

Coaxial

Voltage Controlled Oscillator

ZX95-1660+

5V Tuning for PLL IC's 1630 to 1660 MHz

Features

- linear tuning characteristics
- low phase noise
- low pushing
- low pulling
- protected by US patent 6,790,049



CASE STYLE: GB956

Applications

- lab
- instrumentation
- wireless communications
- radio & radar astronomy

Connectors	Model	Price	Qty.
SMA	ZX95-1660-S+	\$44.95 ea.	(1-9)

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

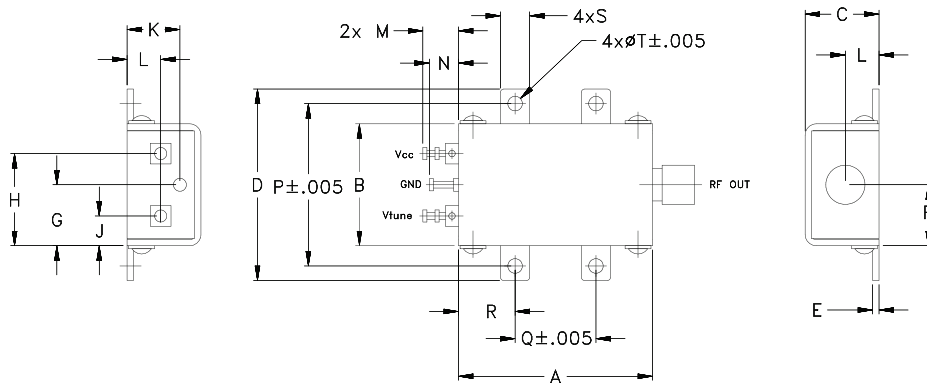
Electrical Specifications

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.
ROS-1660+	1630	1660	+0.5	-83	-107	-127	-147	0.5	4.5	33	20	180	-90	-19	-10	0.8	1	5	30

Maximum Ratings

Operating Temperature -55°C to 85°C
 Storage Temperature -55°C to 100°C
 Absolute Max. Supply Voltage (Vcc) 7.0V
 Absolute Max. Tuning Voltage (Vtune) 6.5V
 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	.38	.57	.18	.33	.21	.22	.18	1.00	.50	.35	.18	.106	grams
30.48	19.05	11.68	29.97	1.02	9.65	9.65	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

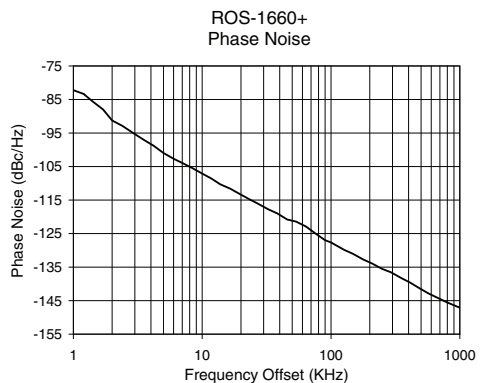
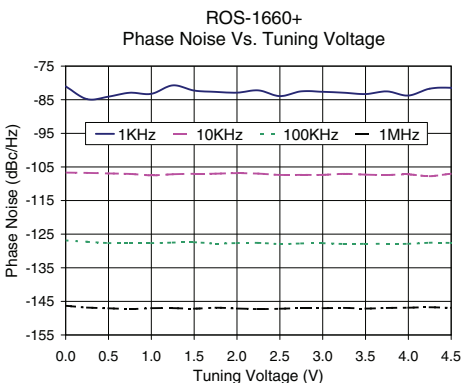
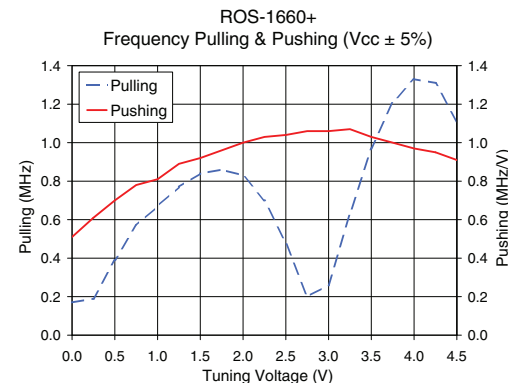
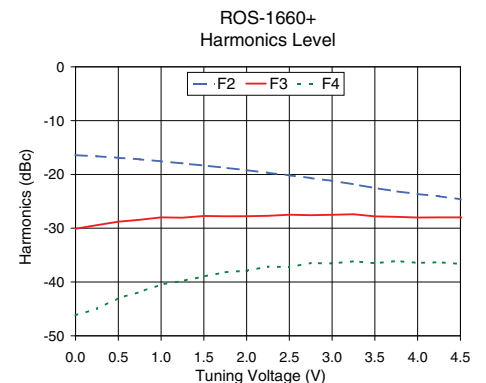
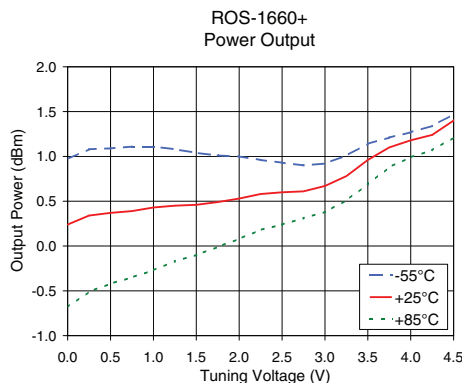
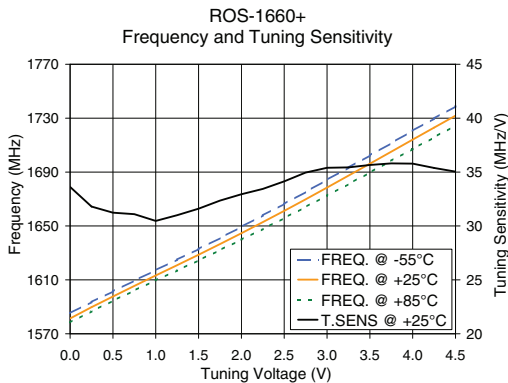
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Performance Data & Curves*

ZX95-1660+

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 1648 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	33.62	1585.2	1581.3	1578.4	0.97	0.24	-0.68	20.45	-16.4	-30.1	-46.2	0.51	0.17	-81.0	-106.7	-126.9	-146.3	1.0	-82.23
0.25	31.80	1593.5	1589.7	1586.7	1.08	0.34	-0.51	20.50	-16.6	-29.4	-45.0	0.61	0.19	-84.8	-106.8	-127.3	-146.9	2.0	-91.26
0.50	31.23	1601.5	1597.7	1594.5	1.09	0.37	-0.42	20.52	-16.9	-28.8	-43.0	0.70	0.39	-84.1	-106.9	-127.7	-147.1	3.5	-96.96
0.75	31.09	1609.4	1605.5	1602.1	1.11	0.39	-0.35	20.52	-17.2	-28.4	-41.8	0.78	0.57	-82.9	-107.1	-127.6	-147.3	6.0	-102.68
1.00	30.47	1617.2	1613.3	1609.6	1.11	0.43	-0.27	20.55	-17.6	-28.0	-40.5	0.81	0.67	-83.3	-107.5	-127.7	-147.0	8.4	-105.48
1.25	31.00	1625.0	1620.9	1617.0	1.08	0.45	-0.17	20.56	-18.0	-28.1	-39.8	0.89	0.77	-80.7	-107.2	-127.5	-147.0	10.0	-107.10
1.50	31.60	1632.9	1628.6	1624.5	1.04	0.46	-0.10	20.58	-18.3	-27.7	-39.0	0.92	0.84	-82.3	-107.0	-127.4	-147.2	23.2	-114.74
1.75	32.36	1641.0	1636.5	1632.1	1.01	0.49	-0.01	20.59	-18.8	-27.8	-38.2	0.96	0.86	-82.7	-107.0	-127.8	-146.9	32.5	-117.74
2.00	32.95	1649.4	1644.6	1639.8	1.00	0.53	0.08	20.60	-19.2	-27.8	-37.9	1.00	0.83	-82.9	-106.9	-127.6	-147.1	53.6	-121.43
2.25	33.44	1657.8	1652.9	1647.8	0.96	0.58	0.18	20.62	-19.7	-27.7	-37.1	1.03	0.70	-82.2	-107.0	-127.6	-147.3	75.3	-124.89
2.50	34.14	1666.4	1661.2	1655.9	0.93	0.60	0.24	20.64	-20.2	-27.5	-37.2	1.04	0.48	-83.9	-107.4	-127.9	-147.2	100.0	-127.65
2.75	34.96	1675.2	1669.8	1664.1	0.90	0.61	0.31	20.66	-20.7	-27.6	-36.5	1.06	0.20	-82.5	-107.4	-127.8	-147.0	177.4	-132.71
3.00	35.40	1684.3	1678.5	1672.5	0.92	0.67	0.38	20.69	-21.2	-27.5	-36.5	1.06	0.26	-82.6	-107.4	-127.7	-147.0	208.3	-133.91
3.25	35.43	1693.3	1687.4	1681.1	1.01	0.78	0.51	20.72	-21.8	-27.4	-36.2	1.07	0.63	-82.9	-107.1	-127.9	-146.9	292.4	-136.55
3.50	35.66	1702.4	1696.2	1689.7	1.14	0.96	0.69	20.76	-22.5	-27.8	-36.5	1.03	0.97	-83.3	-107.3	-127.9	-147.2	349.6	-138.23
3.75	35.80	1711.5	1705.1	1698.4	1.21	1.10	0.88	20.79	-23.1	-27.9	-36.1	1.00	1.21	-82.5	-107.4	-127.9	-147.0	410.5	-139.59
4.00	35.78	1720.7	1714.1	1707.1	1.27	1.18	0.99	20.82	-23.6	-28.0	-36.4	0.97	1.33	-83.8	-107.2	-127.9	-146.9	576.3	-142.94
4.25	35.38	1729.8	1723.0	1715.8	1.34	1.24	1.07	20.85	-24.1	-28.0	-36.3	0.95	1.31	-81.7	-107.8	-127.6	-146.8	809.1	-145.64
4.50	35.04	1738.8	1731.9	1724.5	1.47	1.40	1.21	20.89	-24.6	-28.0	-36.6	0.91	1.11	-81.5	-107.0	-127.6	-146.9	1000.0	-147.11

*at 25°C unless mentioned otherwise



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