

Coaxial Frequency Mixer

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

Maximum Ratings

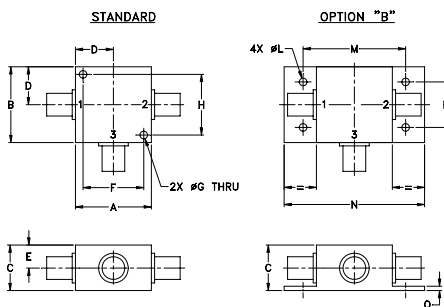
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

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

Coaxial Connections

LO	1
RF	3
IF	2

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

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

ZFM-5X+
ZFM-5X



SMA version shown
CASE STYLE: K18

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

Electrical Specifications

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

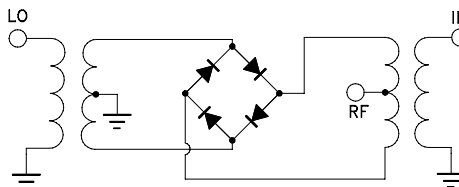
1 dB COMP: +1 dBm typ.

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

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



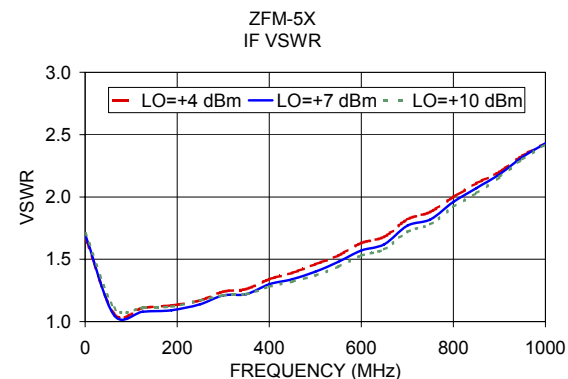
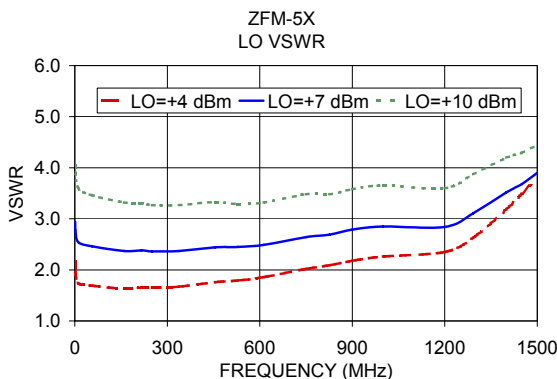
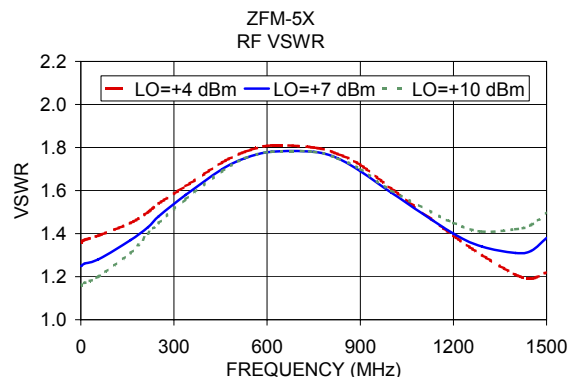
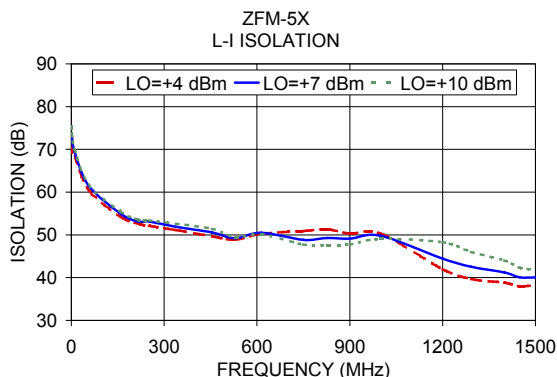
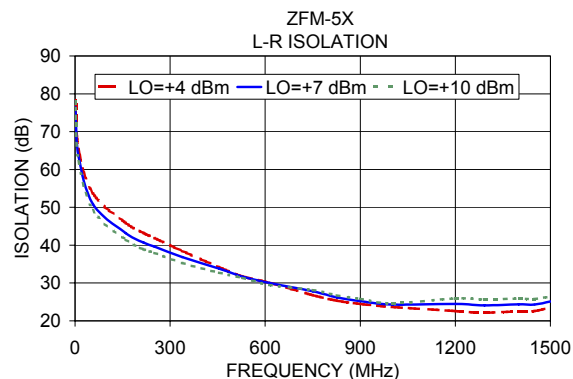
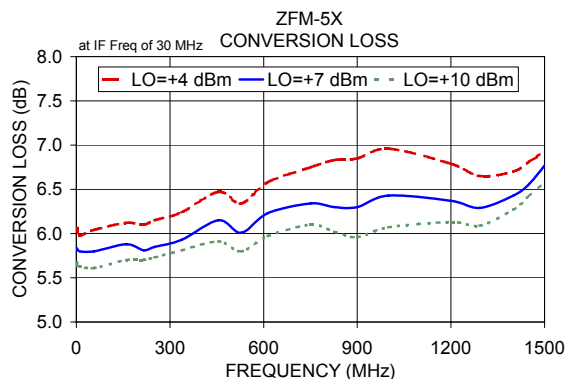
Notes

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Performance Charts

ZFM-5X+
ZFM-5X



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