

# Coaxial Frequency Mixer

## ZX05-10-S+

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

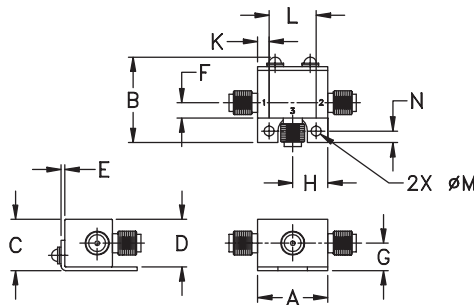
### Maximum Ratings

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

### 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 & 6,947,717

### Applications

- cellular
- PCS
- instrumentation
- satellite communication

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

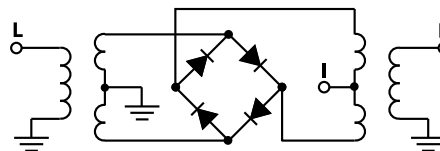
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			IP3 at center band (dBm)						
		L	M	U	L	M	U							
10-1000	DC-800	80	50	60	40	47	37	40	26	33	20	24	13	16

1 dB COMP: +1 dBm typ. Conversion Loss increases 0.5 dB when IF is above 150 MHz  
 L = low range [f<sub>1</sub> to 10 f<sub>1</sub>] M = mid range [10 f<sub>1</sub> to f<sub>1</sub>/2] U = upper range [f<sub>1</sub>/2 to f<sub>1</sub>]  
 m = mid band [2f<sub>1</sub> to f<sub>1</sub>/2]

### Typical Performance Data

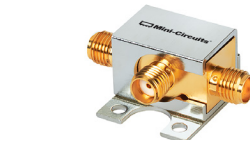
Frequency (MHz)		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
RF	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
10.10	40.10	6.73	78.38	57.81	1.41	1.77
50.10	80.10	6.61	70.98	45.39	1.38	1.76
100.10	70.10	6.59	67.50	39.83	1.39	1.73
143.85	113.85	6.52	67.26	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



### Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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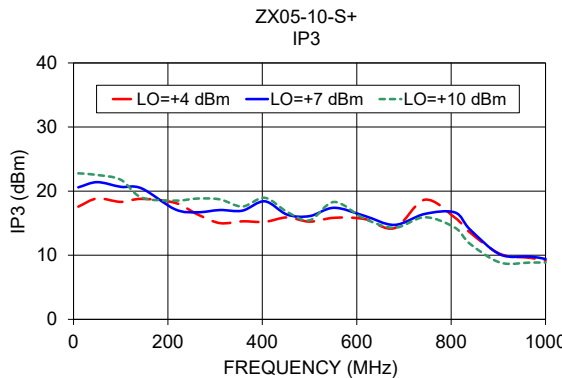
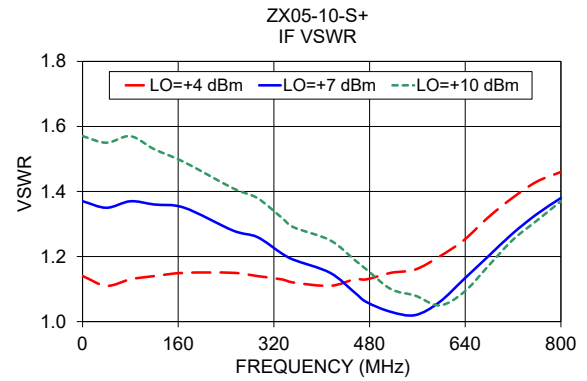
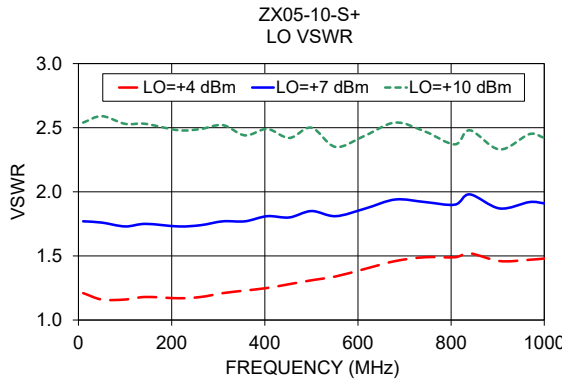
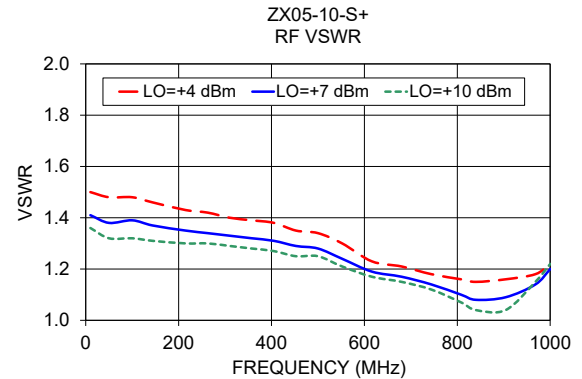
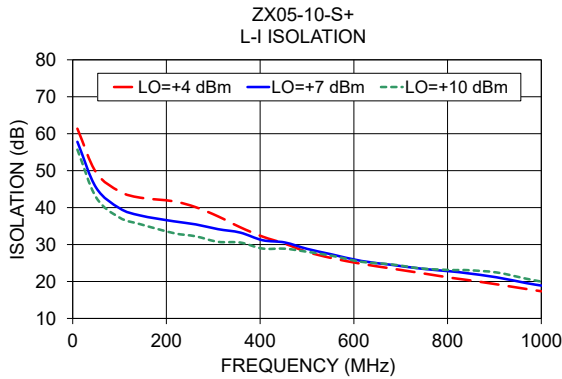
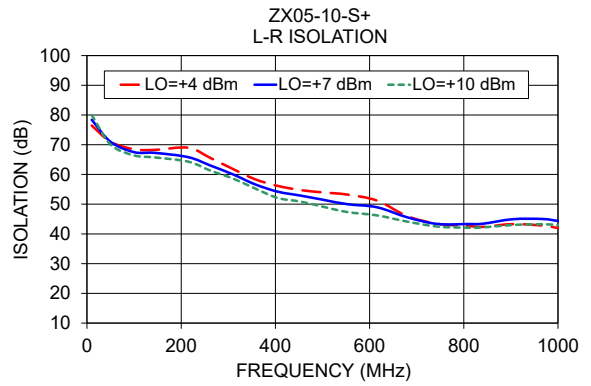
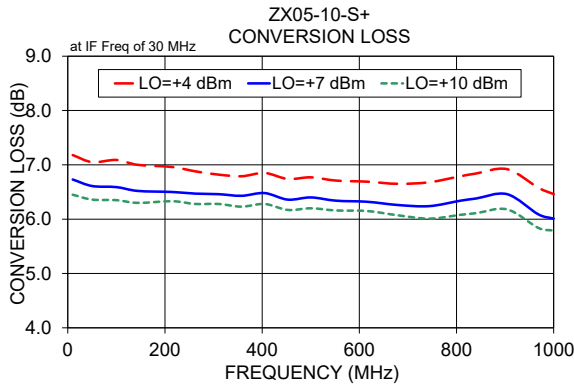
Generic photo used for illustration purposes only

CASE STYLE: FL905

Connectors	Model
SMA	ZX05-10-S+

### +RoHS Compliant

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



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