Plug-In

Frequency Mixer

SBL-1X+

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

CASE STYLE: A06
PRICE: $11.45 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.

Features

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

Applications

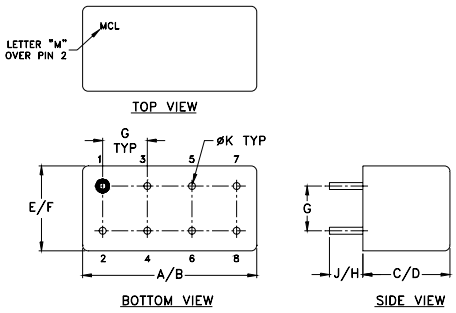
- VHF/UHF
- defense & satellite communications

Pin Connections

LO	8
RF	3,4^
IF	1
GROUND	2,5,6,7
CASE GROUND	2,5,6,7

^ 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

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
		Mid-Band m			Total Range	L		M		U		L		M		U	
LO/RF f_L-f_U	IF	$\overline{X}$	σ	Max.	Max.	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

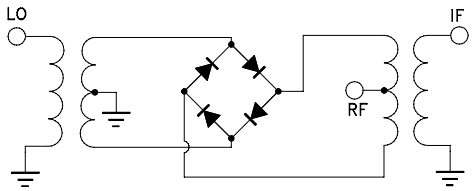
1 dB COMP.: +1 dBm typ.

L = low range [f_L to 10 f_L] m= mid 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]

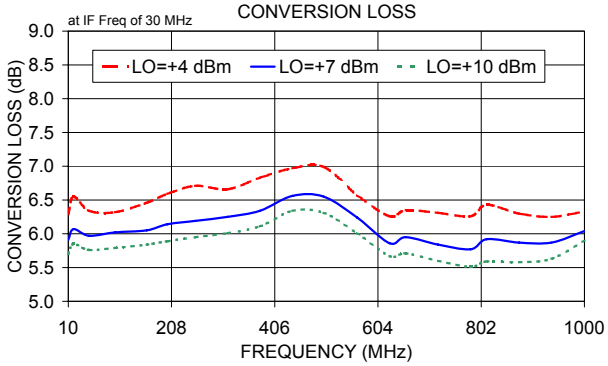
Typical Performance Data

Frequency (MHz)		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
RF	LO	LO +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

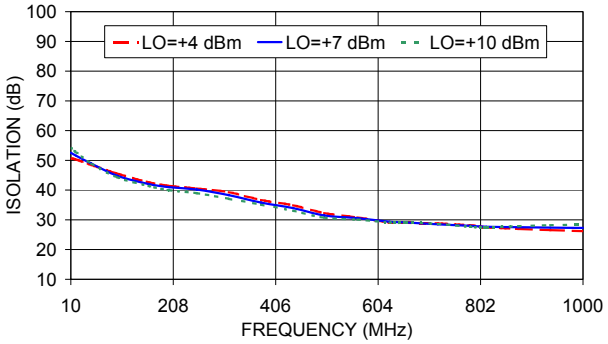
Electrical Schematic



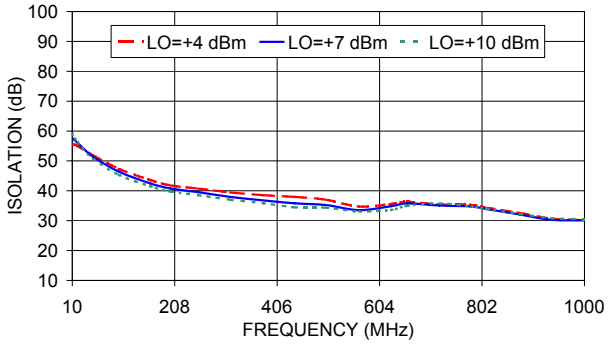
SBL-1X+
CONVERSION LOSS
at IF Freq of 30 MHz



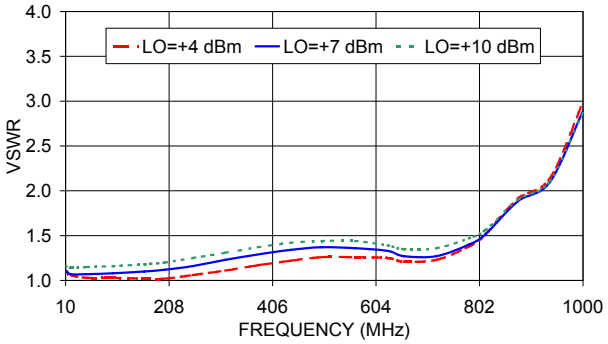
SBL-1X+
L-R ISOLATION



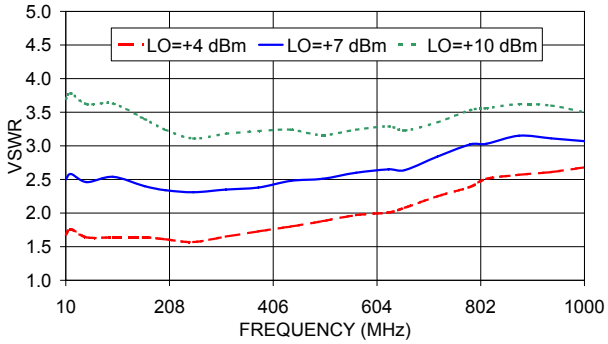
SBL-1X+
L-I ISOLATION



SBL-1X+
RF VSWR



SBL-1X+
LO VSWR



SBL-1X+
IF VSWR