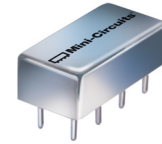


Plug-In Frequency Mixer

SBL-3+

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



CASE STYLE: A06

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

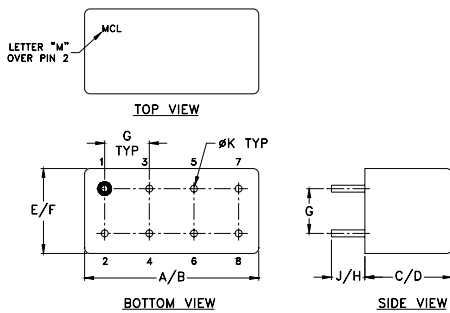
- excellent conversion loss, 4.81 dB typ.
- high L-R isolation, 45 dB typ. L-I isolation, 40 dB typ.
- rugged welded construction

Applications

- VHF
- defense & federal communications

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

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

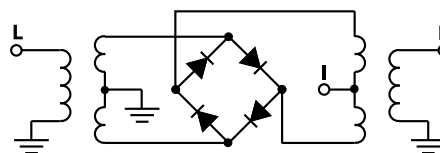
FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF f_L - f_U	IF	Mid-Band m		Total Range Max.	Total Range Max.	L		M		U		L		M		U	
		\bar{X}	σ			Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
.025-200	DC-200	4.81	.05	7.5	8.5	55	50	45	30	35	25	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 [$2f_L$ to $f_U/2$]

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

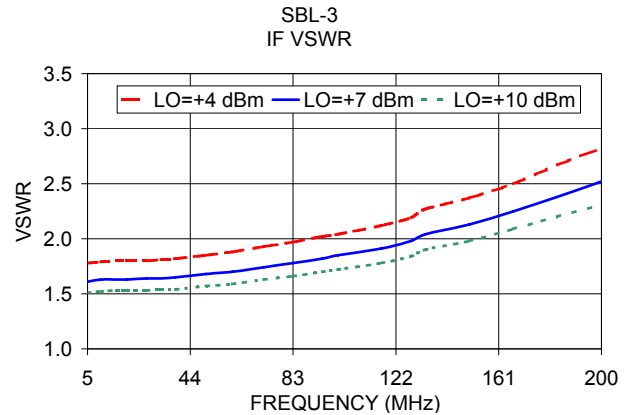
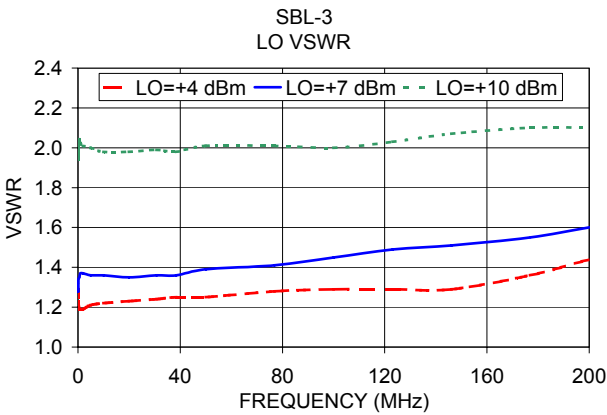
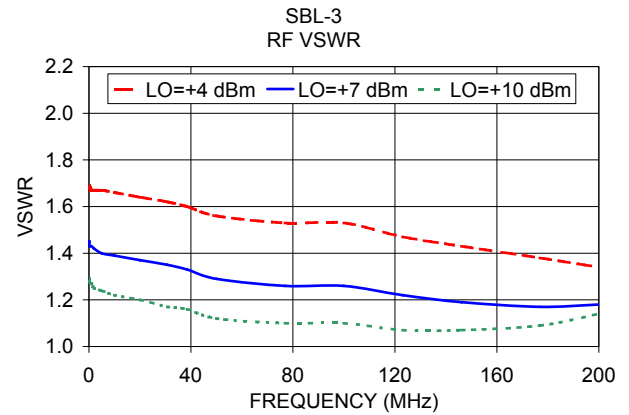
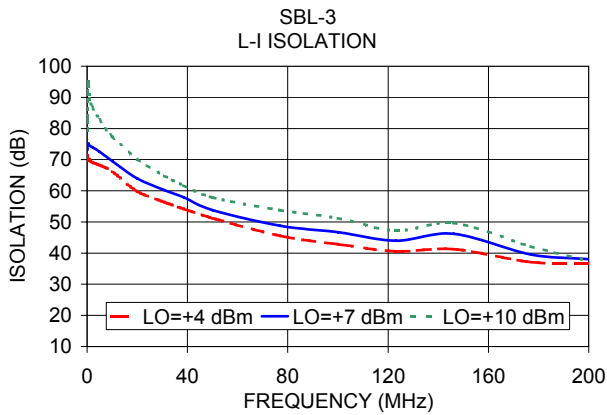
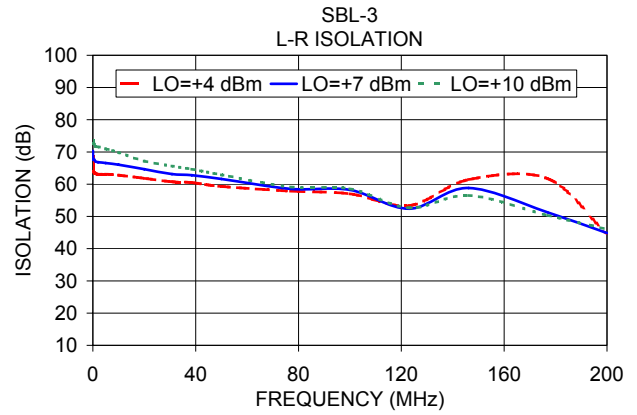
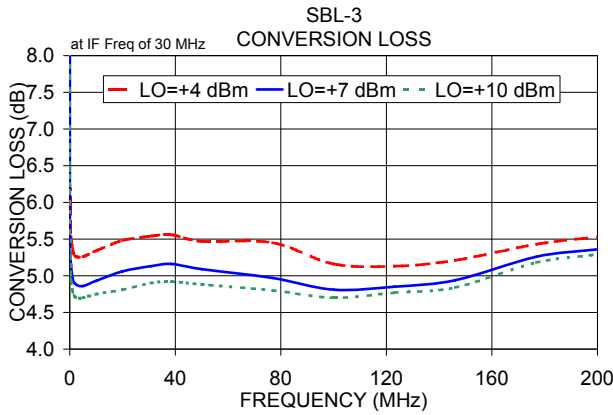
Electrical Schematic



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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