

# Coaxial Frequency Mixer

## ZX05-1L+

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
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

### Applications

- cellular
- PCS
- instrumentation
- satellite communication

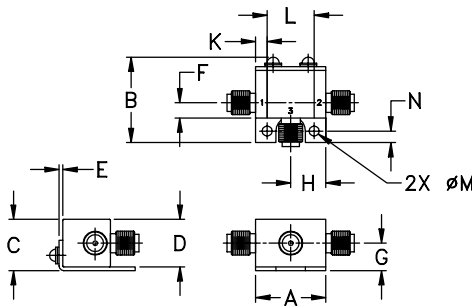
CASE STYLE: FL905

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 has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### 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

### 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)		
	LO/RF	IF	Mid-Band m	Total Range Max.	L	M	U	L	M	U	L	M	U						
2-500	DC-500	$f_L-f_U$	$\bar{X}$	$\sigma$	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.		
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  $f_U/2$ ]

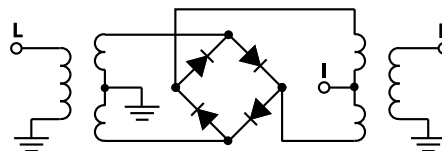
M = mid range [ $10 f_U$  to  $f_U/2$ ]

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



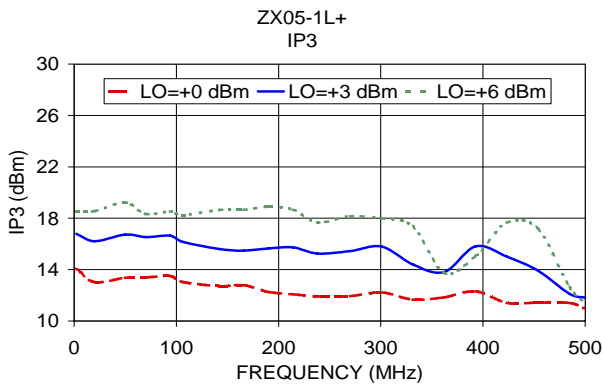
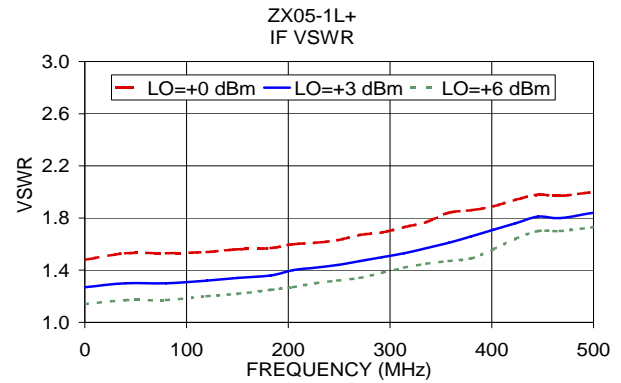
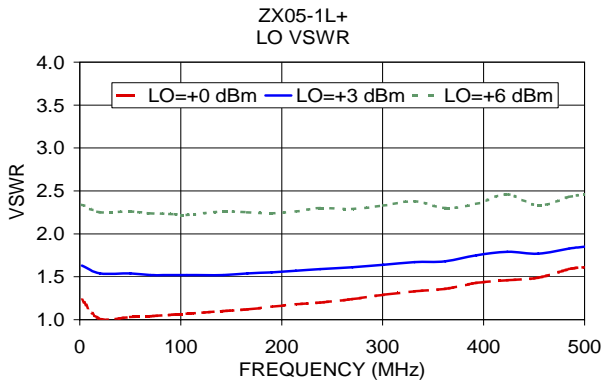
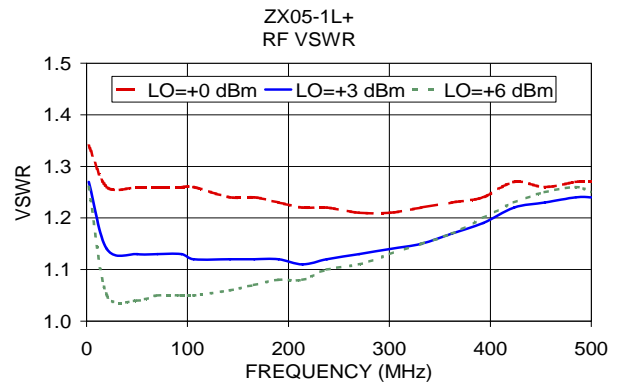
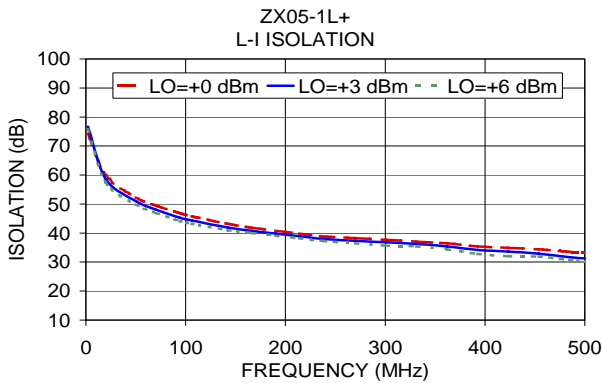
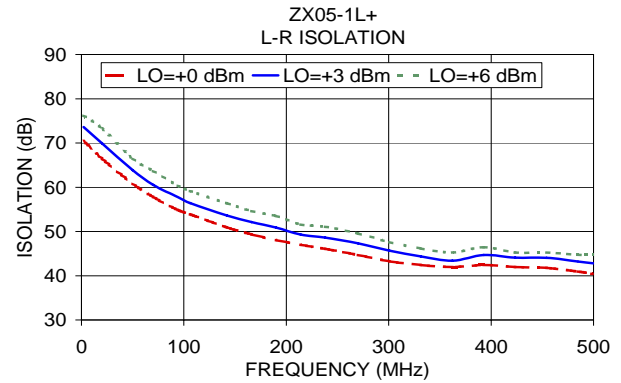
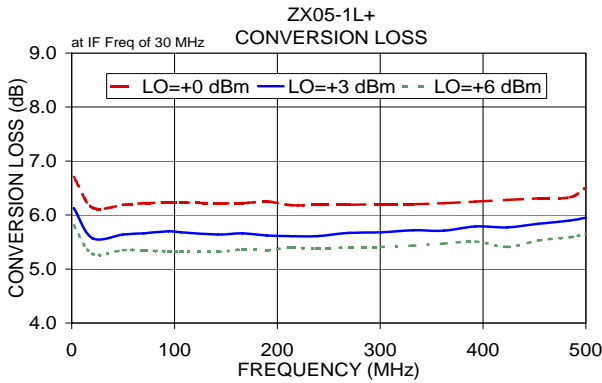
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IF/RF MICROWAVE COMPONENTS

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