

Frequency Mixer

LMX-ED6846/2

Level 7 (LO Power +7 dBm)

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



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 (f _L to f _U)	1		1030	MHz
	RF (f _L to f _U)	1		1030	MHz
	IF	10		795	MHz
Conversion Loss	mid band		5.9		dB
	Total Range		6.3		dB
LO-RF Isolation	Low Range		-		dB
	Mid Range		46		dB
	Upper Range		36		dB
LO-IF Isolation	Low Range		-		dB
	Mid Range		48		dB
	Upper Range		31		dB

Note: Low Range = [f_L to 10f_L] Mid Range = [10f_L to f_U/2] Upper Range = [f_U/2 to f_U]
mid band = [2f_L to f_U/2]

MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C

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

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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)		
		+4	+7	+10		+4	+7	+10	+4	+7	+10
1.0	31.0	7.37	6.67	6.37	31.0	58.8	58.4	57.8	59.1	56.9	55.4
5.0	35.0	6.51	5.91	5.61	35.0	57.8	57.4	56.9	58.5	56.6	55.2
10.0	40.0	6.46	5.86	5.56	40.0	56.5	56.3	56.0	58.1	56.2	54.7
79.0	109.0	6.54	5.94	5.64	109.0	48.5	48.4	48.4	52.9	50.8	49.5
158.0	188.0	6.49	5.89	5.69	188.0	44.4	44.6	44.6	49.3	47.9	47.0
236.9	266.9	6.45	5.85	5.65	266.9	42.1	42.0	41.8	47.1	46.5	45.3
315.9	345.9	6.36	5.96	5.76	345.9	40.3	40.1	39.8	44.7	44.0	43.3
394.8	424.8	6.49	5.99	5.79	424.8	38.8	38.8	38.6	40.9	41.1	41.2
400.0	430.0	6.44	5.94	5.84	430.0	38.7	38.7	38.5	40.6	40.8	41.0
473.8	503.8	6.50	6.00	5.90	503.8	37.3	37.2	37.3	37.8	37.5	37.9
500.0	530.0	6.55	6.15	5.85	530.0	36.9	36.8	36.8	36.8	36.8	37.1
552.7	582.7	6.78	6.38	5.98	582.7	36.2	36.1	36.1	35.2	35.3	36.2
631.6	661.6	6.68	6.28	5.98	661.6	36.0	35.9	35.7	33.8	33.7	34.2
710.6	740.6	6.86	6.36	6.06	740.6	36.6	36.1	36.0	32.0	33.2	33.5
789.5	819.5	6.99	6.39	6.09	819.5	36.7	36.4	36.0	29.8	32.0	33.6
868.5	898.5	7.41	6.71	6.21	898.5	36.1	36.1	35.8	27.8	29.7	31.7
947.4	977.4	7.75	7.05	6.55	977.4	36.0	36.1	36.0	26.4	27.8	29.7
970.0	1000.0	7.71	7.11	6.61	1000.0	35.9	36.1	36.0	26.1	27.4	29.4
1000.0	1030.0	7.76	7.16	6.66	1030.0	36.1	36.3	36.2	25.8	27.1	29.0
1026.3	1056.3	7.93	7.33	6.83	1056.3	36.5	36.8	36.8	25.7	26.9	28.5

Frequency Mixer

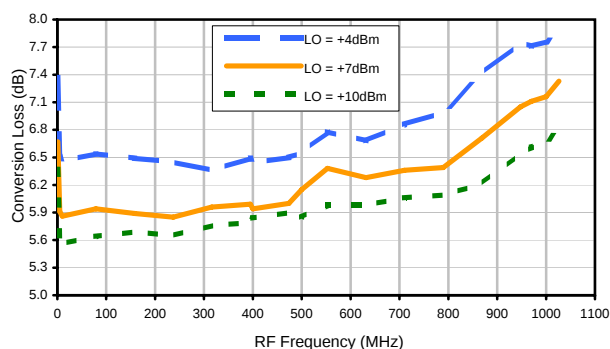
LMX-ED6846/2

Typical Performance Data

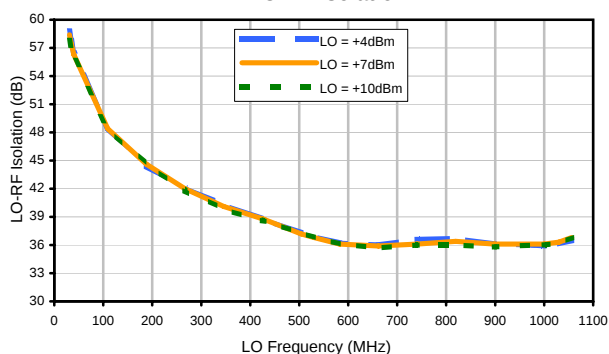
RF/LO (MHz)	RF VSWR (:1)			LO VSWR (:1)			IF (MHz)	IF VSWR (:1)		
	@LO (dBm)			@LO (dBm)				@LO (dBm)		
	+4	+7	+10	+4	+7	+10		+4	+7	+10
31.0	1.66	1.61	1.60	1.04	1.59	2.37	10.0	3.21	2.52	1.99
35.0	1.28	1.16	1.12	1.04	1.57	2.37	30.0	3.11	2.49	1.96
40.0	1.24	1.11	1.05	1.02	1.58	2.37	49.6	3.01	2.43	1.94
109.0	1.19	1.05	1.04	1.04	1.54	2.32	99.1	2.92	2.37	1.92
188.0	1.22	1.08	1.02	1.04	1.54	2.32	148.6	2.80	2.30	1.88
266.9	1.18	1.05	1.05	1.04	1.57	2.35	198.1	2.72	2.27	1.87
345.9	1.16	1.04	1.06	1.08	1.59	2.40	247.6	2.68	2.25	1.85
424.8	1.17	1.07	1.10	1.16	1.64	2.40	297.1	2.68	2.23	1.84
430.0	1.16	1.07	1.10	1.16	1.68	2.43	346.6	2.65	2.18	1.82
503.8	1.13	1.06	1.12	1.23	1.70	2.49	396.1	2.68	2.20	1.82
530.0	1.14	1.05	1.09	1.26	1.71	2.40	400.0	2.61	2.18	1.80
582.7	1.18	1.09	1.10	1.28	1.76	2.49	445.6	2.61	2.16	1.78
661.6	1.18	1.15	1.17	1.36	1.78	2.43	495.1	2.65	2.16	1.77
740.6	1.19	1.16	1.19	1.42	1.82	2.43	544.5	2.61	2.14	1.76
819.5	1.22	1.20	1.25	1.48	1.88	2.49	594.0	2.61	2.12	1.75
898.5	1.26	1.20	1.24	1.58	2.04	2.68	600.0	2.58	2.12	1.74
977.4	1.37	1.32	1.33	1.70	2.18	2.84	643.5	2.52	2.06	1.70
1000.0	1.39	1.34	1.35	1.68	2.14	2.88	693.0	2.43	1.99	1.64
1030.0	1.40	1.35	1.36	1.73	2.23	2.96	742.5	2.35	1.94	1.59
1056.3	1.43	1.38	1.38	1.81	2.27	3.06	792.0	2.30	1.88	1.55

Typical Performance Curves

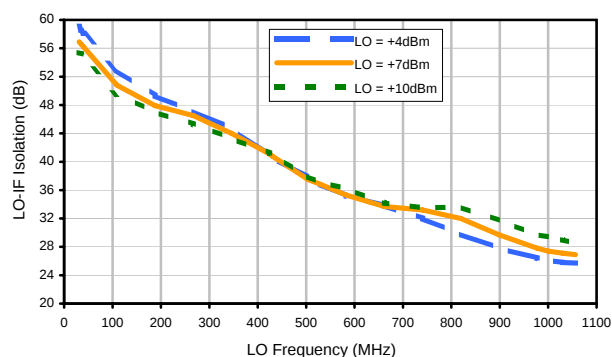
Conversion Loss



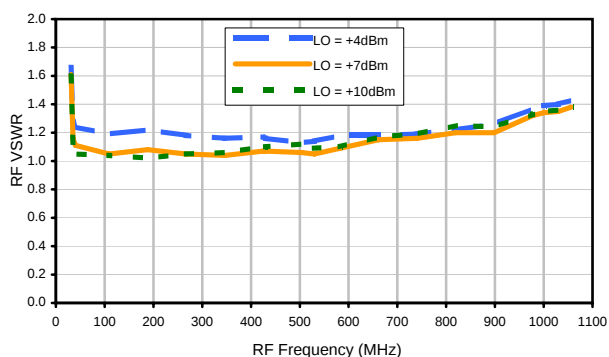
LO-RF Isolation



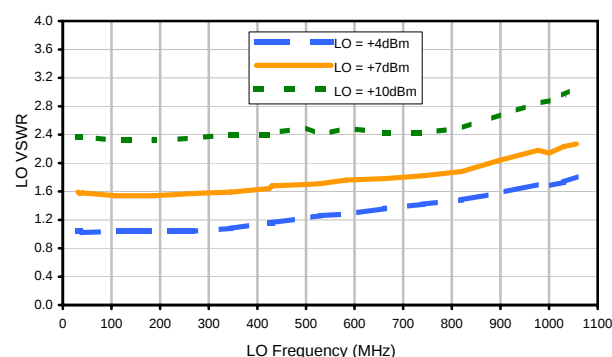
LO-IF Isolation



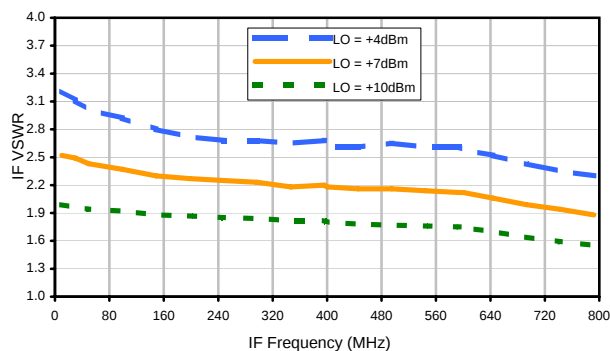
RF VSWR



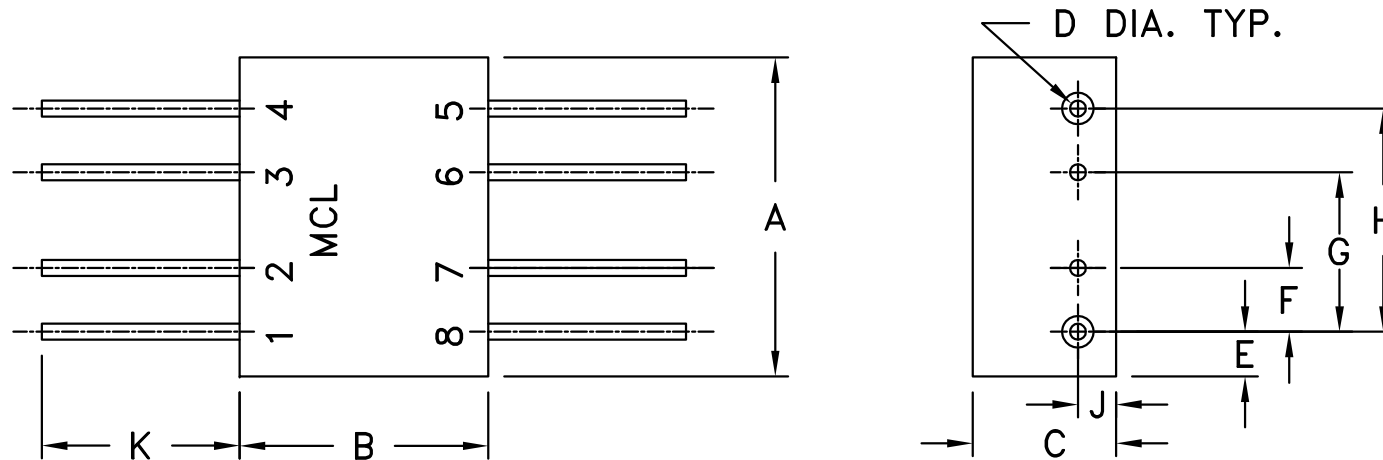
LO VSWR



IF VSWR

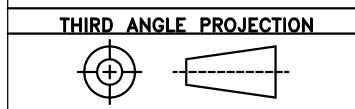


NOTE: PIN NUMBERS DO NOT APPEAR
ON UNIT. FOR REFERENCE ONLY.



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 11235	
CATALOG OUTLINE "BB"			
SIZE B	CODE IDENT 15542	DRAWING NO: 98-BB	REV: OR
FILE: 98-BB	SCALE: NONE	SHEET: 1 OF 1	