

# Coaxial Frequency Mixer

Level 7 (LO Power +7 dBm) 1 to 2000 MHz

**ZFM-11+  
ZFM-11**



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

## Coaxial Connections

LO	1
RF	2
IF	3

## Features

- low conversion loss, 7.03 dB typ.
- good L-R isolation, 35 dB typ, L-I, 27 dB typ.
- wideband, 1 to 1200 MHz
- rugged shielded case

## Applications

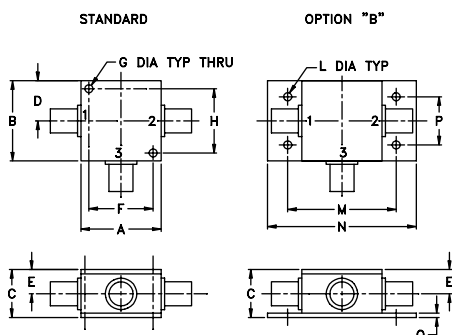
- VHF/UHF
- cellular
- GPS
- satellite distribution
- instrumentation

Connectors	Model	Price	Qty.
BNC	ZFM-11 (+)	\$89.95 ea.	(1-9)
SMA	ZFM-11-S (+)	\$94.95 ea.	(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)

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		L		M		U		L		M		U	
$f_L$ - $f_U$		$\bar{X}$	$\sigma$	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
1-2000	5-600	7.03	.017	8.5	9.0	50	45	35	25	25	20	45	40	27	20	25	20

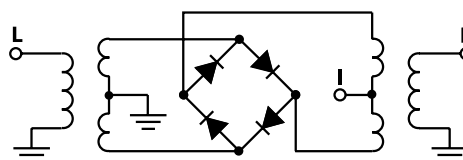
1 dB COMP.: +1 dBm typ.

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)
RF	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
1.00	31.00	6.05	60.95	56.30	2.34	2.51
5.00	35.00	5.78	61.86	55.70	2.49	2.42
20.00	50.00	5.81	61.93	55.12	2.44	2.46
50.00	80.00	5.94	60.22	54.24	2.54	2.19
100.00	70.00	5.92	56.59	50.92	2.88	2.23
200.00	170.00	6.50	48.94	44.33	3.21	2.18
267.53	237.53	6.52	45.81	41.60	3.60	1.98
400.80	370.80	6.74	42.38	38.67	3.74	1.88
500.00	470.00	6.83	41.61	36.88	3.84	1.82
600.70	570.70	7.03	40.10	36.28	3.52	1.69
733.96	704.29	7.24	39.39	34.20	3.24	1.51
867.23	837.52	7.09	39.07	31.66	3.00	1.37
1000.00	969.69	7.12	36.76	29.17	2.77	1.24
1067.10	1037.50	6.97	35.43	28.56	2.54	1.14
1200.40	1170.40	6.77	33.71	27.07	2.23	1.13
1333.70	1303.60	6.72	32.82	25.51	2.13	1.39
1466.90	1436.90	6.80	33.13	24.22	2.16	1.67
1600.20	1570.50	6.93	32.34	23.42	2.27	2.36
1733.50	1703.70	6.92	29.41	27.19	2.54	2.01
2000.00	1970.30	6.99	30.47	25.17	2.89	1.93

## Electrical Schematic



# Performance Charts

# ZFM-11+ ZFM-11

