

Coaxial Frequency Mixer

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

ZP-3+
ZP-3



BNC version shown
CASE STYLE: GG60

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

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

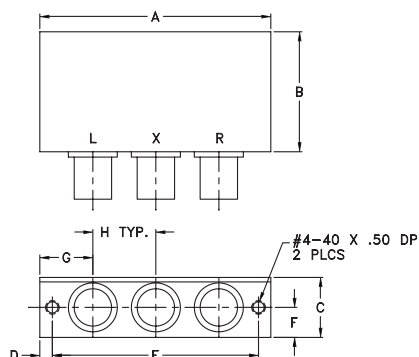
- VHF/UHF
- cellular
- instrumentation

Connectors	Model	Price	Qty.
BNC	ZP-3+	\$39.95 ea.	(1-9)
SMA	ZP-3-S(+)	\$44.95 ea.	(1-9)

+ RoHS compliant in accordance
with EU Directive (2002/95/EC)

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

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

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
		Mid-Band m				L			M			U			L		
		$\bar{X}$	σ	Max.	Total Range Max.	Typ.	Min.		Typ.	Min.		Typ.	Min.		Typ.	Min.	
0.15-400	DC-400	4.7	0.10	7.0	8.0	60	50		46	30		35	25		60	40	

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 $f_U/2$]

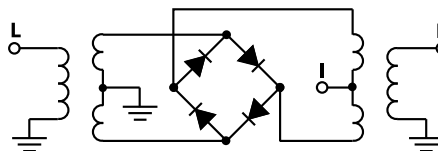
M = mid range [$10 f_L$ to $f_U/2$]

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
0.15	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



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For detailed performance specs
& shopping online see web site

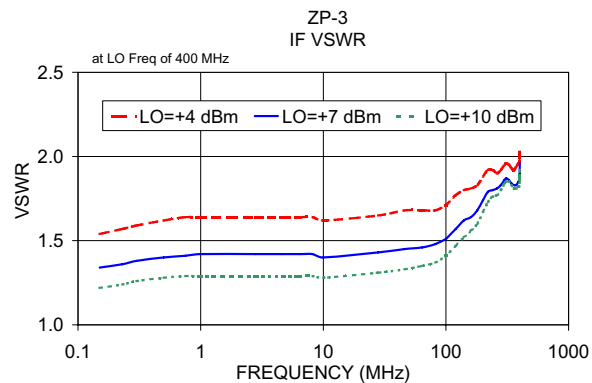
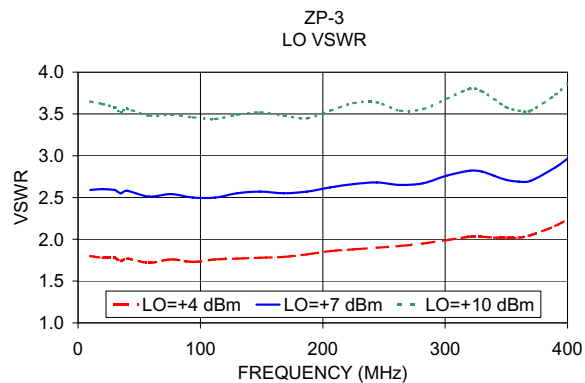
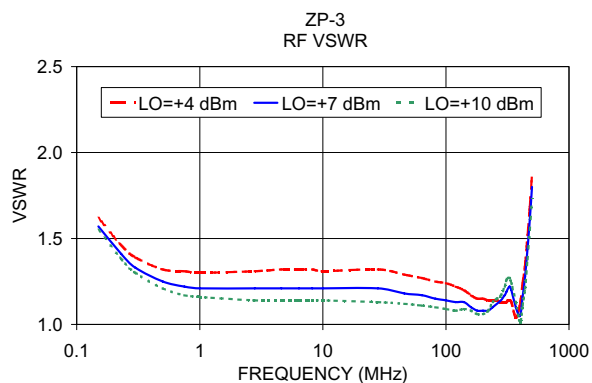
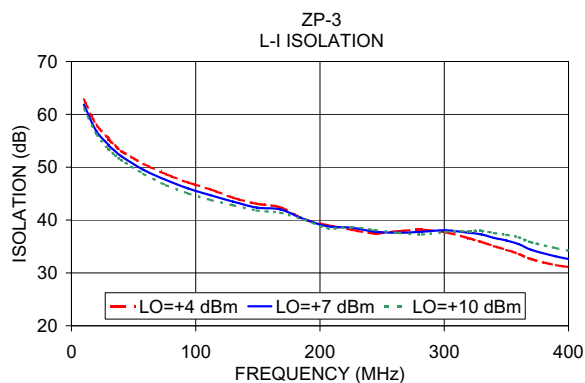
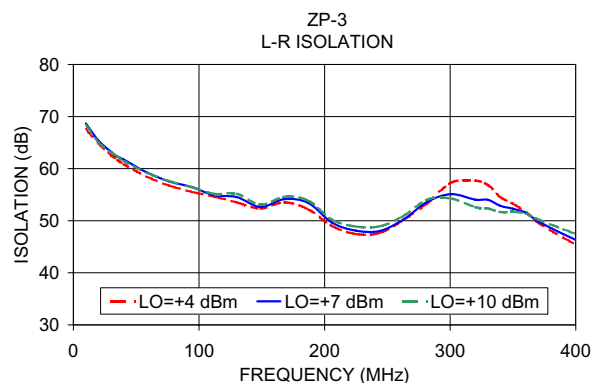
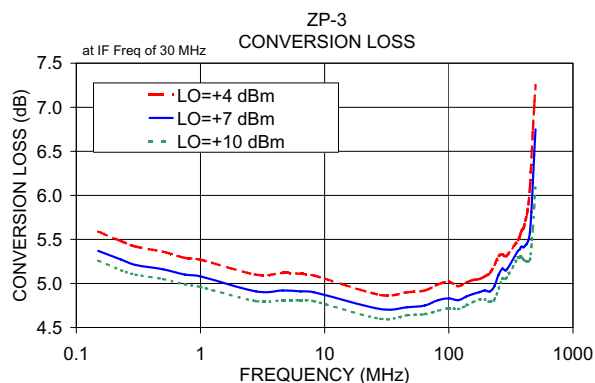
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Performance Charts

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