

Surface Mount Frequency Mixer

MBA-671

Level 7 (LO Power +7 dBm) 2400 to 6700 MHz

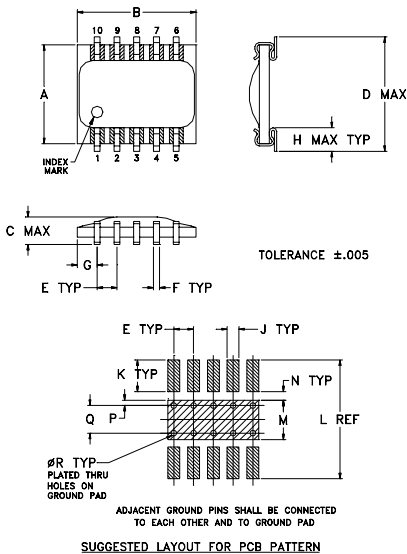
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

Pin Connections

LO	10
RF	6
IF	1
GROUND	2,3,4,5,7,8,9

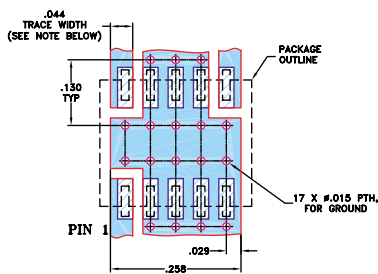
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	
.250	.300	.070	.290	.050	.015	.050	.060	
6.35	7.62	1.78	7.37	1.27	0.38	1.27	1.52	
J	K	L	M	N	P	Q	R	wt
.030	.080	.300	.100	.020	.015	.070	.014	grams
0.76	2.03	7.62	2.54	0.51	0.38	1.78	0.36	0.3

Demo Board MCL P/N: TB-74 Suggested PCB Layout (PL-067)



NOTE: TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS 0.020" ± 0.0015", COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.

- DENOTES PCB COPPER LAYOUT
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- excellent temperature stability
- excellent performance repeatability
- solder plated leads with strain relief
- very low cost
- ultra low height, 0.07"

Applications

- satellite communication
- ISM band
- PCMCIA



CASE STYLE: SM2
PRICE: \$8.95 ea. QTY (10-49)

Mixer Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		CONVERSION LOSS (dB)			LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 @ center band Typ. (dBm)
	LO/RF $f_L - f_U$	IF	\bar{x}	σ	Total Range Max.	Typ. Min.		Typ. Min.		
MBA-671	2400-6700	DC-1000	6.5	0.1	9.2	36	20	26	17	10

1 dB COMP.: +1 dBm typ.

Typical Performance Data

Frequency		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR LO port (:1)	VSWR RF port (:1)
RF MHz	LO MHz	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
2400.00	2430.00	6.94	35.14	22.53	6.58	4.95
2597.00	2627.00	6.11	33.16	23.57	7.31	3.25
2895.00	2925.00	5.11	31.10	23.98	5.83	1.88
3000.00	3030.00	4.90	31.11	23.73	5.23	1.61
3300.00	3330.00	4.58	31.80	23.98	4.61	1.28
3492.50	3522.50	4.70	33.07	24.97	4.78	1.61
3700.00	3730.00	4.92	33.70	26.25	4.21	2.10
3791.00	3821.00	5.01	34.34	26.80	3.90	2.31
4000.00	4030.00	5.32	36.66	27.71	2.86	2.84
4388.00	4418.00	5.93	38.33	28.33	1.70	3.16
4500.00	4530.00	6.11	39.03	28.13	1.49	3.22
4985.00	5015.00	6.08	40.18	26.99	1.31	4.02
5000.00	5030.00	6.10	40.38	27.03	1.33	4.07
5400.00	5430.00	6.57	38.38	26.96	2.08	4.09
5500.00	5530.00	7.20	38.33	26.75	2.32	4.95
5582.00	5612.00	7.42	38.54	26.53	2.45	5.13
6000.00	6030.00	8.02	38.49	25.53	2.75	4.39
6179.00	6209.00	7.79	39.55	25.30	3.99	4.47
6500.00	6530.00	8.20	38.33	25.09	5.89	5.81
6776.00	6806.00	8.23	32.58	24.62	9.08	6.44

