

Coaxial Frequency Mixer

Level 3 (LO Power +3 dBm) 2 to 500 MHz

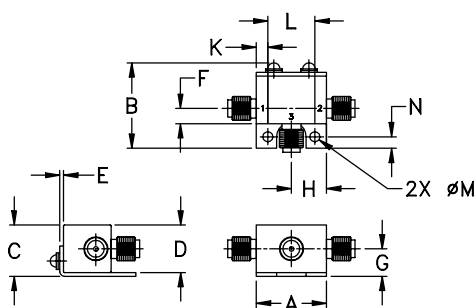
Maximum Ratings

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

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

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



CASE STYLE: FL905

Connectors	Model	Price	Qty.
SMA	ZX05-1L-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.

Electrical Specifications (T_{AMB}=25°C)

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)
LO/RF f_L - f_U	IF	Mid-Band m		Total Range Max.		L		M		U		L		M		U		
		$\bar{X}$	σ	Max.		Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
2-500	DC-500	5.2	0.1	7.2	8.0	68	50	55	30	44	30	55	40	45	30	35	25	16

1 dB COMP.: 0 dBm typ.

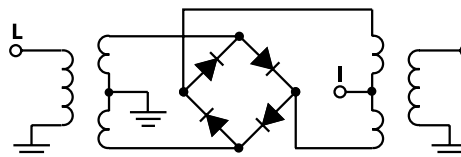
L = low range [f_L to 10 f_L]
m = mid band [2 f_L to f_U/2]

M = mid range [10 f_L to f_U/2] U = upper range [f_U/2 to f_U]

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 +3dBm	LO +3dBm	LO +3dBm	LO +3dBm	LO +3dBm
2.10	32.10	6.13	73.59	76.66	1.27	1.63
20.10	50.10	5.57	69.92	58.59	1.14	1.54
50.10	80.10	5.64	63.85	50.98	1.13	1.54
70.10	40.10	5.66	60.54	48.03	1.13	1.52
94.10	64.10	5.70	57.76	45.29	1.13	1.52
106.10	76.10	5.68	56.42	44.32	1.12	1.52
142.10	112.10	5.64	53.59	41.90	1.12	1.52
166.10	136.10	5.66	52.14	40.76	1.12	1.54
190.10	160.10	5.62	50.86	39.83	1.12	1.55
214.10	184.10	5.61	49.33	38.88	1.11	1.57
238.10	208.10	5.61	48.62	37.96	1.12	1.59
270.10	240.10	5.67	47.30	37.31	1.13	1.61
300.77	270.77	5.68	45.64	36.86	1.14	1.64
331.43	301.43	5.72	44.35	36.25	1.15	1.67
362.10	332.10	5.71	43.39	35.39	1.17	1.68
392.77	362.77	5.79	44.69	34.15	1.19	1.75
423.43	393.43	5.77	44.08	33.62	1.22	1.79
454.10	424.10	5.84	44.03	32.86	1.23	1.77
484.77	454.77	5.90	43.22	31.69	1.24	1.83
500.10	470.10	5.95	42.81	31.23	1.24	1.85

Electrical Schematic



Mini-Circuits®
ISO 9001 ISO 14001 CERTIFIED

ALL NEW
minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS

REV. C
M98898
ZX05-1L
RVN/TD/CP
061228
Page 1 of 2

Performance Charts

