

Surface Mount Frequency Mixer

Level 10 (LO Power +10dBm) 750 to 2500 MHz

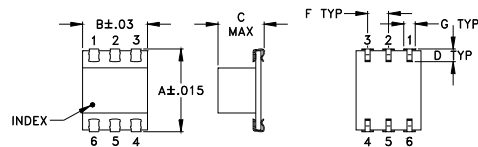
Maximum Ratings

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.	

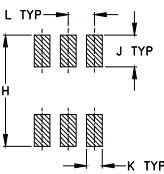
Pin Connections

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

Outline Drawing



PCB Land Pattern

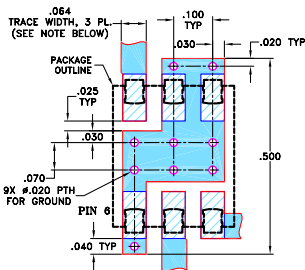


Suggested Layout,
Tolerance to be within ±0.002

Outline Dimensions (inch)

A	B	C	D	E	F	G
.390	.31	.225	.060	--	.100	.045
9.91	7.87	5.72	1.52	--	2.54	1.14
H	J	K	L	M	wt	
.420	.120	.060	.100	--	grams	
10.67	3.05	1.52	2.54	--	0.50	

Demo Board MCL P/N: TB-44+ Suggested PCB Layout (PL-083)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.030" ± 0.002"; 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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- low conversion loss, 5.2 dB typ.
- aqueous washable
- J-leads for strain relief

Applications

- PCS
- GPS
- satellite distribution



CASE STYLE: QQQ569
PRICE: \$9.25 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

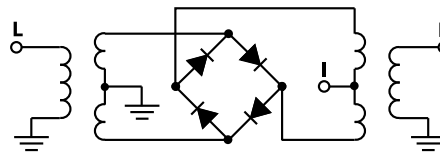
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)	LO-IF ISOLATION (dB)	IP3 at center band (dBm)
LO/RF IF $f_L - f_U$	$\bar{X}$ σ Max.	Typ. Min.	Typ. Min.	Typ.
750-2500 DC-600	5.2 .15 9.5	35 17	20 7	18

1 dB COMP.: +5 dBm typ.

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
750.00	780.00	8.42	21.80	9.70	1.67	5.03
852.94	882.94	7.16	25.70	11.70	1.58	3.16
955.88	985.88	6.00	30.90	13.80	1.55	2.23
1058.82	1088.82	5.43	39.60	15.60	1.54	1.40
1161.77	1191.77	5.35	39.80	17.70	1.56	1.16
1264.71	1294.71	5.89	34.30	20.80	1.59	1.77
1367.65	1397.65	6.21	35.10	22.40	1.58	2.35
1470.59	1500.59	6.70	34.90	23.90	1.59	2.96
1500.00	1530.00	6.92	35.20	24.30	1.60	3.21
1573.53	1603.53	6.84	34.80	25.30	1.55	3.44
1676.47	1706.47	5.88	38.70	26.20	1.47	3.16
1779.41	1809.41	5.60	37.10	26.50	1.40	2.96
1882.35	1912.35	5.78	35.50	26.60	1.37	2.55
1985.29	2015.29	6.53	34.80	28.10	1.43	3.44
2000.00	2030.00	6.68	34.40	28.20	1.42	3.57
2088.24	2118.24	6.83	30.50	29.10	1.44	3.71
2191.18	2221.18	6.37	27.20	30.00	1.51	2.92
2294.12	2324.12	5.84	25.10	30.90	1.59	2.16
2397.06	2427.06	5.35	23.60	32.50	1.74	1.46
2500.00	2530.00	5.32	24.50	34.60	1.94	1.24

Electrical Schematic



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P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com
IF/RF MICROWAVE COMPONENTS

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Performance Charts

