

Surface Mount Frequency Mixer

JMS-1H+ JMS-1H

Level 17 (LO Power +17 dBm) 2 to 500 MHz



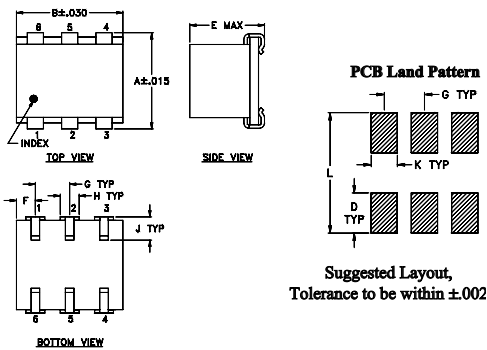
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

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

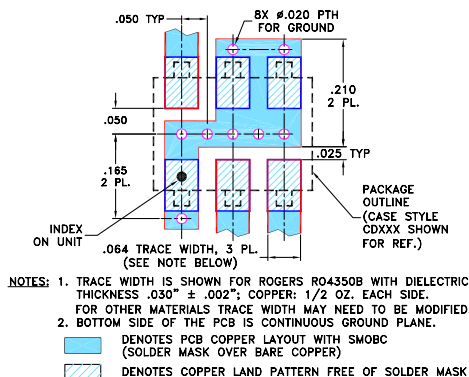
Outline Drawing



Outline Dimensions (inch/mm)

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, 5.90 dB typ.
- excellent L-R isolation, up to 60 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: \$11.45 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	5.90	.10	7.0	8.5	60	45	50	25	37	22	55	45	50	25	37	22	22

1 dB COMP.: +14 dBm typ.

L = low range [f_l to $10 f_l$]

m = mid band [$2 f_l$ to $f_l/2$]

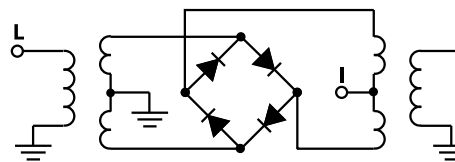
M = mid range [$10 f_l$ to $f_l/2$]

U = upper range [$f_l/2$ to f_l]

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 +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
2.00	32.00	6.78	79.29	69.19	1.33	1.77
4.00	34.00	6.60	72.35	63.39	1.20	1.75
5.00	35.00	6.57	71.51	62.98	1.15	1.82
10.00	40.00	6.55	65.84	61.30	1.14	1.82
20.00	50.00	6.48	59.50	58.68	1.13	1.75
35.20	65.20	6.36	51.64	53.67	1.14	1.75
50.00	80.00	6.53	51.61	53.63	1.14	1.76
85.00	55.00	6.47	45.13	48.67	1.15	1.74
100.00	70.00	6.48	44.98	48.52	1.17	1.71
134.80	104.80	6.32	41.19	46.50	1.19	1.69
184.60	154.60	6.35	38.78	44.90	1.22	1.65
200.00	170.00	6.40	38.62	44.42	1.23	1.62
234.40	204.40	6.30	36.44	41.20	1.24	1.63
250.00	220.00	6.22	36.14	41.01	1.26	1.62
284.20	254.20	6.22	35.11	38.57	1.30	1.58
334.00	304.00	6.18	33.38	37.07	1.34	1.54
383.80	353.80	6.11	32.33	33.77	1.39	1.51
433.60	403.60	6.16	32.22	31.10	1.44	1.45
483.40	453.40	6.45	31.29	29.09	1.47	1.41
500.00	470.00	6.45	30.80	28.30	1.49	1.39

Electrical Schematic



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IF/RF MICROWAVE COMPONENTS

REV. B
M102713
JMS-1H
ED-3195/1
DJ/CP/AM
061228
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Performance Charts

