

# Surface Mount Frequency Mixer

## RMS-5L+ RMS-5L

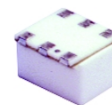
Level 3 (LO Power +3dBm) 400 to 1400 MHz

### Features

- good conversion loss, 7.0 dB typ.
- small size, 0.25"x0.31"x0.2"
- wide bandwidth, 400-1400 MHz

### Applications

- cellular
- ISM/GSM
- satellite distribution



CASE STYLE: TT240  
PRICE: \$13.95 ea. QTY (1-9)

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

See our web site for RoHS Compliance methodologies and qualifications.

### Mixer Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3@ center band Typ. (dBm)	E FACTOR
	LO/RF $f_c - f_u$	IF	$\bar{x}$	$\sigma$	Total Range Max.		Typ. Min.		Typ. Min.			
RMS-5L(+)	400-1400	DC-800	7.0	0.2	—	9.8	22	14	22	6	9	0.2

1 dB COMP.: -3 dBm typ.  
For phase detection, DC output positive with in-phase RF & LO.  
E= [IP3(dBm)-LO Power(dBm)]/10

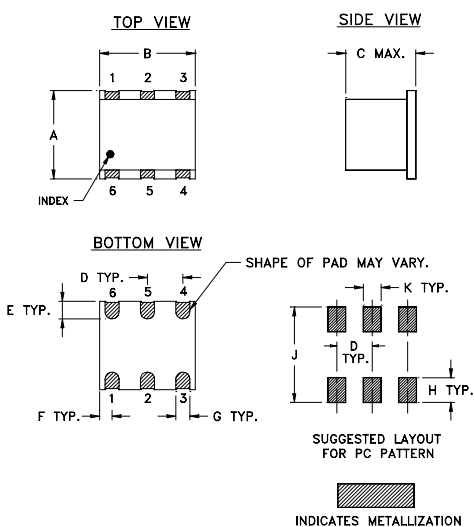
### Pin Connections

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

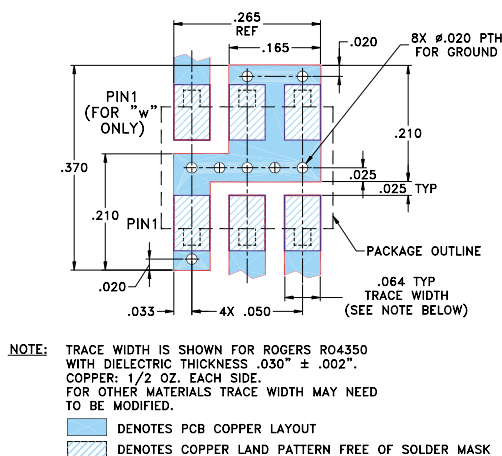
### Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

### Outline Drawing



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



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	wt.
.250	.31	.20	.100	.050	.055	.040	.070	.270	.050	grams
6.35	7.87	5.08	2.54	1.27	1.40	1.02	1.78	6.86	1.27	.50

# RMS-5L+

# RMS-5L

## 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 +3dBm	LO +3dBm	LO +3dBm	LO +3dBm	LO +3dBm
400.00	430.00	7.74	39.94	28.82	1.50	1.45
476.92	506.92	6.92	43.12	28.11	1.40	1.53
553.85	583.85	6.37	56.16	27.98	1.38	1.56
605.13	635.13	6.19	41.52	27.30	1.28	1.64
630.77	660.77	6.10	37.96	26.89	1.19	1.71
707.69	737.69	5.93	29.29	24.68	1.16	1.75
733.33	763.33	5.89	27.74	24.04	1.17	1.78
810.26	840.26	5.81	24.32	21.96	1.17	1.80
835.90	865.90	5.95	23.55	21.29	1.18	1.85
887.18	917.18	6.28	22.39	20.26	1.20	1.93
912.82	942.82	6.26	21.89	19.74	1.24	2.03
989.74	959.74	6.84	20.56	17.73	1.26	2.10
1066.67	1036.67	7.26	19.47	15.58	1.27	2.18
1117.95	1087.95	7.40	18.97	14.31	1.29	2.28
1143.59	1113.59	7.64	18.77	13.78	1.30	2.34
1220.51	1190.51	7.63	18.25	12.26	1.32	2.51
1297.44	1267.44	7.75	17.96	10.95	1.32	2.68
1348.72	1318.72	7.73	17.87	10.20	1.33	2.89
1374.36	1344.36	7.64	17.90	9.72	1.34	2.98
1400.00	1370.00	7.79	17.92	9.13	1.35	3.06

## Performance Charts

