

# Surface Mount Frequency Mixer

# JMS-1MH+ JMS-1MH

Level 13 (LO Power +13 dBm) 2 to 500 MHz



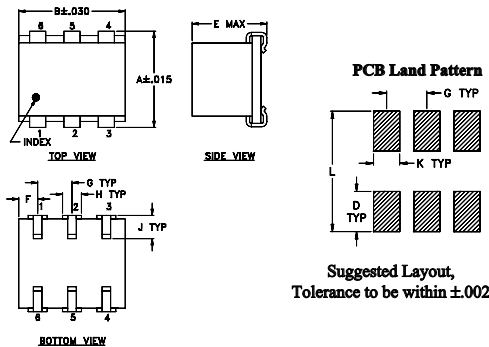
## Maximum Ratings

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

## Pin Connections

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

## Outline Drawing



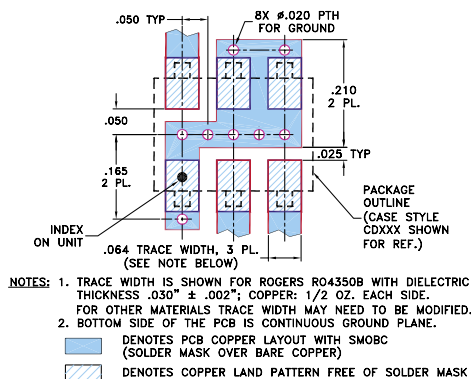
## Outline Dimensions (inch)

A	B	C	D	E	F	G
.280	.310	--	.100	.225	.055	.100
7.11	7.87	--	2.54	5.72	1.40	2.54

H	J	K	L	wt
.047	.065	.065	.300	grams
1.19	1.65	1.65	7.62	0.45

## Demo Board MCL P/N: TB-03 Suggested PCB Layout (PL-052)



## Features

- low conversion loss, 5.75 dB typ.
- miniature surface mount
- J-leads for strain relief and excellent solderability

## Applications

- up & down converters for receivers & transmitters
- VHF/UHF

CASE STYLE: BH292  
PRICE: \$9.45 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)						
		L	M	U	L	M	U							
2-500	DC-500	70	55	60	40	44	25	55	42	45	25	35	20	22

1 dB COMP.: +9 dBm typ.

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

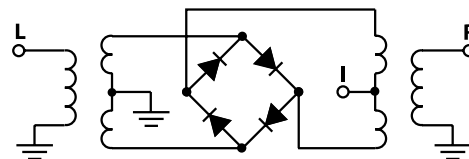
M = mid range [ $10 f_L$  to  $f_U/2$ ]

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 +13dBm	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm
2.00	32.00	6.87	74.51	65.71	1.13	2.10
5.00	35.00	5.99	68.76	61.00	1.06	2.01
10.00	40.00	6.21	63.07	55.80	1.02	2.15
20.00	50.00	6.21	57.31	49.78	1.01	2.20
32.18	62.18	6.13	52.98	45.20	1.02	2.17
50.00	80.00	6.10	49.34	40.85	1.04	2.08
77.45	47.45	6.18	47.86	38.28	1.06	2.06
100.00	70.00	6.00	47.68	37.14	1.09	2.04
122.73	92.73	6.08	47.59	36.20	1.11	2.00
168.00	138.00	6.07	45.07	34.10	1.13	1.98
198.18	168.18	6.11	42.15	31.58	1.16	1.99
228.36	198.36	6.11	39.78	30.31	1.18	1.98
250.00	220.00	6.27	37.93	29.36	1.20	1.98
273.64	243.64	6.21	35.54	27.74	1.23	2.01
303.82	273.82	6.26	32.56	25.93	1.25	2.01
349.09	319.09	6.39	29.95	24.88	1.28	2.01
379.27	349.27	6.47	28.87	23.78	1.33	2.01
409.45	379.45	6.45	27.89	22.58	1.36	2.03
454.73	424.73	6.64	25.80	20.47	1.41	2.07
500.00	470.00	7.03	23.97	18.39	1.45	2.09

## Electrical Schematic



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RF/IF MICROWAVE COMPONENTS

REV. B  
M102713  
JMS-1MH  
ED-3470  
DJ/CP/AM  
061228  
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# Performance Charts

# JMS-1MH+ JMS-1MH

