

Surface Mount

# Frequency Mixer

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



ADE-6



CASE STYLE: CD637  
PRICE: \$4.95 ea.  
QTY.: (10-49)

## Maximum Ratings

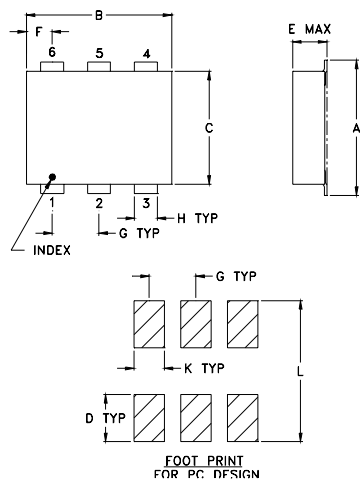
Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

## Pin Configuration

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

EVALUATION BOARD P/N: TB-03

## Outline Drawing



## Outline Dimensions (inch mm)

A	B	C	D	E	F	G	H
.280	.310	.220	.100	.206	.055	.100	.030
7.11	7.87	5.58	2.54	5.23	1.40	2.54	0.76

J	K	L	wt.
—	.065	.300	grams
—	1.65	7.62	.45

## Features

- low conversion loss, 4.6 dB typ.
- excellent L-R isolation, 40 dB typ.
- low profile package 0.21" height (patent pending)
- solder plated leads for excellent solderability

## Applications

- cellular
- instrumentation

## Electrical Specifications

FREQUENCY MHz		CONVERSION LOSS dB				LO-RF ISOLATION, dB						LO-IF ISOLATION, dB						IP3@ center band Typ. (dBm)
LO/RF f <sub>L</sub> -f <sub>U</sub>	IF	Mid-Band			Total Range Max.	L Typ.	M Typ.	U Typ.	L Typ.	M Typ.	U Typ.	L Typ.	M Typ.	U Typ.				
		x	σ	Max.														
0.05 - 250	DC-200	4.6	.05	7	8.4	62	49	40	30	40	20	58	44	45	24	25	15	10

1 dB Comp.+1 dBm

L = low range [ $f_L$  to 10  $f_L$ ]

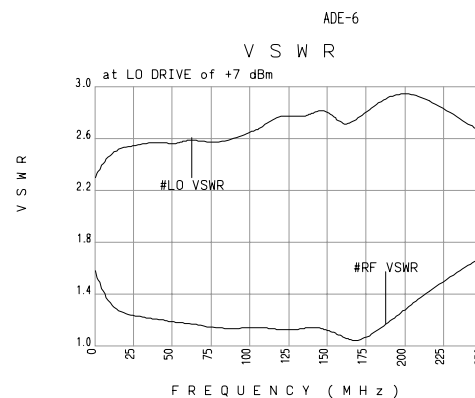
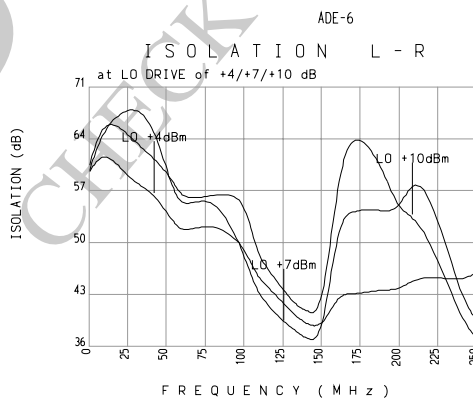
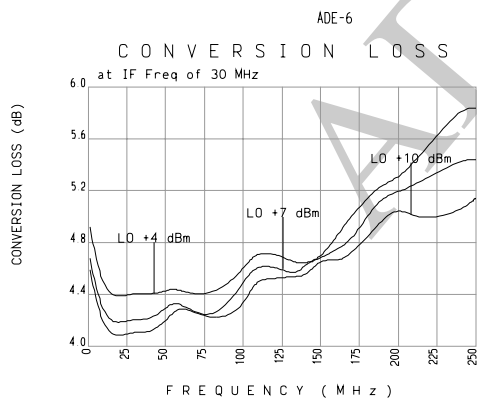
M = mid range [ $10 f_L$  to  $f_U/2$ ]

U = upper range [ $f_U/2$  to  $f_U$ ]

m = mid band [ $2f_L$  to  $f_U/2$ ]

## Typical Performance Data

Frequency		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR LO port (:1)	VSWR RF port (:1)
RF MHz	LO MHz	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
0.05	30.05	4.68	59.77	56.14	2.30	1.58
10.00	40.00	4.13	66.00	52.10	2.52	1.27
26.76	56.76	4.22	68.60	49.00	2.55	1.23
40.00	70.00	4.19	66.80	46.10	2.58	1.21
53.42	83.42	4.35	57.30	45.60	2.55	1.18
60.00	90.00	4.32	54.40	44.40	2.61	1.18
80.00	110.00	4.18	56.90	41.50	2.55	1.13
100.00	130.00	4.49	48.70	40.80	2.65	1.14
106.74	136.74	4.62	43.60	42.00	2.68	1.15
120.00	150.00	4.62	40.20	40.00	2.80	1.12
133.40	163.40	4.54	38.00	37.00	2.76	1.13
140.00	170.00	4.64	37.00	35.70	2.80	1.15
150.00	180.00	4.68	36.30	34.30	2.84	1.13
160.06	190.06	4.75	53.20	32.70	2.68	1.07
170.00	200.00	4.81	54.40	32.20	2.76	1.02
186.72	216.72	5.14	54.50	31.20	2.92	1.16
200.00	230.00	5.19	53.80	31.80	2.96	1.28
213.38	243.38	5.26	61.60	31.60	2.92	1.41
240.04	270.04	5.44	42.00	26.40	2.72	1.62
250.00	280.00	5.44	39.40	24.50	2.65	1.69



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