

Coaxial Frequency Mixer

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

Maximum Ratings

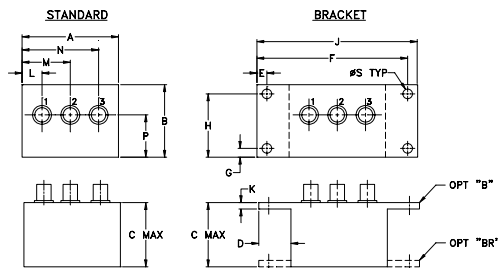
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

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

Coaxial Connections

LO	1
RF	3
IF	2

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

Features

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

Applications

- AM radio
- instrumentation

ZAD-8+



Generic photo used for illustration purposes only

CASE STYLE: M22

Connectors	Model
BNC	ZAD-8+
BRACKET (OPTION "B")	
BRACKET (OPTION "BR")	

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications

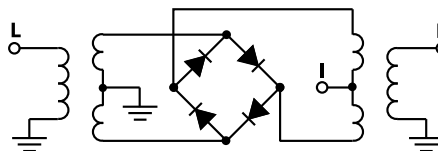
FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF		IF		Mid-Band		L		M		U		L		M		U	
$f_L - f_U$				$\bar{X}$	σ	Max.	Total Range Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
0.0005-10		DC-10		5.79	0.05	7.5	8.5	60	50	50	40	45	35	60	50	50	40

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

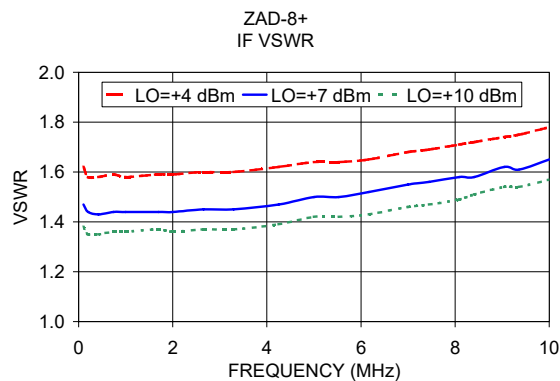
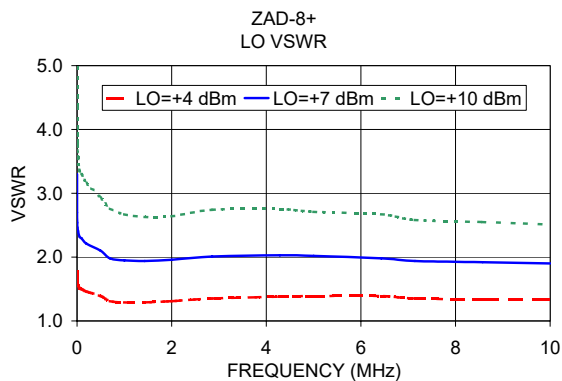
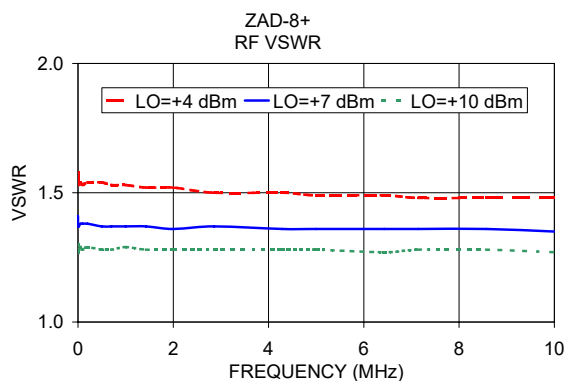
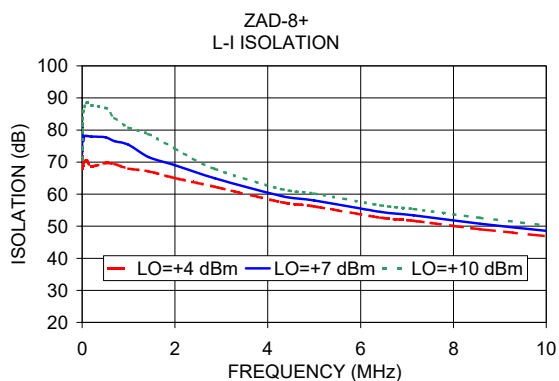
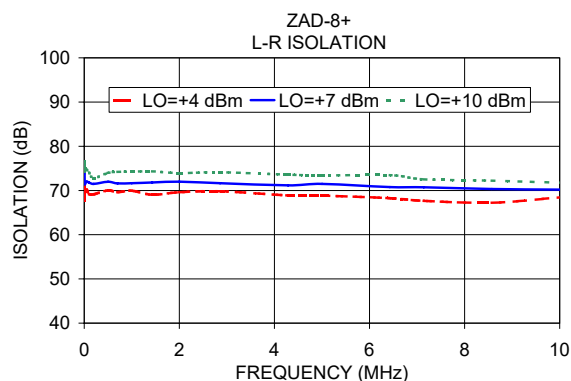
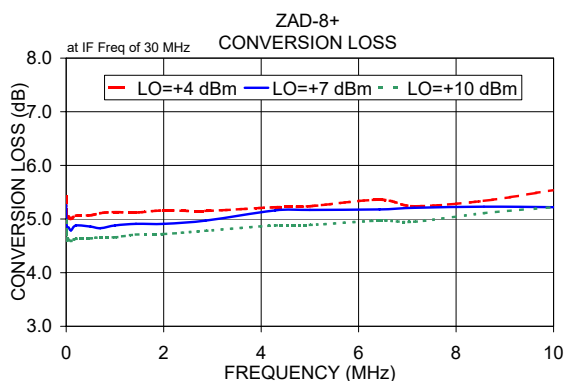
Electrical Schematic



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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