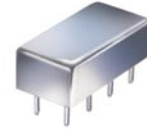


# Plug-In Frequency Mixer

## SBL-1X+

Level 7 (LO Power +7 dBm) 10 to 1000 MHz



### Maximum Ratings

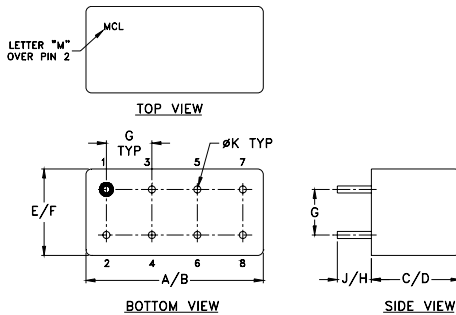
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

### Pin Connections

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

<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, 5.88 dB typ.
- good L-R & L-I isolation, 40 dB typ.
- rugged welded construction

### Applications

- VHF/UHF
- defense & satellite communications

CASE STYLE: A06  
PRICE: \$9.70 ea. QTY (1-9)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

The +Suffix has been added in order to identify 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	IF	Mid-Band		Total Range	Max.	L		M		U		L		M		U	
$f_L$ - $f_U$		$\bar{X}$	$\sigma$			Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
10-1000	5-500	5.88	.10	7.5	8.0	50	40	40	30	30	20	50	45	40	35	35	25

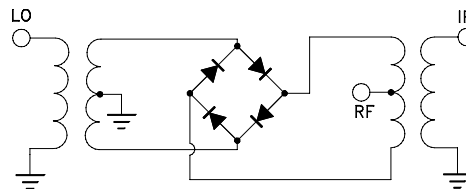
1 dB COMP.: +1 dBm typ.

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
10.00	40.00	5.91	52.58	57.65	1.11	2.50
20.00	50.00	6.07	51.57	56.10	1.07	2.58
50.00	80.00	5.97	48.88	51.40	1.07	2.46
100.00	70.00	6.02	44.82	46.42	1.08	2.54
160.32	130.32	6.05	42.05	42.49	1.10	2.40
200.00	170.00	6.14	40.99	40.75	1.12	2.34
253.50	223.50	6.19	40.18	39.56	1.16	2.31
315.63	285.63	6.25	38.29	37.94	1.23	2.35
377.76	347.76	6.34	35.80	36.81	1.29	2.38
439.88	409.88	6.56	33.93	35.80	1.34	2.48
500.00	470.00	6.55	31.47	35.23	1.37	2.51
564.13	534.13	6.24	30.58	33.53	1.36	2.60
626.26	596.26	5.86	29.34	34.86	1.33	2.65
657.32	627.32	5.95	29.13	35.78	1.27	2.64
719.45	689.45	5.84	28.51	35.11	1.27	2.84
781.58	751.58	5.77	28.01	34.75	1.40	3.02
812.64	782.64	5.92	27.68	33.85	1.51	3.03
874.76	844.76	5.87	27.52	32.09	1.88	3.15
936.89	906.89	5.87	27.40	30.31	2.10	3.11
1000.00	970.00	6.04	27.28	30.12	2.89	3.07

### Electrical Schematic



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