

# Coaxial Frequency Mixer

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

## ZFM-150+ ZFM-150



SMA version shown  
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

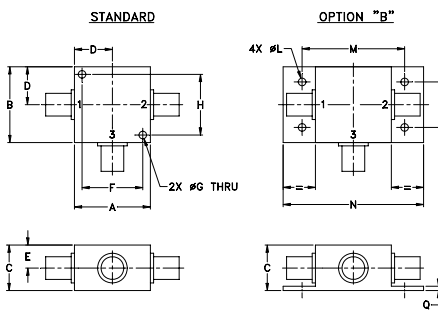
- VHF/UHF
- cellular
- GPS
- instrumentation

Connectors	Model	Price	Qty.
BNC	ZFM-150 (+)	\$69.95 ea.	(1-9)
SMA	ZFM-150-S (+)	\$74.95 ea.	(1-9)
BRACKET (OPTION "B")		\$5.00	(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										
10-2000	DC-1000	6.05	0.12	8.0	8.0	32	25	35	25	35	20	33	20	30	20	25	20

1 dB COMP.: +5 dBm typ.

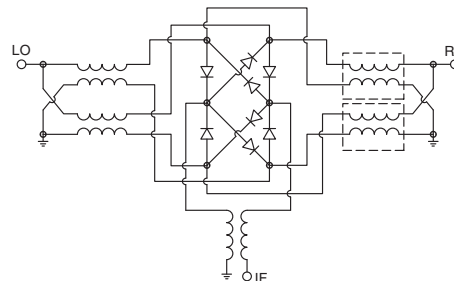
\*Below 10 MHz IF, conversion loss increases up to 6 dB higher as frequency decreases to DC.

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  $f_U$ ]  
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)
10.00	40.00	6.45	25.80	1.62	1.69
20.00	50.00	6.61	30.46	1.29	1.49
130.61	100.61	6.30	36.94	1.29	1.39
251.21	221.21	6.42	37.51	1.34	1.36
432.12	402.12	6.38	36.22	1.38	1.34
500.00	470.00	6.61	35.79	1.49	1.30
552.73	522.73	6.47	35.50	1.60	1.29
673.33	643.33	6.53	34.67	1.62	1.28
793.94	763.68	6.64	34.16	1.70	1.26
914.55	884.43	6.67	32.34	1.79	1.26
974.85	944.91	6.11	31.59	1.89	1.22
1035.20	1005.40	7.04	30.74	2.02	1.20
1155.80	1125.60	7.24	30.26	2.07	1.20
1276.40	1246.50	6.75	29.72	2.13	1.18
1397.00	1366.80	6.57	28.85	2.13	1.13
1517.60	1487.50	6.59	28.61	2.05	1.07
1638.20	1608.00	6.63	27.94	1.88	1.12
1758.80	1728.70	6.91	28.39	1.45	1.18
1879.40	1849.50	7.01	30.98	1.43	1.21
2000.00	1970.00	7.24	32.51	1.55	1.26

### Electrical Schematic



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

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# Performance Charts

# ZFM-150+ ZFM-150

