

Coaxial Frequency Mixer

Level 17 (LO Power +17 dBm) 2 to 500 MHz

ZLW-1SH+ ZLW-1SH



Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

LO	1
RF	3
IF	2

Features

- low conversion loss, 5.93 dB typ.
- high L-R isolation, 40 dB typ., L-I, 35 dB typ.
- rugged shielded case

Applications

- VHF/UHF
- instrumentations

CASE STYLE: M21

Connectors	Model	Price	Qty.
SMA	ZLW-1SH(+)	\$62.95 ea.	(1-9)
BRACKET (OPTION "B")		\$5.00	(1+)
BRACKET (OPTION "BR")		\$1.50	(1+)

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

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

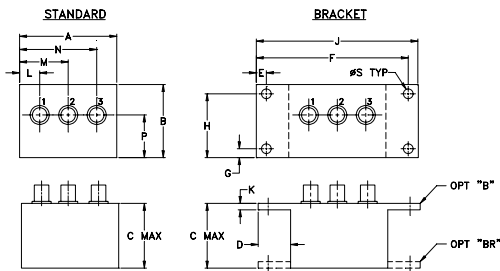
Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF	IF	Mid-Band		Total Range	Max.	L		M		U		L		M		U	
		\bar{X}	σ			Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
2-500	DC-500	5.93	0.08	7.5	8.5	50	40	40	30	30	25	45	35	35	25	25	20

1 dB COMP.: +14 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 $f_U/2$]

Outline Drawing



Outline Dimensions (inch/mm)

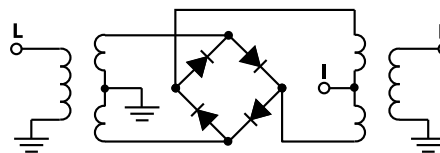
A	B	C	D	E	F	G	H
1.50	1.13	1.00	.50	.155	2.345	.138	.987
38.10	28.70	25.40	12.70	3.94	59.56	3.51	25.07

J	K	L	M	N	P	S	wt
2.50	.10	.31	.75	1.19	.66	.150	grams
63.50	2.54	7.87	19.05	30.23	16.76	3.81	40.0

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 +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
2.00	32.00	6.30	62.98	52.28	1.22	1.67
5.00	35.00	5.95	62.06	52.79	1.10	1.60
10.00	40.00	5.92	60.47	52.35	1.03	1.63
20.00	50.00	5.91	57.14	51.13	1.02	1.61
34.13	64.13	5.81	53.27	49.30	1.04	1.58
50.00	80.00	5.72	50.24	47.27	1.06	1.57
66.26	96.26	5.66	48.03	45.61	1.07	1.55
82.33	122.33	5.71	46.33	44.27	1.08	1.54
100.00	160.00	5.63	44.99	43.26	1.09	1.57
130.52	200.00	5.61	43.18	41.91	1.10	1.55
162.65	250.00	5.60	40.12	39.22	1.08	1.60
200.00	300.00	5.42	38.10	37.51	1.07	1.67
259.04	350.00	5.62	37.54	36.13	1.06	1.70
307.24	400.00	5.86	37.41	36.94	1.05	1.76
355.43	450.00	5.92	36.35	35.99	1.04	1.82
387.56	475.00	5.81	35.35	35.91	1.05	1.84
435.76	490.00	5.90	36.34	33.81	1.06	1.85
467.89	495.00	6.08	36.44	33.54	1.08	1.87
483.95	497.00	6.27	36.27	33.21	1.09	1.90

Electrical Schematic



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ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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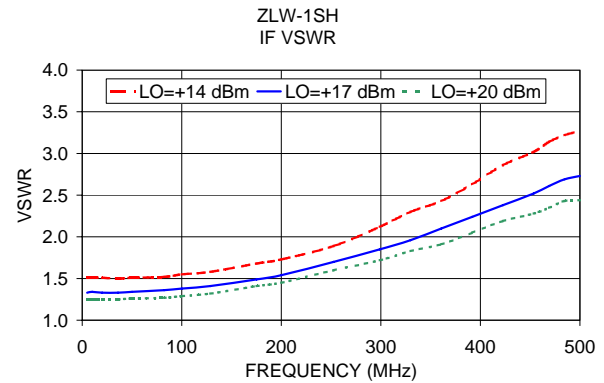
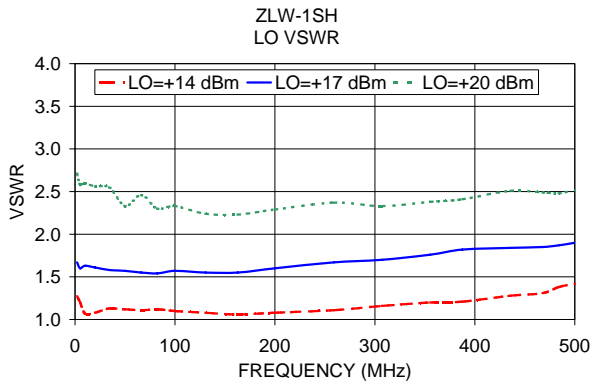
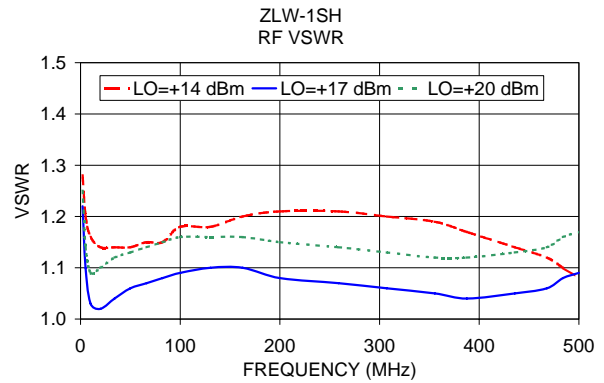
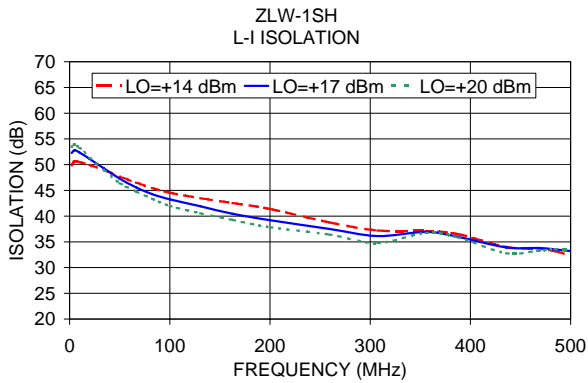
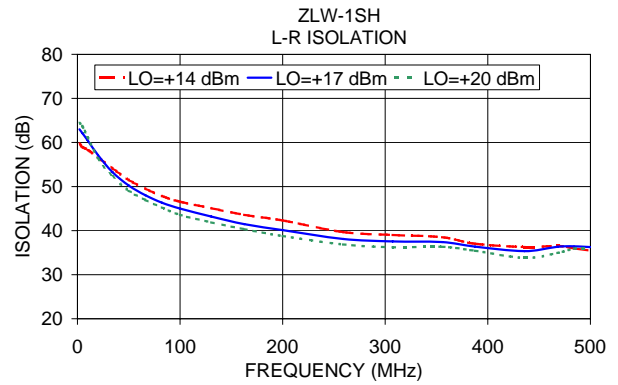
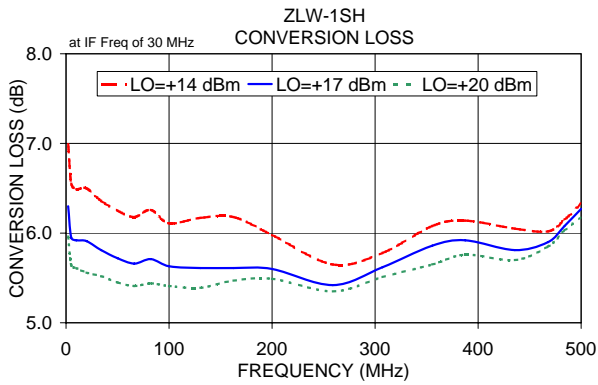
IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

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Performance Charts

ZLW-1SH+ ZLW-1SH



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