

Coaxial Frequency Mixer

Level 7 (LO Power +7 dBm) 5 to 1250 MHz

ZFM-4+
ZFM-4



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

Features

- low conversion loss, 5.70 dB typ.
- high L-R isolation, 40 dB typ, L-I, 35 dB typ.
- phase detection, positive polarity
- rugged shielded case

Applications

- VHF/UHF
- cellular
- instrumentation
- federal & defense communications

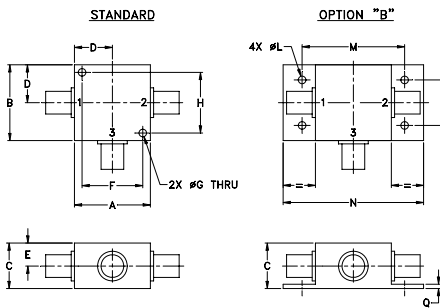
SMA version shown
CASE STYLE: K18

Connectors	Model
BNC	ZFM-4(+)
SMA	ZFM-4-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	J	K	L	M	N	P	Q	wt
1.25	1.25	.75	.63	.38	1.00	.125	1.000	--	--	.125	1.688	2.18	.75	.07	grams
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40	--	--	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)												
		L	M	U	L	M	U										
5-1250	DC-1250	5.70	0.34	7.5	8.5	50	45	40	30	30	25	45	40	35	25	25	20

1 dB COMP.: +1 dBm typ.

For phase detection: DC output has positive with in-phase LO and RF signals

L = low range [f_L to $10 f_L$]

m = mid band [$2f_L$ to $f_U/2$]

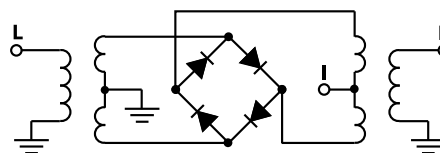
M = mid range [$10 f_L$ to $f_U/2$]

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
5.00	35.00	7.08	67.00	62.10	1.54	3.00
20.00	50.00	6.84	67.00	59.11	1.42	2.83
50.00	80.00	6.64	50.64	49.95	1.34	2.85
100.00	70.00	6.48	44.54	43.90	1.31	2.72
138.39	108.39	6.51	38.97	38.26	1.26	2.49
227.32	197.32	6.59	37.28	36.56	1.25	2.44
271.78	241.78	6.44	34.49	34.10	1.20	2.33
360.71	330.71	6.47	32.40	32.75	1.17	2.23
449.64	419.64	6.57	31.70	31.16	1.13	2.19
538.57	508.57	6.45	31.48	30.87	1.12	2.17
583.03	553.03	6.54	30.37	30.53	1.12	2.14
671.96	641.96	6.82	29.62	29.00	1.13	2.05
760.89	730.89	6.83	29.45	27.36	1.16	2.02
849.82	819.82	6.86	29.60	26.76	1.18	2.05
894.28	864.28	7.01	30.37	25.36	1.22	2.12
983.21	953.21	7.24	29.78	23.67	1.24	2.11
1027.70	997.70	7.43	29.36	22.34	1.31	2.17
1116.60	1086.60	7.58	28.75	21.27	1.43	2.24
1200.00	1170.00	7.70	28.39	20.82	1.52	2.32
1250.00	1220.00	7.80	28.05	20.19	1.62	2.36

Electrical Schematic



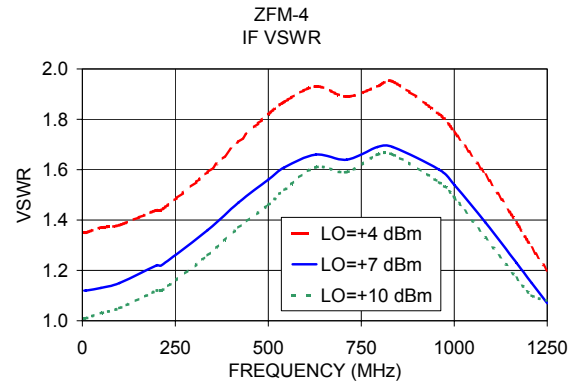
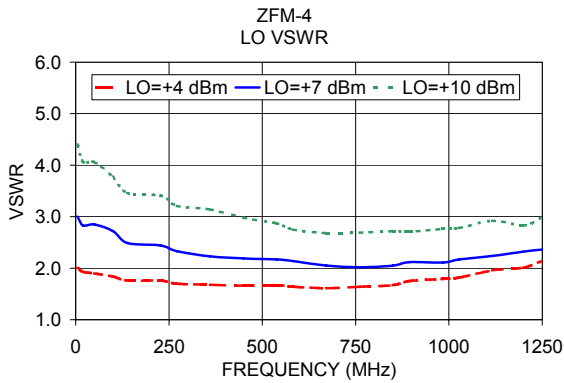
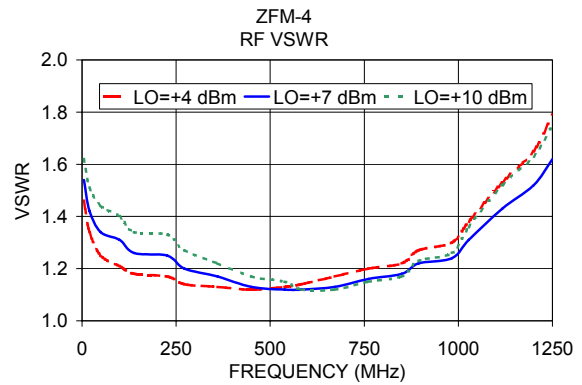
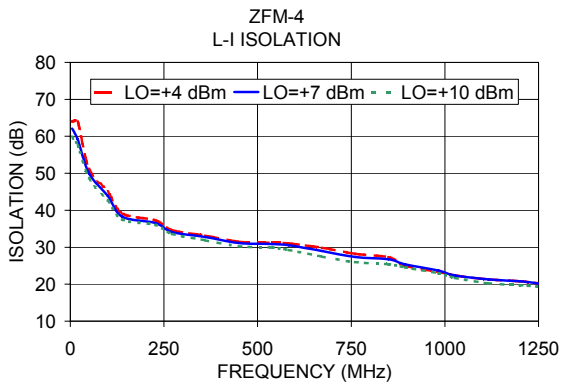
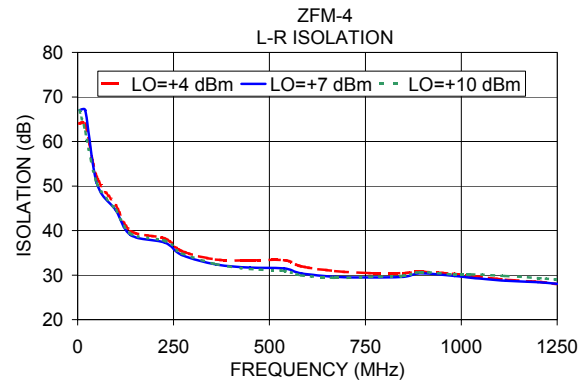
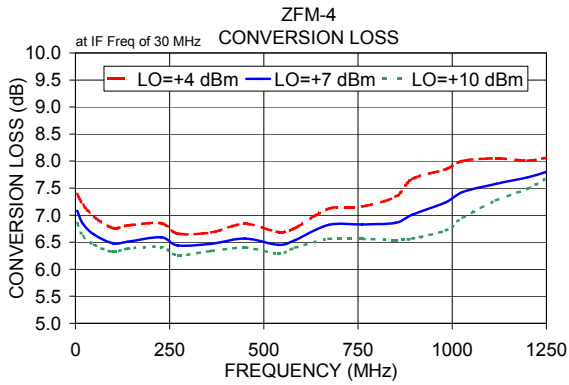
Notes

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