

Surface Mount

Frequency Mixer

RMS-5H+ RMS-5H

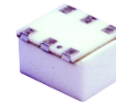
Level 17 (LO Power +17dBm) 10 to 1500 MHz

Features

- excellent L-R isolation, 36 dB typ.
- conversion loss, 6.36 dB typ.
- small size, 0.25"x0.31"x0.2"

Applications

- satellite distribution
- ISM
- GSM
- cellular



CASE STYLE: TT240
PRICE: \$17.95 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 $f_L - f_U$	IF	Mid-Band m	Total Range Max.			L Typ.	M Typ.	U Typ.	L Typ.	M Typ.	U Typ.								
RMS-5H(+)	10-1500	DC-900	6.36	.05	8.0	9.8	65	40	36	20	22	15	50	30	30	18	17	7	24	0.7

1 dB COMP.: +14 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 $f_U/2$]
E = $[IP3(dBm) - LO Power(dBm)]/10$

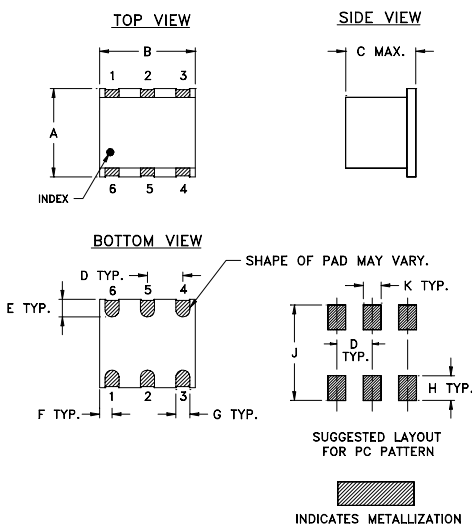
Pin Connections

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

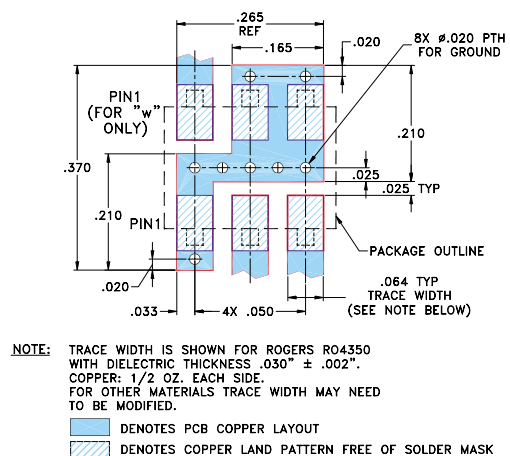
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
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



INTERNET <http://www.minicircuits.com>

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Mini-Circuits ISO 9001 & ISO 14001 Certified



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RMS-5H
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RMS-5H+ RMS-5H

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 +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
10.00	40.00	6.95	70.78	61.92	2.20	1.53
20.00	50.00	6.58	65.19	63.52	1.63	1.56
50.00	80.00	6.34	58.27	59.11	1.47	1.51
100.00	70.00	6.16	57.50	49.97	1.49	1.50
149.69	119.69	6.25	57.97	51.05	1.52	1.49
200.00	170.00	6.35	58.46	44.60	1.57	1.47
289.38	259.38	6.44	45.97	40.19	1.66	1.45
429.06	399.06	6.52	35.99	40.36	1.85	1.48
500.00	470.00	6.57	33.86	35.13	1.96	1.52
568.75	538.75	6.70	31.80	31.81	2.07	1.65
708.44	678.44	7.17	28.34	25.09	2.42	1.79
750.00	720.00	7.33	27.82	23.34	2.56	1.80
848.13	818.13	7.63	27.14	20.18	2.79	1.94
987.81	957.81	7.85	25.28	17.43	2.98	2.02
1000.00	970.00	7.86	25.09	16.91	3.00	2.12
1127.50	1097.50	7.96	23.28	14.89	3.16	2.21
1267.19	1237.19	8.09	21.51	13.36	3.15	2.57
1406.88	1376.88	8.10	20.40	11.73	2.97	2.82
1453.44	1423.44	8.28	20.09	11.57	2.99	2.97
1500.00	1470.00	8.50	19.62	11.46	2.94	3.15

Performance Charts

