

Plug-In Frequency Mixer

SBL-1MH+

Level 13 (LO Power +13 dBm) 1 to 500 MHz



CASE STYLE: A06
PRICE: \$14.95 ea. QTY (10)

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Maximum Ratings

Operating Temperature	-55°C to 100°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	8
RF	1
IF	3,4^
GROUND	2,5,6,7

^ pins must be connected together externally

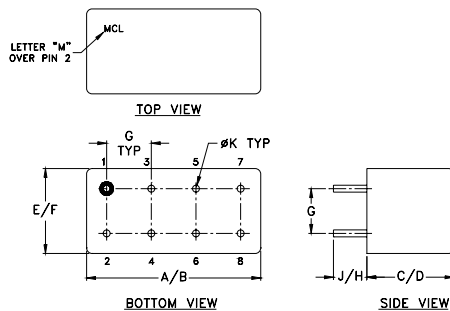
Features

- excellent conversion loss, 5.73 dB typ.
- high L-R isolation, 45 dB typ.; L-I isolation, 40 dB typ.
- rugged welded construction

Applications

- VHF/UHF
- defense & federal communications

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F
.770	.800	.285	.310	.370	.400
19.56	20.32	7.24	7.87	9.40	10.16
G	H	J	K	wt	
.200	.20	.14	.031	grams	
5.08	5.08	3.56	0.79	5.2	

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF f_L-f_U	IF	Mid-Band m		Total Range Max.	Total Range Max.	L		M		U		L		M		U	
		\bar{X}	σ			Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
1-500	DC-500	5.73	.08	7.5	8.5	50	35	45	30	35	25	45	30	40	25	30	20

1 dB COMP.: +9 dBm typ.

L = low range [f_L to $10 f_L$]
m = mid band [$2f_L$ to $f_U/2$]

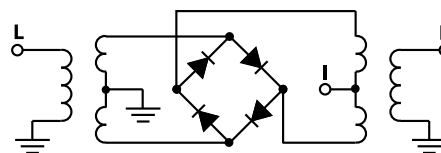
M = mid range [$10 f_L$ to $f_U/2$]

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 +13dBm	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm
1.00	31.00	7.26	66.63	59.30	1.29	1.95
2.00	32.00	6.48	65.04	58.69	1.07	1.98
20.00	50.00	5.69	63.01	55.53	1.08	1.89
47.78	77.78	5.60	58.78	50.86	1.08	1.82
63.38	93.38	5.57	56.72	48.94	1.08	1.80
141.35	111.35	5.41	48.96	44.44	1.09	1.79
172.53	142.53	5.46	47.22	43.17	1.09	1.83
203.72	173.72	5.61	45.85	42.14	1.09	1.78
219.32	189.32	5.58	44.34	41.70	1.10	1.85
234.91	204.91	5.62	44.18	40.98	1.10	1.83
266.10	236.10	5.48	44.90	40.38	1.11	1.88
281.69	251.69	5.53	43.24	40.07	1.12	1.91
328.47	298.47	5.70	41.21	38.04	1.15	1.96
359.66	329.66	5.95	41.01	37.04	1.18	2.04
390.85	360.85	5.89	39.17	36.14	1.23	2.06
422.04	392.04	6.29	38.02	34.90	1.32	2.08
453.23	423.23	6.32	37.70	34.14	1.37	2.11
468.82	438.82	6.23	37.66	34.16	1.41	2.19
484.41	454.41	6.27	37.86	34.53	1.45	2.34
500.00	470.00	6.32	38.19	35.22	1.49	2.45

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

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