

Surface Mount Frequency Mixer

RMS-25MH+ RMS-25MH

Level 13 (LO Power +13 dBm) 5 to 2500 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

- excellent L-R isolation, 32 dB typ.
- conversion loss, 7.0 dB typ.
- small size, 0.25"x0.31"x0.2"

Applications

- cellular
- satellite distribution
- GPS

CASE STYLE: TT240
PRICE: \$9.95 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.

Electrical Specifications

FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)				
		LO/RF		IF		Total Range		L		M		U			Typ.			
$f_L - f_U$	\bar{X} σ Max.	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.				
5-2500	5-1500	7.0	.20	8.5	9.8	54	28	32	23	32	20	34	23	32	25	28	17	17

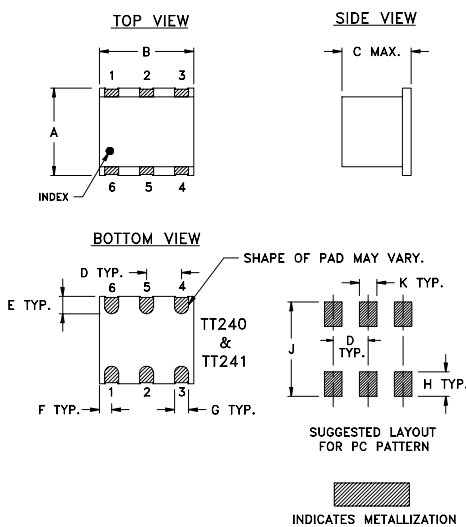
1 dB COMP.: +9 dBm typ.
For phase detection, DC output positive with in-phase RF & LO.

L = low range [f_L to $10 f_L$]
M = mid range [$2 f_L$ 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
5.00	35.00	6.60	43.66	31.16	1.43	2.14
10.10	40.10	6.47	48.02	33.66	1.42	2.07
20.18	50.18	6.42	53.20	34.80	1.42	2.09
33.51	63.51	6.47	56.82	34.60	1.42	2.09
49.03	79.03	6.46	59.20	34.63	1.42	2.08
81.42	111.42	6.50	57.10	34.59	1.42	2.06
135.23	165.23	6.58	52.43	34.78	1.45	2.08
224.60	194.60	6.60	46.08	35.72	1.52	2.08
373.01	343.01	6.77	40.43	37.11	1.71	1.95
480.71	450.71	6.88	38.16	36.46	1.86	1.92
545.72	515.72	6.82	37.54	35.91	1.95	1.80
798.38	768.38	6.92	36.87	32.89	2.23	1.71
906.34	876.34	6.92	37.27	31.38	2.32	1.62
1168.03	1138.03	7.19	36.90	30.53	2.35	1.61
1250.00	1220.00	7.10	38.52	31.35	2.37	1.62
1505.28	1475.28	6.78	39.76	30.96	2.27	1.65
1800.00	1770.00	6.85	31.84	27.67	2.24	1.57
2000.00	1970.00	7.07	28.62	28.09	2.19	1.62
2200.00	2170.00	7.09	25.62	28.13	2.18	1.77
2500.00	2470.00	7.52	22.96	26.44	1.95	1.99

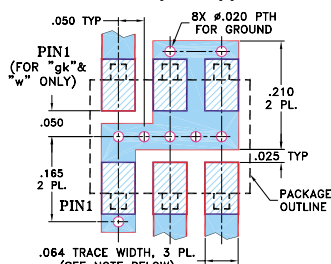
Outline Drawing



Outline Dimensions (inch/mm)

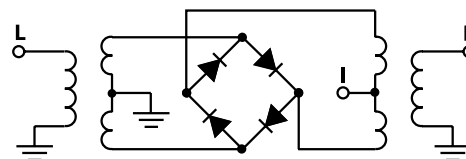
A	B	C	D	E	F
.250	.31	.20	.100	.050	.055
6.35	7.87	5.08	2.54	1.27	1.40
G	H	J	K	wt	
.040	.070	.270	.050	grams	
1.02	1.78	6.86	1.27	0.50	

Demo Board MCL P/N: TB-03
Suggested PCB Layout (PL-052)
"w" loc. of pin 1 applies.



- 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

Electrical Schematic



Performance Charts

