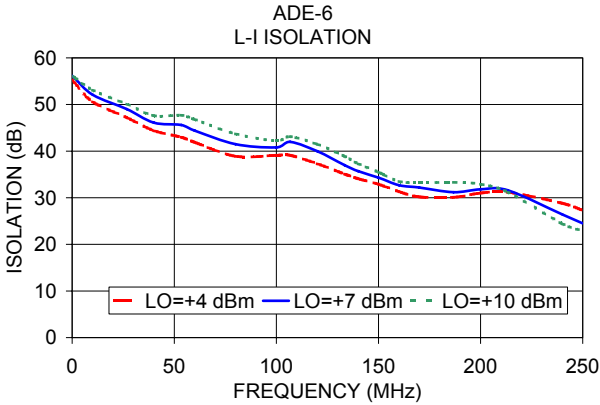
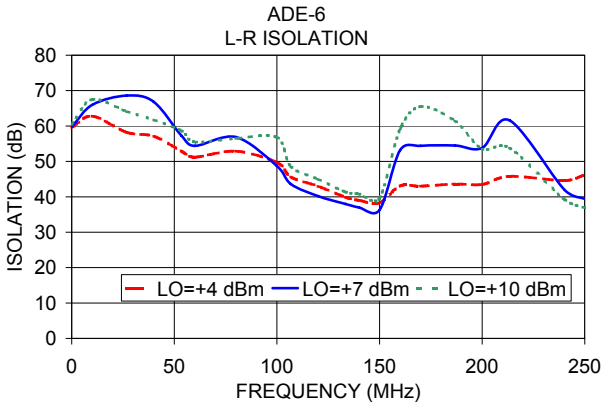
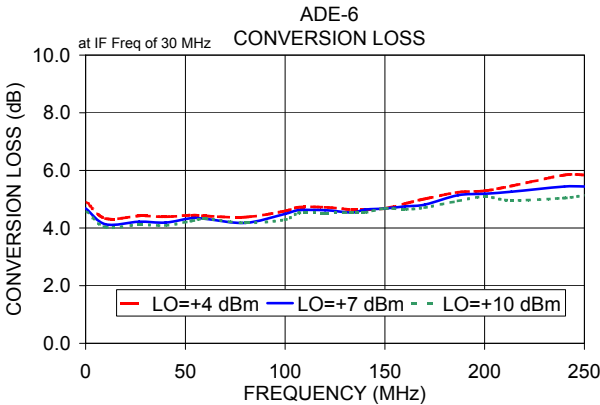
For detailed performance specs & shopping online see web site

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Performance Charts



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