Coaxial

Frequency Mixer

ZP-1MH+

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

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.

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

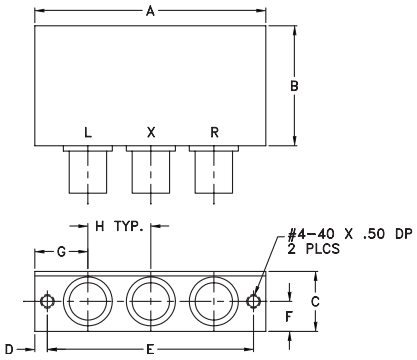
Features

- 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

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)					
LO/RF	IF	Mid-Band m			Total Range	L		M		U		L		M		U	
f_L-f_U		$\overline{X}$	σ	Max.	Max.	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

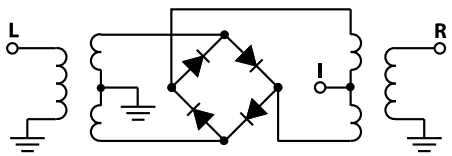
1 dB COMP.: +9 dBm typ.

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]

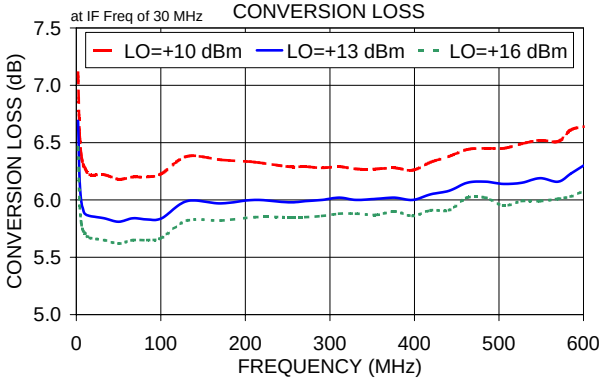
Typical Performance Data

Frequency (MHz)		Conversion Loss (dB)	VSWR RF Port (:1)	Frequency (MHz)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR LO Port (:1)
RF	LO	LO +13dBm	LO +13dBm	LO	LO +13dBm	LO +13dBm	LO +13dBm
2.00	32.00	6.69	1.71	2.30	72.70	67.41	2.47
4.00	34.00	6.16	1.37	5.30	70.19	66.64	2.38
10.00	40.00	5.88	1.15	10.30	66.20	64.23	2.34
16.00	46.00	5.86	1.10	15.30	63.06	61.97	2.28
33.00	63.00	5.84	1.05	20.30	60.88	60.01	2.30
50.00	80.00	5.81	1.03	30.30	58.09	57.73	2.22
101.00	131.00	5.84	1.03	40.10	56.62	56.49	2.23
171.00	201.00	5.97	1.07	80.00	50.45	50.68	2.16
211.00	241.00	6.00	1.09	114.00	48.55	49.14	2.21
271.00	301.00	5.99	1.12	161.00	46.23	47.36	2.14
311.00	341.00	6.02	1.14	201.00	44.75	46.87	2.19
331.00	361.00	6.00	1.16	241.00	43.64	46.01	2.11
355.00	385.00	6.01	1.17	301.00	41.84	43.65	2.18
398.00	428.00	6.00	1.18	346.00	40.23	41.40	2.19
441.00	471.00	6.08	1.19	406.50	39.17	39.27	2.18
484.00	514.00	6.16	1.22	449.50	38.01	37.50	2.14
505.50	535.50	6.14	1.23	471.00	37.37	36.34	2.18
548.50	578.50	6.19	1.26	514.00	36.67	36.01	2.20
570.00	600.00	6.16	1.27	557.00	36.02	35.09	2.25
600.00	630.00	6.30	1.30	600.00	35.65	33.93	2.18

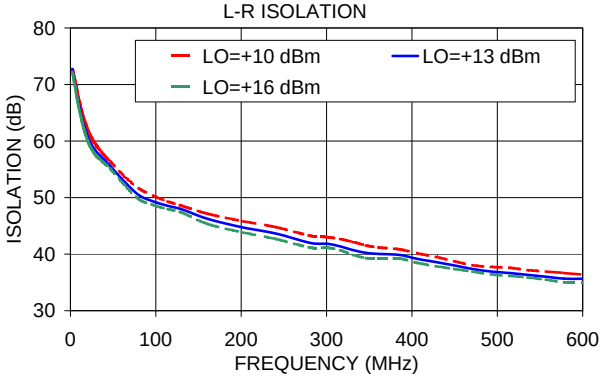
Electrical Schematic



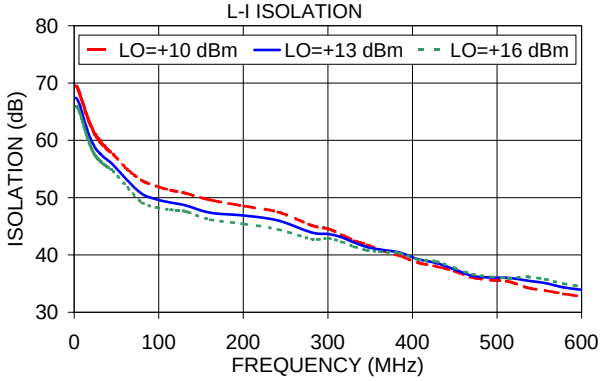
ZP-1MH+
CONVERSION LOSS
at IF Freq of 30 MHz



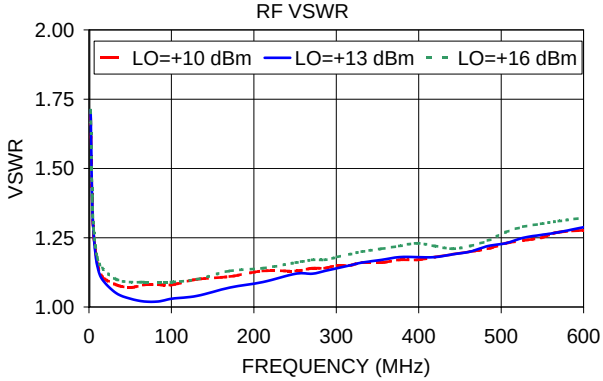
ZP-1MH+
L-R ISOLATION



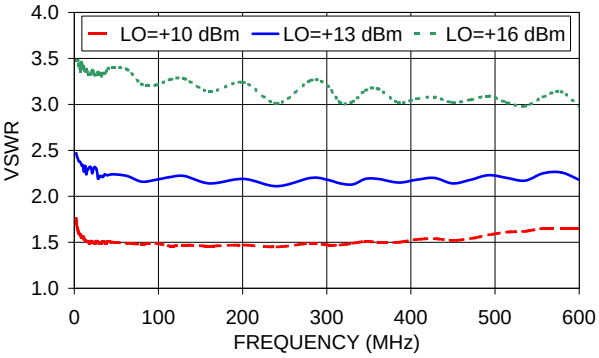
ZP-1MH+
L-I ISOLATION



ZP-1MH+
RF VSWR



ZP-1MH+
LO VSWR



ZP-1MH+
IF VSWR
at LO Freq of 600 MHz