

# Frequency Mixer WIDE BAND

## ZX05-43+

Level 7 (LO Power +7 dBm) 750 to 4200 MHz



### Maximum Ratings

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

Permanent damage may occur if any of these limits are exceeded.

### Coaxial Connections

LO	2
RF	3
IF	1

### Features

- wide bandwidth, 750 to 4200 MHz
- low conversion loss, 6.1 dB typ.
- excellent L-R isolation, 35 dB typ.
- rugged construction
- small size
- useable as up and down converter
- protected by US patents, 6,790,049 and 7,027,795

### Applications

- cellular
- defense and weather radar
- defense communications
- PCN
- WCDMA
- WIFI
- blue tooth
- VSAT
- ISM

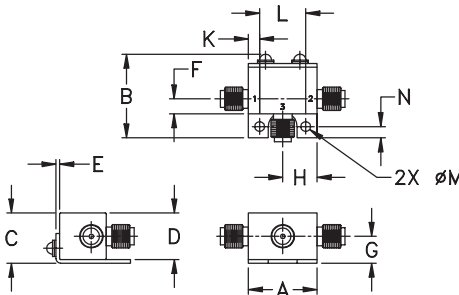
CASE STYLE: FL905

Connectors	Model
SMA	ZX05-43-S+

**+RoHS Compliant**

The +Suffix identifies 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

FREQUENCY (MHz)	CONVERSION LOSS* (dB)	LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)			
		Typ.	Min.	Typ.	Min.				
LO/RF f <sub>L</sub> -f <sub>u</sub>	IF	Typ.	σ	Max.	Typ.	Min.	Typ.		
750-4200	DC-1500								
750-2500		6.3	0.1	8.3	35	29	24	9	12
2500-4200		6.0	0.1	8.9	26	22	20	13	12

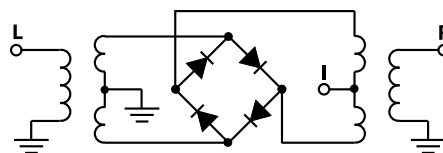
1 dB COMPR.: +1 dBm typ.

\* Conversion loss at 30 MHz IF. σ is a measure of repeatability from unit to unit.

### Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)	
					LO +7dBm	LO +7dBm
RF	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
750.00	780.00	7.32	41.67	24.97	2.28	9.85
950.00	980.00	6.99	39.87	26.96	2.12	3.01
1150.00	1180.00	6.57	41.71	30.28	3.13	1.46
1350.00	1380.00	6.50	35.27	33.17	3.18	1.13
1550.00	1580.00	6.39	33.25	28.75	2.99	1.71
1750.00	1780.00	6.56	35.54	21.12	2.87	2.05
1950.00	1980.00	6.87	33.83	13.03	3.17	1.91
2150.00	2180.00	6.83	34.63	12.22	3.02	1.91
2350.00	2380.00	6.23	32.19	14.93	2.37	2.03
2550.00	2580.00	6.67	30.60	17.84	2.54	1.97
2750.00	2780.00	5.56	29.18	19.08	1.71	1.51
2950.00	2980.00	5.24	28.19	21.52	1.40	1.40
3150.00	3180.00	5.47	26.03	25.95	1.63	1.16
3350.00	3380.00	5.84	26.52	25.86	1.63	1.18
3550.00	3580.00	6.31	25.30	22.00	2.33	1.59
3750.00	3780.00	6.53	25.45	19.15	2.80	2.01
3950.00	3980.00	7.42	26.91	19.85	3.70	2.67
4150.00	4180.00	7.65	26.78	16.35	3.79	3.59
4190.00	4220.00	7.83	27.09	15.96	3.73	3.79
4210.00	4240.00	7.57	27.32	15.67	3.69	3.84

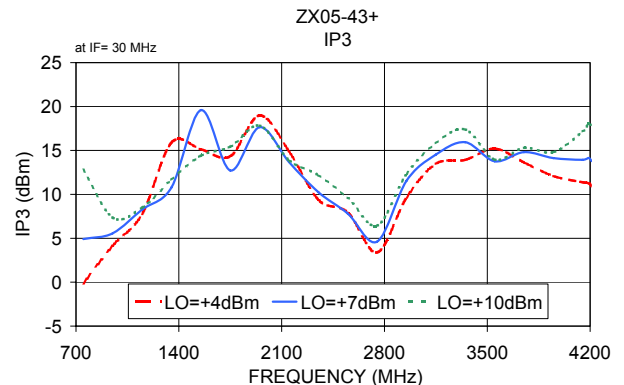
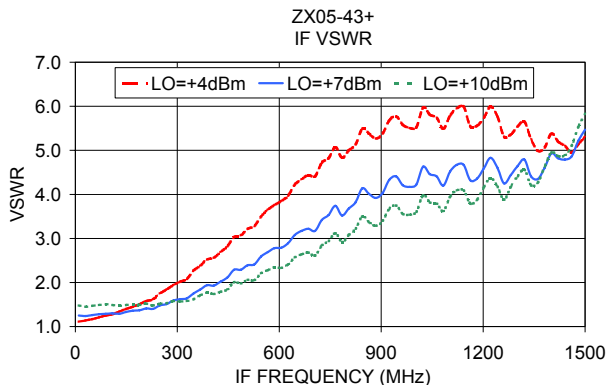
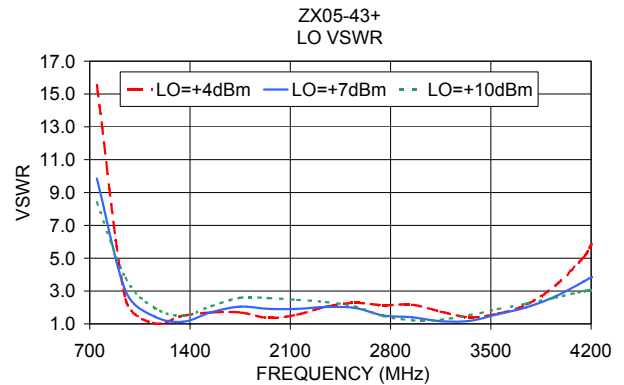
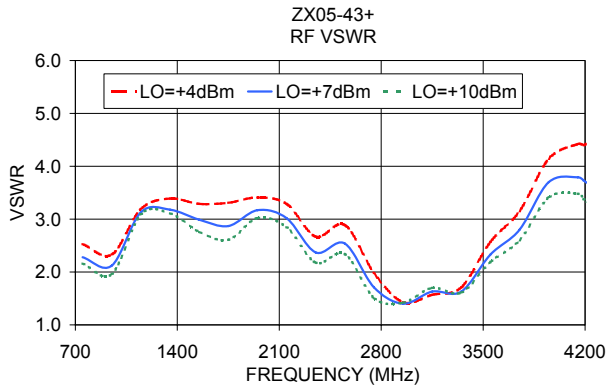
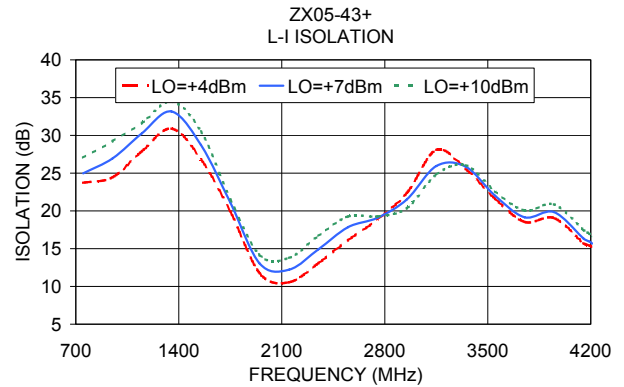
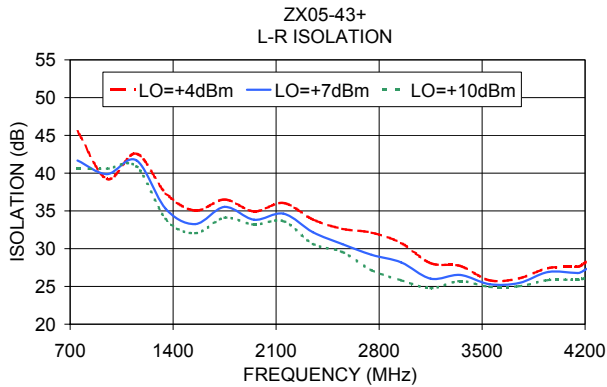
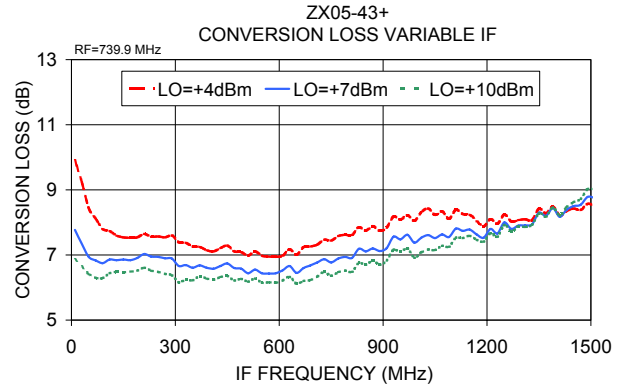
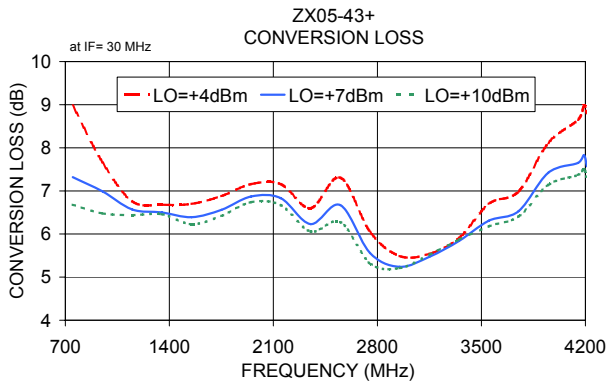
### Electrical Schematic



### 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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