

# Coaxial Frequency Mixer

Level 7 (LO Power +7 dBm) 0.025 to 200 MHz

## ZAD-3+ ZAD-3



### 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, 4.61 dB typ.
- high L-R isolation, 45 dB typ.
- rugged shielded case

### Applications

- VHF
- FM radio
- instrumentation

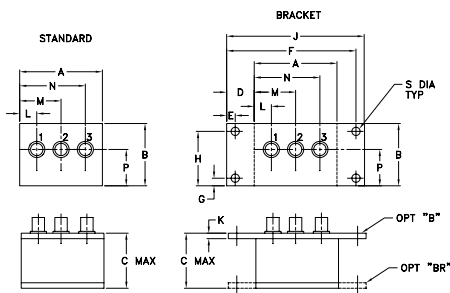
CASE STYLE: M22

Connectors	Model	Price	Qty.
BNC	ZAD-3(+)	\$45.95 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		Total Range		L		M		U		L		M		U	
$f_1$ - $f_2$		$\bar{X}$	$\sigma$	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
0.025-200	DC-200	4.61	0.06	7.5	8.5	60	50	45	35	35	25	45	35	40	30	30	20

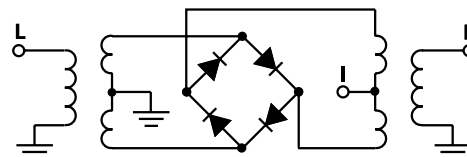
1 dB COMP.: +1 dBm typ.

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)
RF	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
0.03	30.03	6.94	58.72	53.27	1.16	2.06
0.04	30.04	5.80	55.35	51.43	1.17	2.04
0.05	30.05	5.52	54.61	51.09	1.17	2.01
0.10	30.10	5.16	53.51	50.41	1.16	1.99
0.20	30.20	4.98	53.27	50.18	1.16	2.05
0.50	30.50	4.92	53.12	50.13	1.15	2.08
1.00	31.00	4.82	53.18	50.48	1.15	2.07
2.00	32.00	4.77	53.13	50.55	1.14	2.07
5.00	35.00	4.76	53.42	50.99	1.13	2.05
10.00	40.00	4.81	53.68	51.27	1.11	2.02
20.00	50.00	4.87	53.67	50.52	1.10	2.02
38.48	68.48	4.96	53.25	48.52	1.09	2.02
50.00	80.00	4.94	53.49	47.54	1.09	2.03
69.25	99.25	4.90	53.53	45.77	1.08	2.03
84.63	54.63	4.86	53.31	44.13	1.09	2.05
100.00	70.00	4.81	53.55	42.70	1.11	2.07
123.09	93.09	4.87	55.31	40.58	1.13	2.11
153.85	123.85	4.96	52.97	38.04	1.15	2.13
176.93	146.93	5.19	49.53	38.76	1.18	2.14
200.00	170.00	5.28	45.61	38.31	1.21	2.15

### Electrical Schematic



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RF/IF MICROWAVE COMPONENTS

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ZAD-3+  
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070319  
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## Performance Charts

