

Surface Mount Frequency Mixer

ADE-2+

Level 7 (LO Power +7 dBm) 5 to 1000 MHz

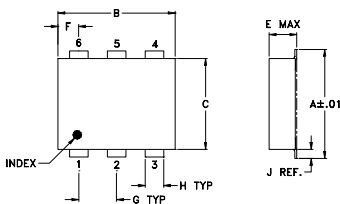
Maximum Ratings

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.	

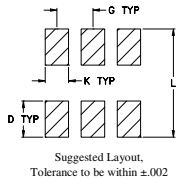
Pin Connections

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

Outline Drawing



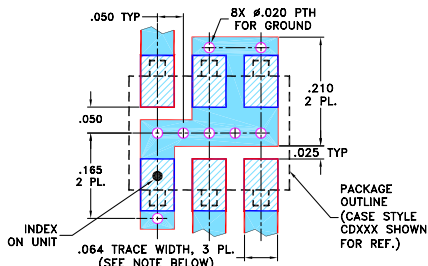
PCB Land Pattern



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

- excellent L-R isolation, 47 dB typ.
- low profile package
- aqueous washable
- protected by U.S. Patent 6,133,525

Applications

- cellular
- PCS



Generic photo used for illustration purposes only
CASE STYLE: CD542

+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
13"	500, 1000

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											
5-1000	DC-1000	6.67	0.26	8.0	9.5	60	40	47	25	32	22	62	35	45	25	32	20	20

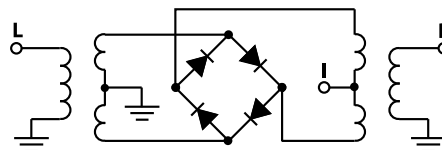
1 dB COMP.: +1 dBm typ.

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]
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 +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
5.0	35.0	7.24	67.56	56.62	1.74	2.77
14.0	44.0	6.89	66.00	55.21	1.40	2.76
23.0	53.0	6.84	64.66	53.92	1.35	2.75
32.0	62.0	6.85	63.45	52.89	1.34	2.74
41.0	71.0	6.86	62.35	51.97	1.33	2.73
50.0	80.0	6.83	61.27	51.17	1.33	2.72
200.0	230.0	6.78	50.90	44.28	1.35	2.79
350.0	380.0	6.78	45.63	39.09	1.37	2.87
500.0	530.0	6.85	42.11	35.34	1.40	2.76
502.5	532.5	6.81	42.09	35.27	1.41	2.76
586.0	616.0	6.87	40.83	32.80	1.44	2.77
632.0	662.0	6.91	39.73	32.12	1.47	2.92
678.0	708.0	6.96	39.35	31.50	1.47	2.90
724.0	754.0	6.98	38.67	30.57	1.50	3.11
770.0	800.0	7.08	37.90	29.63	1.52	3.08
816.0	846.0	7.09	37.06	28.64	1.52	3.26
862.0	892.0	7.14	36.56	28.19	1.54	3.24
908.0	938.0	7.22	35.71	27.46	1.53	3.28
954.0	984.0	7.26	35.35	26.91	1.49	3.28
1000.0	1030.0	7.37	35.01	26.18	1.50	3.23

Electrical Schematic



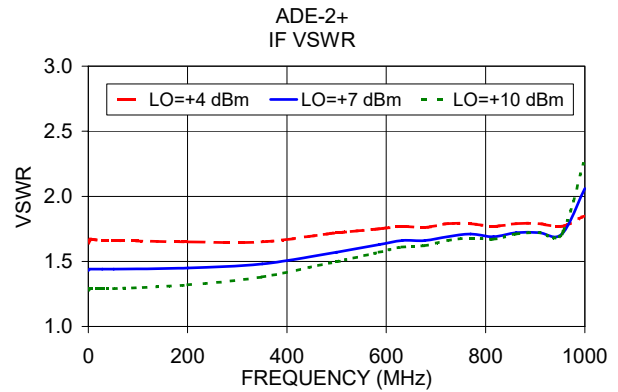
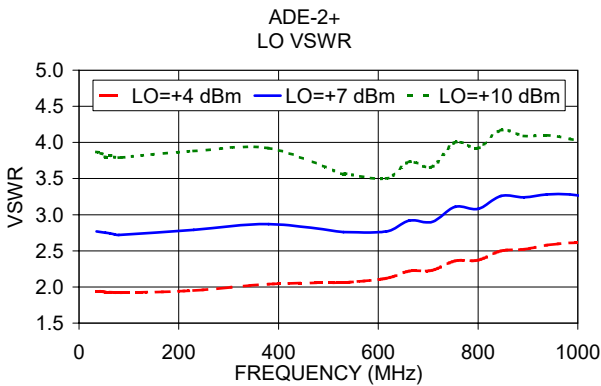
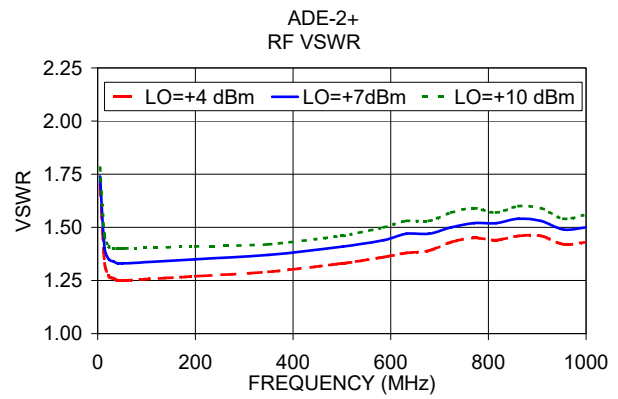
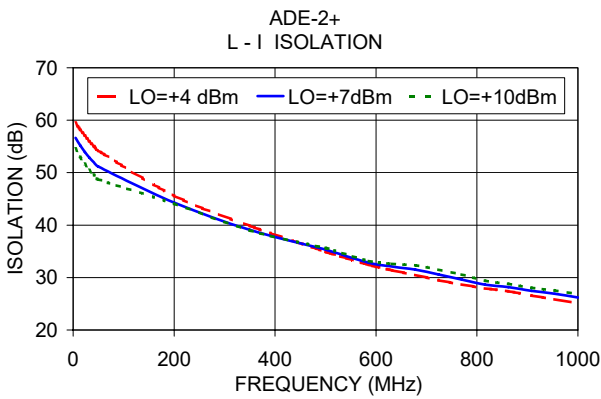
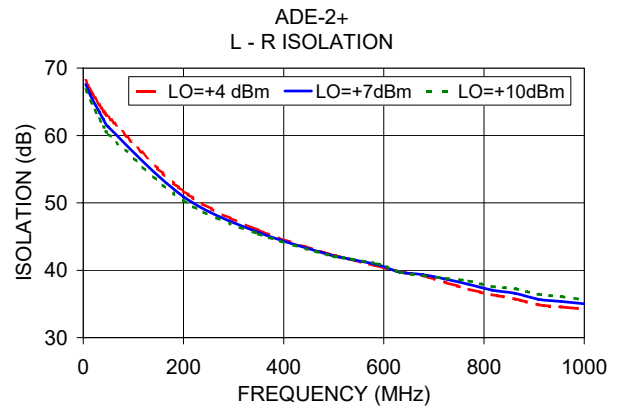
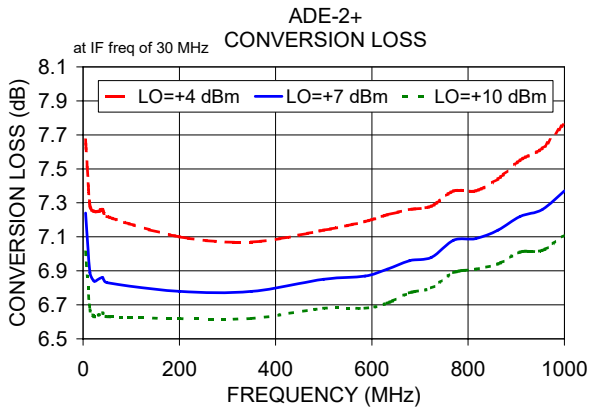
Notes

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