

Surface Mount Frequency Mixer

ADE-3GL+ ADE-3GL

Level 7 (LO Power +7 dBm) 2100 to 2600 MHz



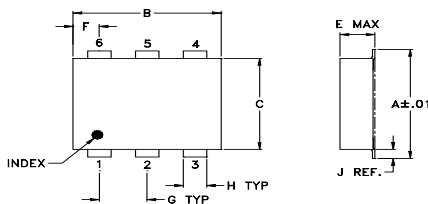
Maximum Ratings

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.	

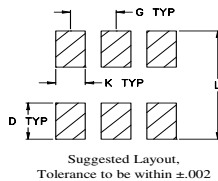
Pin Connections

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

Outline Drawing



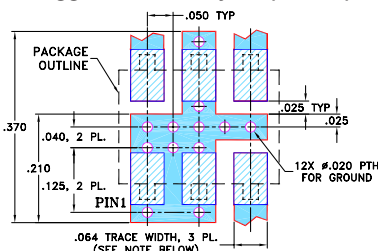
PCB Land Pattern



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.272	.310	.220	.100	.082	.055	.100
6.91	7.87	5.59	2.54	2.08	1.40	2.54
H	J	K	L	wt		
.030	.026	.065	.300	grams		
0.76	0.66	1.65	7.62	0.15		

Demo Board MCL P/N: TB-02 Suggested PCB Layout (PL-051)



- 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, 6.0 dB typ.
- good L-R isolation, 34 dB typ.
- low profile package
- aqueous washable
- low cost
- protected by U.S. Patent 6,133,525

Applications

- PCMCIA cards
- ISM

CASE STYLE: CD541
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

Electrical Specifications

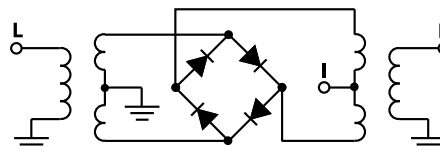
FREQUENCY (MHz)		CONVERSION LOSS (dB)			LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
LO/RF	IF	\bar{X}	σ	Max.	Typ.	Min.	Typ.	Min.	Typ.
2100-2600	DC-600	6.0	0.25	8.8	34	25	20	7	17

1 dB COMP.: +1 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	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
2015.79	2045.79	5.55	36.00	12.90	2.04	1.52
2121.05	2151.05	5.41	35.10	15.00	1.94	1.48
2226.32	2256.32	5.57	34.30	17.50	2.23	1.40
2300.00	2330.00	5.86	34.50	19.40	2.46	1.39
2320.00	2350.00	5.98	34.50	19.90	2.55	1.39
2331.58	2361.58	5.94	34.50	20.20	2.61	1.39
2350.00	2380.00	5.96	34.60	20.70	2.68	1.39
2380.00	2410.00	5.96	34.40	21.60	2.84	1.39
2400.00	2430.00	6.06	34.30	22.10	2.88	1.40
2430.00	2460.00	6.05	34.10	23.00	3.01	1.40
2436.84	2466.84	6.10	34.00	23.20	3.01	1.40
2450.00	2480.00	6.01	33.90	23.60	3.06	1.41
2480.00	2510.00	6.03	33.80	24.70	3.16	1.41
2500.00	2530.00	6.02	33.80	25.70	3.21	1.44
2530.00	2560.00	6.03	33.50	26.80	3.26	1.46
2542.11	2572.11	6.20	33.60	27.30	3.16	1.48
2550.00	2580.00	6.07	33.60	27.80	3.32	1.50
2580.00	2610.00	6.00	33.50	28.70	3.32	1.51
2600.00	2630.00	6.10	33.40	28.90	3.32	1.51
2630.00	2660.00	6.15	33.20	28.70	3.44	1.56

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

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Performance Charts

