

Surface Mount Frequency Mixer

RMS-5+ RMS-5

Level 7 (LO Power +7 dBm) 5 to 1500 MHz



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	1
RF	4
IF	5
GROUND	2,3,6

Features

- excellent L-R isolation, 40 dB typ.
- conversion loss, 5.92 dB typ.
- small size, 0.25"x0.31"x0.2"

Applications

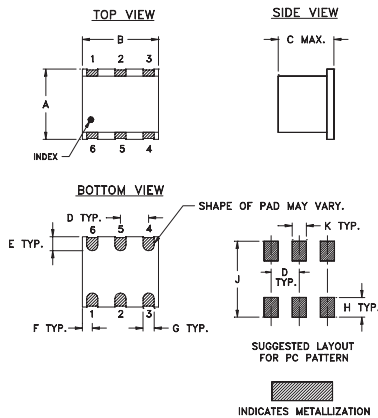
- cellular
- satellite distribution
- GPS

CASE STYLE: TT240
PRICE: \$13.95 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.

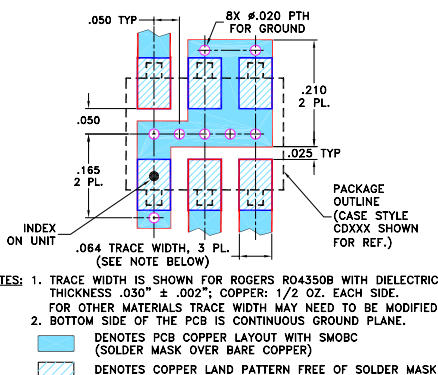
Outline Drawing



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

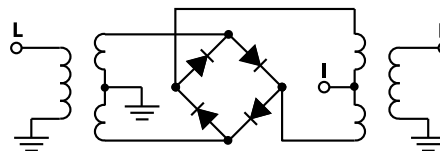
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)
		L		M		U		L		M		U		
$f_L - f_U$	\bar{X} σ Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
5-1500 DC-1000	5.92 .34 7.5 9.5	60	40	40	20	30	18	55	30	30	18	15	8	13

1 dB COMP: +1 dBm typ. For phase detection, DC output positive with in-phase RF & LO. L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

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
5.00	35.00	6.17	78.28	82.08	2.64	2.43
10.00	40.00	6.03	73.09	75.39	1.62	2.43
20.00	50.00	5.86	67.43	67.33	1.37	2.37
50.00	80.00	5.46	60.16	61.16	1.27	2.46
100.00	70.00	5.31	53.66	53.86	1.29	2.38
149.68	119.68	5.33	50.07	50.77	1.34	2.33
200.00	170.00	5.37	47.54	48.24	1.40	2.28
246.13	216.13	5.54	45.92	48.66	1.48	2.29
342.58	312.58	5.71	43.07	48.72	1.68	2.29
439.03	409.03	5.77	40.76	43.78	1.93	2.33
500.00	470.00	5.97	39.74	38.41	2.10	2.41
583.71	553.71	6.25	39.21	33.19	2.36	2.48
680.16	650.16	6.55	38.34	29.32	2.71	2.69
750.00	720.00	6.89	37.60	26.77	2.92	2.80
873.07	843.07	7.45	36.91	21.63	3.32	3.09
1000.00	970.00	7.70	35.50	18.14	3.56	3.20
1114.19	1084.19	7.76	33.72	16.32	3.69	3.18
1210.65	1180.65	8.02	32.50	14.96	3.73	3.19
1355.32	1325.32	8.41	30.92	13.25	3.75	3.12
1500.00	1470.00	8.83	28.64	12.28	3.83	2.98

Electrical Schematic



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IF/RF MICROWAVE COMPONENTS

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