

# Surface Mount Frequency Mixer

## ADE-3G+ ADE-3G

### Level 7 (LO Power +7 dBm) 2300 to 2700 MHz



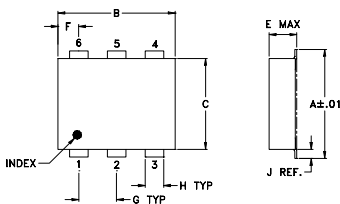
#### Maximum Ratings

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.	

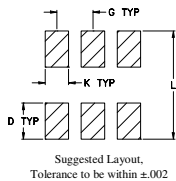
#### Pin Connections

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

#### Outline Drawing



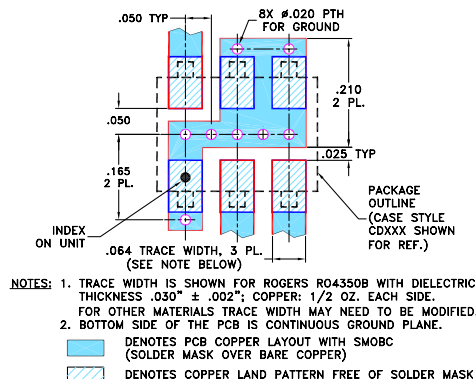
#### PCB Land Pattern



#### 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

- low conversion loss, 5.6 dB typ.
- good L-R isolation, 36 dB typ.
- low profile package
- aqueous washable
- low cost
- protected by U.S. Patent 6,133,525

#### Applications

- wireless/VSAT systems
- ISM

CASE STYLE: CD542  
PRICE: \$3.45 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"	20, 50, 100, 200, 500
13"	500, 1000

#### Electrical Specifications

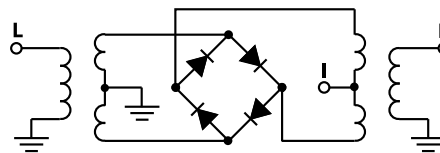
FREQUENCY (MHz)		CONVERSION LOSS (dB)			LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
LO/RF	IF	$\bar{X}$	$\sigma$	Max.	Typ.	Min.	Typ.	Min.	Typ.
2300-2700	DC-400	5.8	0.10	7.0	35	25	26	17	13

1 dB COMP: +1 dBm typ.  
Phase detection, positive polarity

#### Typical Performance Data

Frequency		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
RF MHz	LO MHz	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
2300.00	2330.00	5.75	41.50	25.30	1.28	1.76
2321.05	2351.05	5.85	41.30	25.70	1.27	1.80
2342.11	2372.11	5.88	41.00	26.00	1.23	1.85
2363.16	2393.16	5.89	41.00	26.20	1.24	1.87
2384.21	2414.21	5.91	40.80	26.40	1.25	1.85
2405.26	2435.26	5.82	40.60	26.80	1.24	1.84
2426.32	2456.32	5.79	40.40	27.10	1.25	1.80
2447.37	2477.37	5.69	40.00	27.30	1.25	1.80
2468.42	2498.42	5.65	39.20	27.70	1.27	1.82
2489.47	2519.47	5.59	38.50	27.80	1.28	1.84
2510.53	2540.53	5.65	38.10	28.00	1.29	1.85
2531.58	2561.58	5.63	37.80	28.20	1.31	1.82
2552.63	2582.63	5.64	38.10	28.20	1.34	1.78
2573.68	2603.68	5.54	38.00	28.10	1.38	1.77
2594.74	2624.74	5.61	37.10	28.20	1.39	1.73
2615.79	2645.79	5.63	36.20	28.20	1.40	1.70
2636.84	2666.84	5.63	35.80	28.20	1.43	1.67
2657.90	2687.90	5.59	35.30	28.00	1.48	1.63
2678.95	2708.95	5.54	35.00	27.90	1.50	1.59
2700.00	2730.00	5.53	34.70	27.70	1.53	1.54

#### Electrical Schematic



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

For detailed performance specs & shipping 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](http://minicircuits.com)

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## Performance Charts

