

Surface Mount Frequency Mixer

Level 10 (LO Power +10 dBm) 5 to 1000 MHz

RMS-2LH+ RMS-2LH



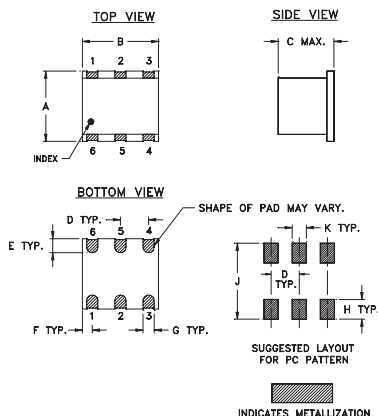
Maximum Ratings

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

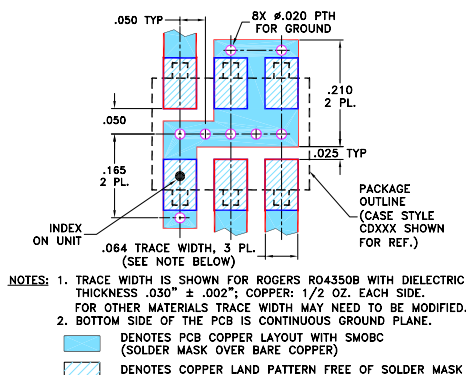
Outline Drawing



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, 6.44 dB typ.
- small size, 0.25"x0.31"x0.2"

Applications

- HF & VHF communications
- intermediate frequency for down converters

CASE STYLE: TT100

PRICE: \$8.95 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.

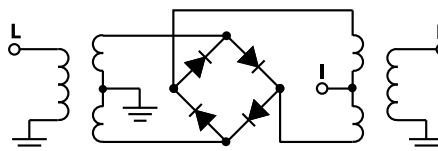
Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)
LO/RF IF						L		M		U		L		M		U		
f _L -f _U		Total Range																
		$\bar{X}$	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
5-1000	DC-1000	6.44	0.10	8.0	9.5	58	40	39	20	22	16	52	30	30	17	18	11	18
1 dB COMP.: +5 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 [2f _L to f _L /2]						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 +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm
5.00	35.00	6.77	63.03	59.74	1.36	2.36
10.00	40.00	6.92	60.63	54.85	1.24	2.34
20.00	50.00	6.93	56.56	48.96	1.20	2.44
35.15	65.15	6.82	52.70	44.78	1.20	2.42
50.00	80.00	6.80	50.21	42.03	1.20	2.36
65.30	95.30	6.77	48.42	40.14	1.20	2.31
100.00	70.00	6.71	46.01	37.18	1.20	2.32
155.76	125.76	6.67	44.69	34.75	1.22	2.34
200.00	170.00	6.65	42.20	33.10	1.24	2.28
246.21	216.21	6.76	40.22	31.46	1.26	2.29
306.52	276.52	6.78	37.07	29.28	1.31	2.32
366.82	336.82	6.62	33.94	26.64	1.37	2.33
427.12	397.12	6.68	30.94	24.95	1.44	2.40
500.00	470.00	6.70	28.40	22.81	1.54	2.47
577.88	547.88	6.71	25.77	20.52	1.68	2.54
668.33	638.33	7.07	23.71	18.54	1.84	2.67
758.79	728.79	7.63	21.83	16.38	2.03	2.83
849.24	819.24	8.30	20.52	14.77	2.27	2.95
909.54	879.54	8.82	20.13	14.18	2.42	2.94
1000.00	970.00	9.17	19.83	12.95	2.69	2.91

Electrical Schematic



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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Performance Charts

