

Coaxial Frequency Mixer

Level 7 (LO Power +7 dBm) 1 to 1500 MHz

ZP-5X+
ZP-5X



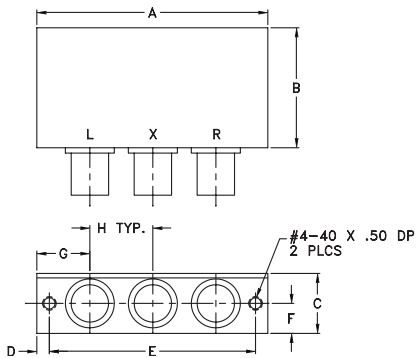
Maximum Ratings

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	X
IF	R

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

Features

- low conversion loss, 5.9 dB typ.
- wideband, 1 to 1500 MHz
- high L-R isolation, 40 dB typ., L-I, 45 dB typ.
- rugged shielded case

Applications

- VHF/UHF
- satellite distribution
- instrumentation

BNC version shown
CASE STYLE: GG60

Connectors	Model	Price	Qty.
BNC	ZP-5X+	\$47.95 ea.	(1-9)
SMA	ZP-5X-S(+)	\$52.95 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.

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} σ Max.	\bar{X}	σ	Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
1-1500	1-1000	5.9	0.10	7.0	9.0	60	40	40	20	28	17	60	45	45	25	38	20		

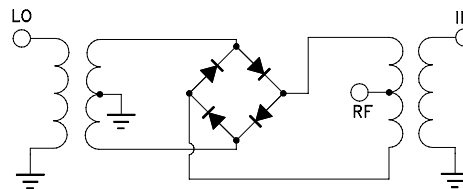
1 dB COMP.: +1 dBm typ.

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)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
1.01	31.01	5.81	76.49	1.25	2.94
2.13	32.13	5.83	74.70	1.25	2.78
10.96	40.96	5.80	63.50	1.26	2.54
56.50	86.50	5.80	50.82	1.28	2.46
160.38	130.38	5.88	43.16	1.37	2.37
216.07	186.07	5.81	40.68	1.43	2.38
250.80	220.80	5.85	39.60	1.48	2.36
337.90	307.90	5.93	36.86	1.58	2.37
455.25	425.25	6.15	33.77	1.70	2.44
528.42	498.42	6.01	31.68	1.75	2.45
613.35	583.35	6.23	30.05	1.78	2.49
750.00	720.00	6.34	27.83	1.78	2.64
826.36	796.36	6.30	26.21	1.75	2.69
900.00	870.00	6.30	25.22	1.69	2.79
1000.00	970.00	6.43	24.31	1.59	2.85
1200.00	1170.00	6.37	24.48	1.40	2.84
1292.29	1262.29	6.29	24.10	1.34	3.11
1400.00	1370.00	6.43	24.34	1.31	3.52
1450.00	1420.00	6.56	24.29	1.32	3.68
1500.00	1470.00	6.77	25.14	1.38	3.90

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp.

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Performance Charts

