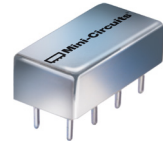


# Plug-In Frequency Mixer

## SBL-2LH+

Level 10 (LO Power +10 dBm) 5 to 1000 MHz



CASE STYLE: A06

### Maximum Ratings

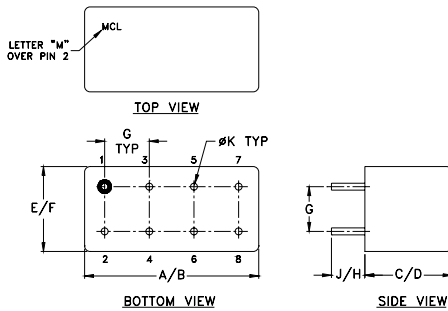
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

### Pin Connections

LO	8
RF	1
IF	3,4 <sup>^</sup>
GROUND	2,5,6,7
CASE GROUND	2,5,6

<sup>^</sup> pins must be connected together externally

### 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	

### Features

- excellent conversion loss, 5.9 dB typ.
- high L-R isolation, 61 dB typ. L-I isolation, 54 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

### 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	
		$\bar{X}$	$\sigma$			Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
5-1000	DC-1000	5.9	.09	7.5	9.5	67	45	61	30	57	30	68	40	54	30	43	20

1 dB COMP.: +5 dBm typ.

L = low range [ $f_L$  to  $10 f_L$ ]

m = mid band [ $2f_L$  to  $f_U/2$ ]

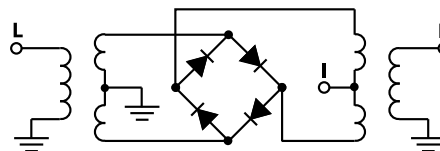
M = mid range [ $10 f_L$  to  $f_U/2$ ]

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 +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm
5.00	35.00	5.97	52.74	87.33	1.25	2.82
10.00	40.00	5.89	52.59	81.78	1.18	2.63
20.00	50.00	5.90	52.51	76.47	1.16	2.68
50.00	80.00	5.96	52.73	68.83	1.18	2.62
95.45	65.45	6.01	52.59	68.37	1.19	2.50
100.00	70.00	6.04	52.35	67.59	1.21	2.50
185.91	155.91	5.82	52.03	63.99	1.22	2.40
200.00	170.00	5.77	52.24	62.23	1.23	2.48
276.36	246.36	5.75	51.93	58.87	1.23	2.38
366.82	336.82	5.81	52.59	53.25	1.22	2.39
457.27	427.27	5.88	47.42	55.40	1.21	2.42
487.42	457.42	5.91	45.90	49.79	1.20	2.42
500.00	470.00	5.94	48.30	46.54	1.19	2.43
547.73	517.73	6.07	57.22	40.10	1.18	2.44
638.18	608.18	6.63	48.69	37.95	1.15	2.49
728.64	698.64	7.20	42.92	36.76	1.11	2.47
819.09	789.09	7.24	41.04	32.27	1.05	2.47
909.55	879.55	7.27	41.87	29.47	1.15	2.57
969.85	939.85	7.69	44.77	28.21	1.30	2.60
1000.00	970.00	7.81	50.08	26.90	1.38	2.59

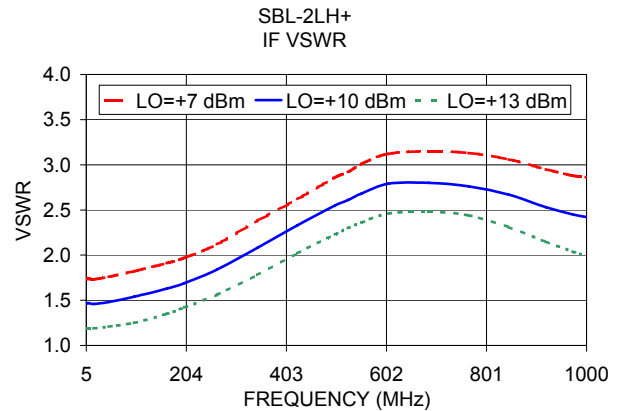
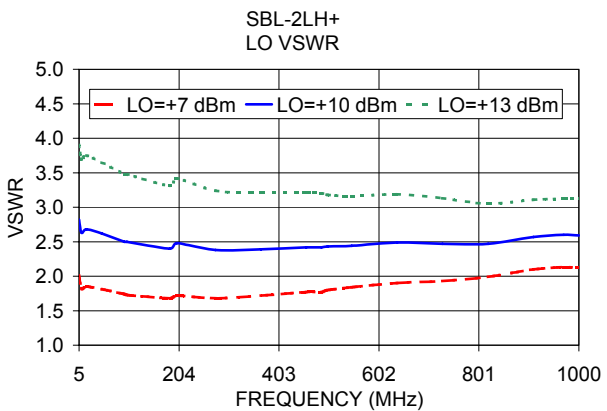
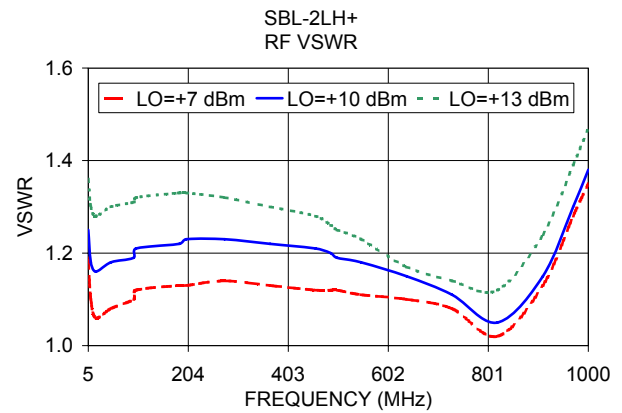
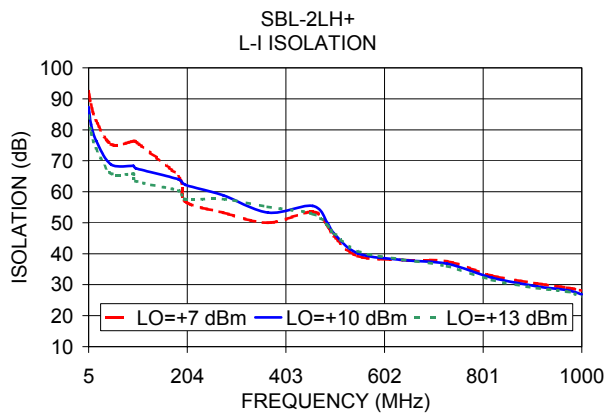
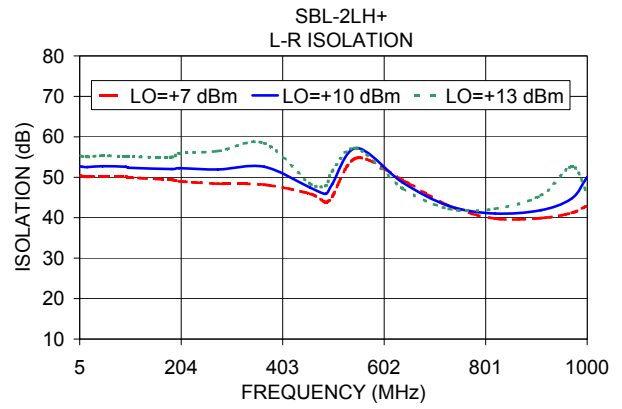
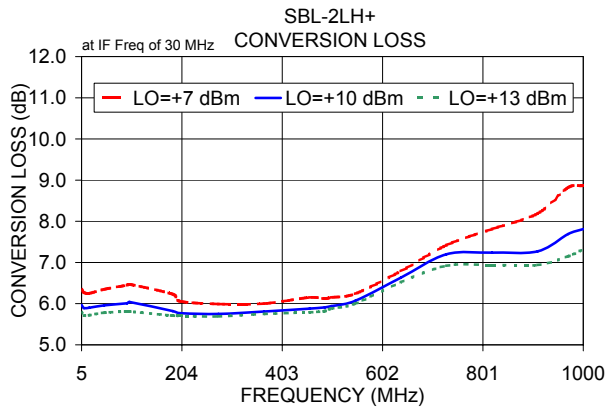
### Electrical Schematic



### 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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