

Coaxial Frequency Mixer

Level 7 (LO Power +7 dBm) 0.003 to 100 MHz

ZAD-6+



CASE STYLE: M22

Connectors Model
BNC ZAD-6+
BRACKET (OPTION "B")
BRACKET (OPTION "BR")

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, 4.65 dB typ.
- good L-R isolation, 45 dB typ.,
L-I isolation, 40 dB typ.
- rugged shielded case

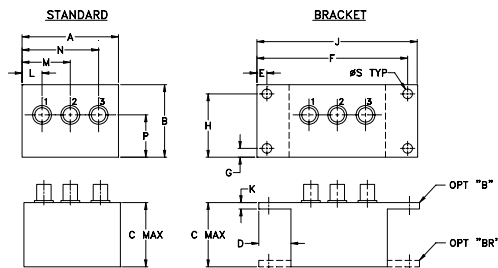
Applications

- VHF
- AM radio
- instrumentation

+RoHS Compliant

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

Outline Drawing



Outline Dimensions (inch)

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

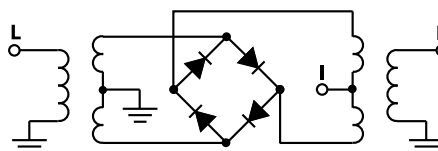
Electrical Specifications

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.	Range Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
0.003-100	DC-100	4.65	0.08	7.5	8.5	60	50	45	30	35	25	60	45	40	25	30	20
1 dB COMP.: +1 dBm typ.						L = low range [f_L to $10 f_L$] m = mid band [$2 f_L$ to $f_U/2$]						M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]					

Typical Performance Data

Frequency (MHz)		Conversion Loss (dB)	VSWR RF Port (:1)	Frequency (MHz)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR LO Port (:1)
RF	LO	LO +7dBm	LO +7dBm	LO	LO +7dBm	LO +7dBm	LO +7dBm
0.25	30.25	4.69	1.18	0.25	87.94	69.25	2.72
0.50	30.50	4.70	1.21	2.20	88.51	67.15	2.60
1.00	31.00	4.72	1.23	5.13	80.05	62.74	2.56
2.00	32.00	4.71	1.23	10.00	74.49	58.28	2.48
4.00	34.00	4.72	1.25	30.00	65.04	46.76	2.43
6.00	36.00	4.75	1.26	35.00	61.86	45.54	2.42
8.00	38.00	4.77	1.25	40.00	58.66	43.62	2.43
10.00	40.00	4.77	1.24	45.00	62.82	41.15	2.44
15.00	45.00	4.75	1.24	49.00	62.74	40.69	2.45
19.00	49.00	4.72	1.23	53.00	59.34	40.12	2.47
23.00	53.00	4.69	1.20	57.00	55.11	40.91	2.50
31.00	61.00	5.04	1.19	61.00	51.93	41.11	2.55
39.00	69.00	5.21	1.17	65.00	50.11	39.64	2.58
51.00	81.00	5.29	1.22	69.00	48.56	38.35	2.62
61.00	91.00	5.51	1.37	73.00	47.39	36.57	2.65
67.00	97.00	5.71	1.44	81.00	45.06	33.06	2.70
70.00	100.00	5.80	1.46	85.00	44.27	31.87	2.74
85.00	115.00	5.84	1.41	92.50	43.42	30.32	2.89
92.50	122.50	5.90	1.24	96.25	43.22	30.02	2.98
100.00	130.00	5.93	1.12	100.00	42.87	30.05	3.06

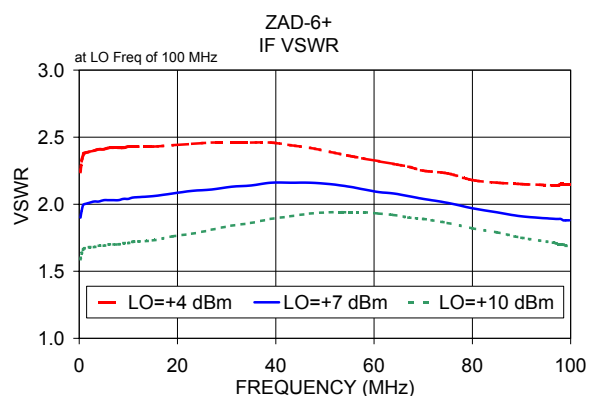
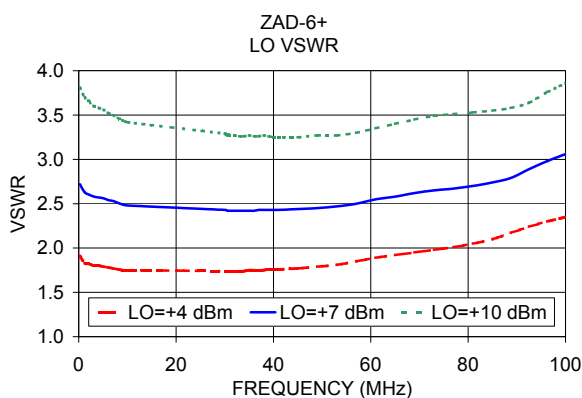
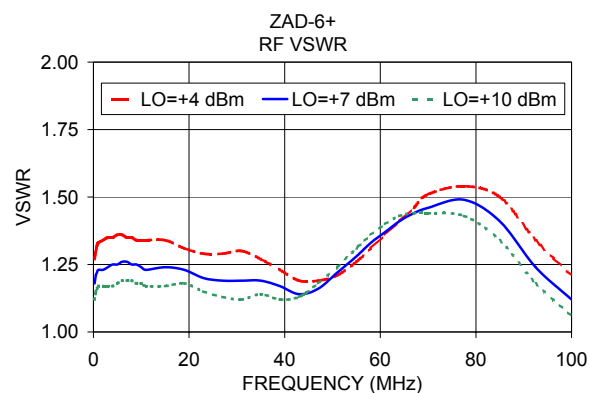
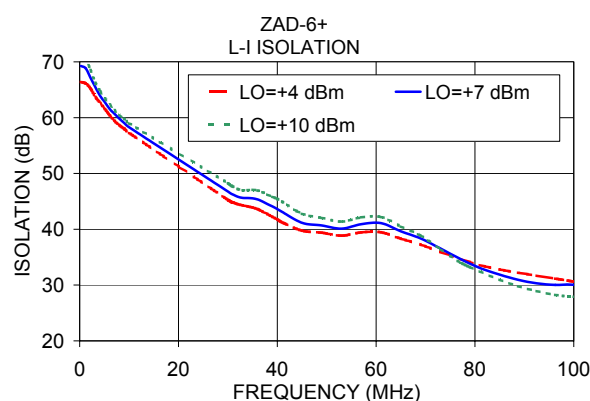
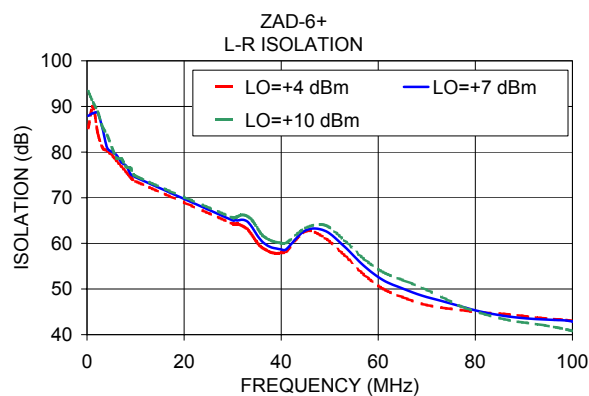
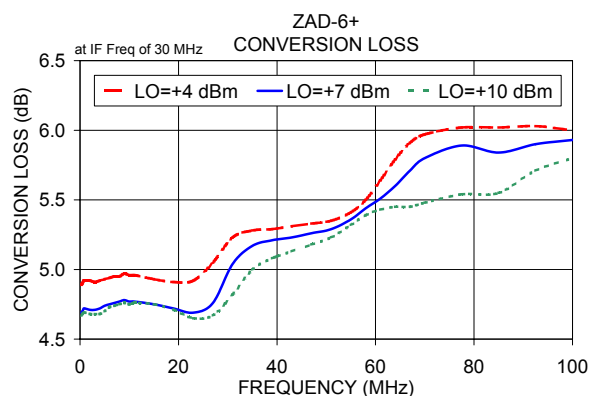
Electrical Schematic



Notes

- A. 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.
- B. 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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