

Coaxial

# Voltage Controlled Oscillator

## ZX95-1624+

Linear Tuning 1400 to 1624 MHz

### Features

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



CASE STYLE: GB956

### Applications

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

Connectors	Model	Price	Qty.
SMA	ZX95-1624-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.*

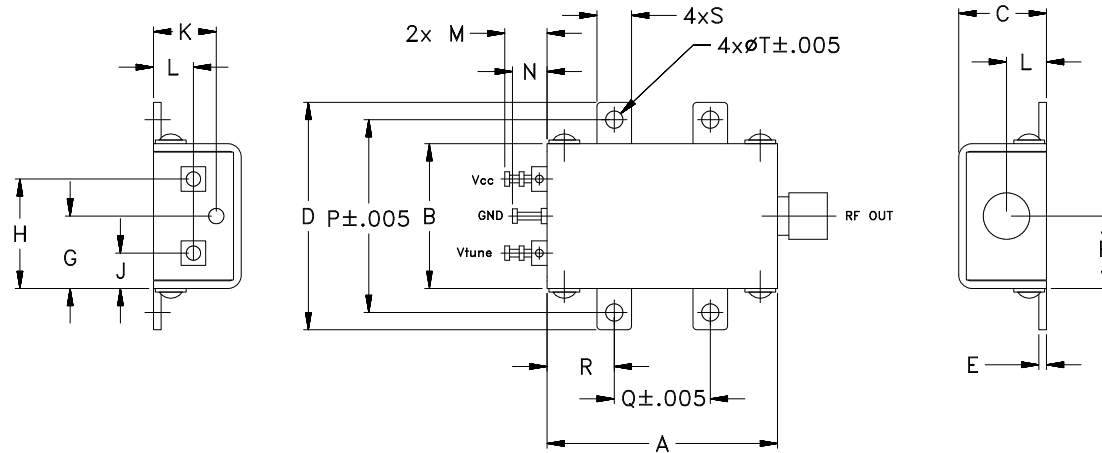
### Electrical Specifications

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 Br (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.	Vcc (volts)	Current (mA)
	Typ.				Min.	Max.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.		Max.	Max.					
ZX95-1624+	1400	1624	+1	-80	-104	-124	-144	0.5	9.5	29-35	35	40	-90	-19	-10	1.5	1.2	5	40	

### Maximum Ratings

Operating Temperature -55°C to 85°C  
 Storage Temperature -55°C to 100°C  
 Absolute Max. Supply Voltage (Vcc) 6.5V  
 Absolute Max. Tuning Voltage (Vtune) 11.5V  
 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  
 M118620  
 EDR-8764F2  
 ZX95-1624+  
 RAV  
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# Performance Data & Curves\*

# ZX95-1624+

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 1512 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	33.59	1375.1	1363.4	1352.8	0.07	0.96	1.34	26.39	-33.5	-23.8	-25.1	1.27	1.95	-78.3	-104.2	-124.9	-144.4	1.0	-81.33
0.50	30.28	1391.3	1380.2	1370.1	0.05	0.82	1.17	26.46	-32.3	-23.5	-25.2	1.36	1.30	-80.3	-103.6	-124.4	-144.2	2.0	-88.45
1.00	29.65	1406.4	1395.3	1385.3	0.12	0.80	1.07	26.52	-32.5	-22.6	-25.8	1.41	1.11	-81.6	-104.0	-124.8	-144.2	3.5	-95.24
1.50	29.99	1421.4	1410.1	1400.0	0.18	0.88	1.06	26.60	-31.5	-22.8	-26.0	1.43	1.74	-80.7	-104.0	-124.4	-144.4	6.0	-100.56
2.00	30.94	1436.5	1425.1	1414.8	0.23	0.92	1.15	26.69	-31.2	-22.3	-27.1	1.44	1.96	-79.2	-104.5	-124.4	-144.4	8.5	-103.11
2.50	32.01	1452.2	1440.6	1430.1	0.25	0.97	1.18	26.79	-31.0	-21.8	-28.6	1.43	1.88	-82.9	-104.4	-124.4	-144.4	10.0	-104.66
3.00	32.94	1468.4	1456.6	1445.9	0.29	0.98	1.21	26.90	-30.7	-21.4	-30.3	1.40	1.67	-82.4	-104.1	-125.1	-144.8	20.8	-111.21
3.50	33.57	1485.1	1473.1	1462.2	0.31	1.02	1.23	27.02	-30.2	-20.2	-35.2	1.35	1.10	-80.8	-104.0	-124.8	-144.5	35.5	-116.20
4.00	33.57	1502.0	1489.9	1478.8	0.38	1.02	1.24	27.15	-29.1	-19.7	-38.1	1.29	1.67	-81.0	-104.5	-125.0	-144.4	60.7	-120.71
4.50	33.17	1518.9	1506.6	1495.5	0.43	1.07	1.25	27.28	-29.0	-19.0	-34.7	1.21	1.96	-81.6	-105.0	-125.2	-144.7	86.7	-124.14
5.00	32.68	1535.6	1523.2	1512.0	0.45	1.10	1.27	27.39	-28.4	-18.7	-32.4	1.14	1.38	-81.7	-104.6	-125.4	-144.9	100.0	-125.37
5.50	32.03	1552.0	1539.6	1528.2	0.44	1.10	1.29	27.50	-28.1	-18.1	-29.3	1.09	1.02	-80.4	-104.4	-125.5	-145.1	148.1	-128.61
6.00	31.40	1568.2	1555.6	1544.2	0.48	1.09	1.28	27.60	-27.8	-18.0	-28.0	1.04	1.76	-80.7	-102.9	-125.1	-145.6	177.0	-130.37
6.50	30.80	1584.0	1571.3	1559.7	0.48	1.10	1.27	27.68	-26.8	-17.4	-26.4	1.02	2.01	-79.7	-103.8	-125.3	-145.5	211.6	-131.81
7.00	30.24	1599.5	1586.7	1575.0	0.46	1.09	1.24	27.76	-26.7	-17.5	-24.9	1.02	1.70	-80.2	-103.6	-125.2	-144.8	302.4	-134.95
7.50	29.72	1614.7	1601.8	1590.0	0.52	1.05	1.21	27.83	-26.4	-16.9	-24.3	1.02	1.54	-81.1	-103.1	-125.1	-144.6	361.5	-136.27
8.00	29.23	1629.7	1616.7	1604.7	0.62	1.09	1.17	27.89	-26.3	-17.3	-23.7	1.03	1.42	-79.3	-103.3	-125.0	-144.7	507.5	-139.28
8.50	28.87	1644.4	1631.3	1619.2	0.67	1.17	1.19	27.92	-26.1	-16.8	-22.6	1.06	1.88	-79.9	-103.4	-124.5	-144.3	606.7	-140.81
9.00	28.59	1659.1	1645.7	1633.4	0.60	1.20	1.25	27.94	-26.1	-16.9	-22.1	1.10	2.20	-78.3	-103.1	-123.9	-144.2	851.6	-143.68
9.50	28.24	1673.6	1660.0	1647.4	0.50	1.11	1.26	27.95	-26.1	-16.6	-21.0	1.16	1.73	-78.3	-102.6	-123.8	-143.4	1000.0	-144.71

\*at 25°C unless mentioned otherwise

