

Coaxial

# Voltage Controlled Oscillator

ZX95-368+

Linear Tuning 360 to 380 MHz

## Features

- Very low pushing
- Linear tuning characteristics
- Low phase noise
- Low pulling
- Protected by US patent 6,790,049

## Applications

- R&D
- LAB
- Instrumentation
- Wireless communication
- TETRA



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-368-S+	\$ 40.95 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

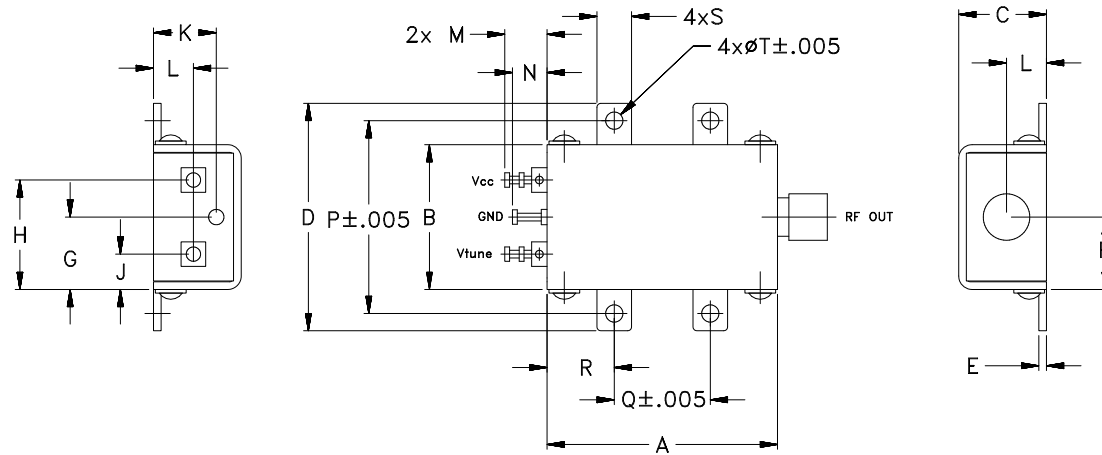
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Max.	Typ.
ZX95-368+	360	380	+2.5	-96	-120	-141	-160	0.5	10	6	70	50	-90	-20	-13	0.1	0.03	5	23

## Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	12V
All specifications	50 ohm system

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

## Outline Drawing



## Outline Dimensions (Inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	WT.
1.20	.75	.46	1.18	.04	.38	.45	.57	.18	.33	.21	.22	.18	1.00	.50	.35	.18	.106	GRAM
30.48	19.05	11.68	29.97	1.02	9.65	11.43	14.48	4.57	8.38	5.33	5.59	4.57	25.40	12.70	8.89	4.57	2.69	35.0



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

**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-Circuits 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-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

REV. OR  
M120937  
EDR-8259F2  
ZX95-368+  
RAV  
090903  
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# Performance Data & Curves\*

# ZX95-368+

V TUNE	TUNE SENS (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)			Icc (mA)	HARMONICS (dBc)			FREQ. PUSH (MHz/V)	FREQ. PULL (MHz)	PHASE NOISE (dBc/Hz) at offsets				FREQ OFFSET (KHz)	PHASE NOISE at 370 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	8.17	338.8	337.2	335.7	1.90	2.19	2.11	16.55	-17.7	-34.0	-45.2	0.22	0.02	-93.7	-118.1	-138.3	-157.8	1.0	-97.25
0.50	6.57	342.7	341.2	340.0	1.84	2.23	2.20	16.61	-18.3	-34.4	-43.4	0.10	0.02	-95.3	-119.6	-139.8	-158.4	2.0	-105.33
1.00	5.85	345.9	344.5	343.3	1.85	2.29	2.27	16.66	-18.6	-34.5	-43.0	0.05	0.02	-96.5	-120.3	-140.4	-159.3	4.2	-113.34
1.50	5.49	348.9	347.4	346.3	1.88	2.35	2.32	16.70	-18.8	-34.8	-42.7	0.03	0.03	-97.9	-120.6	-140.8	-159.7	6.0	-116.46
2.00	5.32	351.6	350.2	349.0	1.92	2.40	2.37	16.75	-18.9	-34.9	-42.5	0.00	0.03	-97.6	-120.8	-141.0	-159.8	8.4	-119.76
2.50	5.27	354.3	352.9	351.6	1.97	2.45	2.41	16.78	-19.0	-34.9	-42.5	0.01	0.04	-98.1	-120.9	-141.1	-159.9	10.0	-120.90
3.00	5.30	357.0	355.5	354.3	2.02	2.50	2.45	16.81	-19.1	-34.8	-42.4	0.02	0.05	-98.4	-121.1	-141.2	-160.3	23.1	-128.62
3.50	5.41	359.7	358.1	356.9	2.07	2.54	2.48	16.85	-19.3	-34.7	-42.2	0.03	0.05	-98.3	-121.2	-141.3	-160.4	45.6	-134.43
4.00	5.59	362.5	360.8	359.6	2.12	2.58	2.50	16.87	-19.5	-34.8	-42.1	0.03	0.06	-96.8	-121.1	-141.3	-160.8	64.0	-137.17
4.50	5.83	365.3	363.6	362.4	2.17	2.62	2.53	16.91	-19.7	-35.0	-42.2	0.04	0.07	-97.6	-120.9	-141.3	-160.1	89.8	-140.43
5.00	6.11	368.3	366.6	365.2	2.23	2.65	2.55	16.93	-19.8	-34.8	-42.3	0.03	0.08	-97.6	-120.9	-141.2	-160.2	100.0	-141.24
5.50	6.44	371.4	369.6	368.3	2.28	2.68	2.57	16.96	-19.9	-34.5	-42.0	0.03	0.09	-96.3	-120.8	-141.0	-160.0	148.1	-144.46
6.00	6.80	374.7	372.8	371.5	2.32	2.71	2.59	16.99	-20.2	-34.2	-41.8	0.01	0.09	-97.0	-120.2	-140.7	-159.8	207.9	-147.26
6.50	7.15	378.1	376.2	374.8	2.36	2.72	2.60	17.01	-20.6	-34.1	-41.8	0.03	0.09	-96.6	-120.0	-140.3	-159.8	291.8	-150.24
7.00	7.46	381.7	379.8	378.4	2.39	2.72	2.60	17.04	-21.0	-34.0	-41.3	0.08	0.09	-95.6	-119.4	-139.6	-159.3	348.8	-151.28
7.50	7.70	385.5	383.5	382.1	2.41	2.72	2.60	17.07	-21.2	-34.0	-40.8	0.16	0.08	-94.0	-118.4	-138.6	-157.9	409.6	-153.11
8.00	7.84	389.3	387.4	385.9	2.40	2.69	2.59	17.10	-21.2	-34.1	-40.3	0.24	0.05	-94.3	-117.2	-137.5	-157.4	489.7	-154.60
8.50	7.88	393.2	391.3	389.8	2.38	2.66	2.57	17.13	-21.3	-34.1	-39.6	0.34	0.03	-92.2	-116.1	-136.5	-156.5	575.0	-156.28
9.00	7.81	397.2	395.2	393.7	2.34	2.62	2.55	17.16	-21.6	-34.1	-39.1	0.43	0.04	-92.2	-115.2	-135.5	-155.8	807.2	-158.75
10.00	7.38	404.9	403.0	401.4	2.20	2.52	2.49	17.24	-22.4	-34.7	-37.6	0.56	0.09	-90.8	-113.9	-134.2	-154.6	1000.0	-159.65

\*at 25°C unless mentioned otherwise

