

Surface Mount Frequency Mixer

RMS-1LH+ RMS-1LH

Level 10 (LO Power +10 dBm) 2 to 500 MHz



CASE STYLE: TT240
PRICE: \$7.95 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.

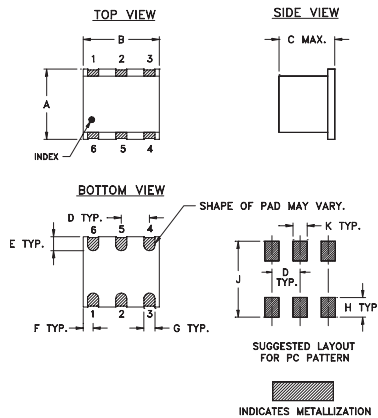
Maximum Ratings

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	1
RF	4
IF	5
GROUND	2,3,6

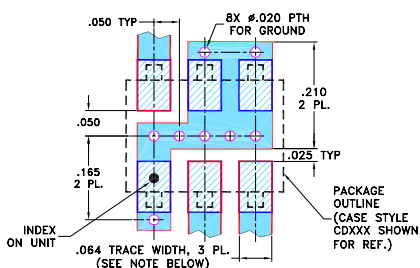
Outline Drawing



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)



Features

- excellent L-R isolation, 44 dB typ.
- conversion loss, 5.68 dB typ.
- small size, 0.25"x0.31"x0.2"

Applications

- HF & VHF communications
- intermediate frequency for down converters

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											
$f_c - f_u$	\bar{X} σ Max.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ.										
2-500	DC-500	5.68	0.11	7.0	8.0	58	45	44	25	30	20	55	40	40	25	28	17	15

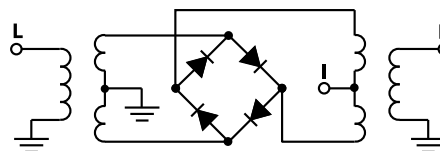
1 dB COMP.: +5 dBm typ.
For phase detection, DC output positive with in-phase RF & LO.

L = low range [f_c to $10 f_c$] M = mid range [$10 f_c$ to $f_c/2$] U = upper range [$f_c/2$ to f_c]
m = mid band [$2f_c$ to $f_c/2$]

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
10.10	40.10	5.60	74.28	1.06	2.46	
49.80	79.80	5.69	60.16	1.04	2.50	
89.50	119.50	5.68	55.26	1.05	2.36	
129.20	159.20	5.75	52.39	1.06	2.46	
168.90	198.90	5.77	50.72	1.07	2.38	
208.60	238.60	5.78	49.03	1.09	2.45	
248.30	278.30	5.86	48.01	1.09	2.47	
287.90	317.90	5.87	46.41	1.10	2.47	
327.60	357.60	5.93	45.92	1.10	2.57	
367.30	397.30	5.98	44.83	1.10	2.54	
407.00	437.00	5.98	42.83	1.12	2.62	
446.70	476.70	6.02	41.37	1.13	2.66	
486.40	516.40	6.07	40.02	1.14	2.69	
526.10	556.10	6.14	38.49	1.14	2.78	
565.80	595.80	6.18	37.45	1.15	2.79	

Electrical Schematic



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IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

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Performance Charts

