

Frequency Mixer WIDE BAND

Level 7 (LO Power +7 dBm) 3400 to 15000 MHz

ZX05-153+



CASE STYLE: FL905

Connectors	Model
SMA	ZX05-153-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, 3400 to 15000 MHz
- low conversion loss, 6.8 dB typ.
- high L-R isolation, 36 dB typ.
- excellent IF BW, DC to 4000 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
- federal fixed service
- 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.	
LO/RF $f_c - f_u$	IF								
3400-15000	DC-4000								
3400-10000		6.5	0.3	9.9	36	25	15	9	11
10000-13500		11.0	0.7	13.5	35	20	30	14	13
13500-15000		8.0	0.4	10.4	28	16	25	11	10

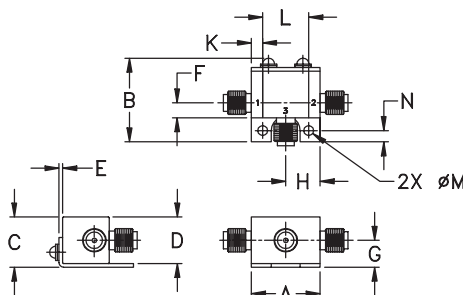
1 dB COMPR.: +1 dBm typ.

* 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)
RF	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
3389.10	3419.10	7.73	53.72	19.87	2.92	19.76
4009.10	4039.10	6.26	42.23	19.60	2.93	7.70
4598.10	4628.10	5.95	39.41	15.55	2.35	4.74
5218.10	5248.10	6.49	37.60	13.58	3.34	2.49
5807.10	5837.10	6.37	36.28	14.94	3.21	1.48
6427.10	6457.10	6.16	37.57	16.85	2.78	2.17
7016.10	7046.10	6.01	38.42	17.33	2.13	3.44
7605.10	7635.10	5.89	37.05	14.68	1.68	4.09
8194.10	8224.10	5.93	33.03	14.75	1.99	3.95
8814.10	8844.10	6.35	37.00	22.36	3.22	3.20
9992.10	10022.10	9.08	30.28	18.43	5.39	1.81
10612.10	10642.10	9.48	36.89	23.48	5.74	1.92
11201.10	11231.10	9.64	38.60	28.40	5.74	2.02
11821.10	11851.10	9.82	35.13	31.35	5.36	2.13
12410.10	12440.10	10.48	35.91	37.37	5.13	2.52
13030.10	13060.10	8.58	26.54	37.69	4.43	4.01
13495.10	13525.10	8.62	24.19	32.08	4.23	6.24
14022.10	14052.10	8.93	27.62	26.87	3.89	8.72
14611.10	14641.10	8.94	32.10	19.38	3.24	10.96
15014.10	15044.10	9.04	22.03	15.17	1.95	8.90

Outline Drawing



Outline Dimensions (inch)

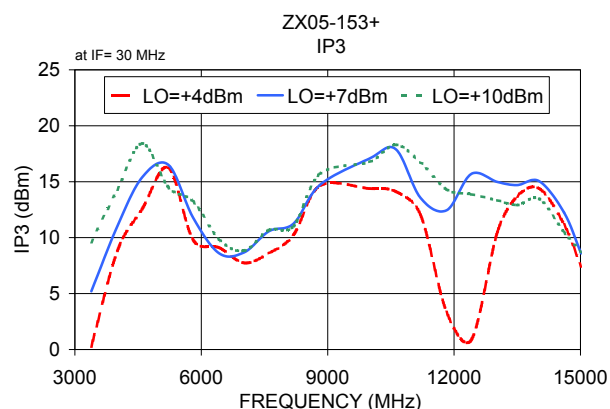
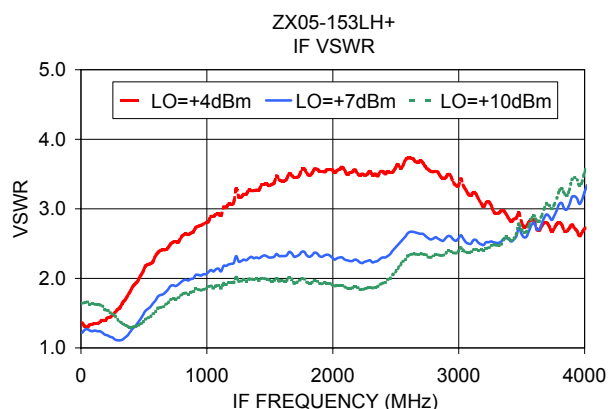
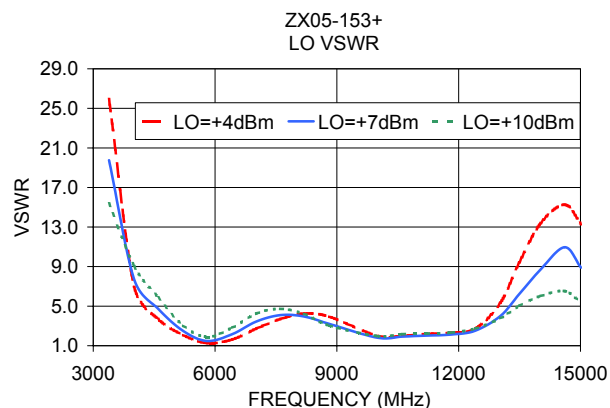
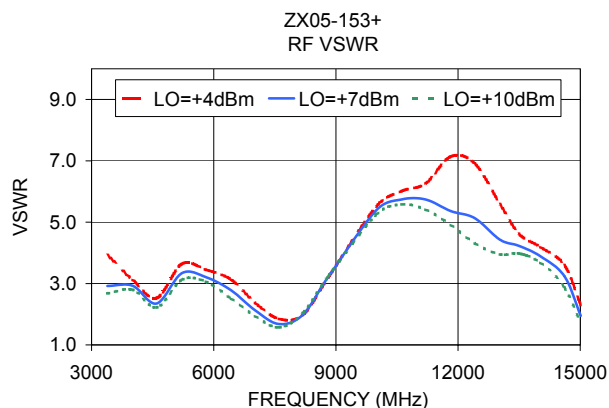
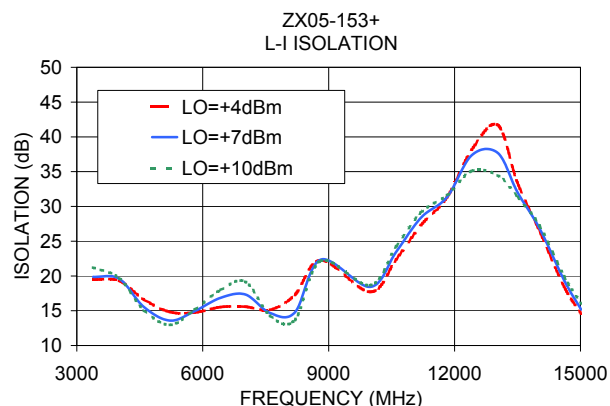
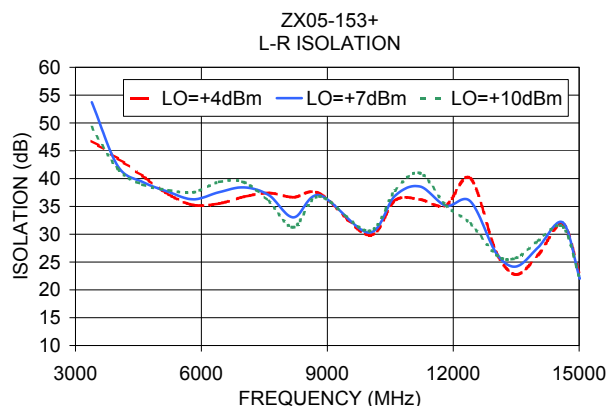
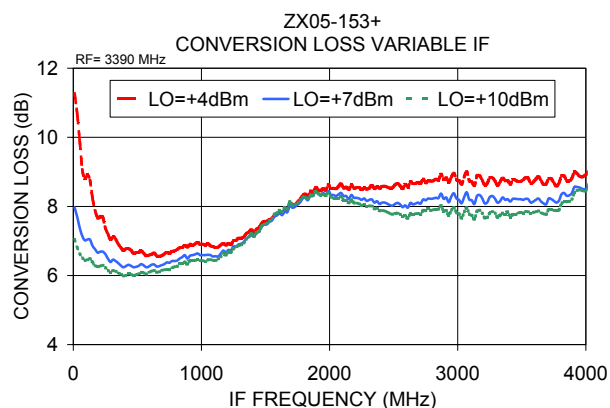
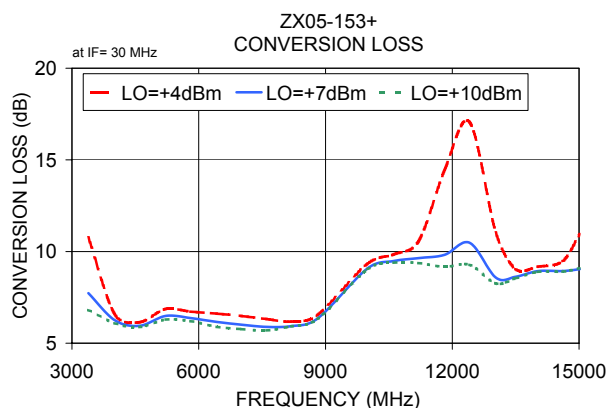
A	B	C	D	E	F	G
.74	.90	.54	.50	.04	.16	.29
18.80	22.86	13.72	12.70	1.02	4.06	7.37

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

Notes

- A. 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.
 B. 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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