

Surface Mount Frequency Mixer

Level 13 (LO Power +13 dBm) 800 to 1000 MHz

ADE-10MH+ ADE-10MH



CASE STYLE: CD636
PRICE: \$6.95 ea. QTY (10)

+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"	10, 20, 50, 100, 200, 500
13"	500, 1000

Maximum Ratings

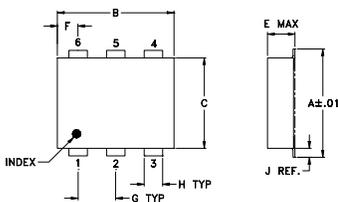
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

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

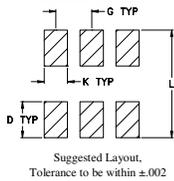
Pin Connections

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

Outline Drawing



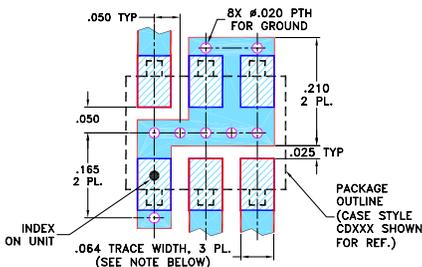
PCB Land Pattern



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.162	.055	.100
6.91	7.87	5.59	2.54	4.11	1.40	2.54
H	J	K	L			wt
.030	.026	.065	.300			grams
0.76	0.66	1.65	7.62			0.25

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



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
■ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- low conversion loss, 7.0 dB typ.
- excellent L-R isolation, 34 dB typ.
- excellent L-I isolation, 29 dB typ.
- high IP3, 26 dBm typ.
- aqueous washable
- protected by U.S. Patent 6,133,525

Applications

- GSM

Electrical Specifications

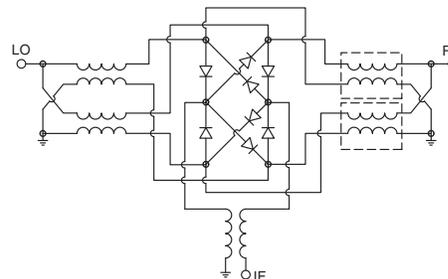
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)	LO-IF ISOLATION (dB)	IP3 at center band (dBm)
LO/RF $f_L - f_U$	\bar{X} σ Max.	Typ. Min.	Typ. Min.	Typ.
800-1000 10-200	7.0 0.20 8.5	34 20	29 20	26

1 dB COMP.: +9 dBm typ.

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
800.00	830.00	6.96	37.49	27.09	1.66	1.29
810.00	840.00	6.94	37.54	27.08	1.68	1.30
820.00	850.00	6.91	37.55	27.04	1.70	1.31
830.00	860.00	6.91	37.57	27.06	1.71	1.31
840.00	870.00	6.85	37.58	27.07	1.71	1.31
850.00	880.00	6.87	37.54	27.04	1.72	1.31
860.00	890.00	6.90	37.55	27.10	1.71	1.30
880.00	910.00	6.77	37.54	27.17	1.74	1.29
890.00	920.00	6.83	37.52	27.26	1.75	1.29
900.00	930.00	6.95	37.49	27.34	1.76	1.29
910.00	940.00	6.99	37.42	27.37	1.77	1.30
920.00	950.00	6.88	37.30	27.41	1.78	1.30
930.00	960.00	6.78	37.22	27.44	1.77	1.30
940.00	970.00	6.79	37.06	27.45	1.77	1.29
950.00	980.00	6.84	36.95	27.47	1.77	1.29
960.00	990.00	6.87	36.90	27.53	1.79	1.28
970.00	1000.00	6.90	36.76	27.54	1.81	1.28
980.00	1010.00	6.90	36.67	27.61	1.82	1.28
990.00	1020.00	6.87	36.58	27.65	1.82	1.28
1000.00	1030.00	6.80	36.50	27.72	1.82	1.29

Electrical Schematic



Notes

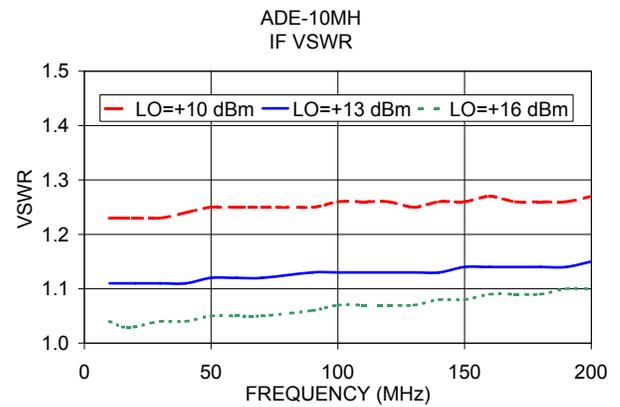
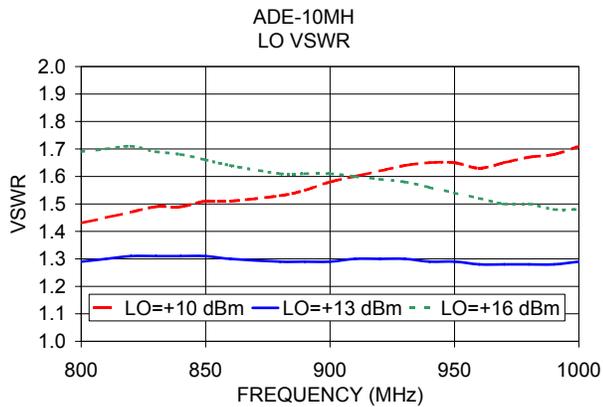
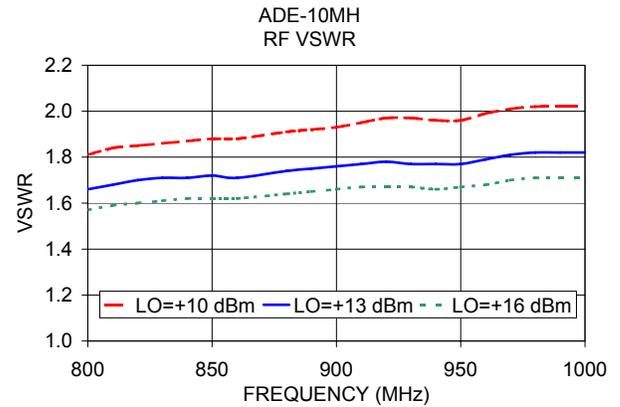
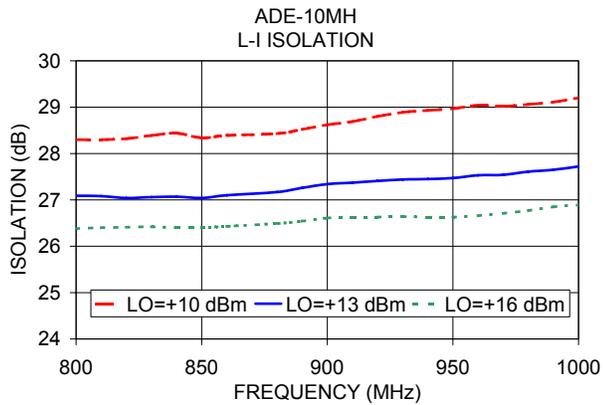
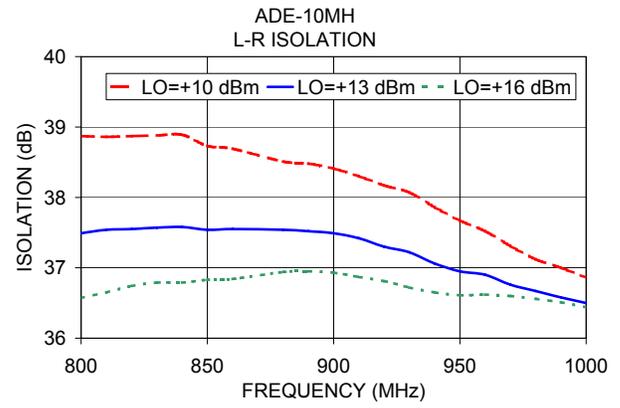
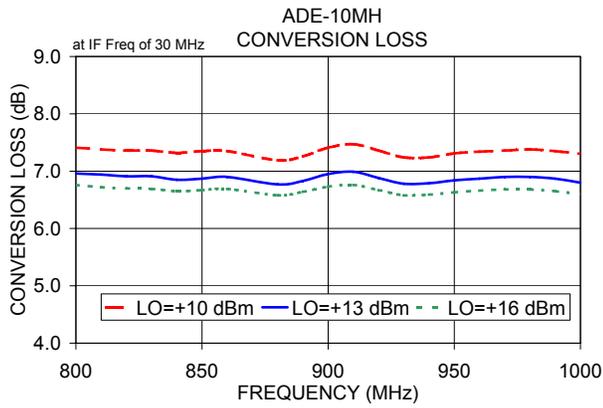
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Performance Charts



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