

Coaxial Frequency Mixer

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

ZFY-1+



BNC version shown

CASE STYLE: K18

Connectors	Model
BNC	ZFY-1+
SMA	ZFY-1-S+
BRACKET (OPTION "B")	

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

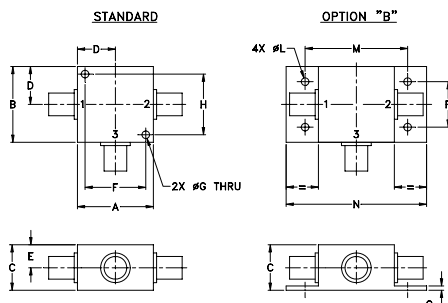
Applications

- VHF/UHF
- instrumentation
- federal & defense communications

+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
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 Range		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.
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.

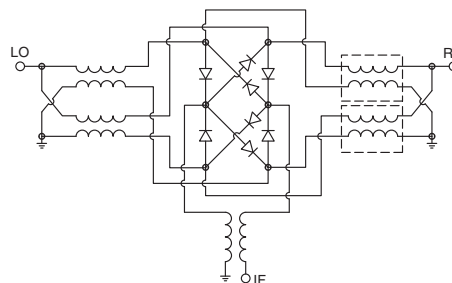
*IF response from 0.1 to 0.01 MHz falls off 3 dB.

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



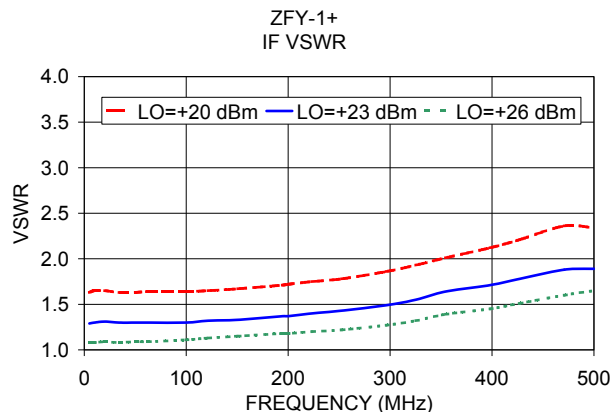
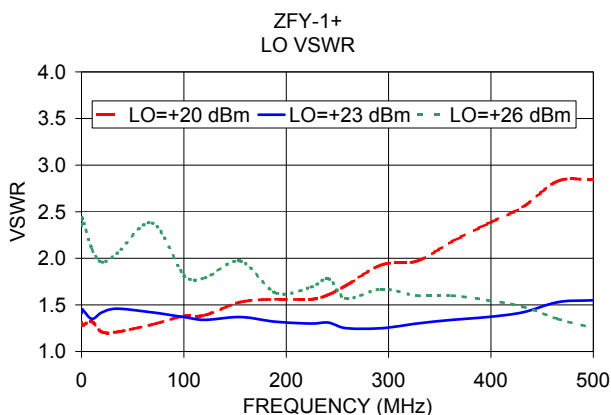
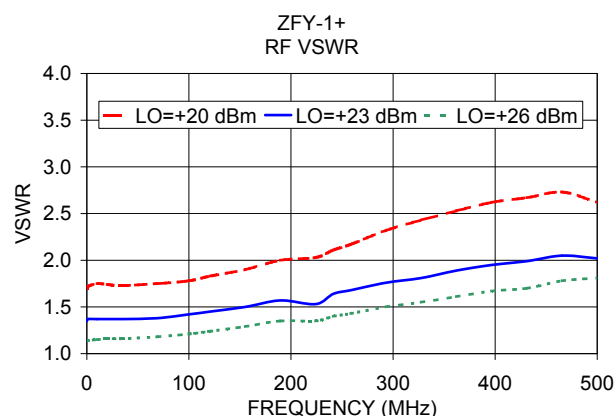
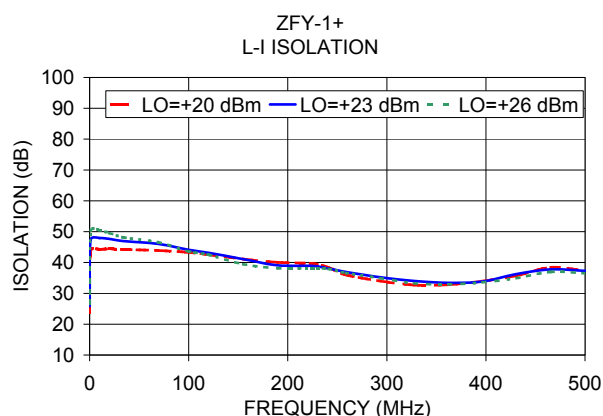
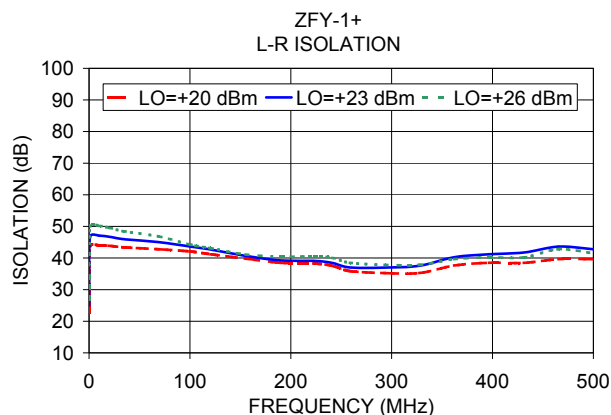
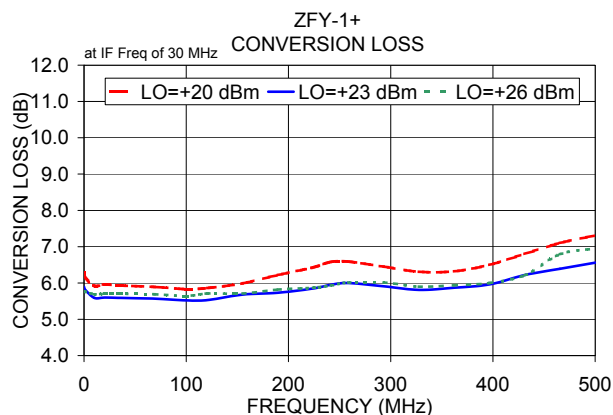
Notes

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www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

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