

# Coaxial Frequency Mixer

Level 10 (LO Power +10 dBm) 0.15 to 400 MHz

## ZP-3LH+ ZP-3LH



BNC version shown  
CASE STYLE: GG60

Connectors	Model	Price	Qty.
BNC	ZP-3LH+	\$41.95 ea.	(1-9)
SMA	ZP-3LH-S(+)	\$46.95 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.

### Maximum Ratings

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

### Coaxial Connections

LO	L
RF	R
IF	X

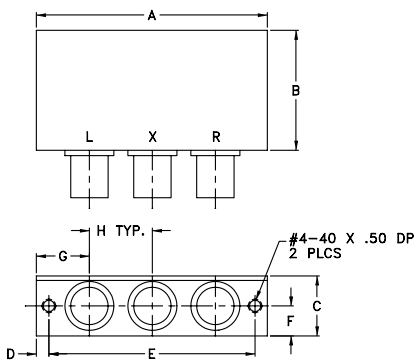
### Features

- low conversion loss, 4.8 dB typ.
- high L-R isolation, 51 dB typ., L-I, 45 dB typ.
- IF response to DC
- rugged shielded case

### Applications

- VHF/UHF
- instrumentation

### 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		Total Range Max.	L		M		U		L		M		U	
LO/RF $f_L-f_U$	$\bar{X}$ $\sigma$ Max.		Typ.		Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
0.15-400	DC-400	4.8 0.37 7.0 8.0	67	50	51	30	40	25	67	40	45	25	34	20		

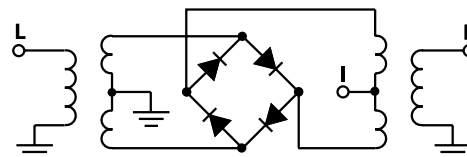
1 dB COMP.: +5 dBm typ.

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 [ $2 f_L$  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)
0.15	30.15	4.98	69.38	1.21	2.67
0.30	30.30	4.90	69.38	1.15	2.64
0.50	30.50	4.83	69.26	1.10	2.57
1.00	31.00	4.74	69.26	1.06	2.52
1.50	31.50	4.69	69.08	1.03	2.36
2.00	32.00	4.66	68.95	1.02	2.40
5.00	35.00	4.62	68.20	1.01	2.33
10.00	40.00	4.59	66.47	1.02	2.31
20.00	50.00	4.68	63.23	1.02	2.25
50.00	80.00	4.66	56.07	1.02	2.25
57.27	87.27	4.67	54.97	1.01	2.29
100.00	70.00	4.67	50.23	1.01	2.25
114.39	84.39	4.68	48.98	1.01	2.28
171.51	14.15	4.80	45.17	1.01	2.33
200.00	170.00	4.81	42.29	1.01	2.44
228.64	198.64	4.90	41.00	1.04	2.39
285.76	255.76	5.11	48.00	1.09	2.41
342.88	312.88	5.17	39.79	1.20	2.58
385.72	356.72	5.29	34.24	1.23	2.76
400.00	370.00	5.48	34.34	1.27	2.78

### Electrical Schematic



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RF/IF MICROWAVE COMPONENTS

REV. B  
M113397  
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071022  
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# Performance Charts

# ZP-3LH+ ZP-3LH

