

Coaxial Frequency Mixer

Level 7 (LO Power +7 dBm) 0.0005 to 10 MHz

ZAD-8+



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	3
IF	2

Features

- low conversion loss, 5.79 dB typ.
- high L-R & L-I isolation, 50 dB typ.
- rugged shielded case

Applications

- AM radio
- instrumentation

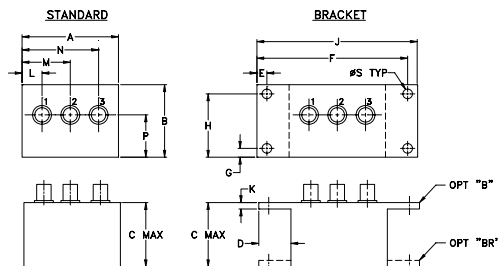
CASE STYLE: M22

Connectors	Model	Price	Qty.
BNC	ZAD-8+	\$54.95 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 has been added in order to identify 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			Total Range	L		M		U		L		M		U	
f_L - f_U		$\overline{X}$	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
0.0005-10	DC-10	5.79	0.05	7.5	8.5	60	50	50	40	45	35	60	50	50	40	45	35

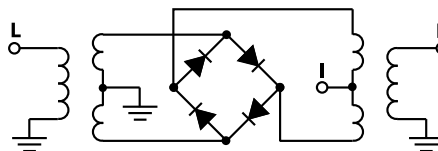
1 dB COMP.: +1 dBm typ.

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)	VSWR RF Port (:1)	Frequency	VSWR LO Port (:1)	Isolation L-R (dB)	Isolation L-I (dB)
RF	LO	LO +7dBm	LO +7dBm	RF	LO +7dBm	LO +7dBm	LO +7dBm
0.001	3.00	5.26	1.41	0.001	3.30	71.79	72.81
0.002	3.00	4.96	1.37	0.002	2.70	75.56	77.65
0.005	3.01	4.92	1.38	0.005	2.54	73.77	80.99
0.010	3.01	4.88	1.37	0.010	2.46	71.40	77.86
0.020	3.02	4.84	1.37	0.020	2.41	71.40	76.56
0.050	3.05	4.84	1.38	0.050	2.32	72.03	78.06
0.100	3.10	4.79	1.38	0.100	2.29	71.80	78.10
0.200	3.20	4.88	1.38	0.200	2.21	71.48	77.93
0.500	3.50	4.86	1.37	0.500	2.10	71.98	77.73
0.700	3.70	4.83	1.37	0.700	1.98	71.80	78.54
1.000	4.00	4.88	1.37	1.000	1.95	71.65	75.42
1.430	4.43	4.91	1.37	1.430	1.94	71.81	71.58
2.000	5.00	4.91	1.36	2.000	1.96	72.01	60.03
2.858	5.86	4.97	1.37	2.858	2.01	71.64	64.97
4.287	7.29	5.16	1.36	4.287	2.03	71.16	59.48
5.001	8.00	5.17	1.36	5.001	2.02	71.48	58.45
6.429	9.43	5.18	1.36	6.429	1.98	70.78	54.45
7.143	4.14	5.21	1.36	7.143	1.94	70.73	53.39
8.572	5.57	5.23	1.36	8.572	1.92	70.34	50.80
10.000	7.00	5.22	1.35	10.000	1.90	70.20	48.53

Electrical Schematic



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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.

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