

# Coaxial Frequency Mixer

## ZAD-11H+ ZAD-11H

Level 17 (LO Power +17 dBm) 10 to 3000 MHz



### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

Permanent damage may occur if any of these limits are exceeded.

### Coaxial Connections

LO	1
RF	3
IF	2

### Features

- low conversion loss, 6.83 dB typ.
- wideband, 10 to 3000 MHz
- rugged shielded case

### Applications

- PCS/DCS
- cellular
- satellite distribution
- GPS
- instrumentation

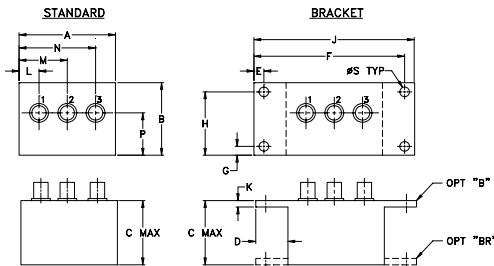
CASE STYLE: M22

Connectors	Model	Price	Qty.
BNC	ZAD-11H(+)	\$89.95 ea.	(1-9)
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

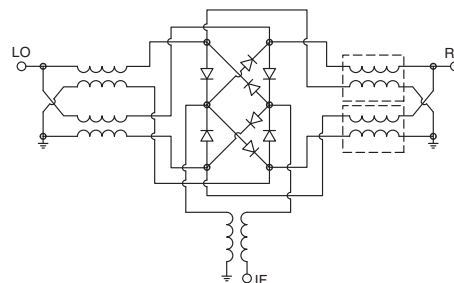
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)									
		L		M		U		L		M		U					
LO/RF $f_1-f_u$	IF $\bar{X}$	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.				
10-3000	10-1000	6.83	0.09	10.0	12.0	27	20	25	18	23	16	27	20	25	18	23	16

1 dB COMP.: +10 dBm typ. L = low range [ $f_1$  to  $10 f_1$ ] M = mid range [ $10 f_1$  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)
10.00	40.00	6.43	32.26	1.13	2.07
20.00	50.00	6.58	33.52	1.07	2.19
103.44	73.44	6.60	32.25	1.08	2.01
200.00	170.00	6.78	30.89	1.13	1.96
290.31	260.31	6.75	29.76	1.18	1.91
500.00	470.00	6.94	28.74	1.29	1.83
570.63	540.69	6.81	28.80	1.34	1.81
757.50	727.50	7.00	28.06	1.48	1.81
944.38	913.91	7.05	28.00	1.66	1.80
1037.80	1007.40	7.37	28.67	1.72	1.74
1318.10	1288.00	6.81	27.69	1.92	1.69
1505.00	1474.90	6.68	27.57	1.99	1.65
1598.40	1568.30	6.65	27.30	1.75	1.91
1785.30	1755.00	6.71	27.75	1.89	1.91
1972.20	1942.10	6.57	29.51	1.76	1.75
2065.60	2035.10	6.76	28.94	1.68	1.66
2252.50	2222.10	6.61	30.22	1.68	1.49
2439.40	2408.60	6.63	31.19	1.69	1.14
2626.30	2596.00	6.95	30.21	1.49	1.26
3000.00	2969.30	8.58	32.46	1.90	2.47

### Electrical Schematic



**Mini-Circuits**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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

IF/RF MICROWAVE COMPONENTS

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

# ZAD-11H+ ZAD-11H

