

Non-Catalog Model

Frequency Mixer

LMX-123MH

Level 13 (LO Power +13 dBm)

Important Note

This is a non-catalog model and can be manufactured on specific request.
Pricing and delivery information can be supplied upon request.



Please click "Back", and then click "Contact Us" for Applications support.

CASE STYLE : BB48

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency	LO (fL to fU)	10		2500	MHz
	RF (fL to fU)	10		2500	MHz
	IF	10		500	MHz
Conversion Loss	mid band			8.5	dB
	Total Range			9.6	dB
LO-RF Isolation	Low Range	22	42		dB
	Mid Range	20	35		dB
	Upper Range	20	28		dB
LO-IF Isolation	Low Range	20	33		dB
	Mid Range	20	36		dB
	Upper Range	15	36		dB
1 dB Comp. Input Power			+9		dBm

Notes: Low Range = [fL to 10fL]
mid band = [2fL to fU/2]

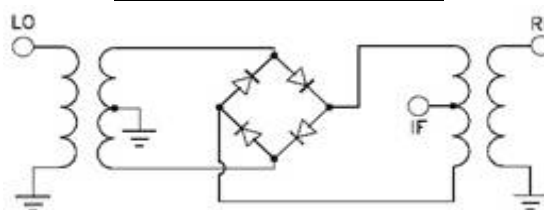
Mid Range = [10fL to fU/2]

Upper Range = [fU/2 to fU]

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

PIN CONNECTIONS	
LO	8
RF	5
IF	4
GROUND	1, 2, 3, 6, 7

Electrical Schematics



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Typical Performance Data

RF (MHz)	LO (MHz)	CONVERSION LOSS (dB)			LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)		
		@LO (dBm)				@LO (dBm)			@LO (dBm)		
		+10	+13	+16		+10	+13	+16	+10	+13	+16
10.0	40.0	6.66	5.96	5.69	10.0	43.3	47.2	50.8	32.6	36.6	40.2
20.0	50.0	6.61	5.94	5.65	20.0	45.5	49.3	52.3	33.2	37.4	41.5
50.0	80.0	6.71	6.02	5.73	50.0	47.2	51.0	53.6	33.3	37.5	41.2
100.0	70.0	6.75	6.07	5.84	100.0	47.4	51.1	52.6	32.4	36.3	39.3
200.0	170.0	6.86	6.17	5.90	200.0	49.1	49.6	48.2	32.4	35.7	37.1
251.0	221.0	6.91	6.21	5.95	251.0	49.2	47.5	46.7	32.4	35.2	35.8
491.9	461.9	7.07	6.37	5.96	491.9	43.8	43.4	42.7	33.4	33.0	31.7
500.0	470.0	7.10	6.40	5.97	500.0	43.5	43.2	42.5	33.3	32.8	31.5
732.9	702.9	7.36	6.57	6.10	732.9	40.2	39.2	39.0	32.8	30.5	28.8
973.9	943.9	7.47	6.58	6.13	973.9	42.7	40.5	39.3	32.8	29.3	27.4
1000.0	970.0	7.45	6.53	6.10	1000.0	43.4	40.7	39.3	32.8	29.0	27.1
1214.8	1184.8	8.18	7.15	6.66	1214.8	57.0	45.7	42.8	32.0	28.1	26.0
1250.0	1220.0	8.32	7.24	6.73	1250.0	54.9	48.7	44.8	32.3	28.2	25.8
1455.8	1425.8	9.02	7.63	6.92	1455.8	44.8	46.7	47.1	30.4	28.0	26.4
1696.8	1666.8	9.25	7.81	7.18	1696.8	41.1	41.6	41.7	29.0	27.8	26.9
1937.7	1907.7	9.44	7.88	7.26	1937.7	36.1	36.1	36.3	29.1	28.3	27.9
2000.0	1907.7	9.25	7.76	7.15	2000.0	35.2	35.3	35.7	29.0	28.3	28.1
2178.7	2148.7	8.62	7.48	6.98	2178.7	32.5	32.5	33.5	28.6	28.6	29.2
2419.7	2389.7	8.10	7.17	6.79	2419.7	30.4	30.8	32.1	27.4	27.8	29.0
2500.0	2470.0	8.12	7.18	6.81	2500.0	32.0	32.2	33.7	29.4	29.5	30.5

Notes

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Typical Performance Data

RF/LO (MHz)	RF VSWR (:1)			LO VSWR (:1)			IF (MHz)	IF VSWR (:1)		
	@LO (dBm)			@LO (dBm)				@LO (dBm)		
	+10	+13	+16	+10	+13	+16		+10	+13	+16
10.0	1.74	1.46	1.29	1.16	1.41	2.12	10.0	1.58	1.16	1.05
20.0	1.75	1.46	1.29	1.11	1.44	2.15	20.0	1.57	1.15	1.04
50.0	1.75	1.46	1.28	1.14	1.40	2.06	50.0	1.53	1.14	1.05
100.0	1.72	1.45	1.28	1.21	1.33	1.99	100.0	1.53	1.14	1.05
200.0	1.74	1.47	1.31	1.28	1.29	1.90	200.0	1.51	1.13	1.05
408.4	1.88	1.62	1.47	1.45	1.25	1.77	408.4	1.48	1.12	1.05
500.0	2.02	1.73	1.57	1.55	1.24	1.70	500.0	1.47	1.15	1.05
682.3	2.38	2.08	1.90	1.78	1.27	1.56	682.3	1.47	1.13	1.03
881.5	2.69	2.37	2.17	2.15	1.35	1.39	881.5	1.50	1.18	1.06
1000.0	2.78	2.45	2.24	2.50	1.49	1.30	1000.0	1.54	1.24	1.12
1155.4	2.76	2.41	2.22	2.74	1.58	1.23	1155.4	1.63	1.35	1.22
1250.0	2.69	2.36	2.17	2.84	1.62	1.15	1250.0	1.71	1.43	1.30
1429.3	2.55	2.24	2.05	2.69	1.61	1.09	1429.3	1.86	1.58	1.43
1628.5	2.54	2.24	2.05	2.72	1.62	1.04	1628.5	1.99	1.68	1.52
1827.7	2.49	2.23	2.06	2.44	1.55	1.05	1827.7	2.06	1.73	1.56
2000.0	2.28	2.06	1.92	2.45	1.56	1.10	2000.0	1.97	1.66	1.49
2101.6	2.15	1.94	1.82	2.57	1.61	1.12	2101.6	1.86	1.57	1.42
2300.8	1.92	1.75	1.65	2.47	1.61	1.25	2300.8	1.64	1.41	1.29
2425.3	1.86	1.70	1.59	2.26	1.57	1.42	2425.3	1.55	1.37	1.29
2500.0	1.83	1.68	1.57	2.16	1.56	1.48	2500.0	1.52	1.37	1.31

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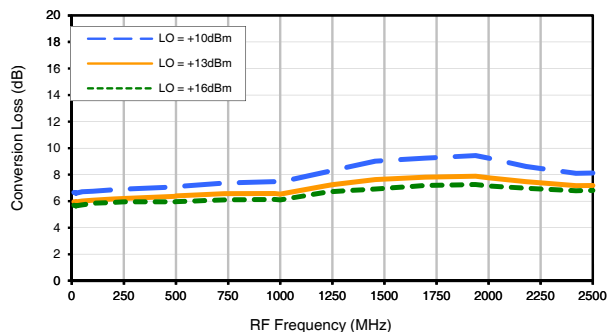


Frequency Mixer

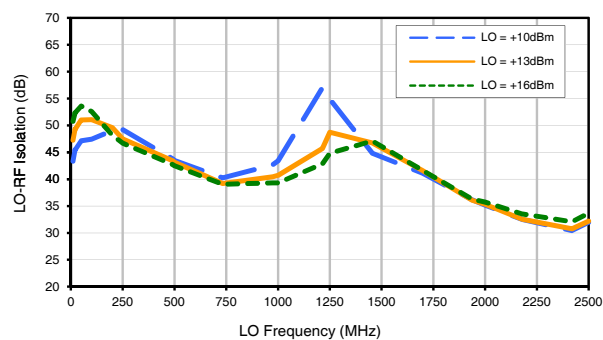
LMX-123MH

Typical Performance Curves

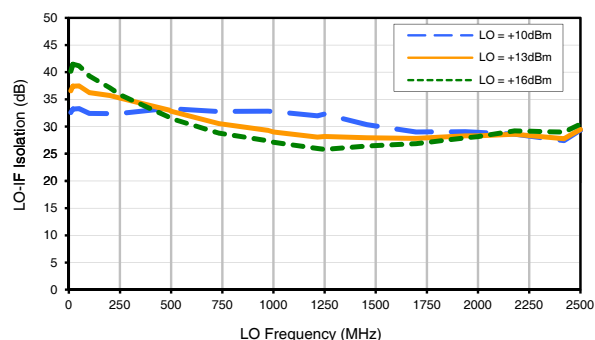
Conversion Loss



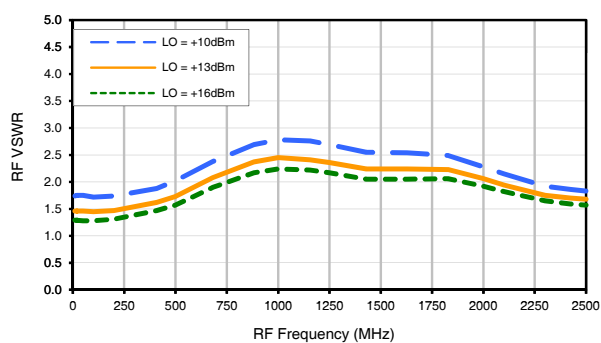
LO-RF Isolation



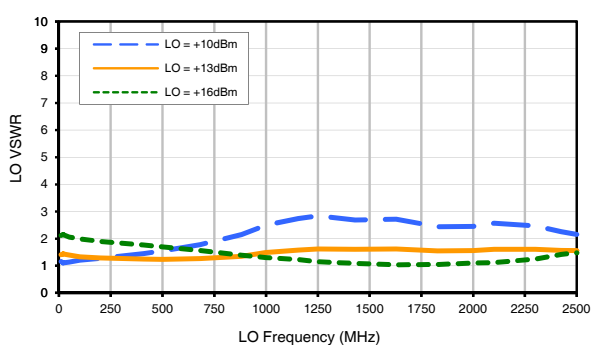
LO-IF Isolation



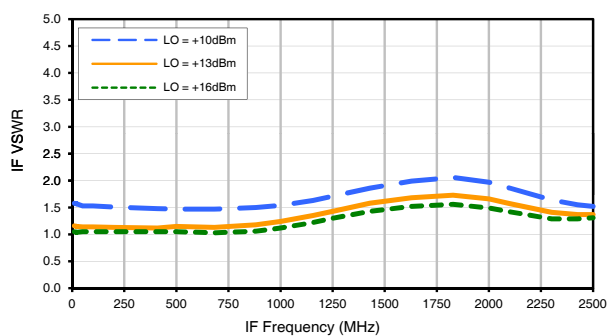
RF VSWR



LO VSWR



IF VSWR

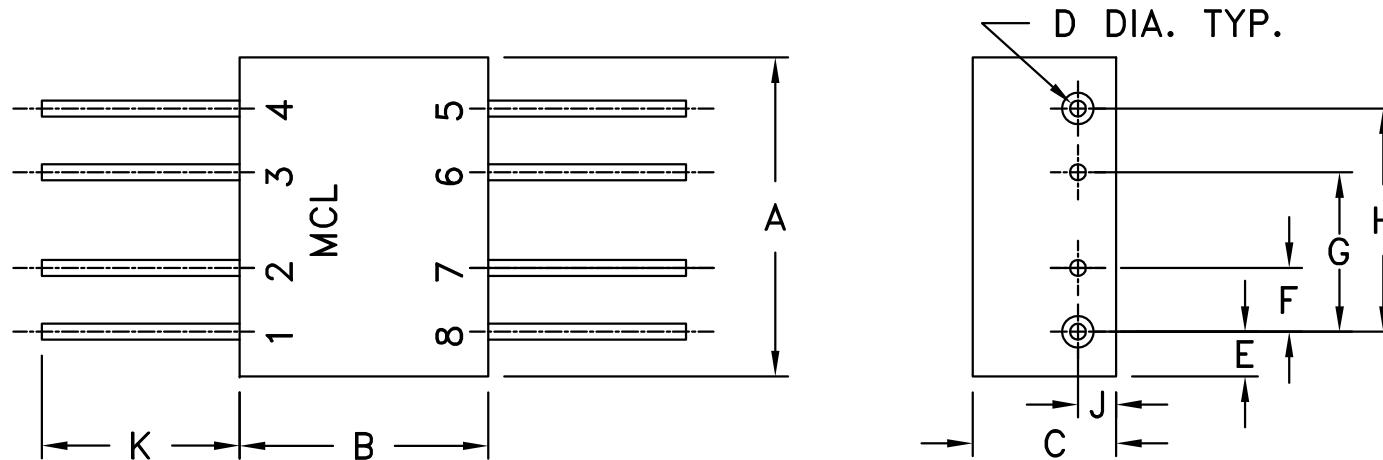


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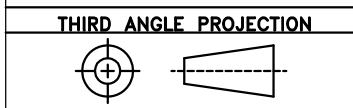


NOTE: PIN NUMBERS DO NOT APPEAR
ON UNIT. FOR REFERENCE ONLY.



CASE NO.	A	B	C	D	E	F	G	H	J	K	NOTES	WT. GRAMS
BB48	.50 (12.70)	.39 (9.91)	.225 (5.72)	.025 (0.63)	.07 (1.78)	.100 (2.54)	.250 (6.35)	.350 (8.89)	.06 (1.52)	.31 (7.87)	A1,E1	3.0

REFER TO GN-219 FOR TEXT OF NOTES.



OR	M42441	CHANGED PART NO.	PM
REV	ECN No.	DESCRIPTION	DATE DR AUTH
REVISIONS			

UNLESS OTHERWISE SPECIFIED	INITIALS	DATE
DIMENSIONS ARE IN INCHES	DRAWN	PM
TOLERANCES ON:	CHECKED	10.16.95
2 PL. DECIMALS ± .03	APPROVED	
3 PL. DECIMALS ± .015		
ANGLES ±		
FRACTIONS ±		

Mini-Circuits

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BSHEETA1.DWG REV:A DATE:01/12/94

Mini-Circuits		Mini-Circuit Laboratory 13 Neptune Avenue Brooklyn NY 11236	
CATALOG OUTLINE "BB"			
SIZE B	CODE IDENT 15542	DRAWING NO: 98-BB	REV: OR
FILE: 98-BB	SCALE: NONE	SHEET: 1 OF 1	