

# Coaxial Frequency Mixer

## ZP-1MH+

Level 13 (LO Power +13 dBm) 2 to 600 MHz



### Maximum Ratings

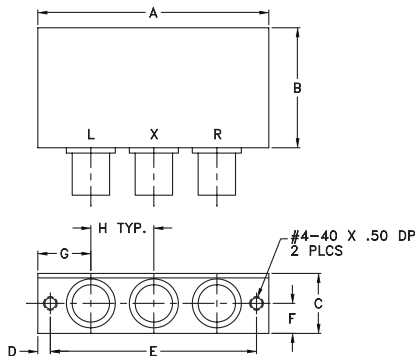
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

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

### Coaxial Connections

LO	L
RF	R
IF	X

### Outline Drawing



### Outline Dimensions (inch)

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, 6.3 dB typ.
- high L-R isolation, 50 dB typ., L-I, 48 dB typ.
- rugged shielded case

### Applications

- VHF/UHF
- instrumentation

BNC version shown  
CASE STYLE: GG60

Connectors	Model	Price	Qty.
BNC	ZP-1MH+	\$43.95 ea.	(1-9)
SMA	ZP-1MH-S+	\$48.95 ea.	(1-9)

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

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### 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 $f_L-f_U$	IF $\bar{X}$ $\sigma$ Max.	$\bar{X}$	$\sigma$	Max.	8.0	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
2-600	DC-600	6.3	0.12	7.0	8.0	68	50	50	30	43	25	65	45	48	30	37	22			

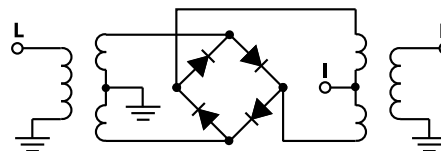
1 dB COMP.: +9 dBm typ.

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)	VSWR RF Port (:1)	Frequency (MHz)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR LO Port (:1)
2.00	32.00	6.69	2.30	72.70	67.41	2.47
4.00	34.00	6.16	5.30	70.19	66.64	2.38
10.00	40.00	5.88	10.30	66.20	64.23	2.34
16.00	46.00	5.86	15.30	63.06	61.97	2.28
33.00	63.00	5.84	20.30	60.88	60.01	2.30
50.00	80.00	5.81	30.30	58.09	57.73	2.22
101.00	131.00	5.84	40.10	56.62	56.49	2.23
171.00	201.00	5.97	80.00	50.45	50.68	2.16
211.00	241.00	6.00	114.00	48.55	49.14	2.21
271.00	301.00	5.99	161.00	46.23	47.36	2.14
311.00	341.00	6.02	201.00	44.75	46.87	2.19
331.00	361.00	6.00	241.00	43.64	46.01	2.11
355.00	385.00	6.01	301.00	41.84	43.65	2.18
398.00	428.00	6.00	346.00	40.23	41.40	2.19
441.00	471.00	6.08	406.50	39.17	39.27	2.18
484.00	514.00	6.16	449.50	38.01	37.50	2.14
505.50	535.50	6.14	471.00	37.37	36.34	2.18
548.50	578.50	6.19	514.00	36.67	36.01	2.20
570.00	600.00	6.16	557.00	36.02	35.09	2.25
600.00	630.00	6.30	600.00	35.65	33.93	2.18

### Electrical Schematic



**Mini-Circuits**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

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ZP-1MH+  
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Page 1 of 2

