

# Coaxial Frequency Mixer

## ZFM-5X+ ZFM-5X

### Level 7 (LO Power +7 dBm) 1 to 1500 MHz



Generic photo used for illustration purposes only

CASE STYLE: K18

#### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

Permanent damage may occur if any of these limits are exceeded.

#### Coaxial Connections

LO	1
RF	3
IF	2

#### Features

- low conversion loss, 5.9 dB typ.
- high L-R isolation, 40 dB typ, L-I, 45 dB typ.
- wideband, 1 to 1500 MHz
- rugged shielded case

#### Applications

- VHF/UHF
- cellular
- satellite distribution
- instrumentation

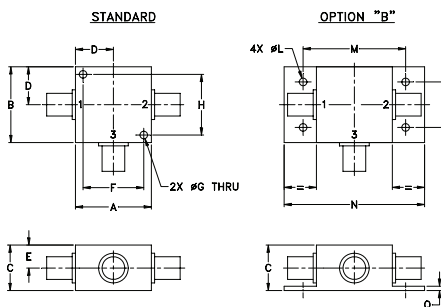
Connectors	Model
BNC	ZFM-5X(+)
SMA	ZFM-5X-S(+)

**BRACKET (OPTION "B")**

**+RoHS Compliant**

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

#### Outline Drawing



#### Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40

J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0

#### Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF	IF	Mid-Band		Total	Max.	L		M		U		L		M		U	
$f_L$ - $f_U$	$\bar{X}$	$\sigma$	Range	Typ.		Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1-1500	1-1000	5.9	0.10	7.0	9.0	60	40	40	20	28	17	60	45	45	25	38	20

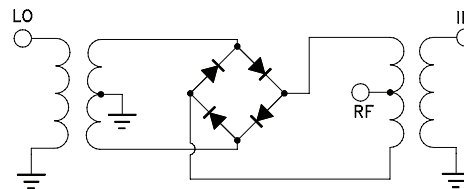
1 dB COMP: +1 dBm typ.

L = low range [ $f_L$  to  $10 f_L$ ] M = mid range [ $10 f_L$  to  $f_U/2$ ] U = upper range [ $f_U/2$  to  $f_U$ ]  
m = mid band [ $2f_L$  to  $f_U/2$ ]

#### 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
1.01	31.01	5.81	76.49	72.03	1.25	2.94
2.13	32.13	5.83	74.70	73.03	1.25	2.78
10.96	40.96	5.80	63.50	69.26	1.26	2.54
56.50	86.50	5.80	50.82	61.44	1.28	2.46
160.38	130.38	5.88	43.16	54.92	1.37	2.37
216.07	186.07	5.81	40.68	53.11	1.43	2.38
250.80	220.80	5.85	39.60	53.11	1.48	2.36
337.90	307.90	5.93	36.86	51.90	1.58	2.37
455.25	425.25	6.15	33.77	50.56	1.70	2.44
528.42	498.42	6.01	31.68	49.21	1.75	2.45
613.35	583.35	6.23	30.05	50.49	1.78	2.49
750.00	720.00	6.34	27.83	48.82	1.78	2.64
826.36	796.36	6.30	26.21	49.29	1.75	2.69
900.00	870.00	6.30	25.22	49.14	1.69	2.79
1000.00	970.00	6.43	24.31	49.77	1.59	2.85
1200.00	1170.00	6.37	24.48	44.45	1.40	2.84
1292.29	1262.29	6.29	24.10	42.55	1.34	3.11
1400.00	1370.00	6.43	24.34	41.19	1.31	3.52
1450.00	1420.00	6.56	24.29	40.04	1.32	3.68
1500.00	1470.00	6.77	25.14	40.04	1.38	3.90

#### Electrical Schematic



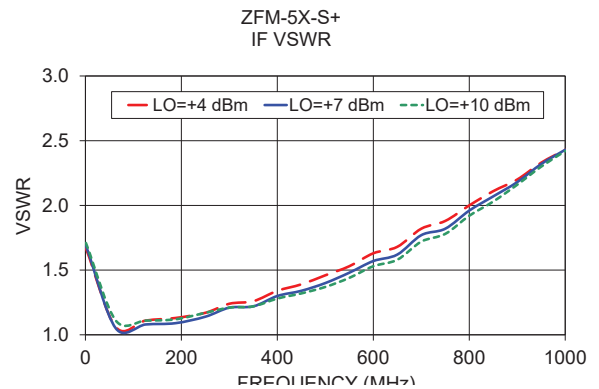
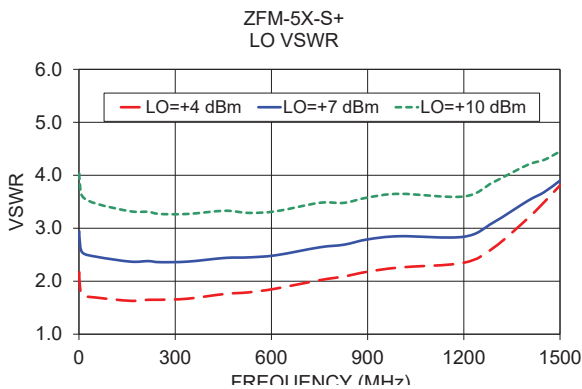
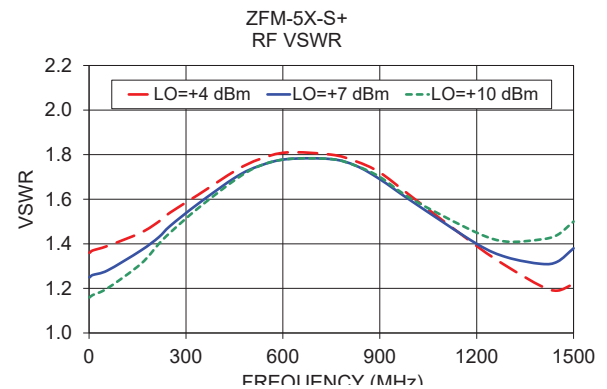
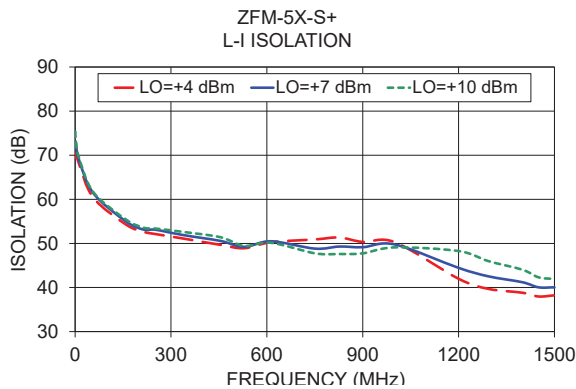
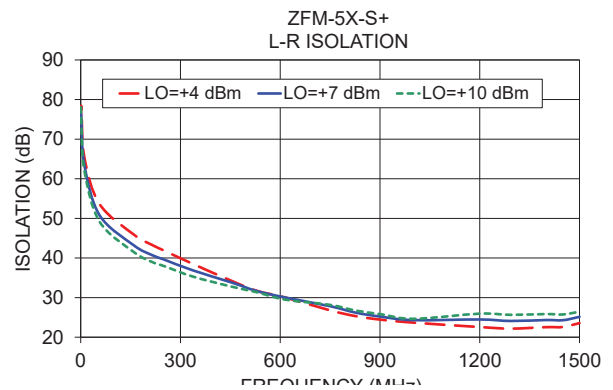
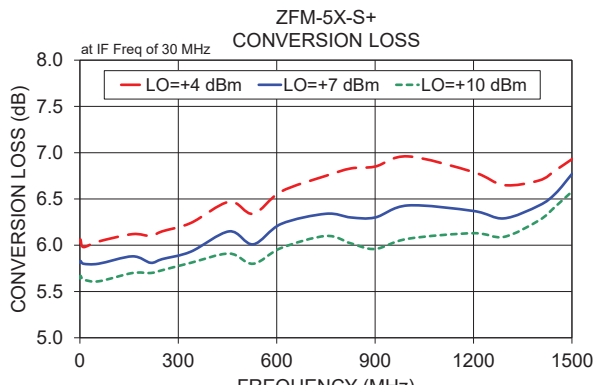
#### Notes

- 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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# Performance Charts

# ZFM-5X+ ZFM-5X



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