

Plug-In Frequency Mixer

Level 13 (LO Power +13 dBm) 1 to 500 MHz

SBL-1MH+

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

^ pins must be connected together externally

Features

- excellent conversion loss, 5.73 dB typ.
- high L-R isolation, 45 dB typ.; L-I isolation, 40 dB typ.
- rugged welded construction

Applications

- VHF/UHF
- defense & federal communications



Generic photo used for illustration purposes only

CASE STYLE: A06

+RoHS Compliant

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

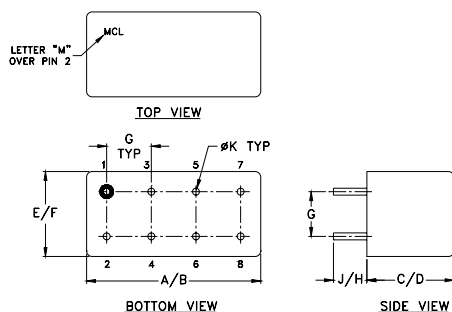
Electrical Specifications

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		L		M		U		L		M		U	
		$\bar{X}$	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
1-500	DC-500	5.73	.08	7.5	8.5	50	35	45	30	35	25	45	30	40	25	30	20

1 dB COMP.: +9 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]

Outline Drawing



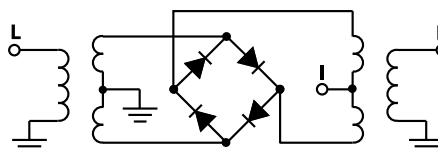
Outline Dimensions (inch/mm)

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 +13dBm	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm
1.00	31.00	7.26	66.63	59.30	1.29	1.95
2.00	32.00	6.48	65.04	58.69	1.07	1.98
20.00	50.00	5.69	63.01	55.53	1.08	1.89
47.78	77.78	5.60	58.78	50.86	1.08	1.82
63.38	93.38	5.57	56.72	48.94	1.08	1.80
141.35	111.35	5.41	48.96	44.44	1.09	1.79
172.53	142.53	5.46	47.22	43.17	1.09	1.83
203.72	173.72	5.61	45.85	42.14	1.09	1.78
219.32	189.32	5.58	44.34	41.70	1.10	1.85
234.91	204.91	5.62	44.18	40.98	1.10	1.83
266.10	236.10	5.48	44.90	40.38	1.11	1.88
281.69	251.69	5.53	43.24	40.07	1.12	1.91
328.47	298.47	5.70	41.21	38.04	1.15	1.96
359.66	329.66	5.95	41.01	37.04	1.18	2.04
390.85	360.85	5.89	39.17	36.14	1.23	2.06
422.04	392.04	6.29	38.02	34.90	1.32	2.08
453.23	423.23	6.32	37.70	34.14	1.37	2.11
468.82	438.82	6.23	37.66	34.16	1.41	2.19
484.41	454.41	6.27	37.86	34.53	1.45	2.34
500.00	470.00	6.32	38.19	35.22	1.49	2.45

Electrical Schematic



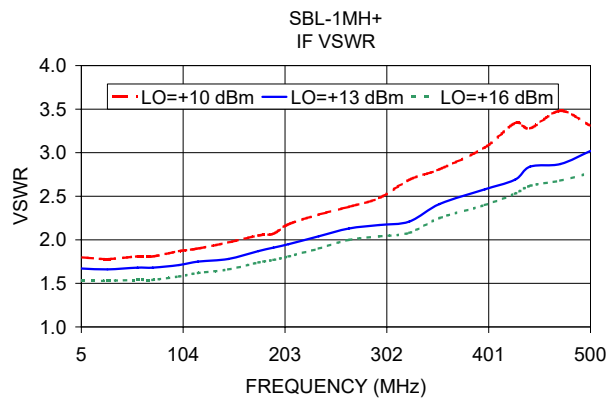
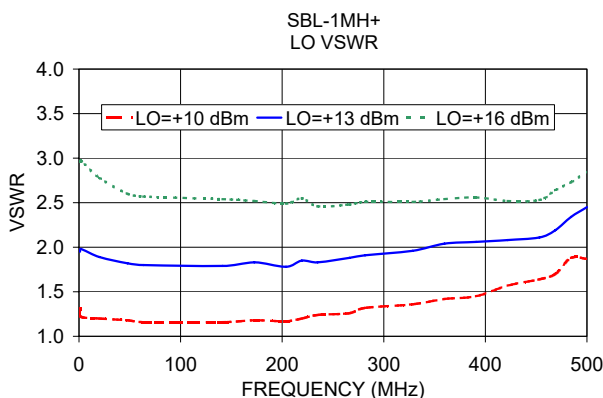
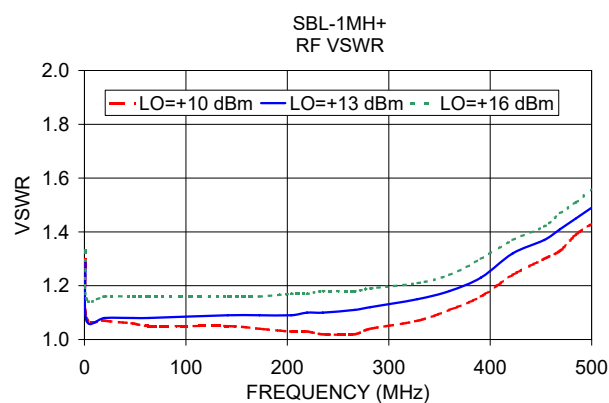
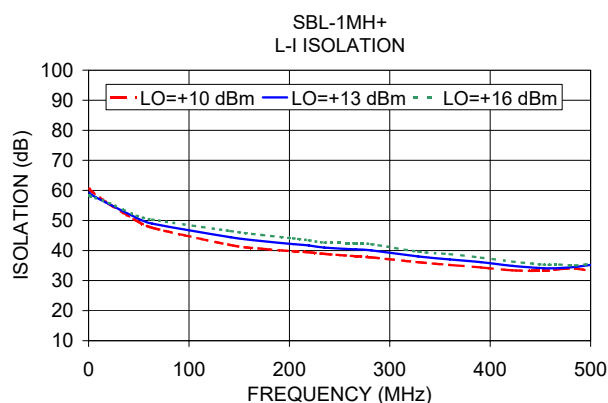
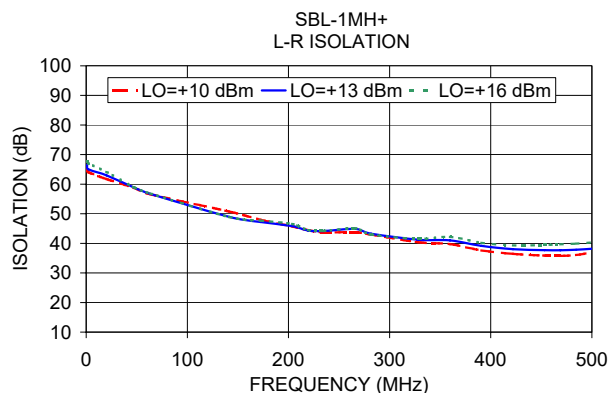
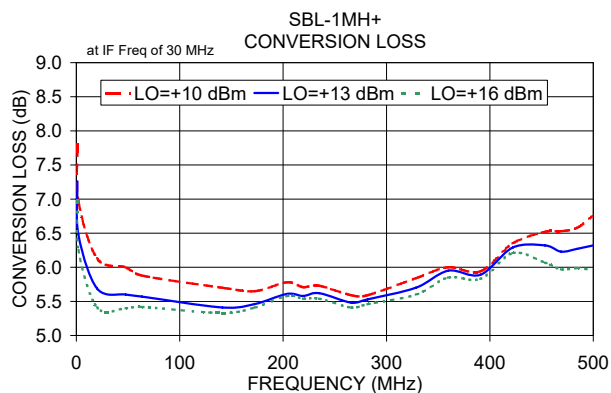
Notes

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