

# Surface Mount Frequency Mixer

## RMS-30+ RMS-30

Level 7 (LO Power +7 dBm) 200 to 3000 MHz



### Maximum Ratings

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

### Pin Connections

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

### Features

- wideband, 200-3000 MHz
- conversion loss, 7.0 dB typ.
- small size, 0.25"x0.31"x0.2"

### Applications

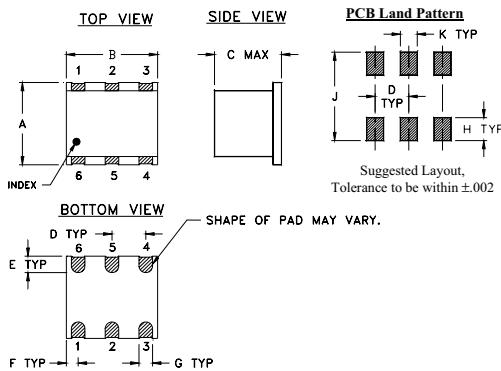
- MMDS
- ISM/PCS/UMTS
- GPS

CASE STYLE: TT240  
PRICE: \$6.95 ea. QTY (1-9)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

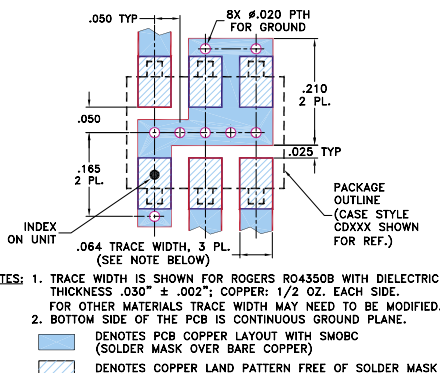
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F
.250	.31	.20	.100	.050	.055
6.35	7.87	5.08	2.54	1.27	1.40
G	H	J	K	wt	
.040	.070	.270	.050	grams	
1.02	1.78	6.86	1.27	0.50	

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



### Electrical Specifications

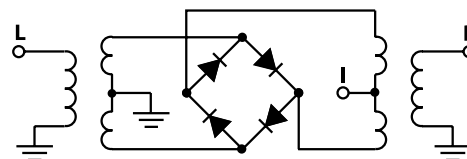
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)	LO-IF ISOLATION (dB)	IP3 at center band (dBm)
f <sub>L</sub> -f <sub>U</sub>	$\bar{X}$ $\sigma$ Max. Total Range Max.	Typ. Min.	Typ. Min.	Typ.
200-3000 DC-1000	6.5 .20 9.0 9.8	27 17	20 7	11

1 dB COMP.: +1 dBm typ.  
For phase detection, DC output positive with in-phase RF & LO.

### 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 +7 dBm	LO +7 dBm	LO +7 dBm	LO +7 dBm	LO +7 dBm
200.10	230.10	5.30	35.34	22.95	1.59	6.06
400.10	430.10	4.94	45.55	22.74	1.63	3.34
600.09	630.09	4.68	38.09	24.23	1.75	2.59
828.65	858.65	6.27	32.57	30.75	1.81	2.05
1000.07	1030.07	6.43	30.53	30.13	2.20	1.49
1114.35	1144.35	6.16	30.64	23.50	2.56	1.38
1228.63	1258.63	5.88	29.50	21.69	3.00	1.34
1342.92	1372.92	6.03	30.63	23.23	3.60	1.47
1457.20	1487.20	6.87	30.80	25.21	4.40	1.62
1500.00	1530.00	6.95	31.01	25.49	4.81	1.75
1685.76	1655.76	7.08	30.14	20.62	5.49	2.12
1857.18	1827.18	7.22	28.52	16.49	3.82	2.51
1971.47	1941.47	7.26	27.20	14.81	3.19	2.75
2085.75	2055.75	7.12	26.56	13.64	2.97	2.86
2200.03	2170.03	6.95	26.14	12.33	2.76	2.94
2371.45	2341.45	6.77	24.57	11.40	2.44	2.95
2542.87	2512.87	6.62	25.24	13.33	1.85	2.94
2714.30	2684.30	5.98	26.06	14.42	1.35	2.45
2885.72	2855.72	6.24	26.86	14.79	1.60	1.83
3000.00	2970.00	6.95	28.42	16.91	2.52	1.60

### Electrical Schematic



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RF/IF MICROWAVE COMPONENTS

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RMS-30  
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