

# Coaxial Frequency Mixer

## ZFM-150+

Level 10 (LO Power +10 dBm) 10 to 2000 MHz



Generic photo used for illustration purposes only

CASE STYLE: K18

### 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, 6.05 dB typ.
- good L-R isolation, 35 dB typ, L-I, 30 dB typ.
- wideband, 10 to 2000 MHz
- rugged shielded case

### Applications

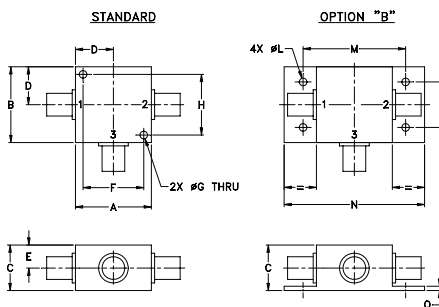
- VHF/UHF
- cellular
- GPS
- instrumentation

Connectors	Model
BNC	ZFM-150+
SMA	ZFM-150-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
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						
10-2000	DC-1000	32	25	35	25	35	20	33	20	30	20	25	20

1 dB COMP.: +5 dBm typ.

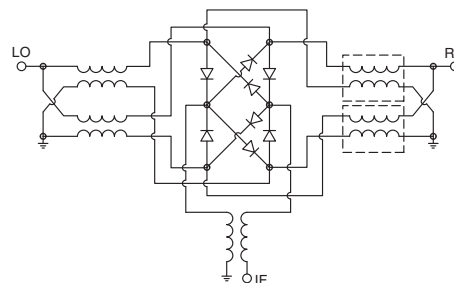
\*Below 10 MHz IF, conversion loss increases up to 6 dB higher as frequency decreases to DC.

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  $f_U$ ]

### 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 +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm
10.00	40.00	6.45	25.80	24.40	1.62	1.69
20.00	50.00	6.61	30.46	29.11	1.29	1.49
130.61	100.61	6.30	36.94	35.84	1.29	1.39
251.21	221.21	6.42	37.51	37.82	1.34	1.36
432.12	402.12	6.38	36.22	37.58	1.38	1.34
500.00	470.00	6.61	35.79	36.42	1.49	1.30
552.73	522.73	6.47	35.50	35.14	1.60	1.29
673.33	643.33	6.53	34.67	33.34	1.62	1.28
793.94	763.68	6.64	34.16	31.81	1.70	1.26
914.55	884.43	6.67	32.34	30.81	1.79	1.26
974.85	944.91	6.11	31.59	30.10	1.89	1.22
1035.20	1005.40	7.04	30.74	29.56	2.02	1.20
1155.80	1125.60	7.24	30.26	30.08	2.07	1.20
1276.40	1246.50	6.75	29.72	30.93	2.13	1.18
1397.00	1366.80	6.57	28.85	31.94	2.13	1.13
1517.60	1487.50	6.59	28.61	31.80	2.05	1.07
1638.20	1608.00	6.63	27.94	29.65	1.88	1.12
1758.80	1728.70	6.91	28.39	26.17	1.45	1.18
1879.40	1849.50	7.01	30.98	26.61	1.43	1.21
2000.00	1970.00	7.24	32.51	24.79	1.55	1.26

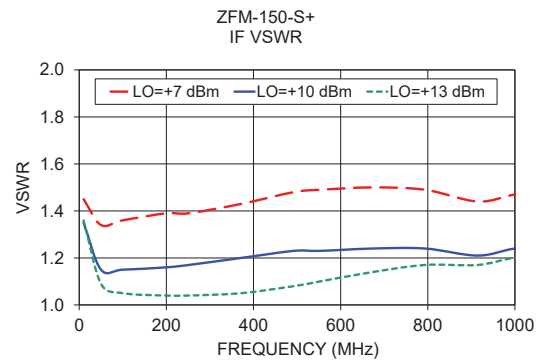
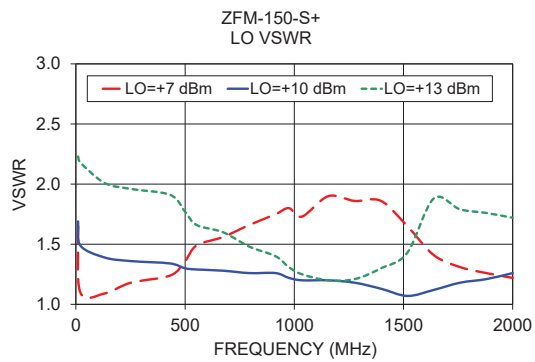
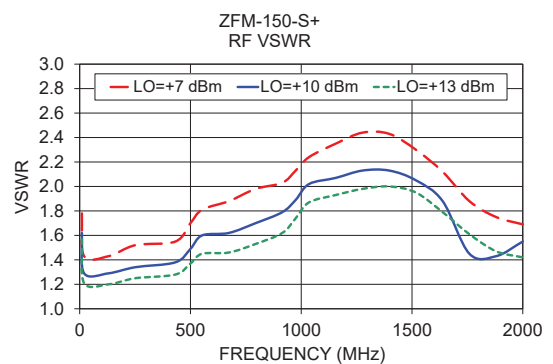
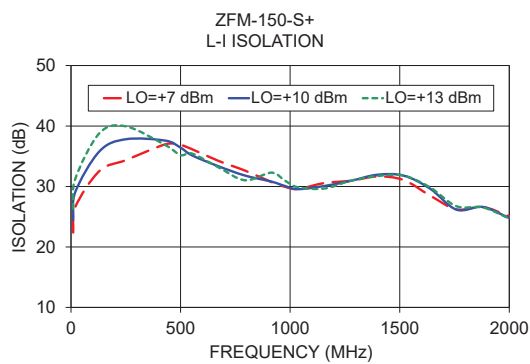
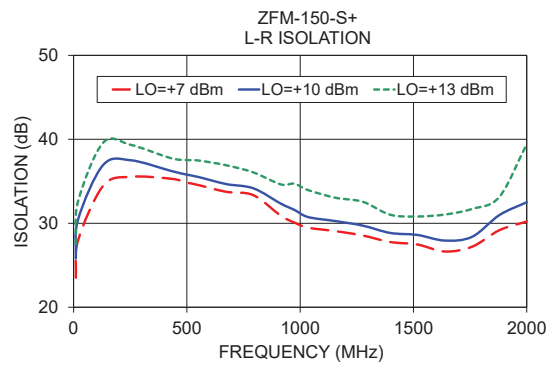
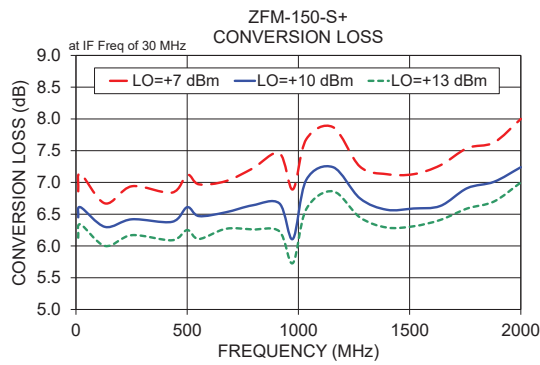
### Electrical Schematic



### Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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