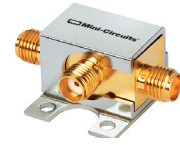


Coaxial

# Frequency Mixer WIDE BAND

## ZX05-24MH-S+

Level 13 (LO Power +13 dBm) 7500 to 20000 MHz



Generic photo used for illustration purposes only

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

### 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

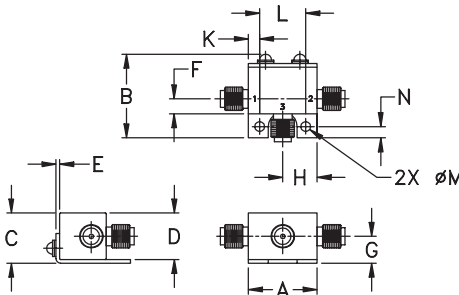
### Features

- 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

### Applications

- fixed satellite
- mobile
- radio location

### 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 at 25°C

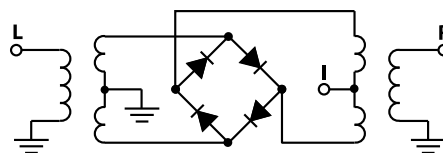
Parameter	Min.	Typ.	Max.	Unit
Frequency Range, RF	7500	—	20000	MHz
Frequency Range, LO	7500	—	20000	MHz
Frequency Range, IF	DC	—	7500	MHz
Conversion Loss*	—	7.0	10.3	dB
LO to RF Isolation	18	30	—	dB
LO to IF Isolation	10	15	—	dB
IP3	—	16	—	dBm
RF Input at 1 dB Compression	—	+9	—	dBm

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

### Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)		VSWR LO Port (:1)	
				LO +13dBm	RF +13dBm	LO +13dBm	RF +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	

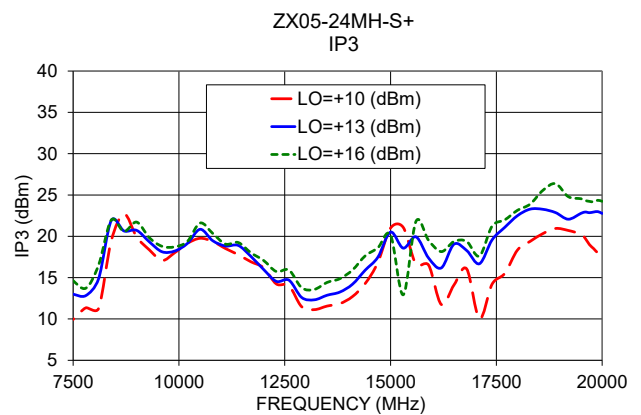
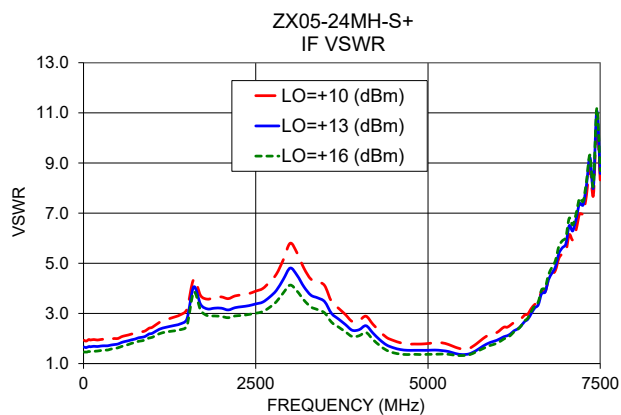
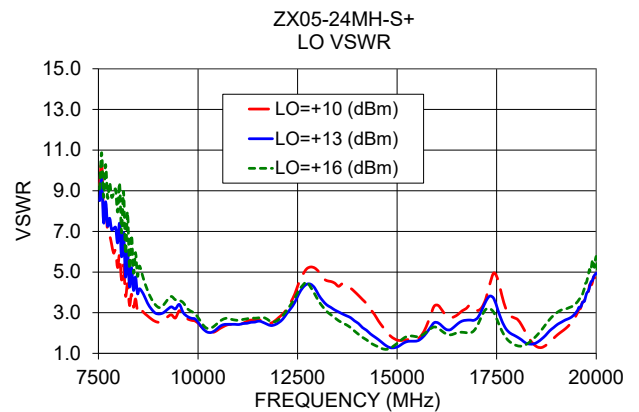
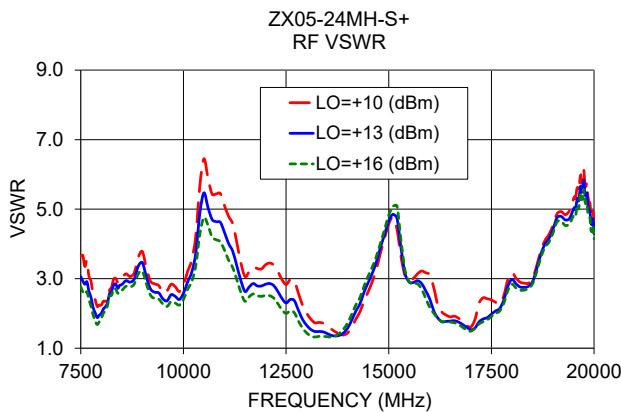
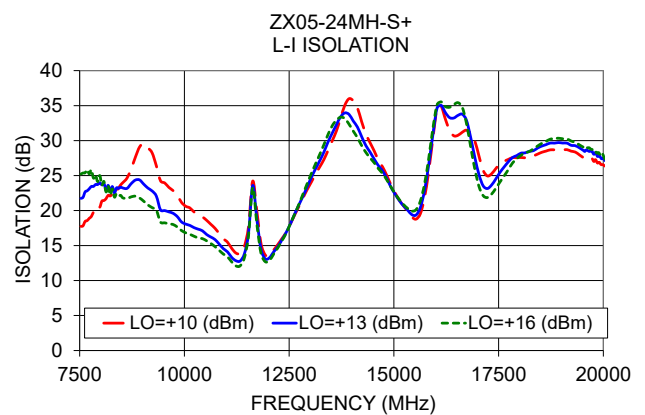
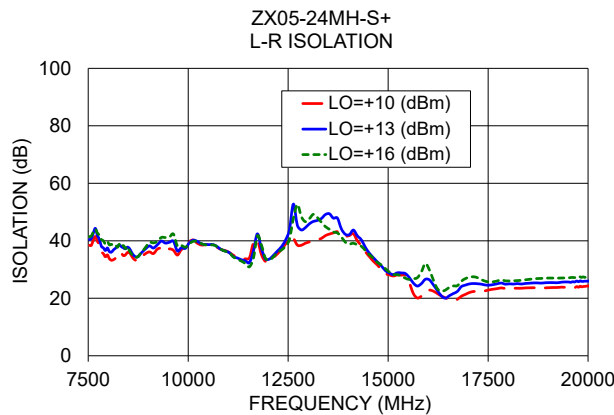
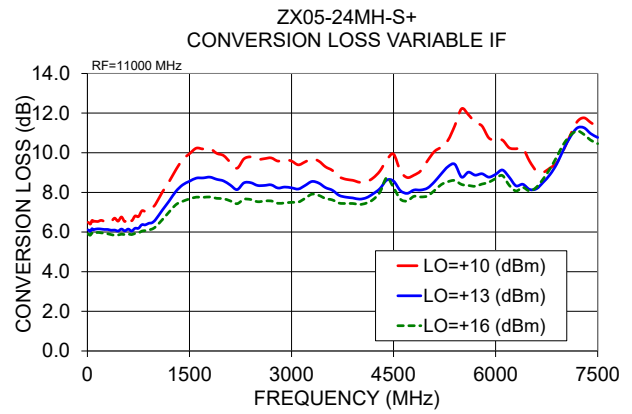
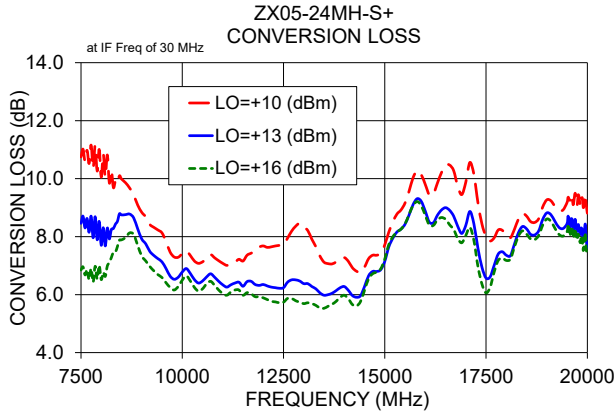
### Electrical Schematic



### 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.
- 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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