Coaxial

Frequency Mixer

Level 23 (LO Power +23 dBm) 0.1 to 1000 MHz

ZFY-2+
ZFY-2



BNC version shown

CASE STYLE: K18

Connectors	Model
BNC	ZFY-2
SMA	ZFY-2-S+
BRACKET (OPTION "B")	

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

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

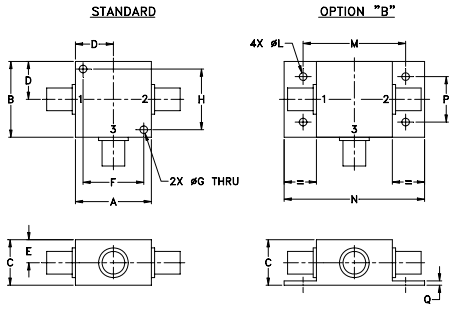
Features

- low conversion loss, 5.40 dB typ.
- good L-R & L-I isolation, 40 dB typ.
- rugged shielded case

Applications

- VHF/UHF
- instrumentation
- cellular

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 m			Total Range	L		M		U		L		M		U	
f_L-f_U		$\overline{X}$	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
0.1-1000	0.01-500*	5.40	0.24	7.5	9.5	40	20	40	30	30	25	37	23	40	25	25	15

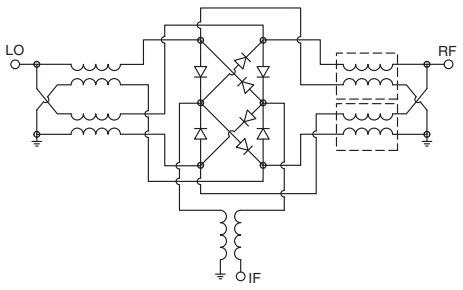
1 dB COMP.: +20 dBm typ.
*IF response from 0.1 to 0.01 MHz falls off 3 dB.

L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/_] 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 +23dBm	LO +23dBm	LO +23dBm	LO +23dBm	LO +23dBm
0.10	30.10	6.00	24.85	23.85	1.20	1.25
0.50	30.50	6.04	36.68	35.77	1.21	1.28
5.00	35.00	5.85	41.65	42.30	1.22	1.21
20.00	50.00	5.23	62.70	48.55	1.21	1.25
50.00	80.00	5.27	68.47	47.81	1.22	1.30
100.00	70.00	5.41	69.04	47.05	1.26	1.22
142.94	112.94	5.59	65.49	47.18	1.30	1.23
214.37	184.37	5.62	63.14	46.03	1.35	1.19
250.08	220.08	5.85	62.33	45.83	1.43	1.14
321.50	291.50	5.73	60.72	44.37	1.60	1.11
392.92	362.92	5.85	56.12	42.97	1.83	1.31
464.34	434.34	6.34	47.61	43.68	2.10	1.51
535.77	505.77	6.82	41.48	42.23	2.21	1.70
571.48	541.48	6.64	40.17	39.59	2.26	1.73
642.90	612.90	7.21	38.48	36.34	2.49	2.06
714.32	684.32	6.76	36.93	34.82	2.62	2.20
785.74	755.74	6.76	36.93	34.82	2.73	1.95
857.16	827.16	6.90	35.86	33.15	2.72	1.37
928.59	898.59	7.11	36.31	32.34	2.59	1.19
1000.00	970.00	7.47	39.75	38.54	2.40	1.57

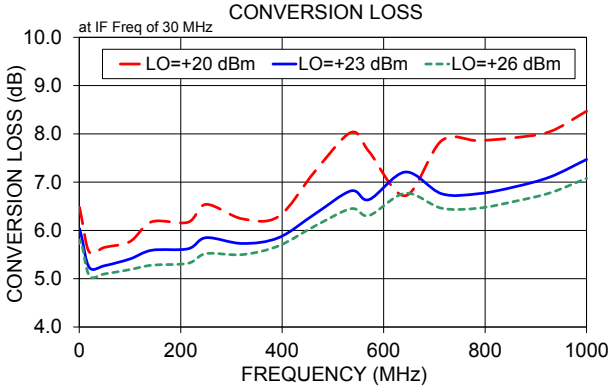
Electrical Schematic



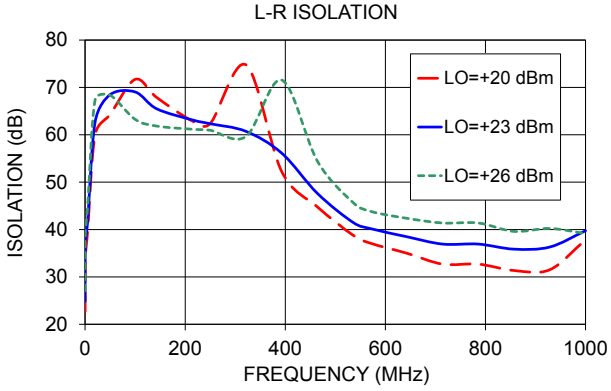
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Performance Charts

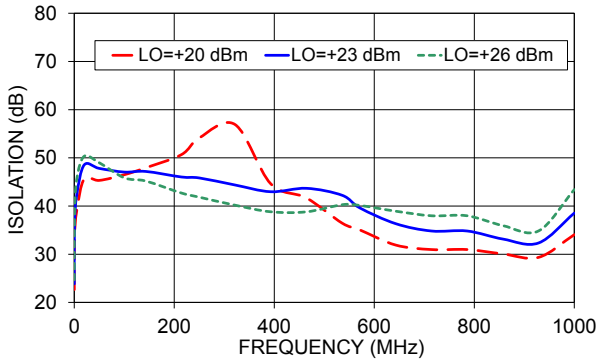
ZFY-2
CONVERSION LOSS
at IF Freq of 30 MHz



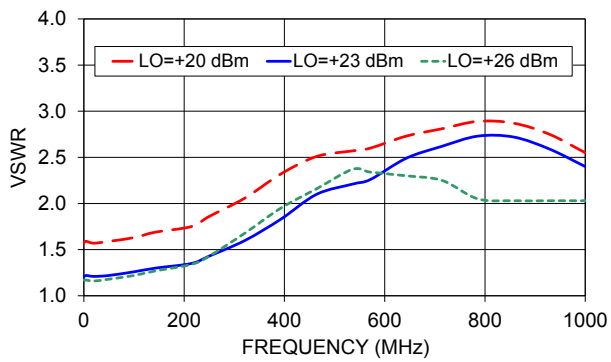
ZFY-2
L-R ISOLATION



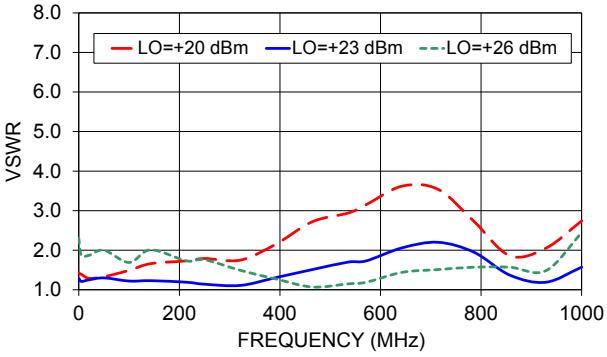
ZFY-2
L-I ISOLATION



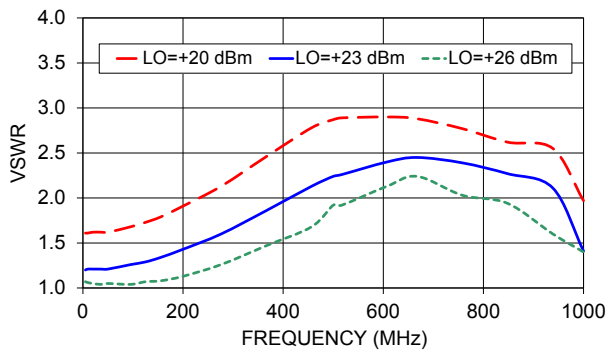
ZFY-2
RF VSWR



ZFY-2
LO VSWR



ZFY-2
IF VSWR



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