

Surface Mount Frequency Mixer

JMS-1+ JMS-1

Level 7 (LO Power +7 dBm) 2 to 500 MHz



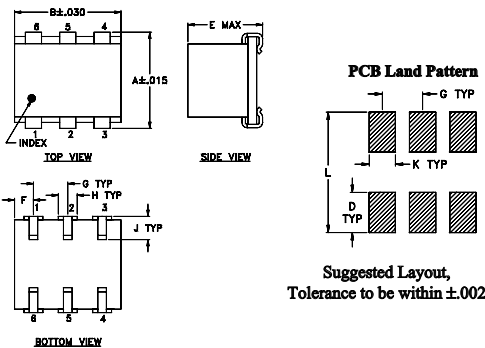
Maximum Ratings

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

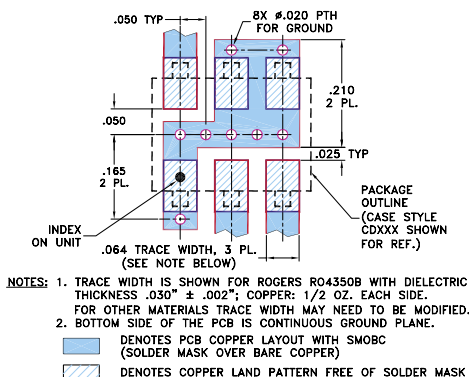
Outline Drawing



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
- HF/VHF/UHF

CASE STYLE: BH292
PRICE: \$4.95 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 Total Range Max.	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

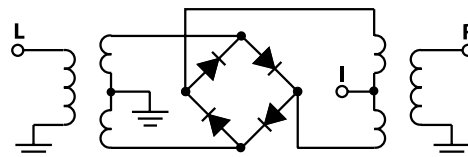
1 dB COMP.: +1 dBm typ.

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]
m = mid band [$2f_L$ to $f_U/2$]

Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
0.50	30.50	7.45	89.00	64.40	1.11
1.00	31.00	6.68	82.65	64.35	1.05
2.00	32.00	6.15	76.59	63.49	1.02
5.00	35.00	5.84	68.78	59.68	1.01
10.00	40.00	5.78	63.45	55.38	1.01
20.00	50.00	5.84	56.92	48.99	1.02
50.00	80.00	5.84	48.06	40.83	1.03
67.10	97.10	5.78	47.33	39.62	1.04
100.00	70.00	5.74	45.42	36.85	1.04
117.05	87.05	5.71	45.23	36.32	1.07
150.35	120.35	5.73	44.09	34.84	1.09
200.00	170.00	5.78	41.97	32.90	1.11
216.95	186.95	5.84	40.74	32.23	1.13
250.00	220.00	5.91	38.62	30.58	1.17
283.55	253.55	5.81	36.99	29.19	1.19
333.50	303.50	5.81	34.17	26.96	1.22
383.45	353.45	6.03	31.17	25.64	1.28
433.40	403.40	6.34	29.18	23.85	1.31
466.70	436.70	6.56	27.71	22.78	1.37
500.00	470.00	6.82	27.09	22.32	1.43

Electrical Schematic



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RF/IF MICROWAVE COMPONENTS

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Performance Charts

