

Coaxial Frequency Mixer

Level 10 (LO Power +10 dBm) 10 to 3000 MHz

Maximum Ratings

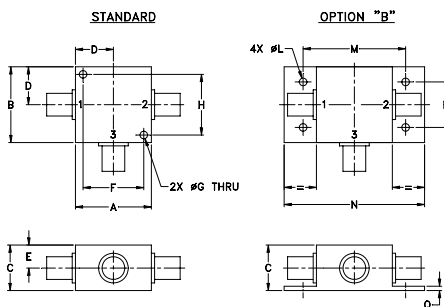
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

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

Coaxial Connections

LO	1
RF	2
IF	3

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, 6.13 dB typ.
- good L-R isolation, 35 dB typ, L-I, 30 dB typ.
- wideband, 10 to 3000 MHz
- rugged shielded case

Applications

- cellular
- GPS
- MMDS
- ISM
- instrumentation

ZFM-15+
ZFM-15



SMA version shown
CASE STYLE: K18

Connectors	Model
BNC	ZFM-15(+)
SMA	ZFM-15-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 f_L-f_U	IF	Mid-Band		Total Range Max.	Max.	L		M		U	Typ.	Min.	L		M	Typ.	Min.
		$\bar{X}$	σ			Typ.	Min.	Typ.	Min.	Typ.	Min.		Typ.	Min.	Typ.	Min.	
10-3000	10-800	6.13	0.14	8.0	8.5	35	25	35	25	35	25	30	30	20	30	20	30

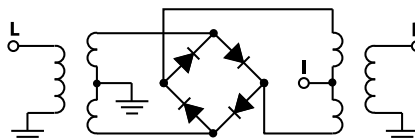
1 dB COMP.: +5 dBm typ.

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 +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm
10.00	40.00	6.53	26.10	25.08	1.84	1.71
20.00	50.00	6.60	30.38	29.74	1.54	1.51
100.00	70.00	6.55	35.82	35.93	1.50	1.37
200.00	170.00	6.60	37.35	38.21	1.55	1.44
400.00	370.00	6.74	36.49	39.50	1.72	1.40
500.00	470.00	6.52	35.42	38.00	1.99	1.34
790.00	760.00	6.70	32.94	33.60	2.45	1.33
920.00	890.00	6.76	32.80	33.97	2.70	1.36
1180.00	1150.00	7.30	31.62	32.89	2.85	1.36
1310.00	1280.00	7.30	31.27	34.31	2.75	1.38
1500.00	1470.00	6.54	29.76	32.85	2.28	1.30
1700.00	1670.00	6.91	28.49	30.87	1.94	1.27
1830.00	1800.00	6.97	29.46	28.22	1.44	1.29
2000.00	1970.00	7.07	28.32	27.77	1.25	1.34
2200.00	2170.00	6.97	27.89	27.68	1.42	1.34
2480.00	2450.00	6.93	28.37	24.64	1.97	1.44
2610.00	2580.00	7.08	27.10	23.13	2.18	1.52
2740.00	2710.00	7.45	26.79	21.95	2.37	1.93
2870.00	2840.00	7.56	26.23	21.25	2.09	2.25
3000.00	2970.00	8.31	29.30	20.32	2.18	2.63

Electrical Schematic



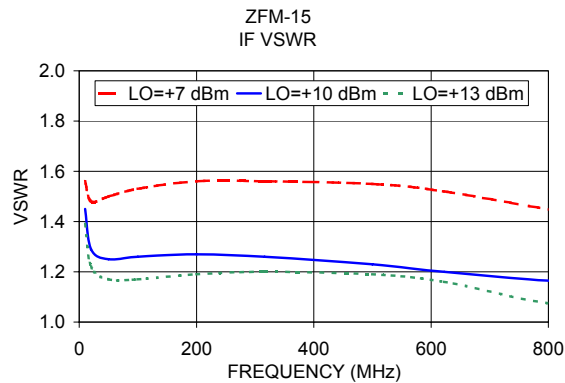
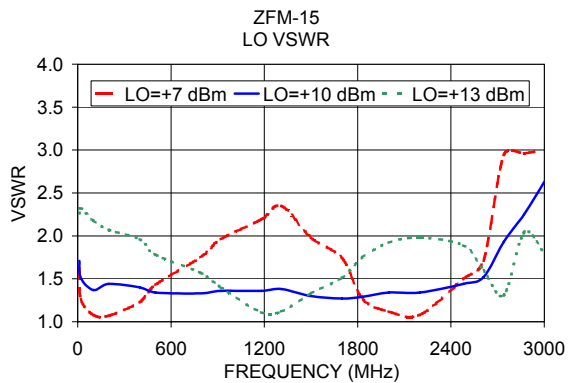
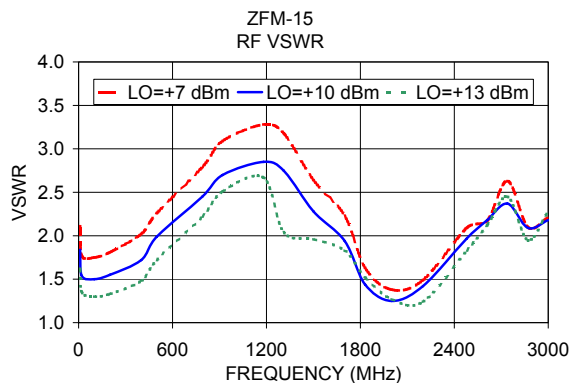
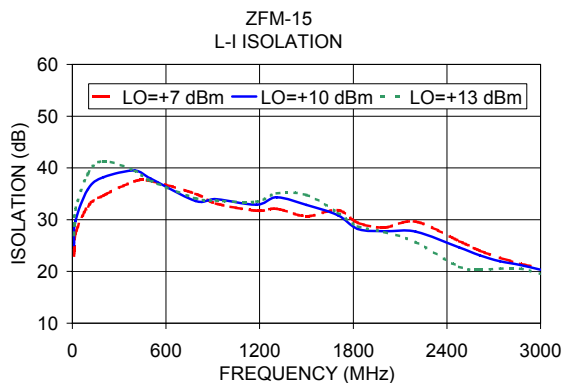
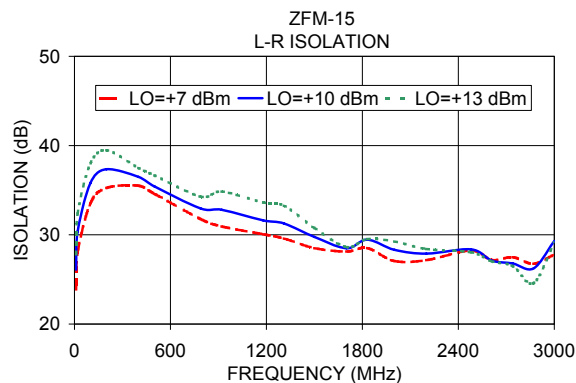
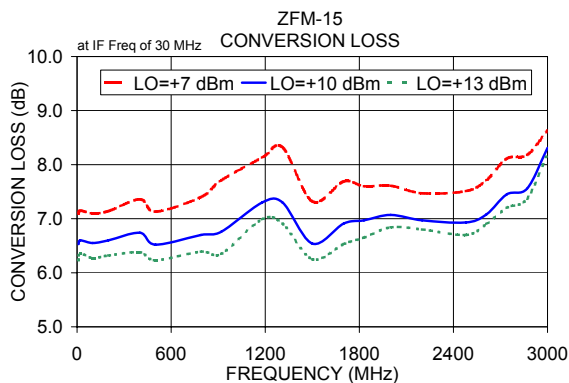
Notes

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Performance Charts

ZFM-15+
ZFM-15



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