

Surface Mount Frequency Mixer

Level 13 (LO Power +13 dBm) 5 to 1000 MHz

RMS-2MH+ RMS-2MH



CASE STYLE: TT100
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.

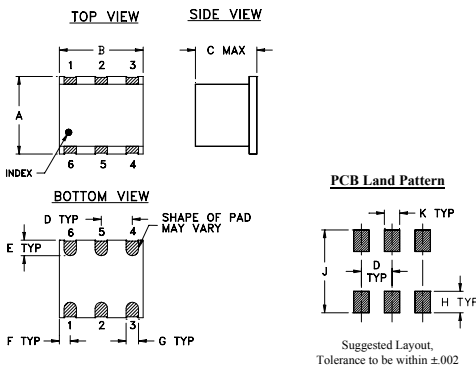
Maximum Ratings

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

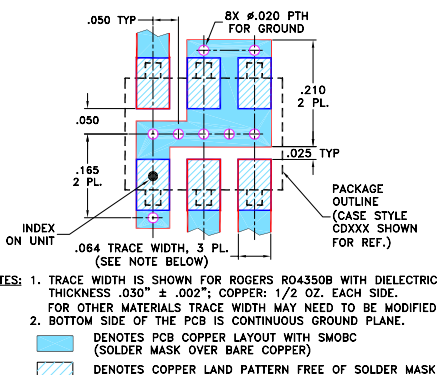
Outline Drawing



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, 39 dB typ.
- conversion loss, 6.72 dB typ.
- small size, 0.25"x0.31"x0.2"

Applications

- UHF
- cellular/ISM/GSM

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						
$f_L - f_U$	m Total Range Max.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ.					
5-1000	DC-1000	6.72	.08	8.5	9.5	55	40	39	20	22	16	52	35	30	17	18	12	22

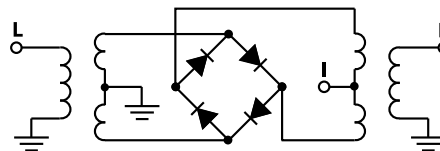
1 dB COMP: +9 dBm typ.
For phase detection, DC output positive with in-phase RF & LO.

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

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	LO	+13dBm
5.00	35.00	6.87	67.46	60.42	1.26	2.23		
10.00	40.00	6.71	61.14	54.89	1.16	2.14		
20.00	50.00	6.81	55.36	49.28	1.12	2.06		
35.15	65.15	6.82	50.90	44.75	1.13	2.13		
50.00	80.00	6.86	48.33	42.38	1.13	2.09		
65.30	95.30	6.76	46.42	40.39	1.13	2.04		
100.00	70.00	6.73	44.03	37.91	1.14	2.02		
155.76	125.76	6.54	43.58	37.14	1.15	1.97		
200.00	170.00	6.54	42.48	36.16	1.16	1.95		
246.21	216.21	6.62	40.92	34.54	1.19	1.98		
306.52	276.52	6.76	38.19	31.82	1.23	1.93		
366.82	336.82	6.79	34.91	28.84	1.29	2.04		
427.12	397.12	6.59	32.18	26.69	1.35	2.09		
500.00	470.00	6.52	29.15	24.87	1.44	2.11		
577.88	547.88	6.74	26.48	22.60	1.54	2.15		
668.33	638.33	7.07	24.41	20.55	1.68	2.21		
758.79	728.79	7.37	22.47	18.54	1.82	2.31		
849.24	819.24	7.86	20.85	16.52	1.98	2.47		
909.55	879.55	8.30	19.83	15.54	2.18	2.56		
1030.00	970.00	8.73	19.01	14.41	2.43	2.61		

Electrical Schematic



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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IF/RF MICROWAVE COMPONENTS

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Performance Charts

