

Coaxial Frequency Mixer

Level 13 (LO Power +13 dBm) 0.15 to 400 MHz

ZP-3MH+



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, 5.0 dB typ.
- high L-R isolation, 46 dB typ., L-I, 42 dB typ.
- rugged shielded case

Applications

- VHF/UHF
- instrumentation

BNC version shown

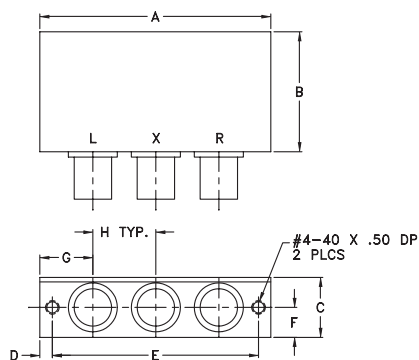
CASE STYLE: GG60

Connectors	Model
BNC	ZP-3MH+
SMA	ZP-3MH-S+

+RoHS Compliant

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

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

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF f_L - f_U	IF	Mid-Band m		Total Range		L		M		U		L		M		U	
		$\bar{X}$	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
0.15-400	DC-400	5.0	0.33	7.0	8.0	60	50	46	30	35	25	60	40	42	25	35	20

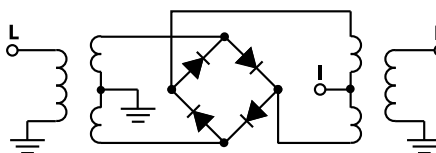
1 dB COMP.: +9 dBm typ.

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 +13dBm	LO +13dBm	LO +13dBm
0.15	30.15	5.48	1.53	10.50	59.22	67.83	1.72
0.20	30.20	5.31	1.45	14.50	57.31	65.51	1.71
0.30	30.30	5.27	1.39	18.50	55.80	63.82	1.71
0.40	30.40	5.21	1.37	22.50	54.49	62.93	1.69
0.50	30.50	5.16	1.36	26.50	53.38	61.95	1.70
1.00	31.00	5.09	1.35	30.50	52.42	61.07	1.69
5.00	35.00	4.99	1.34	31.00	52.30	61.12	1.68
10.00	40.00	4.96	1.34	35.10	51.52	60.51	1.68
20.00	50.00	4.88	1.33	40.10	50.70	60.05	1.68
50.10	80.10	4.93	1.32	50.10	49.38	59.05	1.68
75.10	105.10	4.98	1.30	55.10	48.79	58.41	1.68
100.10	130.10	4.99	1.27	105.10	44.38	48.52	1.69
150.10	180.10	5.05	1.21	130.10	42.61	44.85	1.71
200.10	230.10	5.17	1.13	180.10	40.40	39.44	1.75
250.10	280.10	5.36	1.06	205.10	38.48	37.29	1.80
300.10	330.10	5.43	1.10	255.10	37.59	35.97	1.86
325.10	355.10	5.57	1.14	305.10	37.44	32.99	1.94
350.10	380.10	5.68	1.12	330.10	36.46	31.87	1.97
375.10	405.10	6.04	1.09	380.10	35.06	30.61	2.12
400.10	430.10	6.39	1.18	405.10	35.05	29.79	2.17

Electrical Schematic



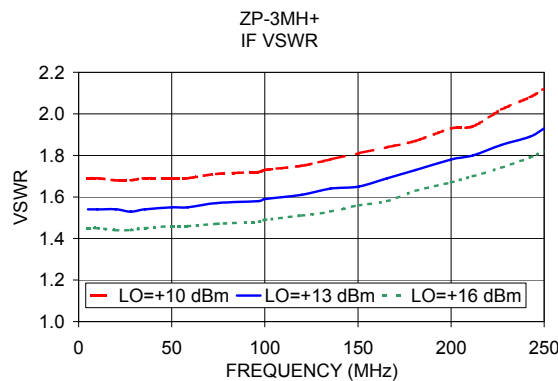
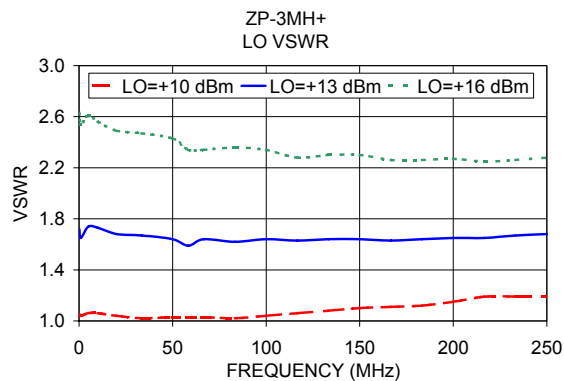
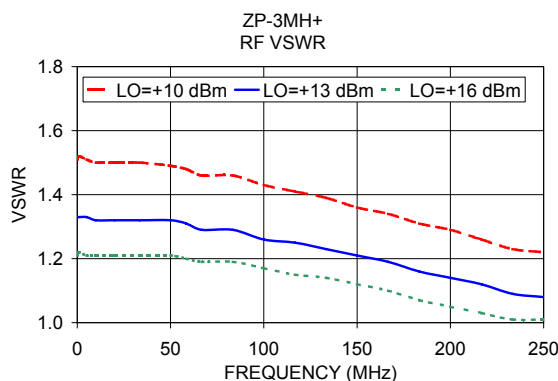
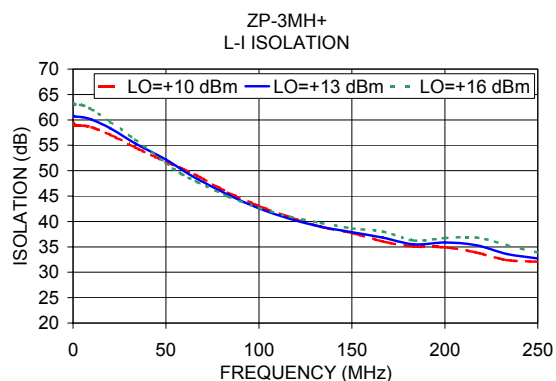
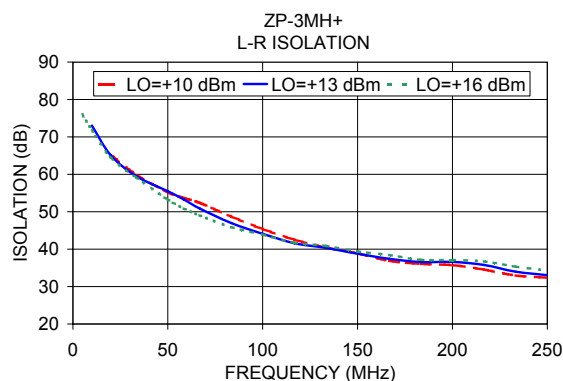
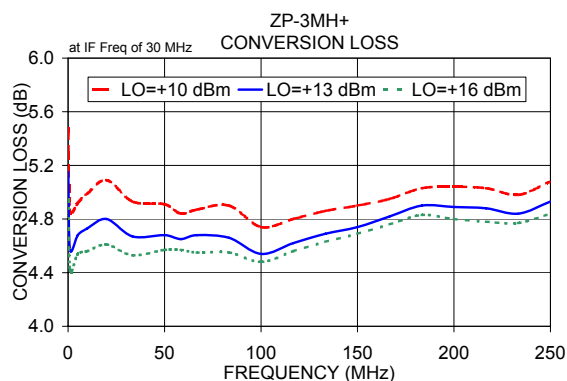
Notes

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www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

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