

# Coaxial Frequency Mixer

## ZX05-1LHW+

Level 10 (LO Power +10 dBm) 2 to 750 MHz



CASE STYLE: FL905

### Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

### Coaxial Connections

LO	1
RF	2
IF	3

### Features

- rugged construction
- small size
- low conversion loss
- high L-R isolation
- protected by US Patents 6,133,525 & 6,790,049

### Applications

- cellular
- PCS
- instrumentation
- satellite communication

Connectors	Model	Price	Qty.
SMA	ZX05-1LHW-S+	\$38.95 ea.	(1-24)

**+ 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 (T<sub>AMB</sub>=25°C)

FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			IP3 at center band (dBm)										
		L	M	U	L	M	U											
LO/RF f <sub>L</sub> -f <sub>U</sub>	Mid-Band m Total Range Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.										
2-750	DC-750	5.3	0.1	6.8	8.5	66	50	52	35	46	27	64	40	50	27	40	20	15

1 dB COMP.: +5 dBm typ.

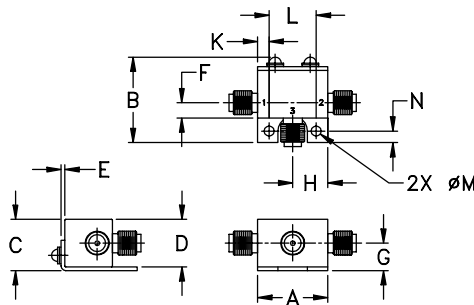
L = low range [f<sub>L</sub> to 10 f<sub>L</sub>]

m = mid band [2f<sub>L</sub> to f<sub>U</sub>/2]

M = mid range [10 f<sub>L</sub> to f<sub>U</sub>/2]

U = upper range [f<sub>U</sub>/2 to f<sub>U</sub>]

### Outline Drawing



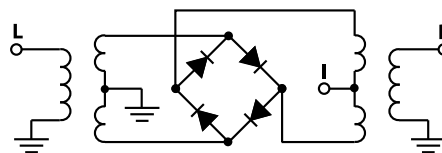
### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.74	.90	.54	.50	.04	.16	.29
18.80	22.86	13.72	12.70	1.02	4.06	7.37
H	J	K	L	M	N	wt
.37	--	.122	.496	.106	.122	grams
9.40	--	3.10	12.60	2.69	3.10	20.0

### 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 +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm
2.10	32.10	5.66	59.62	51.83	1.25	2.36
35.10	65.10	5.32	58.24	51.21	1.07	2.33
75.10	45.10	5.38	55.93	50.03	1.07	2.32
120.10	90.10	5.37	53.75	48.44	1.09	2.31
141.10	111.10	5.36	52.84	47.70	1.10	2.33
183.10	153.10	5.42	51.21	45.39	1.12	2.33
225.10	195.10	5.43	50.01	43.72	1.14	2.36
267.10	237.10	5.50	48.69	42.00	1.16	2.34
309.10	279.10	5.48	48.07	40.61	1.19	2.39
351.10	321.10	5.54	46.97	39.10	1.21	2.33
375.10	345.10	5.53	46.13	38.22	1.22	2.36
414.10	384.10	5.58	44.75	37.04	1.25	2.39
456.10	426.10	5.69	44.54	36.26	1.28	2.34
519.10	489.10	5.82	45.58	35.79	1.32	2.28
540.10	510.10	5.85	45.82	35.82	1.33	2.28
582.10	552.10	5.88	45.49	35.25	1.34	2.39
624.10	594.10	5.88	44.72	34.10	1.33	2.36
666.10	636.10	6.06	42.54	32.43	1.29	2.53
708.10	678.10	6.25	41.92	31.16	1.29	2.45
750.10	720.10	6.52	41.78	30.01	1.35	2.54

### Electrical Schematic



**Mini-Circuits**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

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-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's 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-Circuit's website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

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