

Frequency Mixer WIDE BAND

ZX05-24MH+

Level 13 (LO Power +13 dBm) 7500 to 20000 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	1
RF	2
IF	3

Features

- wide bandwidth, 7500 to 20000 MHz
- low conversion loss, 7.0 dB typ.
- high L-R isolation, 30 dB typ.
- excellent IF BW, DC to 7500 MHz
- rugged construction
- small size
- useable as up and down converter
- protected by US patents, 6,790,049 and 7,027,795

CASE STYLE: FL905

Connectors	Model
SMA	ZX05-24MH-S+

+RoHS Compliant

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

Applications

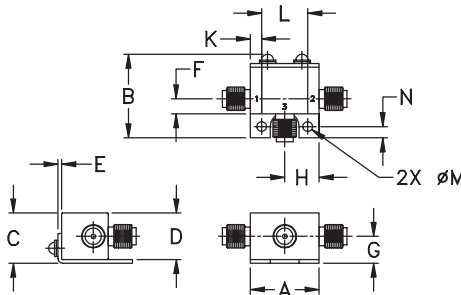
- fixed satellite
- mobile
- radio location

Electrical Specifications at 25°C

Parameter	Min.	Typ.	Max.	Unit
Frequency Range, RF	7500	—	20000	MHz
Frequency Range, LO	7500	—	20000	MHz
Frequency Range, IF	DC	—	7500	MHz
Conversion Loss*	—	7.0	10.3	dB
LO to RF Isolation	18	30	—	dB
LO to IF Isolation	10	15	—	dB
IP3	—	16	—	dBm
RF Input at 1 dB Compression	—	+9	—	dBm

* Conversion loss at 30 MHz IF. Increases with IF frequency.

Outline Drawing



Outline Dimensions (inch/mm)

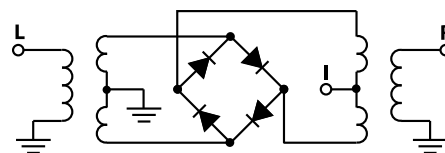
A	B	C	D	E	F	G
.74	.90	.54	.50	.04	.16	.29
18.80	22.86	13.72	12.70	1.02	4.06	7.37

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

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
7500.00	7530.10	8.46	40.41	21.74	3.06	8.51
8000.00	8030.10	7.70	36.22	23.68	2.00	7.40
8500.00	8530.10	8.75	37.33	23.23	2.83	4.18
9000.00	9030.10	7.92	38.23	23.77	3.46	2.94
9500.00	9530.10	7.13	39.48	20.00	2.42	3.41
10000.00	10030.10	6.78	39.32	18.07	2.58	2.45
10500.00	10530.10	6.47	38.67	16.58	5.47	2.30
11000.00	11030.10	6.34	35.84	14.09	4.33	2.42
12000.00	12030.10	6.35	33.65	13.26	2.84	2.52
13000.00	13030.10	6.38	45.90	24.74	1.66	3.87
14000.00	14030.10	6.28	42.13	32.80	1.58	2.47
15000.00	15030.10	7.15	28.76	22.33	4.66	1.34
16000.00	16030.10	8.88	26.43	34.65	2.41	2.50
17000.00	17030.10	8.39	24.99	25.15	1.53	2.77
18000.00	18030.10	7.36	25.03	28.20	2.98	1.79
19000.00	19030.10	8.82	25.45	29.65	4.43	2.43
20000.00	20030.10	7.63	26.02	27.15	4.29	4.93

Electrical Schematic

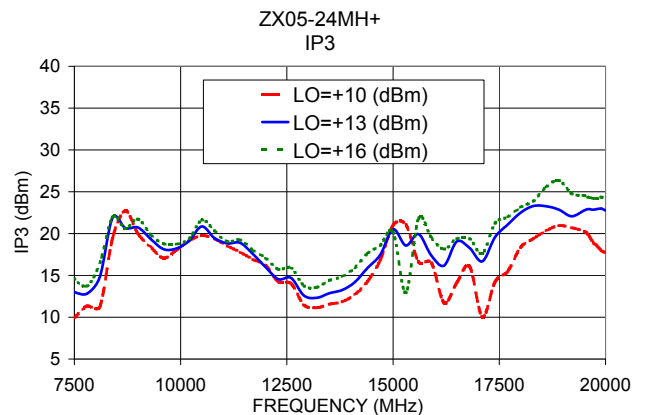
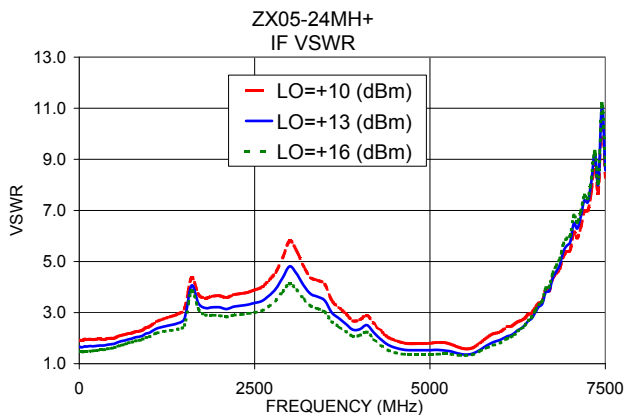
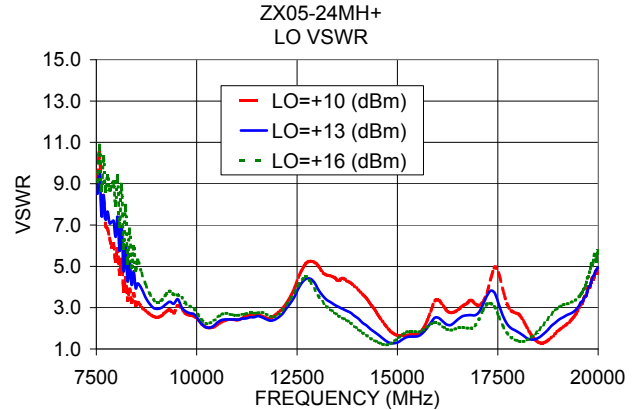
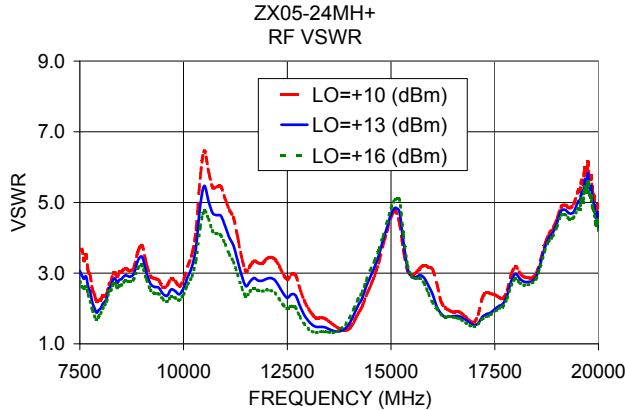
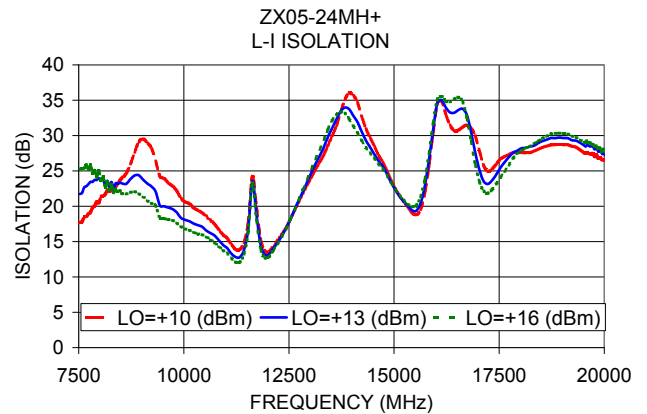
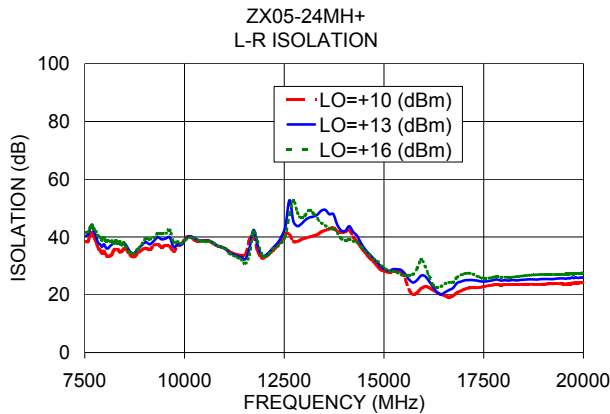
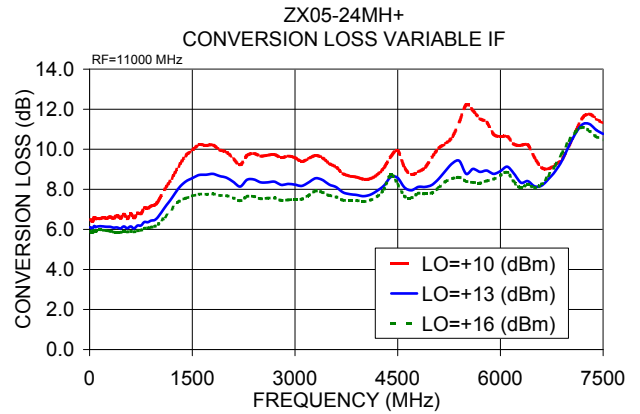
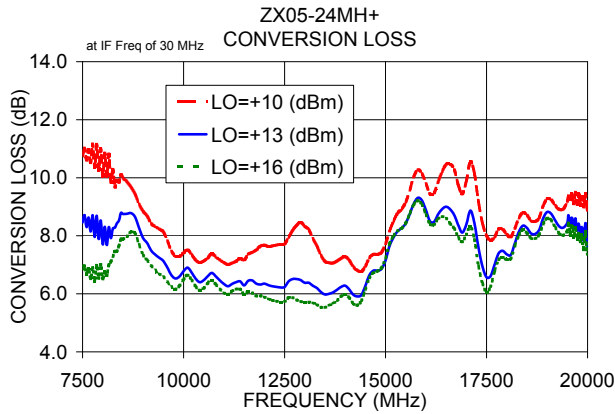


Notes

- 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.
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