

Plug-In Frequency Mixer

SBL-1ZMH+

Level 13 (LO Power +13 dBm) 2 to 1100 MHz

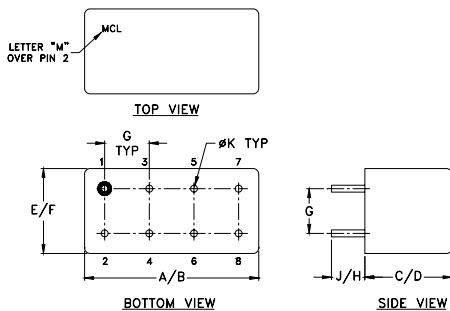
Maximum Ratings

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	1
RF	8
IF	3
GROUND	2,5,6,7
CASE GROUND	2,5,6,7
NOT USED	4

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

- conversion loss, 6.63 dB typ.
- broadband 2 to 1100 MHz
- rugged welded construction

Applications

- VHF
- 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

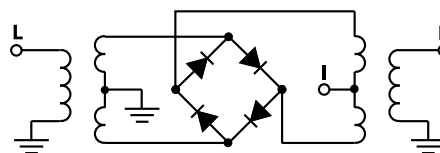
FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF f_L - f_U	IF	Mid-Band m		Total Range Max.	Total Range Max.	L		M		U		L		M		U	
		\bar{X}	σ			Max.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
2-1100	DC-500	6.63	.10	8.0	9.0	50	40	40	30	30	20	40	30	25	20	25	15

1 dB COMP.: +9 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 +13dBm	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm
2.00	32.00	7.47	70.78	65.58	1.79	2.25
4.00	34.00	6.83	70.28	59.74	1.74	2.13
5.00	35.00	6.65	70.18	57.88	1.74	2.10
10.00	40.00	6.27	70.01	52.36	1.81	1.95
20.00	50.00	6.18	69.85	46.22	1.76	1.97
50.00	80.00	6.15	69.63	39.08	1.77	1.93
100.00	70.00	6.15	67.71	33.80	1.75	1.86
119.64	89.64	6.08	67.73	32.85	1.59	1.84
200.00	170.00	6.34	74.27	29.38	1.53	1.91
276.50	246.50	6.71	67.53	27.35	1.50	1.97
433.36	403.36	6.85	51.02	25.68	1.68	2.06
500.00	470.00	6.21	49.19	26.25	1.83	2.12
550.00	520.00	5.99	53.13	26.35	1.90	2.16
590.21	560.21	5.95	51.95	27.35	1.95	2.29
747.07	717.07	6.91	45.36	31.35	1.82	2.36
903.93	873.93	7.63	45.31	33.05	1.52	2.24
1000.00	970.00	7.69	42.04	30.24	1.80	2.24
1021.57	991.57	7.87	40.76	30.36	2.02	2.28
1060.79	1030.79	8.11	35.87	30.40	2.24	2.25
1100.00	1070.00	8.49	32.15	34.03	2.55	2.16

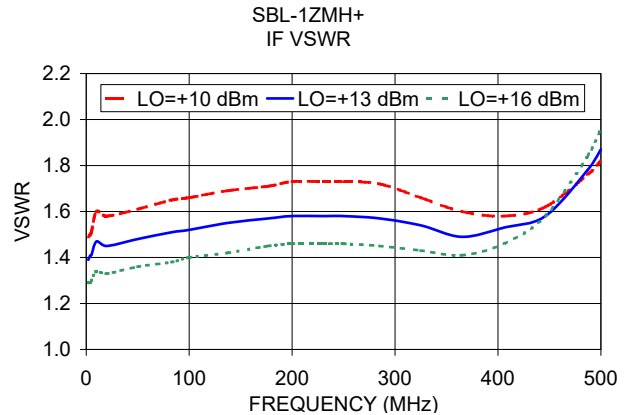
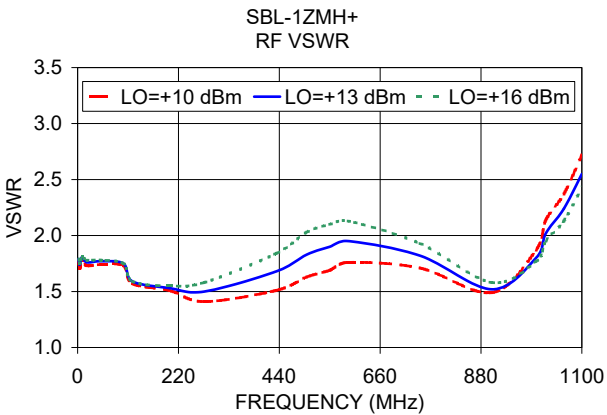
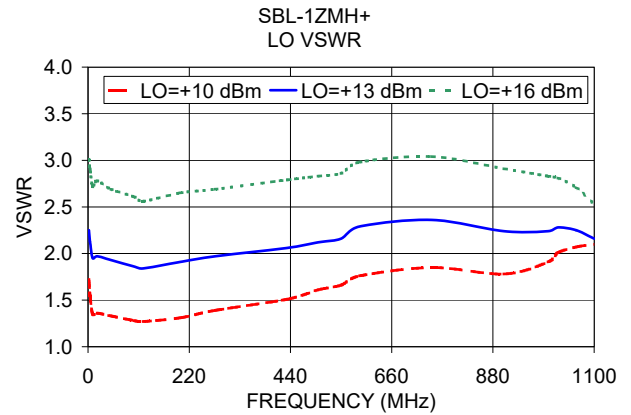
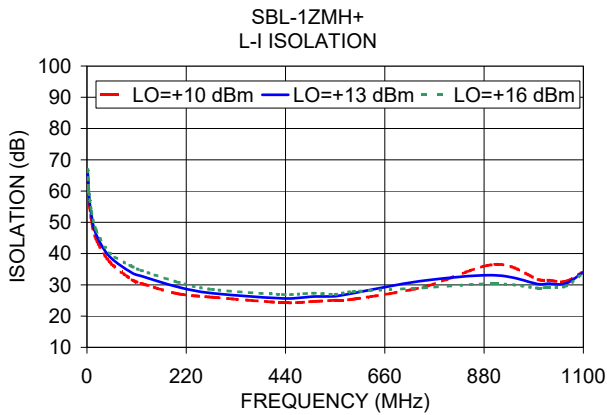
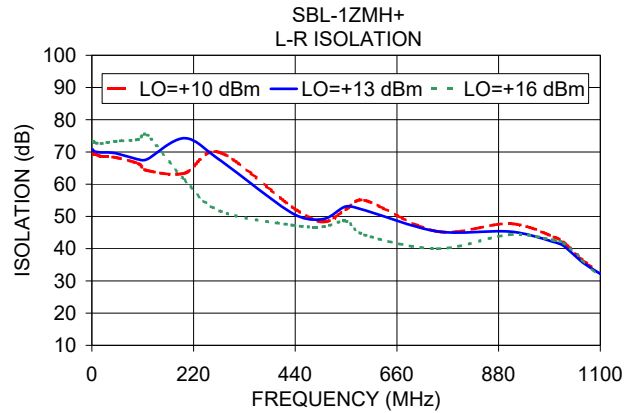
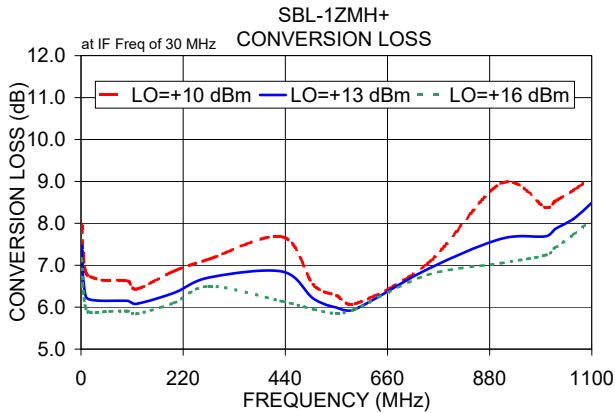
Electrical Schematic



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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