

Coaxial Frequency Mixer

ZP-3+ ZP-3

Level 7 (LO Power +7 dBm) 0.15 to 400 MHz



BNC version shown
CASE STYLE: GG60

Connectors	Model
BNC	ZP-3+
SMA	ZP-3-S(+)

+RoHS Compliant

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

Maximum Ratings

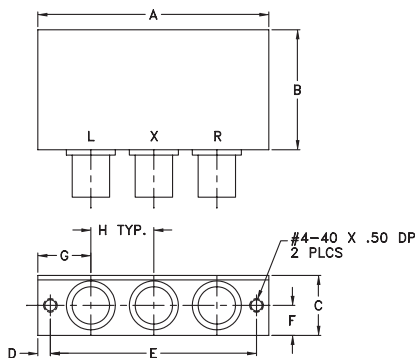
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

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

Coaxial Connections

LO	L
RF	R
IF	X

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	wt
2.31	1.20	.60	.125	2.062	.30	.53	.63	grams
58.67	30.48	15.24	3.18	52.37	7.62	13.46	16.00	75.0

Features

- low conversion loss, 4.7 dB typ.
- IF response to DC
- excellent L-R isolation, 46 dB typ., L-I, 47 dB typ.
- rugged shielded case

Applications

- VHF/UHF
- cellular
- instrumentation

Electrical Specifications

FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)								
		L	M	U	L	M	U						
0.15-400	DC-400	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.		
		60	50	46	30	35	25	60	40	47	25	35	20

1 dB COMP: +1 dBm typ.

For phase detection, DC output has positive polarity with in-phase LO and RF signals.

L = low range [f_l to $10 f_l$]

m = mid band [$2f_l$ to $f_l/2$]

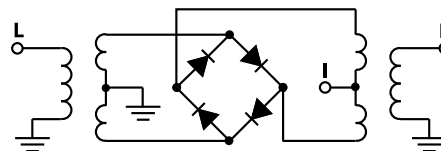
M = mid range [$10 f_l$ to $f_l/2$]

U = upper range [$f_l/2$ to f_l]

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)	
							LO
0.15	30.15	5.37	1.57	10.00	68.68	61.84	2.59
0.23	30.23	5.27	1.41	20.00	65.36	56.87	2.60
0.30	30.30	5.21	1.33	30.00	63.22	54.20	2.59
0.50	30.50	5.16	1.25	40.00	61.75	52.09	2.58
1.00	31.00	5.08	1.21	76.00	57.56	47.59	2.54
2.80	32.80	4.91	1.21	94.00	56.48	45.97	2.50
6.40	36.40	4.91	1.21	112.00	54.90	44.70	2.50
10.00	40.00	4.73	1.21	149.00	52.63	42.36	2.57
28.00	58.00	4.71	1.21	168.00	54.13	42.02	2.55
64.00	94.00	4.75	1.17	206.00	49.62	38.81	2.62
100.00	130.00	4.83	1.14	225.00	48.10	38.56	2.66
138.00	168.00	4.85	1.13	244.00	48.03	37.82	2.68
157.00	187.00	4.88	1.10	282.00	53.65	37.79	2.67
195.00	225.00	4.92	1.08	301.00	55.10	38.07	2.76
233.00	263.00	4.97	1.10	320.00	54.03	37.59	2.82
252.00	282.00	5.10	1.12	340.00	52.86	36.62	2.76
271.00	301.00	5.17	1.14	360.00	51.53	35.44	2.69
290.00	320.00	5.15	1.17	390.00	47.44	33.11	2.86
370.00	340.00	5.38	1.10	410.00	45.39	32.24	3.05
400.00	370.00	5.41	1.05	430.00	44.42	32.17	3.06

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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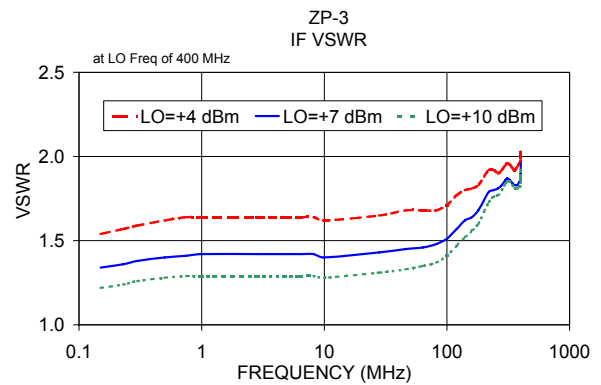
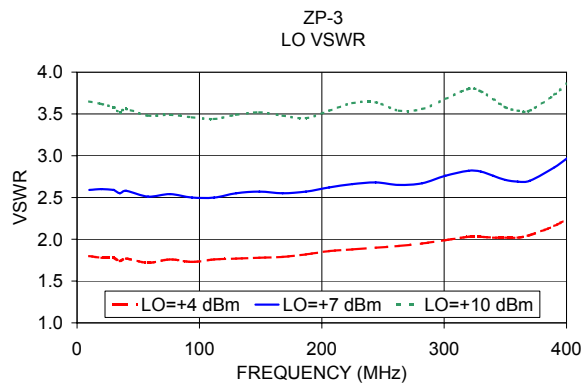
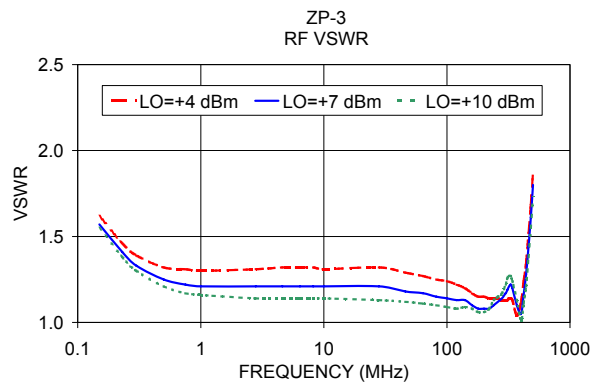
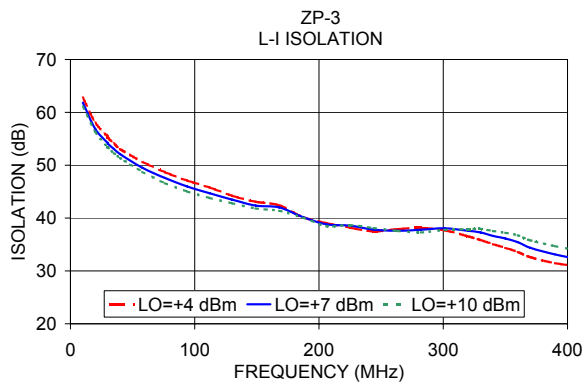
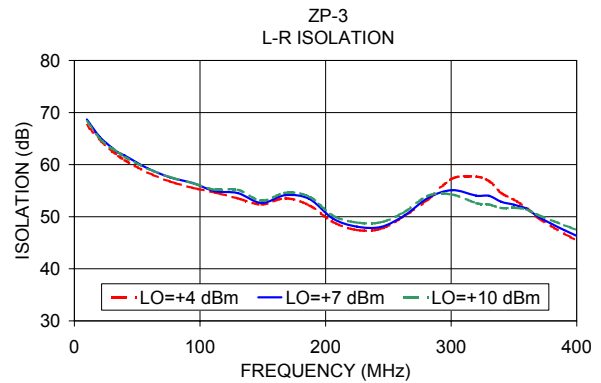
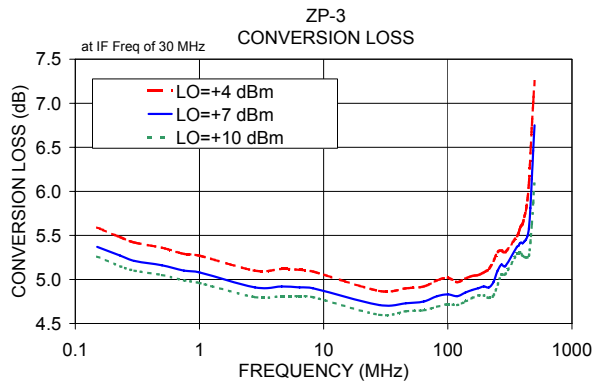


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Performance Charts

ZP-3+
ZP-3



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