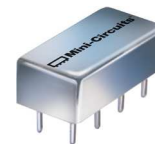


Plug-In Frequency Mixer

Level 7 (LO Power +7 dBm) 0.025 to 200 MHz

SBL-3+



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
CASE GROUND	2

[^] pins must be connected together externally

Features

- excellent conversion loss, 4.81 dB typ.
- high L-R isolation, 45 dB typ. L-I isolation, 40 dB typ.
- rugged welded construction

Applications

- VHF
- defense & federal communications

CASE STYLE: A06
PRICE: \$12.40 ea. QTY (10)

+RoHS Compliant

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

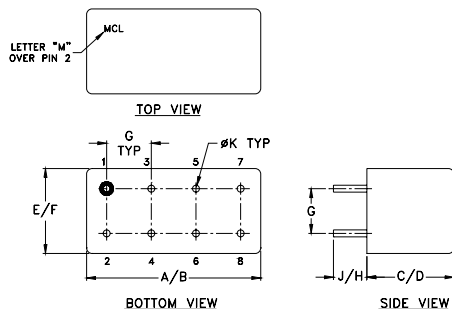
Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF f_L - f_U	IF	Mid-Band m		Total Range Max.		L		M		U		L		M		U	
		$\bar{X}$	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
.025-200	DC-200	4.81	.05	7.5	8.5	55	50	45	30	35	25	45	35	40	30	30	20

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 [$2 f_L$ to $f_U/2$]

Outline Drawing



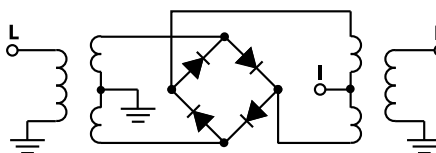
Outline Dimensions (inch/mm)

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

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 +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
0.03	30.03	8.41	70.32	73.42	1.44	1.33
0.04	30.04	6.80	68.24	73.04	1.45	1.32
0.05	30.05	6.31	68.06	73.56	1.45	1.29
0.10	30.10	5.51	67.57	74.37	1.44	1.28
0.20	30.20	5.27	67.72	74.82	1.43	1.34
0.50	30.50	5.15	67.66	75.16	1.43	1.35
1.00	31.00	4.98	67.06	74.46	1.43	1.37
2.00	32.00	4.89	66.83	74.03	1.42	1.37
5.00	35.00	4.86	66.56	72.56	1.40	1.36
10.00	40.00	4.93	66.04	69.54	1.39	1.36
20.00	50.00	5.06	64.65	63.95	1.37	1.35
30.79	60.79	5.13	63.14	60.24	1.35	1.36
38.48	68.48	5.16	62.80	57.90	1.33	1.36
50.00	80.00	5.09	61.63	53.78	1.29	1.39
76.94	46.94	4.97	58.56	48.75	1.26	1.41
100.00	70.00	4.81	58.22	46.67	1.26	1.45
123.09	93.09	4.85	52.38	44.01	1.22	1.49
146.16	116.16	4.94	58.82	46.22	1.19	1.51
176.93	146.93	5.26	51.25	39.55	1.17	1.55
200.00	170.00	5.36	44.86	38.02	1.18	1.60

Electrical Schematic



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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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