

# Coaxial Frequency Mixer

## ZX05-10+ ZX05-10

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



CASE STYLE: FL905

Connectors	Model	Price	Qty.
SMA	ZX05-10-S(+)	\$37.95 ea.	(1-24)

**+ 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.

### Maximum Ratings

Operating Temperature	-40°C to 85°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.	

### 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 & 6,947,717

### Applications

- cellular
- PCS
- instrumentation
- satellite communication

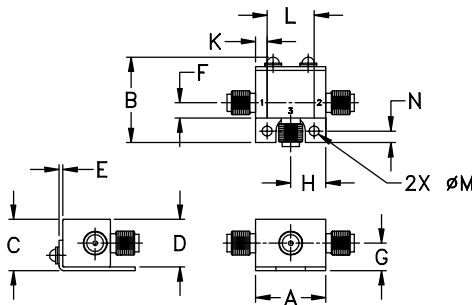
### Electrical Specifications (T<sub>AMB</sub>=25°C)

FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			IP3 at center band (dBm)						
		L	M	U	L	M	U							
10-1000	DC-800	80	50	60	40	47	37	40	26	33	20	24	13	16

1 dB COMP: +1 dBm typ.  
Conversion Loss increases 0.5 dB when IF is above 150 MHz

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



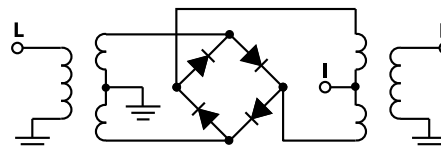
### Outline Dimensions (inch/mm)

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 +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
10.10	40.10	6.73	78.38	57.81	1.41	1.77
50.10	80.10	6.61	70.98	45.39	1.38	1.76
100.10	70.10	6.59	67.50	39.83	1.39	1.73
143.85	113.85	6.52	67.26	37.88	1.37	1.75
215.10	185.10	6.50	65.81	36.31	1.35	1.73
262.60	232.60	6.47	62.97	35.46	1.34	1.74
310.10	280.10	6.46	60.02	34.17	1.33	1.77
357.60	327.60	6.43	56.63	33.24	1.32	1.77
405.10	375.10	6.48	54.20	31.18	1.31	1.81
452.60	422.60	6.36	52.91	30.57	1.29	1.80
500.10	470.10	6.40	51.52	28.84	1.28	1.85
552.10	522.10	6.34	50.01	27.36	1.24	1.81
616.10	586.10	6.32	48.95	25.56	1.19	1.87
680.10	650.10	6.26	45.57	24.52	1.17	1.94
744.10	714.10	6.24	43.34	23.47	1.14	1.92
808.10	778.10	6.34	43.33	22.73	1.10	1.90
840.10	810.10	6.38	43.42	22.27	1.08	1.98
904.10	874.10	6.46	44.95	21.15	1.09	1.87
968.10	938.10	6.09	45.01	19.57	1.14	1.92
1000.10	970.10	6.01	44.35	18.90	1.20	1.91

### Electrical Schematic



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

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)

For detailed performance specs & shopping online see web site

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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## Performance Charts

