

# Frequency Mixer WIDE BAND

## ZX05-83-S+

Level 7 (LO Power +7 dBm) 2300 to 8000 MHz



Generic photo used for illustration purposes only

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

### 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

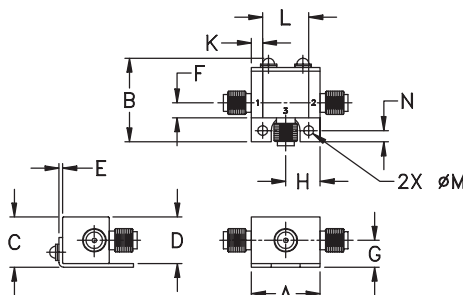
### Features

- wide bandwidth, 2300 to 8000 MHz
- low conversion loss, 6.0 dB typ.
- high L-R isolation, 29 dB typ.
- excellent IF BW, DC to 3000 MHz
- rugged construction
- small size
- useable as up and down converter
- protected by US patents, 6,790,049 and 7,027,795

### Applications

- satellite up and down converters
- defense radar and communications
- line of sight links
- WIFI
- blue tooth
- VSAT
- ISM

### 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 $f_L - f_U$	IF	Typ.	$\sigma$	Max.	Typ.	Min.	Typ.		
2300-8000	DC-3000								
2300-3200		6.3	0.1	7.9	34	26	23	15	12
3200-3700		6.0	0.1	7.8	29	25	24	20	13
3700-4200		5.9	0.2	7.5	29	26	29	22	15
4200-8000		6.0	0.2	8.5	22	15	18	8	10

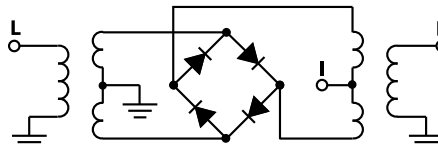
1 dB COMPR.: +1 dBm typ.

\* Conversion loss at 30 MHz IF.  $\sigma$  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)
RF	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
2300.10	2330.10	6.49	36.67	20.32	2.66	3.62
2700.10	2730.10	6.42	33.42	22.98	3.24	2.15
3100.10	3130.10	6.25	28.85	23.64	3.21	1.99
3200.10	3230.10	6.29	28.56	23.99	3.22	1.99
3500.10	3530.10	6.15	28.96	24.48	2.74	2.32
3700.10	3730.10	5.92	28.94	25.64	2.36	2.28
3900.10	3930.10	5.93	29.88	28.96	2.24	2.37
4200.10	4230.10	5.84	28.77	31.33	2.54	2.55
4300.10	4330.10	5.95	28.13	26.51	2.65	2.60
4700.10	4730.10	5.75	26.89	16.21	2.17	2.71
5100.10	5130.10	5.99	25.30	16.14	2.46	2.94
5500.10	5530.10	5.59	22.94	18.46	2.07	3.09
6000.10	6030.10	5.44	20.81	23.21	1.93	2.40
5900.10	5930.10	5.57	21.50	22.09	1.87	2.59
6300.10	6330.10	5.51	19.56	27.29	1.95	1.67
6700.10	6730.10	5.85	19.20	25.98	2.03	1.16
7100.10	7130.10	5.85	18.85	28.33	1.95	1.92
7500.10	7530.10	6.44	20.07	17.60	2.23	3.01
7900.10	7930.10	6.88	20.92	12.58	2.52	3.86
8000.10	8030.10	7.13	21.69	10.94	2.49	3.79

### Electrical Schematic



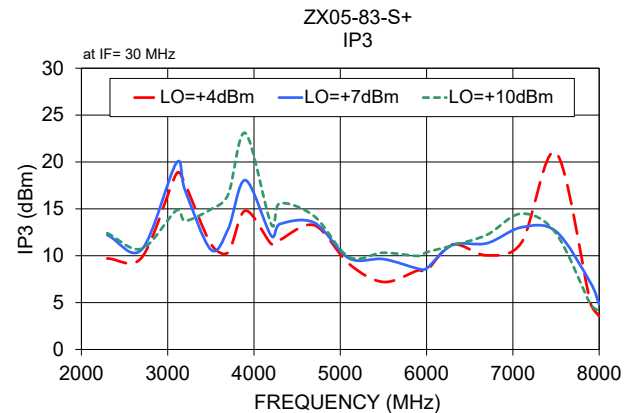
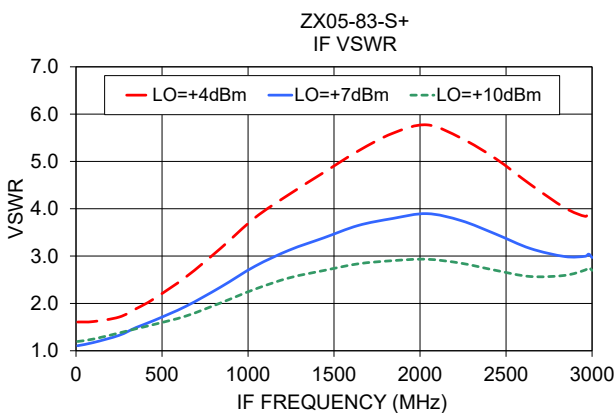
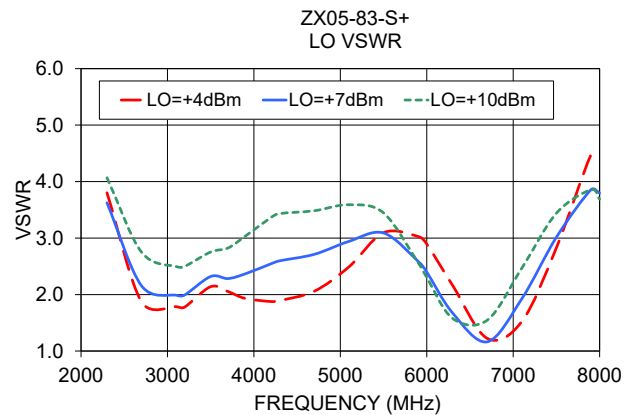
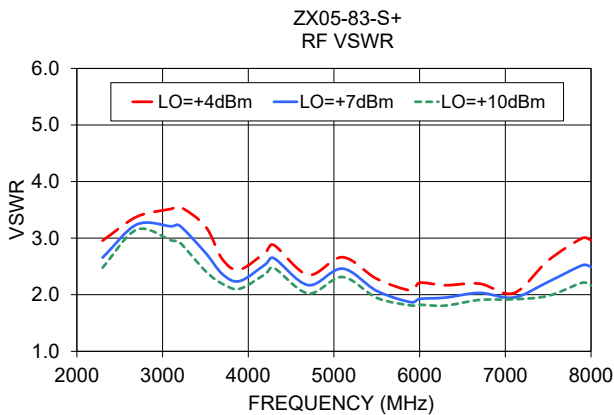
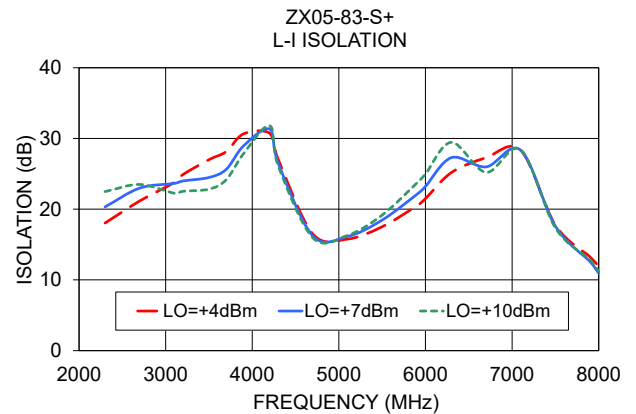
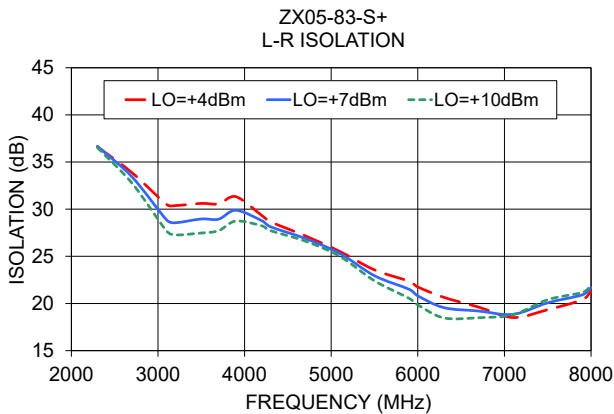
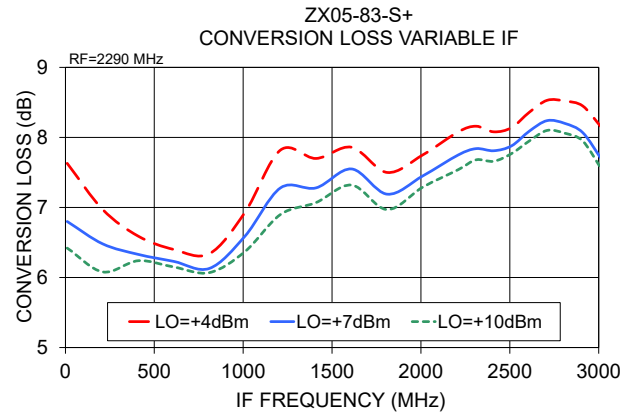
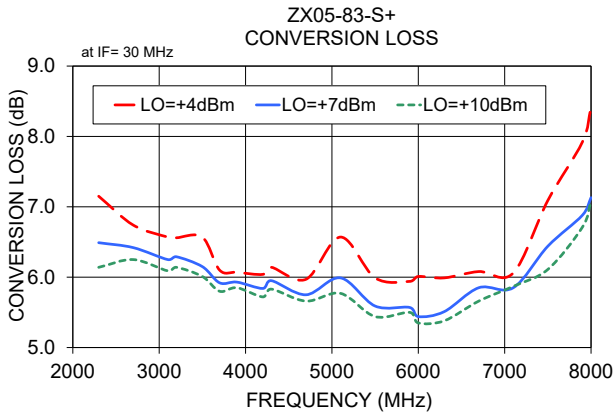
### Notes

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# Performance Charts

# ZX05-83-S+



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