

Coaxial

Frequency Mixer

Level 23 (LO Power +23 dBm) 5 to 500 MHz

ZAY-1+



CASE STYLE: M22

Connectors	Model
BNC	ZAY-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	350mW
IF Current	40mA

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

Coaxial Connections

LO	1
RF	3
IF	2

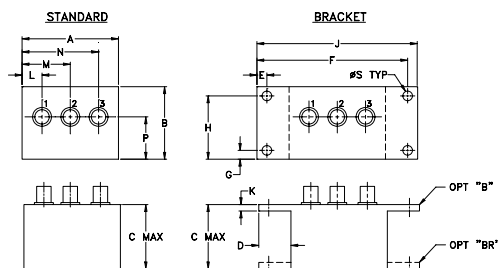
Features

- low conversion loss, 6.57 dB typ.
- high L-R isolation, 40 dB typ. L-R & L-I
- rugged shielded case

Applications

- VHF/UHF
- instrumentation
- federal & defense communication

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

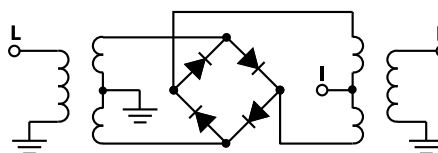
FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF	IF	Mid-Band		Total Range		L		M		U		L		M		U	
f_L - f_U		$\bar{X}$	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
5-500	DC-500	6.57	0.9	7.5	8.5	55	45	40	30	30	25	55	45	40	30	30	20

1 dB COMP.: +15 dBm typ. L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U] 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 +23dBm	LO +23dBm	LO +23dBm	LO +23dBm	LO +23dBm
5.00	35.00	6.52	57.02	82.02	1.29	2.50
10.00	40.00	6.40	56.72	82.32	1.14	2.37
20.00	50.00	6.40	54.48	81.28	1.06	2.33
35.94	65.94	6.43	51.51	75.99	1.05	2.31
50.00	80.00	6.40	48.82	72.57	1.07	2.37
82.35	52.35	6.39	45.62	62.91	1.08	2.20
100.00	70.00	6.36	44.05	58.66	1.10	2.25
144.22	114.22	6.53	41.60	53.71	1.12	2.11
175.16	145.16	6.68	40.04	51.38	1.14	2.25
200.00	170.00	6.69	39.45	50.73	1.16	2.06
221.57	191.57	6.52	36.41	46.45	1.18	2.17
252.50	222.50	6.52	36.33	47.23	1.20	2.04
283.44	253.44	6.64	36.36	47.98	1.22	2.10
314.38	284.38	6.74	36.35	46.73	1.24	1.96
345.32	315.32	6.62	33.85	44.99	1.26	2.04
376.26	346.26	6.50	30.50	41.75	1.29	1.96
407.19	377.19	6.43	32.89	42.28	1.31	1.95
438.13	408.13	6.50	33.81	42.66	1.35	1.90
469.07	439.07	6.81	33.63	41.41	1.38	1.87
500.00	470.00	6.62	34.24	40.42	1.44	1.83

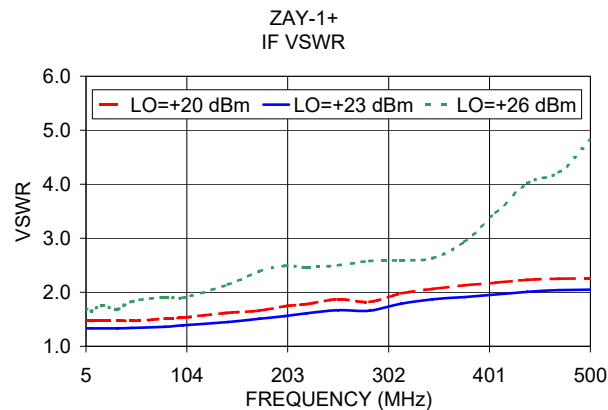
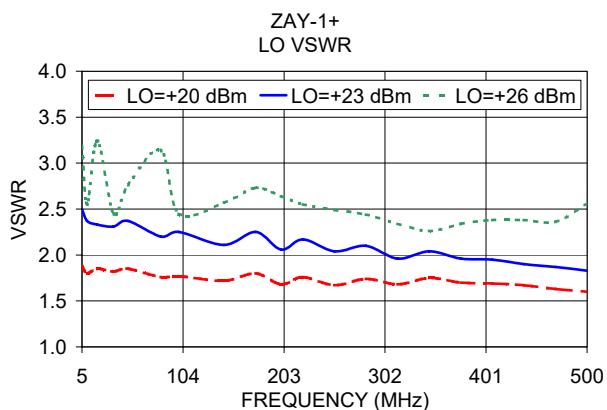
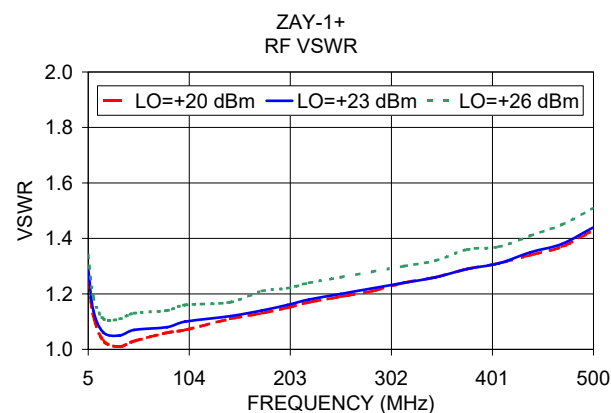
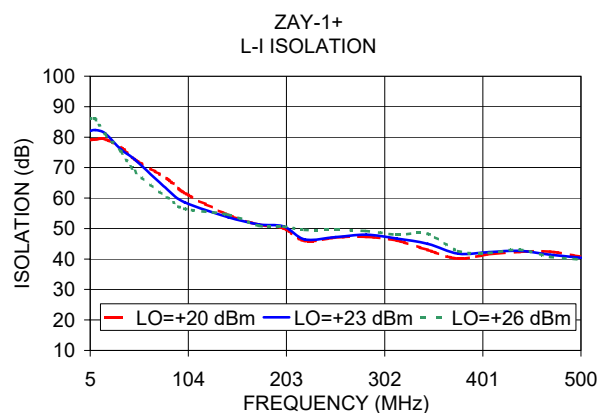
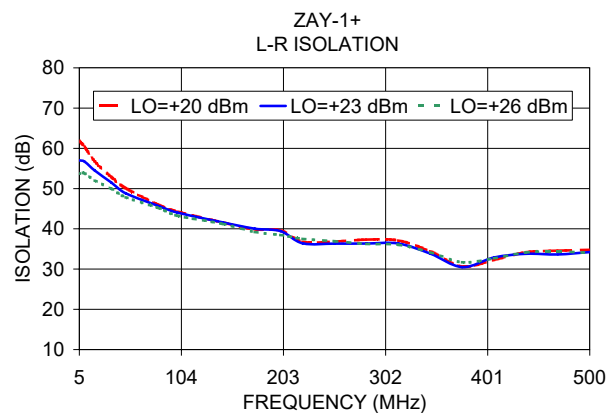
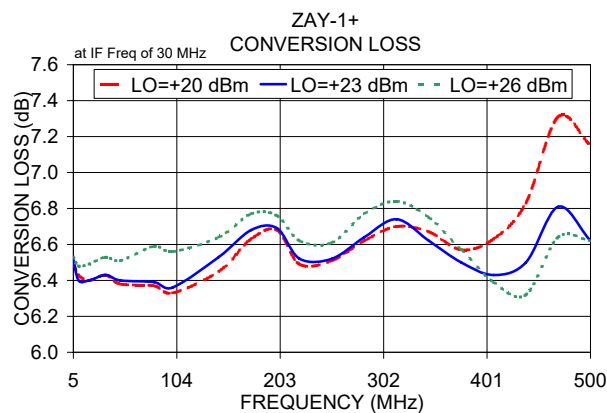
Electrical Schematic



Notes

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