

Coaxial Frequency Mixer

Level 23 (LO Power +23 dBm) 0.1 to 500 MHz

ZFY-1+ ZFY-1



Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	350mW
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, 4.85 dB typ.
- good L-R & L-I isolation, 46 dB typ.
- rugged shielded case

Applications

- VHF/UHF
- instrumentation
- federal & defense communications

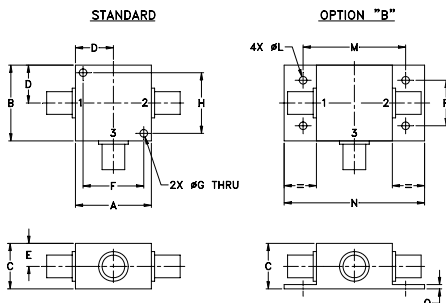
BNC version shown
CASE STYLE: K18

Connectors	Model	Price	Qty.
BNC	ZFY-1(+)	\$74.95	(1-9)
SMA	ZFY-1-S+	\$79.95	(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)									
		L		M		U		L		M		U					
LO/RF f_L-f_U	IF \bar{X} σ Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.				
0.1-500	0.01-500*	4.85	0.18	6.0	7.5	40	20	46	35	40	30	37	23	46	35	40	30

1 dB COMP.: +20 dBm typ.

*IF response from 0.1 to 0.01 MHz falls off 3 dB.

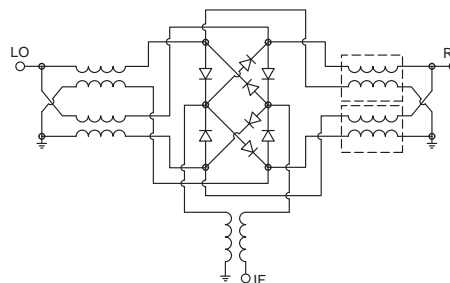
L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]

m = mid band [$2 f_L$ 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 +23dBm	LO +23dBm	LO +23dBm	LO +23dBm	LO +23dBm
0.10	30.10	5.89	25.02	25.81	1.35	1.41
1.00	31.00	5.82	46.68	47.33	1.37	1.45
10.00	40.00	5.59	47.08	47.94	1.37	1.35
20.00	50.00	5.60	46.71	47.64	1.37	1.42
34.58	64.58	5.59	45.97	46.92	1.37	1.46
69.05	99.05	5.57	45.02	46.05	1.38	1.42
100.00	70.00	5.52	43.63	44.10	1.42	1.37
120.77	90.77	5.53	42.68	43.10	1.45	1.34
155.24	125.24	5.68	40.68	41.09	1.50	1.37
189.72	159.72	5.73	39.25	39.09	1.57	1.32
224.19	194.19	5.85	39.09	38.89	1.53	1.30
241.43	211.43	5.95	38.42	38.05	1.64	1.31
258.67	228.67	6.00	37.01	36.93	1.68	1.25
293.15	263.15	5.91	36.97	35.23	1.76	1.25
327.62	297.62	5.81	37.56	34.01	1.81	1.30
362.10	332.10	5.87	40.25	33.42	1.89	1.34
396.57	366.57	5.96	41.18	33.85	1.95	1.37
431.05	401.05	6.22	41.74	36.25	1.99	1.42
465.53	435.53	6.39	43.60	37.76	2.05	1.53
500.00	470.00	6.56	42.79	37.30	2.02	1.55

Electrical Schematic



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ISO 9001 ISO 14001 AS 9100 CERTIFIED

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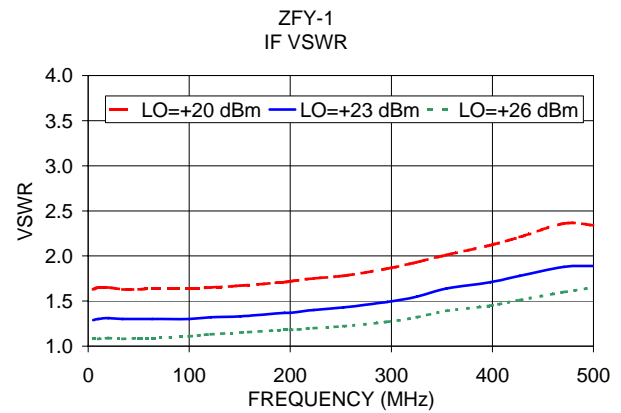
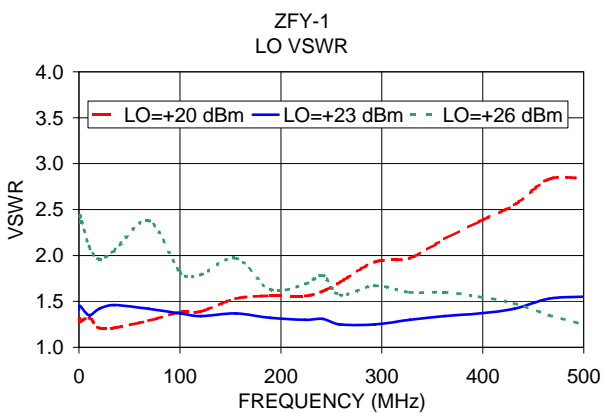
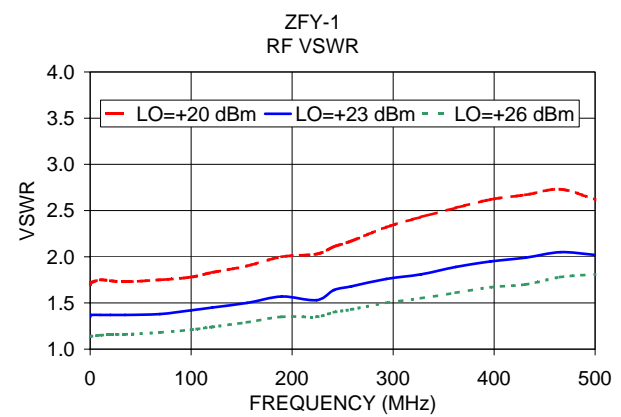
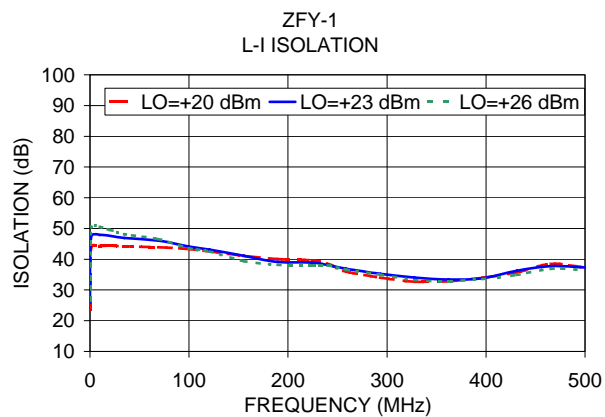
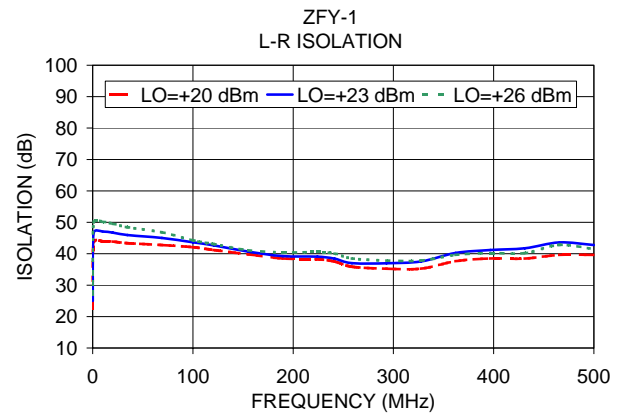
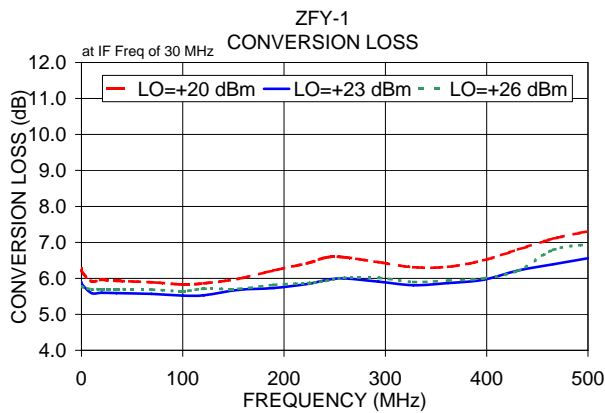
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Performance Charts

ZFY-1+ ZFY-1



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IF/RF MICROWAVE COMPONENTS

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