

Surface Mount Frequency Mixer

JMS-1LH+ JMS-1LH

Level 10 (LO Power +10 dBm) 2 to 500 MHz



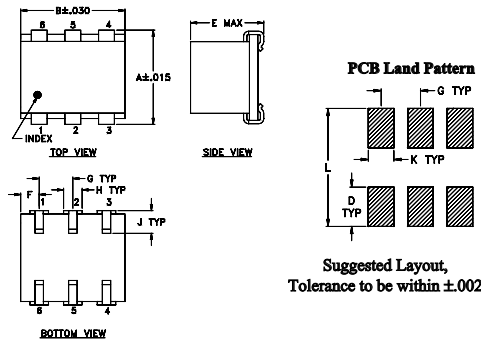
Maximum Ratings

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

Pin Connections

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

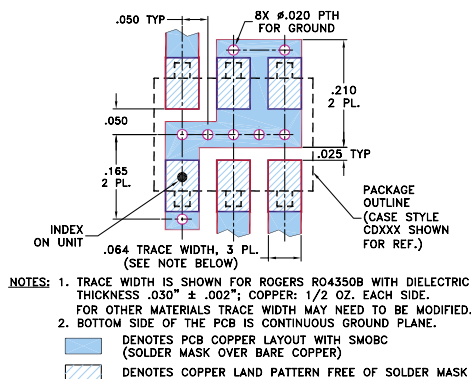
Outline Drawing



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, 5.75 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: \$8.45 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											
LO/RF f_L - f_U	Mid-Band m \bar{X} σ Max. Total Range Max.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ.										
2-500	DC-500	5.75	.10	7.0	8.0	55	50	45	30	40	25	55	45	45	25	30	20	16

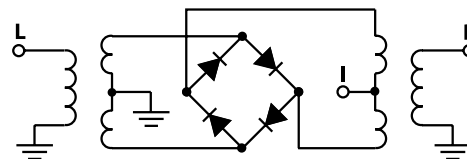
1 dB COMP.: +5 dBm typ.

L = low range [f_L to 10 f_L]
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)	
						LO +10dBm
RF	LO	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	
2.00	32.00	6.73	68.96	58.87	1.16	2.42
5.00	35.00	5.87	67.37	56.74	1.08	2.33
10.00	40.00	6.17	65.16	52.79	1.03	2.43
20.00	50.00	6.15	60.74	47.32	1.02	2.47
32.18	62.18	6.06	57.04	43.21	1.03	2.47
50.00	80.00	6.05	48.82	29.76	1.05	2.35
77.45	47.45	6.06	55.97	37.96	1.08	2.35
100.00	70.00	5.90	59.73	36.65	1.10	2.35
122.73	92.73	5.91	63.14	35.55	1.13	2.35
152.91	122.91	5.92	56.38	34.01	1.16	2.30
198.18	168.18	5.94	48.84	32.04	1.20	2.31
228.36	198.36	5.96	45.44	30.49	1.24	2.34
250.00	220.00	6.03	43.77	29.78	1.26	2.32
273.64	243.64	6.06	42.07	28.92	1.30	2.33
303.82	273.82	6.12	39.63	27.42	1.35	2.37
334.00	304.00	6.12	37.56	26.38	1.39	2.34
379.27	349.27	6.09	34.91	25.00	1.43	2.39
409.45	379.45	5.98	33.53	24.14	1.49	2.36
454.73	424.73	6.04	31.70	22.72	1.54	2.39
500.00	470.00	6.19	30.03	21.67	1.58	2.46

Electrical Schematic



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RF/IF MICROWAVE COMPONENTS

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Performance Charts

