

Coaxial Frequency Mixer

Level 7 (LO Power +7 dBm) 0.1 to 500 MHz

ZAD-1-1+



CASE STYLE: M22

Connectors Model
BNC ZAD-1-1+
BRACKET (OPTION "B")
BRACKET (OPTION "BR")

+RoHS Compliant

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

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

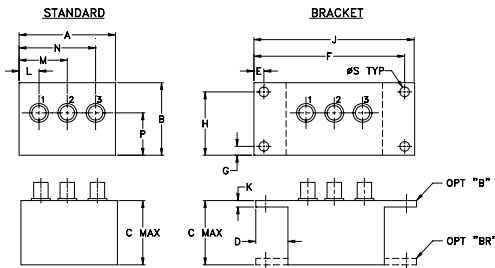
Features

- low conversion loss, 4.83 dB typ.
- high L-R isolation, 45 dB typ., L-I, 40 dB typ.
- rugged shielded case

Applications

- VHF/UHF
- instrumentation

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 f_L - f_U	IF	Mid-Band		Total Range Max.	Total Range Max.	L		M		U		L		M		U	
		\bar{X}	σ			Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.		
0.1-500	DC-500	4.83	0.04	7.5	8.5	50	45	45	30	35	25	45	30	40	25	30	20

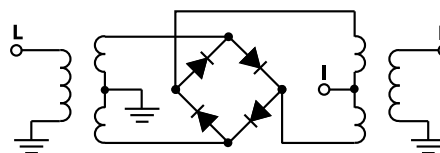
1 dB COMP.: +1 dBm typ.

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)	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
0.10	30.10	5.97	>67.00	>67.00	1.27	2.30
0.50	30.50	5.10	>67.00	>67.00	1.27	2.24
1.00	31.00	5.03	>67.00	60.45	1.27	2.26
2.00	32.00	4.95	>67.00	60.33	1.25	2.20
5.00	35.00	4.94	>67.00	60.77	1.23	2.16
10.00	40.00	4.92	>67.00	61.39	1.18	2.11
20.00	50.00	5.01	>67.00	61.65	1.15	2.08
50.00	80.00	4.95	>67.00	61.63	1.12	2.09
69.83	99.83	4.92	57.89	55.93	1.09	2.12
100.00	70.00	4.82	51.38	49.30	1.10	2.18
173.07	143.07	4.99	42.54	40.81	1.11	2.22
200.00	170.00	5.08	43.50	41.01	1.15	2.23
224.69	194.69	5.23	41.57	39.41	1.22	2.38
259.11	229.11	5.21	38.74	36.85	1.27	2.43
293.52	263.52	5.32	37.88	36.40	1.31	2.44
345.14	315.14	5.71	36.54	33.55	1.34	2.56
396.76	366.76	5.68	37.59	34.68	1.36	2.75
431.18	401.18	5.98	37.76	36.68	1.35	2.85
465.59	435.59	7.01	37.18	36.08	1.31	2.95
500.00	470.00	7.80	38.33	34.17	1.23	3.00

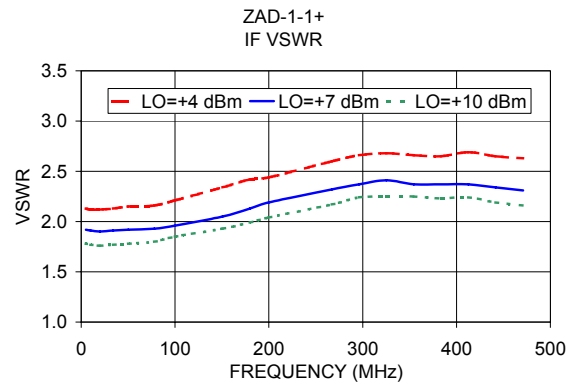
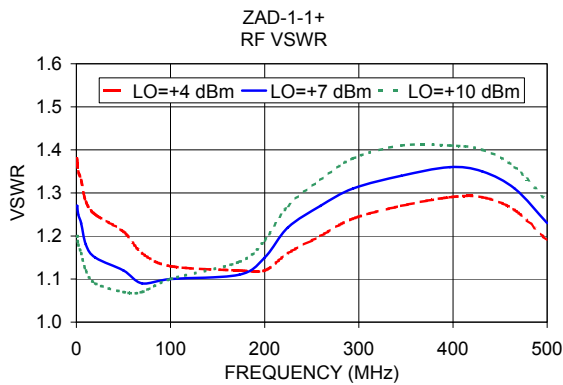
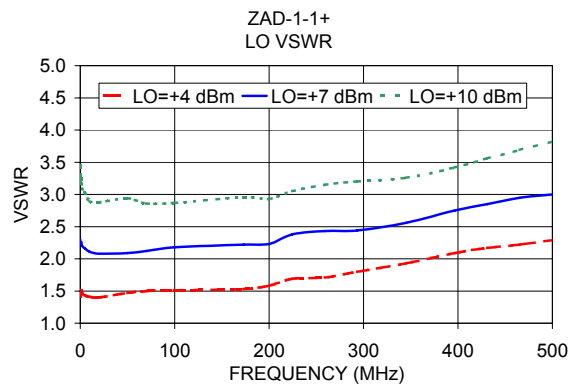
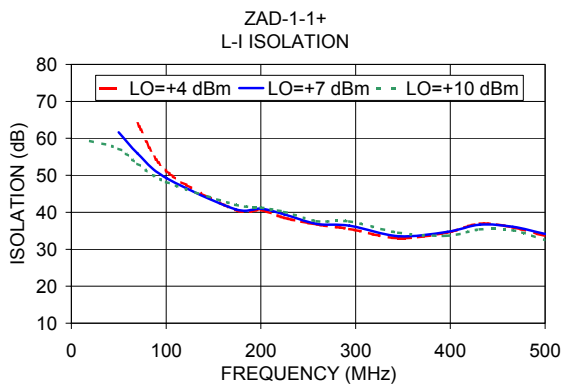
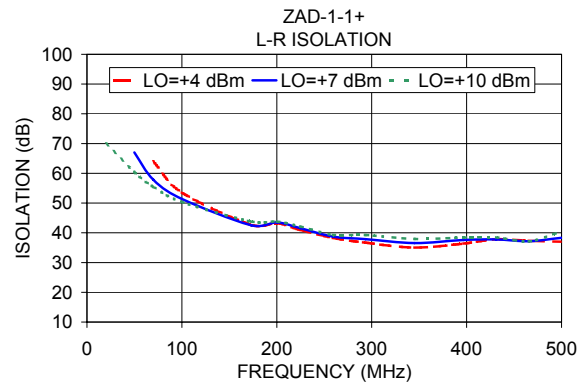
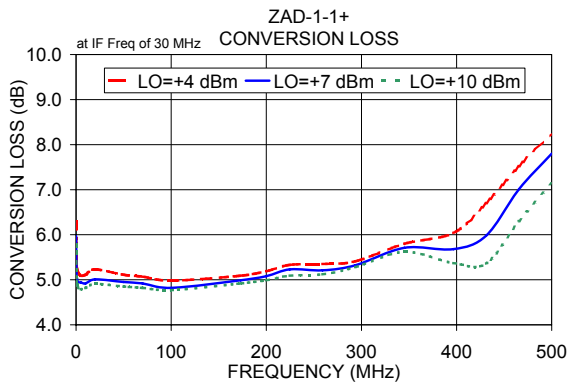
Electrical Schematic



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.
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