

Coaxial Frequency Mixer

Level 17 (LO Power +17 dBm) 5 to 1200 MHz

ZFM-4H+
ZFM-4H



Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

Coaxial Connections

LO	1
RF	2
IF	3

Features

- low conversion loss, 4.97 dB typ.
- good L-R isolation, 35 dB typ, L-I, 35 dB typ.
- wideband, 5 to 1200 MHz
- rugged shielded case

Applications

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

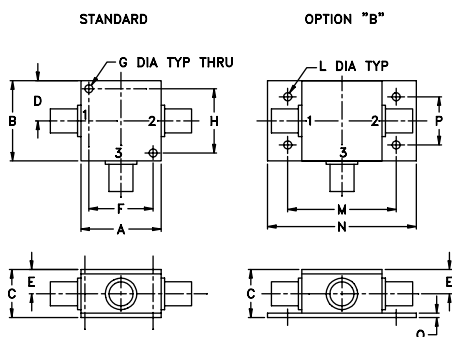
SMA version shown
CASE STYLE: K18

Connectors	Model	Price	Qty.
BNC	ZFM-4H(+)	\$73.95 ea.	(1-9)
SMA	ZFM-4H-S+	\$78.95 ea.	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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		L		M		U		L		M		U	
f_L - f_U		$\bar{X}$	σ	Max.	Range Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
5-1200	DC-1200	6.59	0.03	8.0	9.0	50	40	35	25	30	20	50	40	35	20	30	20

1 dB COMP.: +14 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 $f_U/2$]

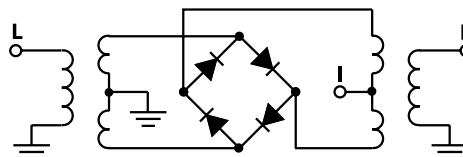
M = mid range [$10 f_L$ to $f_U/2$]

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 +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
10.1	40.1	7.31	68.49	65.02	1.44	1.65
30.1	60.1	7.41	62.74	61.70	1.48	1.58
70.1	100.1	7.27	58.08	57.43	1.53	1.52
130.1	160.1	7.26	54.30	54.15	1.46	1.56
210.1	240.1	7.09	50.37	51.33	1.49	1.57
270.1	300.1	6.90	48.42	49.71	1.51	1.54
330.1	360.1	6.95	46.73	48.36	1.48	1.56
390.1	420.1	6.72	45.73	46.94	1.45	1.58
470.1	500.1	6.58	44.28	44.09	1.41	1.62
570.1	600.1	6.71	43.16	42.65	1.41	1.68
650.1	680.1	6.76	42.76	41.88	1.38	1.74
710.1	740.1	6.88	42.70	41.40	1.34	1.80
770.1	800.1	6.86	42.34	40.92	1.32	1.83
830.1	860.1	7.03	41.64	40.87	1.33	1.85
890.1	920.1	7.28	40.53	40.72	1.34	1.88
950.1	980.1	7.44	39.87	40.58	1.40	1.91
1010.1	1040.1	7.57	39.31	41.31	1.44	1.95
1090.1	1120.1	7.55	38.73	41.13	1.47	2.01
1170.1	1200.1	7.88	37.96	41.66	1.57	2.10
1210.1	1240.1	8.21	37.28	41.74	1.65	2.11

Electrical Schematic



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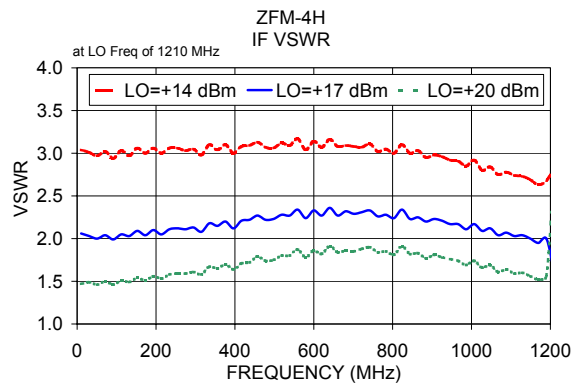
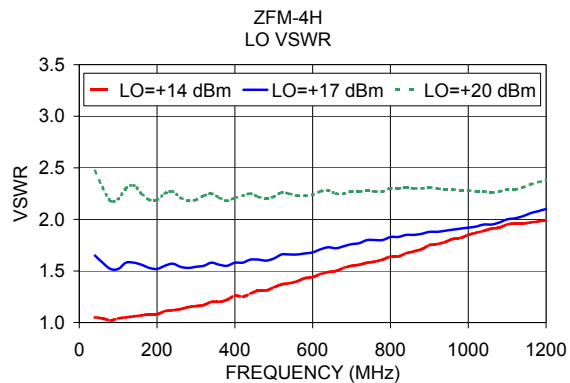
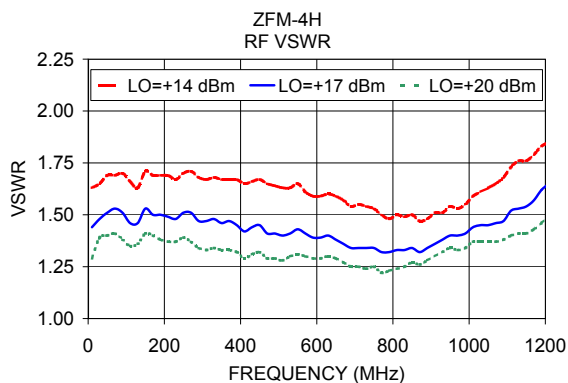
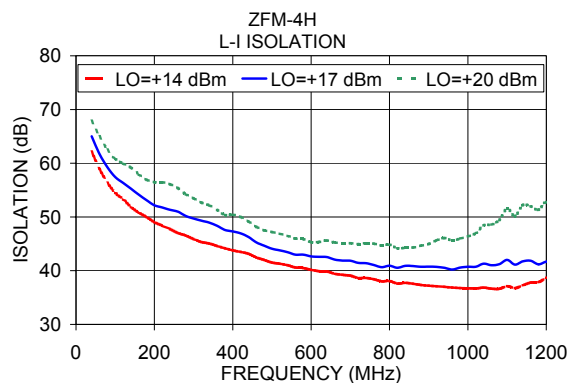
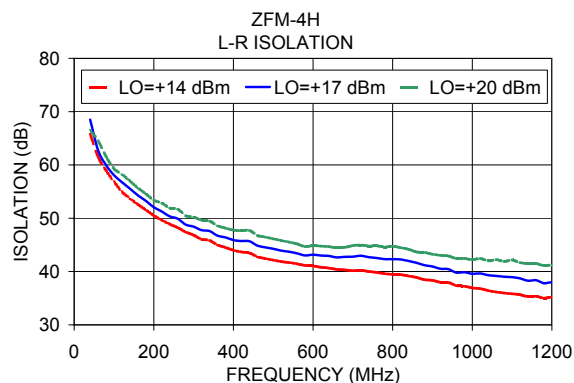
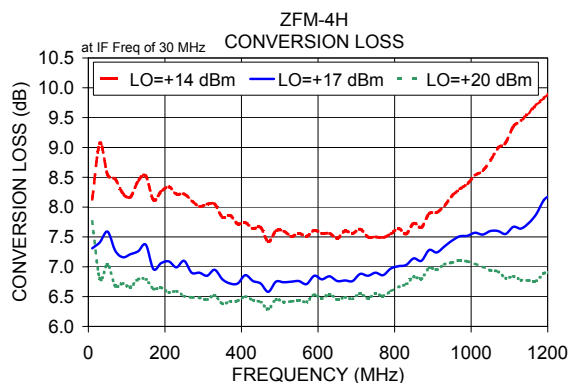
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RF/IF MICROWAVE COMPONENTS

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Performance Charts

ZFM-4H+
ZFM-4H



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