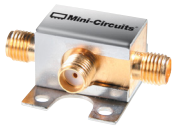
Coaxial

Frequency Mixer WIDE BAND

ZX05-153MH-S+

Level 13 (LO Power +13 dBm) 3200 to 15000 MHz



CASE STYLE: FL905

Connectors	Model
SMA	ZX05-153MH-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

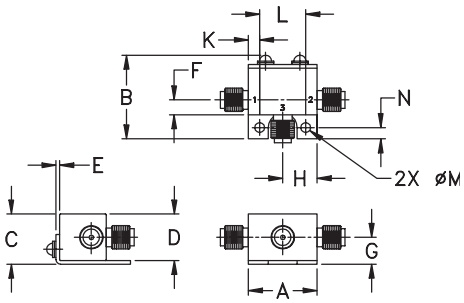
Features

- wide bandwidth, 3200 to 15000 MHz
- low conversion loss, 6.5 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

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)
LO/RF f_L-f_U	IF	Typ.	σ	Max.	Typ.	Min.	Typ.	Min.	Typ.
3200-15000	**DC-4000**								
3200-4500		6.4	0.2	9.3	40	34	19	13	15
4500-5100		6.2	0.2	8.0	35	32	14	10	18
5100-14000		7.5	0.4	13.6	34	22	17	9	17
14000-15000		7.0	0.3	10.5	26	14	24	11	13

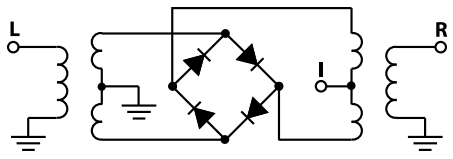
1 dB COMPR.: +5 dBm typ.

* 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
3193.10	3223.10	7.79	47.11	20.82	2.39	17.57
3791.60	3821.60	6.32	51.86	19.59	2.88	7.44
4484.60	4514.60	5.92	41.93	16.09	2.33	3.48
5083.10	5113.10	5.94	40.95	12.87	2.75	1.90
5618.60	5648.60	6.29	38.97	14.17	3.46	2.65
6217.10	6247.10	5.90	40.72	16.68	2.79	3.90
6815.60	6845.60	5.61	39.73	18.51	2.14	4.30
7414.10	7444.10	5.33	37.25	16.36	1.52	3.19
8012.60	8042.60	5.50	30.38	12.32	1.56	2.13
8611.10	8641.10	5.72	37.50	19.00	2.22	1.83
9209.60	9239.60	6.31	33.03	22.52	3.30	1.99
10028.60	10058.60	8.48	31.28	17.81	4.62	1.90
10627.10	10657.10	8.76	36.89	23.65	4.95	2.47
11225.60	11255.60	8.77	37.44	29.08	5.33	3.65
11824.10	11854.10	8.51	32.31	34.91	4.78	4.83
12422.60	12452.60	8.67	30.24	37.24	4.13	4.80
13021.10	13051.10	7.66	26.56	37.10	3.67	3.60
13997.60	14027.60	7.84	29.74	30.66	3.20	4.00
14627.60	14657.60	8.55	26.54	22.01	2.75	3.80
15005.60	15035.60	8.82	19.09	16.55	2.05	3.01

Electrical Schematic



Notes

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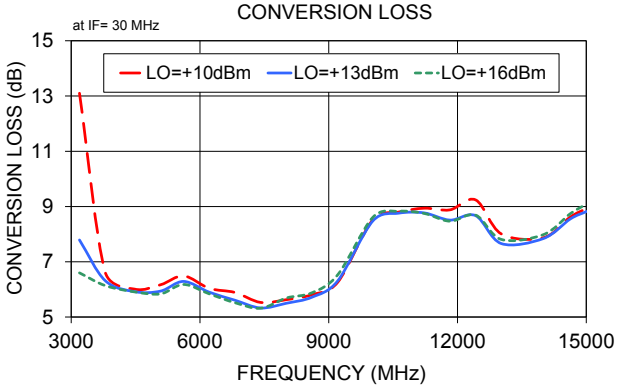
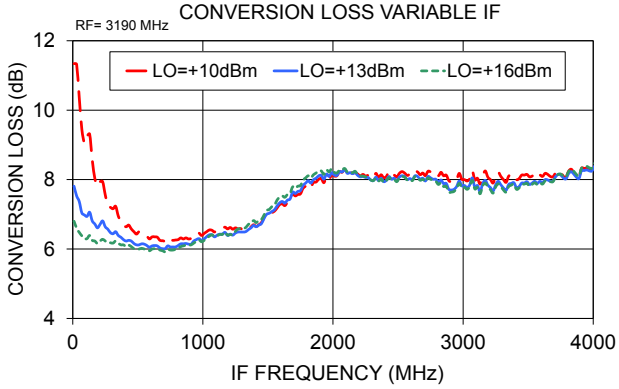
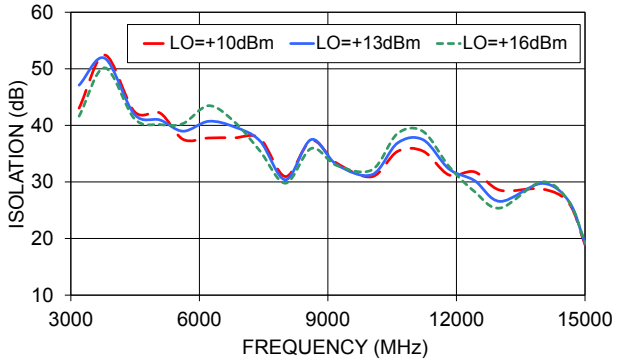
ZX05-153MH-S+
CONVERSION LOSS



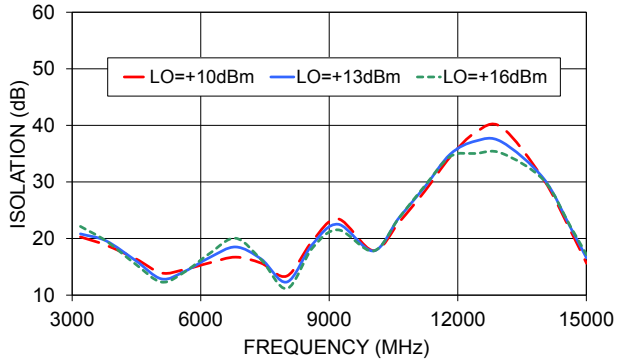
ZX05-153MH-S+
CONVERSION LOSS VARIABLE IF



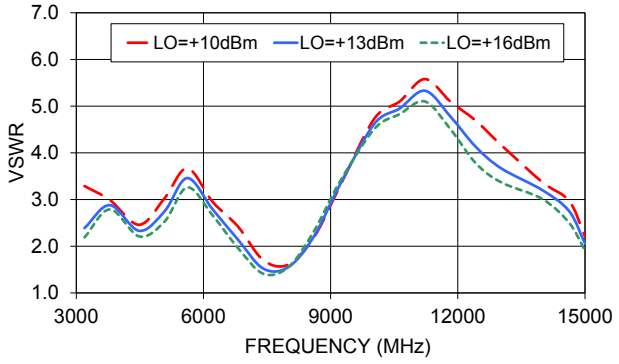
ZX05-153MH-S+
L-R ISOLATION



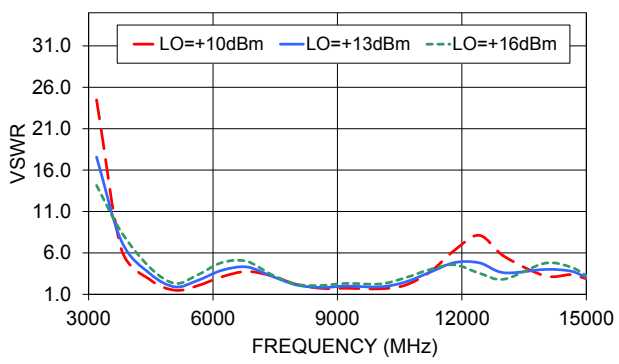
ZX05-153MH-S+
L-I ISOLATION



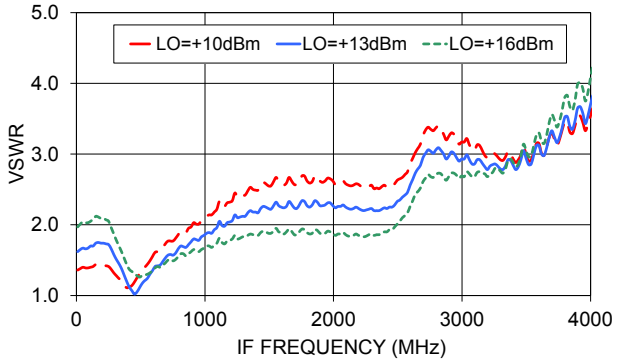
ZX05-153MH-S+
RF VSWR



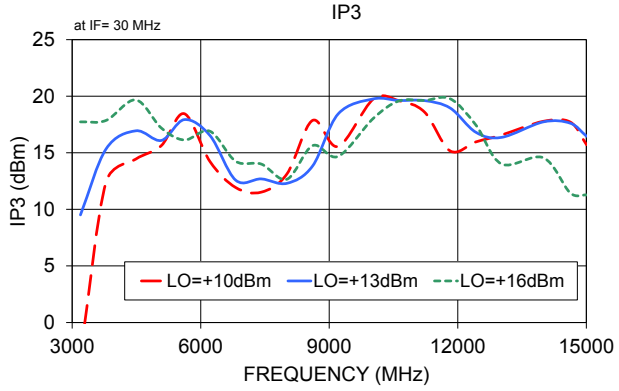
ZX05-153MH-S+
LO VSWR



ZX05-153MH-S+
IF VSWR



ZX05-153MH-S+
IP3



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