

# Coaxial Frequency Mixer

Level 7 (LO Power +7 dBm) 5 to 2000 MHz

## ZAD-11+ ZAD-11



CASE STYLE: M22

### 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	3
IF	2

### Features

- low conversion loss, 7.12 dB typ.
- wideband, 5 to 2000 MHz
- rugged shielded case

### Applications

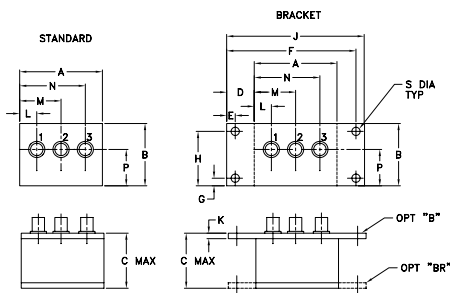
- VHF/UHF
- cellular
- satellite distribution
- GPS
- instrumentation

Connectors	Model	Price	Qty.
BNC	ZAD-11(+)	\$61.95 ea.	(1-9)
BRACKET (OPTION "B")		\$5.00	(1+)
BRACKET (OPTION "BR")		\$1.50	(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/mm)

A	B	C	D	E	F	G	H
2.25	1.38	1.24	.50	.150	3.100	.138	1.238
57.15	35.05	31.50	12.70	3.81	78.74	3.51	31.45

J	K	L	M	N	P	S	wt
3.25	.10	.40	1.15	1.86	.64	.150	grams
82.55	2.54	10.16	29.21	47.24	16.26	3.81	74.0

### Electrical Specifications

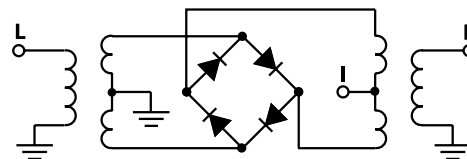
FREQUENCY (MHz)	CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						
	LO/RF	IF	Mid-Band m		L		M		U		L		M		U		
$f_1$ - $f_2$		$\bar{X}$	$\sigma$	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
5-2000	10-600	7.12	0.12	8.5	9.0	50	45	35	25	30	20	45	40	30	20	25	15

1 dB COMP.: +1 dBm typ. L = low range [ $f_1$  to  $10 f_1$ ] M = mid range [ $10 f_1$  to  $f_2/2$ ] U = upper range [ $f_2/2$  to  $f_2$ ]  
m = mid band [ $2f_1$  to  $f_2/2$ ]

### Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)				
						LO	LO	LO	LO
						+7dBm	+7dBm	+7dBm	+7dBm
5.00	35.00	5.85	46.19	>67.00	3.19				
10.00	40.00	5.88	46.23	>67.00	2.54				
20.00	50.00	6.11	46.26	>67.00	2.45				
50.00	80.00	6.37	45.89	>67.00	2.62				
100.00	70.00	6.25	44.70	64.66	2.96				
200.00	170.00	6.62	41.17	55.90	3.21				
311.92	281.92	6.71	38.72	50.11	3.31				
465.39	435.39	7.06	37.94	46.15	3.42				
618.85	588.85	7.40	38.38	45.38	3.19				
772.31	742.31	7.53	38.07	45.67	2.96				
849.04	819.04	7.22	37.13	43.78	2.41				
1000.00	970.00	7.05	36.28	38.27	2.10				
1156.00	1126.00	6.76	35.18	43.23	1.86				
1386.20	1356.20	7.53	41.65	38.52	2.12				
1462.90	1432.90	7.62	41.43	41.57	2.27				
1500.00	1470.00	7.48	41.94	42.71	2.19				
1616.40	1586.40	6.96	43.41	43.97	2.08				
1800.20	1770.00	6.79	41.03	38.23	1.87				
1923.30	1893.30	6.64	38.49	30.27	1.79				
2000.00	1970.00	6.69	39.35	27.98	1.67				

### Electrical Schematic



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RF/IF MICROWAVE COMPONENTS

REV. A  
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ZAD-11+  
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061211  
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# Performance Charts

# ZAD-11+ ZAD-11

