

Surface Mount Frequency Mixer

JMS-1LH+ JMS-1LH

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



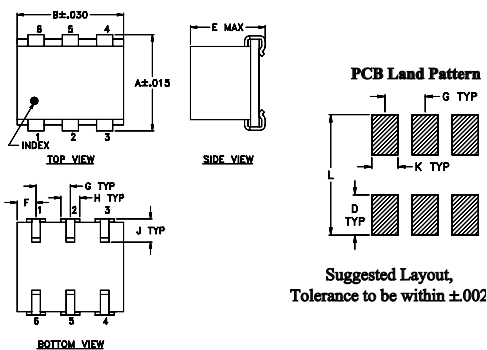
Maximum Ratings

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

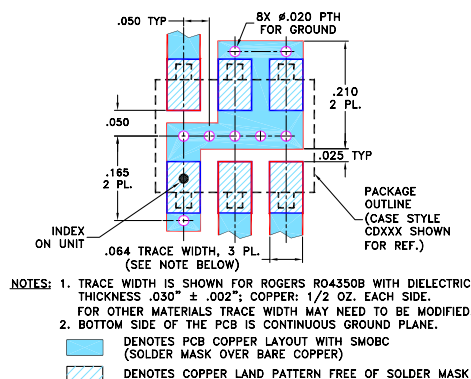


Outline Dimensions (inch)

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.						
2-500	DC-500	5.75 .10 7.0 8.0	55	50	45	30	40	25	55	45	45	25	30	20	16

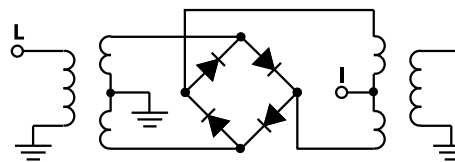
1 dB COMP: +5 dBm typ.

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)
RF	LO	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm
10.10	40.10	5.60	65.00	53.51	1.13	2.56
49.80	79.80	5.71	61.31	46.92	1.04	2.48
89.50	119.50	5.70	56.90	42.98	1.03	2.35
129.20	159.20	5.77	53.33	40.82	1.05	2.44
168.90	198.90	5.78	50.64	39.38	1.06	2.35
208.60	238.60	5.78	48.27	38.49	1.08	2.40
248.30	278.30	5.80	46.07	37.77	1.08	2.41
287.90	317.90	5.85	44.70	36.82	1.10	2.39
327.60	357.60	5.85	43.25	35.90	1.14	2.48
367.30	397.30	5.81	41.23	34.68	1.16	2.44
407.00	437.00	5.87	40.00	33.85	1.15	2.50
446.70	476.70	5.98	39.88	32.68	1.17	2.53
486.40	516.40	5.92	39.70	31.09	1.24	2.51
526.10	556.10	5.87	39.38	29.76	1.33	2.54
565.80	595.80	5.90	38.47	28.55	1.40	2.56

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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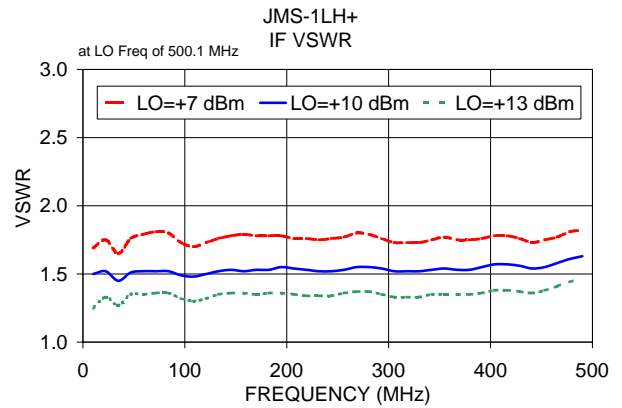
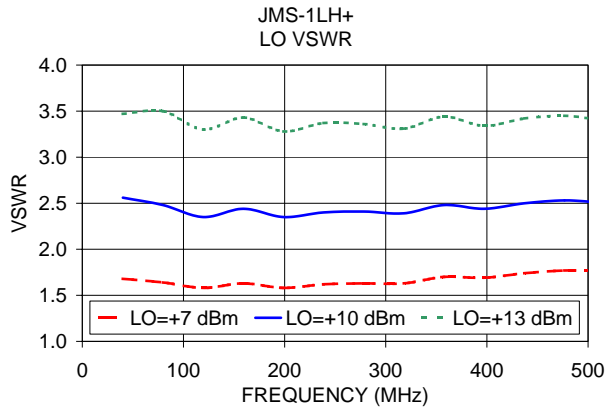
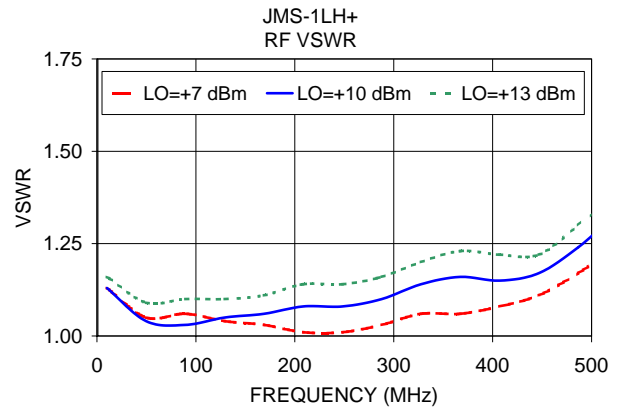
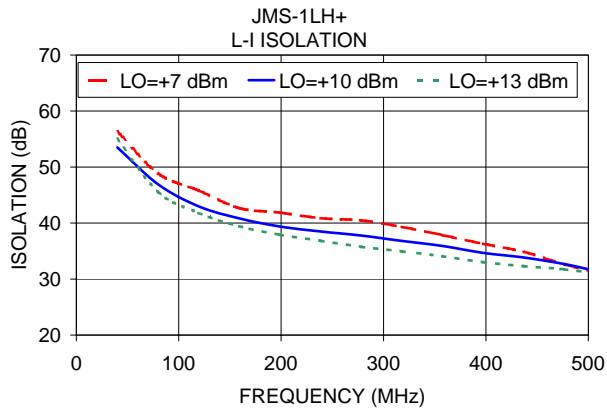
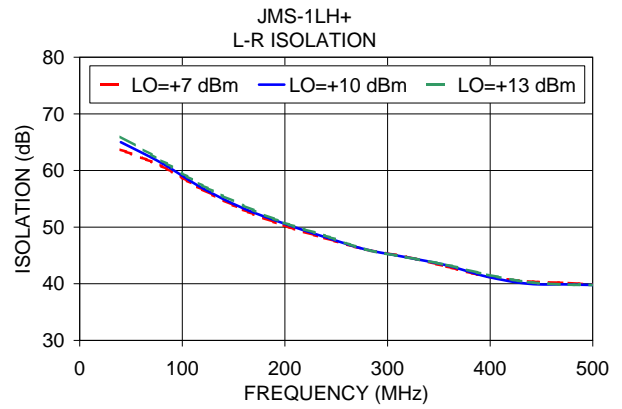
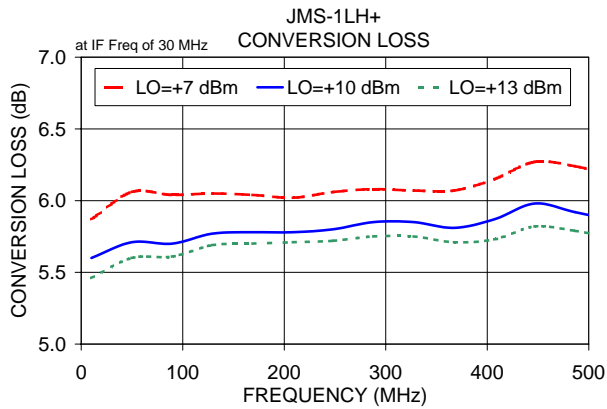
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Performance Charts

JMS-1LH+ JMS-1LH



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