

Frequency Mixer WIDE BAND

ZX05-43MH-S+

Level 13 (LO Power +13 dBm) 824 to 4200 MHz

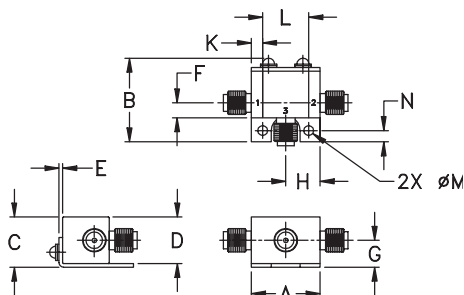
Maximum Ratings

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

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

- wide bandwidth, 824 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

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS* (dB)			LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
		Typ.	σ	Max.	Typ.	Min.	Typ.	Min.	
824-4200	LO/RF $f_c - f_u$								
	IF								
	DC-1500								
824-2500		6.3	0.1	8.6	37	28	24	7	20
2500-4200		5.7	0.1	9.8	30	22	20	11	22

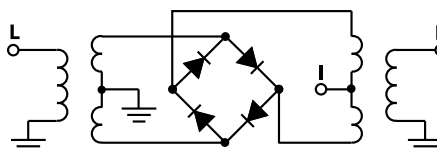
1 dB COMPR.: +9 dBm typ.

* 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)
RF	LO	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm
810.00	840.00	7.06	38.11	22.81	2.08	8.55
1010.00	1040.00	6.43	43.16	26.73	2.83	2.44
1210.00	1240.00	5.83	41.09	30.74	3.45	1.27
1410.00	1440.00	5.82	34.44	34.76	3.53	1.16
1610.00	1640.00	5.70	33.13	29.18	3.12	1.61
1810.00	1840.00	6.00	35.10	19.67	3.21	1.77
2010.00	2040.00	5.93	33.76	11.58	3.28	1.62
2210.00	2240.00	5.94	34.33	11.64	3.33	1.85
2410.00	2440.00	5.12	31.89	14.42	2.18	2.27
2610.00	2640.00	5.44	31.05	17.41	2.43	2.37
2810.00	2840.00	5.15	29.56	19.09	1.88	1.72
3010.00	3040.00	4.63	27.17	21.48	1.70	1.64
3210.00	3240.00	4.96	25.87	25.21	1.92	1.37
3410.00	3440.00	5.46	25.97	24.10	2.11	1.34
3610.00	3640.00	6.47	24.80	20.53	3.34	1.88
3810.00	3840.00	6.88	25.65	18.07	3.76	2.58
4010.00	4040.00	7.75	26.66	17.01	5.03	3.83
4110.00	4140.00	7.74	26.80	15.46	5.14	4.62
4150.00	4180.00	7.92	26.85	15.58	5.44	4.84
4210.00	4240.00	7.83	26.88	15.04	5.07	5.28

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-Circuits' applicable established test performance criteria and measurement instructions.
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Generic photo used for illustration purposes only

CASE STYLE: FL905

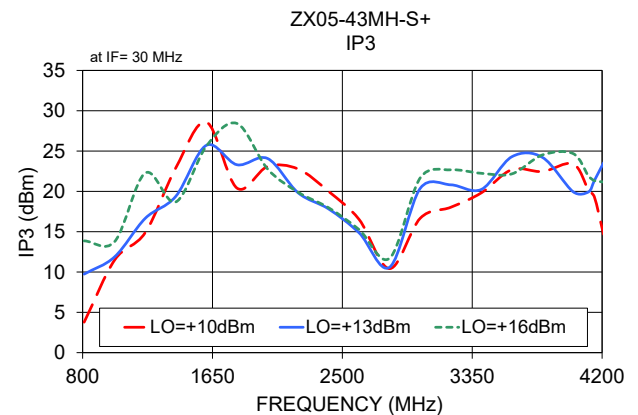
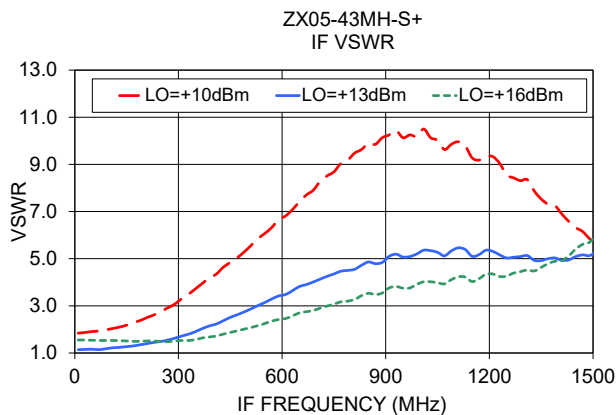
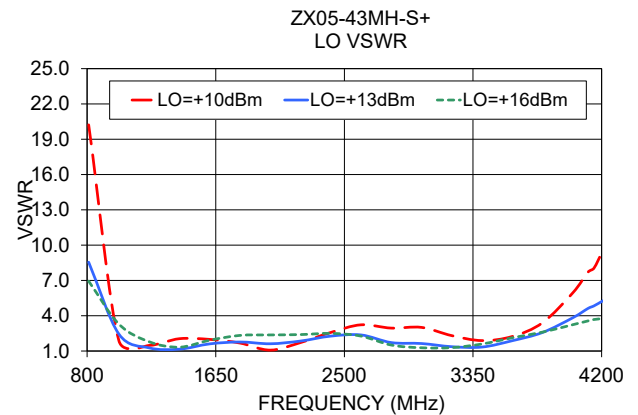
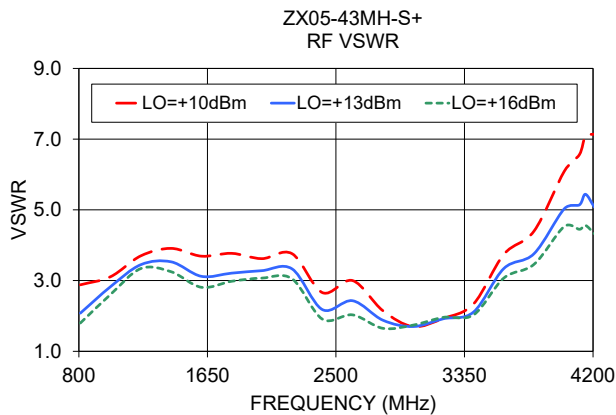
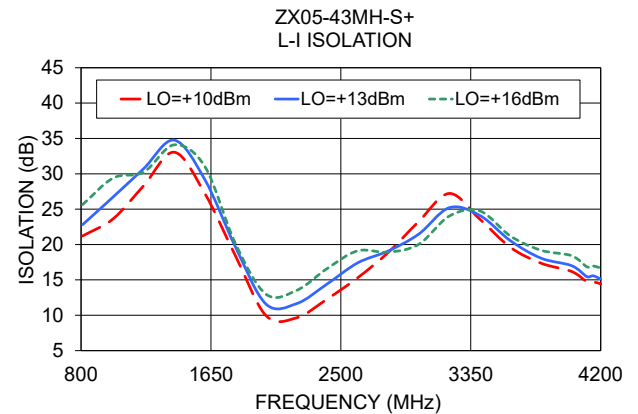
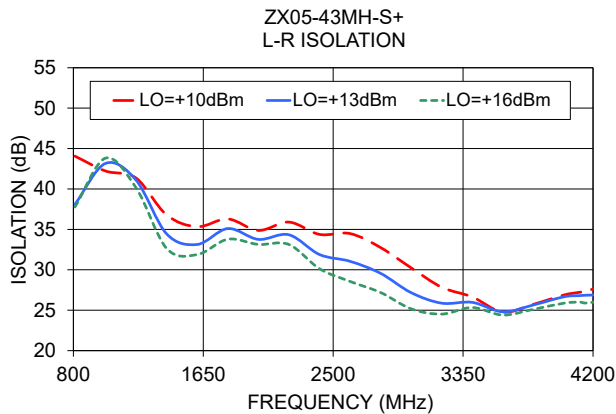
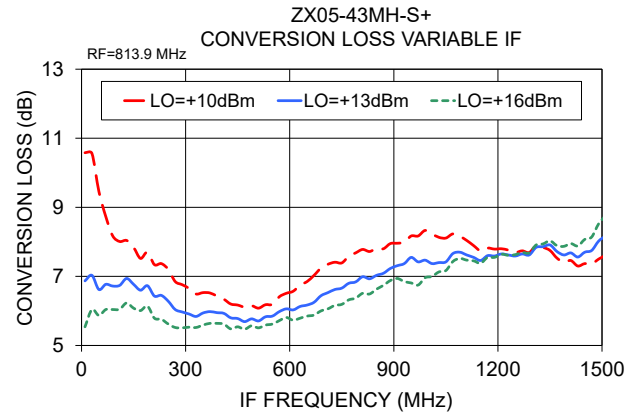
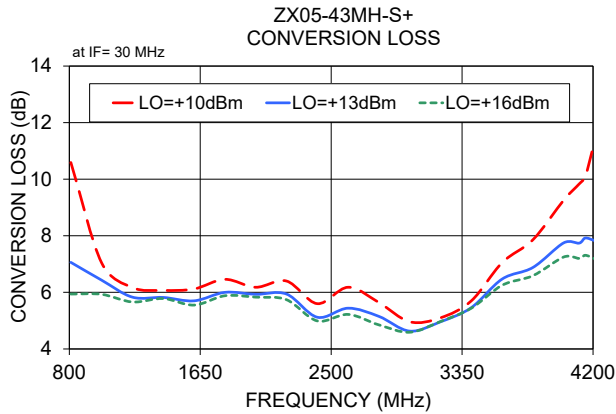
Connectors	Model
SMA	ZX05-43MH-S+

+RoHS Compliant

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

Performance Charts

ZX05-43MH-S+



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