

Coaxial

Voltage Controlled Oscillator

ZX95-1640+

Linear Tuning 1610 to 1640 MHz

Features

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

Applications

- r & d
- lab
- instrumentation
- wireless communications
- radiolink



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-1640-S+

+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)		PORT SENSITIVITY (MHz/V)	CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Typ.	Typ.	Vcc (volts)	Current (mA)
	Min.	Max.							Min.	Max.												
ZX95-1640+	1610	1640	+2.5	-86	-111	-131	-151	0.5	9	12	35	200	-90	-25	-15	1	0.3	5	35			

Maximum Ratings

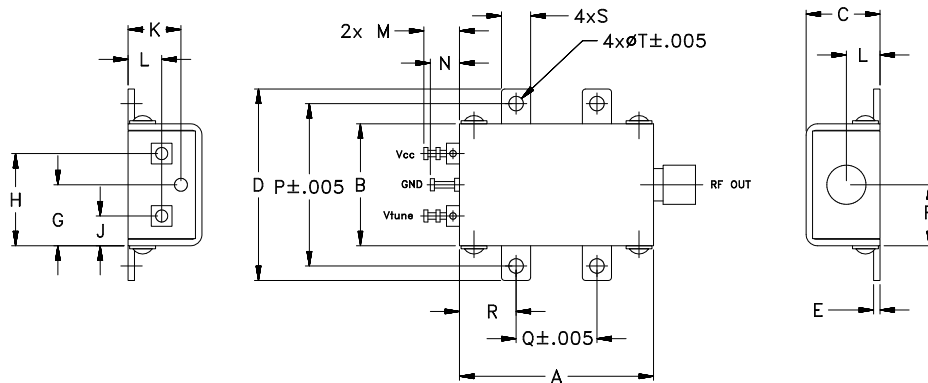
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	11V
All specifications	50 ohm system

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



NOTE: When soldering the DC connections, caution must be used to avoid overheating the DC terminals. See Application Note [AN-40-10](#).

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

Notes

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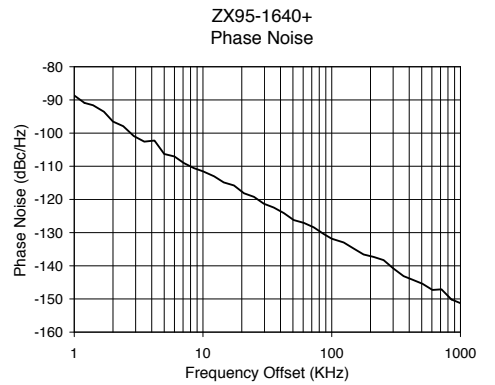
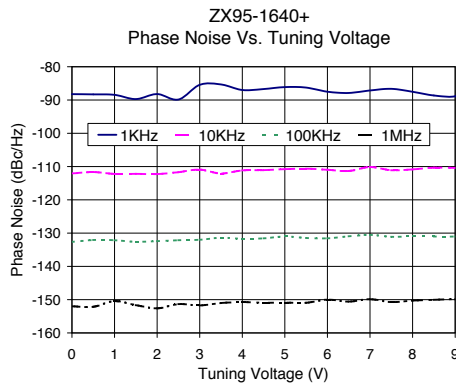
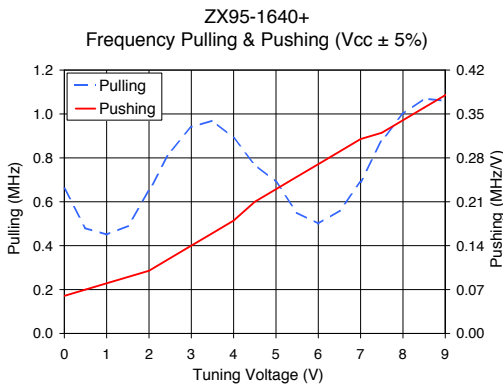
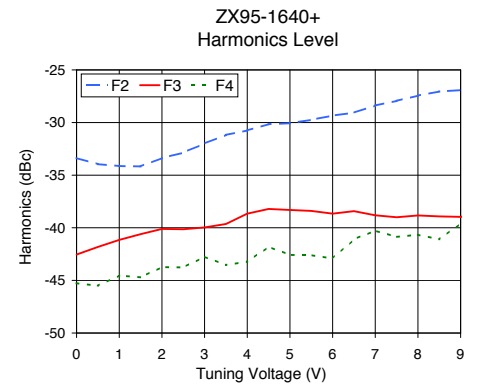
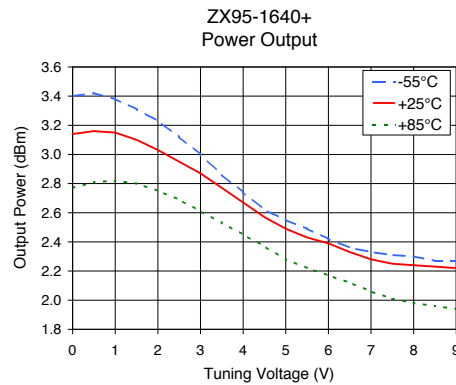
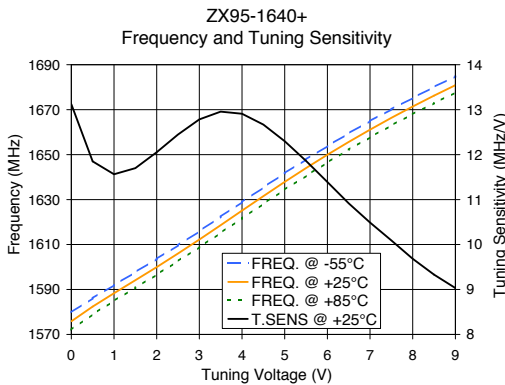
REV. A
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Performance Data & Curves*

ZX95-1640+

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 1625 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	13.12	1579.8	1575.8	1572.1	3.40	3.14	2.77	27.95	-33.4	-42.5	-45.3	0.06	0.66	-88.2	-112.1	-132.7	-152.0	1.0	-88.66
0.50	11.85	1586.1	1582.4	1578.9	3.42	3.16	2.81	28.03	-34.0	-41.8	-45.5	0.07	0.48	-88.3	-111.6	-132.1	-152.1	2.0	-96.52
1.00	11.56	1592.0	1588.3	1585.0	3.38	3.15	2.82	28.09	-34.1	-41.2	-44.5	0.08	0.45	-88.5	-112.2	-132.1	-150.5	3.5	-102.58
1.50	11.70	1597.7	1594.1	1590.8	3.31	3.10	2.80	28.16	-34.2	-40.6	-44.7	0.09	0.49	-89.7	-112.2	-132.6	-151.6	6.0	-107.05
2.00	12.05	1603.6	1600.0	1596.6	3.23	3.03	2.75	28.20	-33.4	-40.1	-43.7	0.10	0.65	-88.2	-112.3	-132.4	-152.6	8.5	-110.55
2.50	12.45	1609.7	1606.0	1602.6	3.12	2.95	2.69	28.25	-32.9	-40.1	-43.8	0.12	0.83	-89.9	-111.7	-132.1	-151.4	10.0	-111.52
3.00	12.78	1615.9	1612.2	1608.8	3.00	2.87	2.61	28.30	-32.0	-40.0	-42.8	0.14	0.94	-85.4	-110.9	-132.0	-151.7	20.8	-118.15
3.50	12.96	1622.4	1618.6	1615.2	2.86	2.77	2.53	28.35	-31.2	-39.6	-43.5	0.16	0.97	-85.3	-112.1	-131.4	-151.0	35.5	-122.46
4.00	12.91	1628.9	1625.1	1621.6	2.74	2.67	2.45	28.39	-30.8	-38.7	-43.2	0.18	0.89	-87.0	-111.2	-131.7	-150.7	60.7	-127.06
4.50	12.67	1635.4	1631.5	1628.1	2.62	2.57	2.37	28.43	-30.2	-38.2	-41.8	0.21	0.77	-86.7	-111.1	-131.6	-150.9	86.7	-130.43
5.00	12.30	1641.7	1637.9	1634.4	2.55	2.49	2.28	28.46	-30.1	-38.3	-42.6	0.23	0.69	-86.1	-110.8	-131.0	-150.9	100.0	-131.85
5.50	11.86	1647.9	1644.0	1640.6	2.49	2.43	2.22	28.50	-29.7	-38.4	-42.6	0.25	0.55	-86.3	-110.6	-131.5	-151.0	177.0	-136.60
6.00	11.39	1653.8	1649.9	1646.5	2.42	2.39	2.17	28.54	-29.3	-38.7	-42.9	0.27	0.50	-87.5	-111.0	-131.6	-150.0	211.6	-137.33
6.50	10.92	1659.5	1655.6	1652.2	2.36	2.33	2.12	28.57	-29.1	-38.4	-41.1	0.29	0.56	-87.9	-111.3	-131.0	-150.6	302.4	-140.87
7.00	10.49	1664.9	1661.1	1657.7	2.33	2.28	2.06	28.60	-28.4	-38.8	-40.3	0.31	0.69	-87.1	-110.2	-130.6	-149.9	361.5	-143.11
7.50	10.09	1670.2	1666.3	1663.0	2.31	2.25	2.01	28.63	-27.9	-39.0	-40.9	0.32	0.88	-86.6	-111.1	-131.1	-150.7	507.5	-145.42
8.00	9.68	1675.2	1671.4	1668.0	2.30	2.24	1.98	28.66	-27.4	-38.8	-40.7	0.34	1.00	-87.5	-110.9	-131.0	-150.3	606.7	-147.28
8.50	9.33	1680.1	1676.2	1672.9	2.27	2.23	1.96	28.68	-27.1	-38.9	-41.1	0.36	1.07	-88.6	-110.3	-131.0	-150.1	851.6	-150.15
9.00	9.03	1684.7	1680.9	1677.6	2.27	2.22	1.94	28.70	-26.9	-39.0	-39.6	0.38	1.06	-88.9	-110.4	-131.0	-149.9	1000.0	-151.27

*at 25°C unless mentioned otherwise



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