

Voltage Controlled Oscillator

ZX95-1836+

5V Tuning for PLL IC's 1824 to 1836 MHz

Features

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



CASE STYLE: GB956

Applications

- r & d
- lab
- instrumentation
- wireless communication
- wire - line broadband access

Connectors	Model
SMA	ZX95-1836-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)		SENSI- TIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Typ.	Typ.	Vcc (volts)	Current (mA)
	Min.	Max.							Min.	Max.												
ZX95-1836+	1824	1836	+4	-86	-112	-132	-152	0.5	4.5	18	18	90	-90	-30	-20	0.2	0.2	5	40			

Maximum Ratings

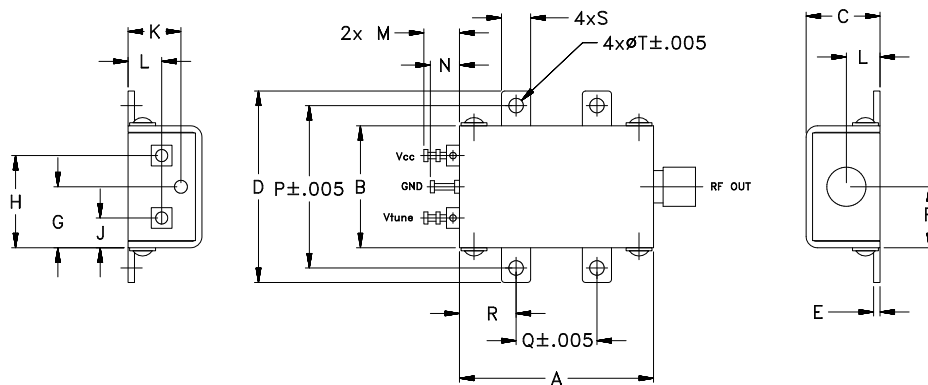
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7.0V
Absolute Max. Tuning Voltage (Vtune)	6.5V
All specifications	50 ohm system

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



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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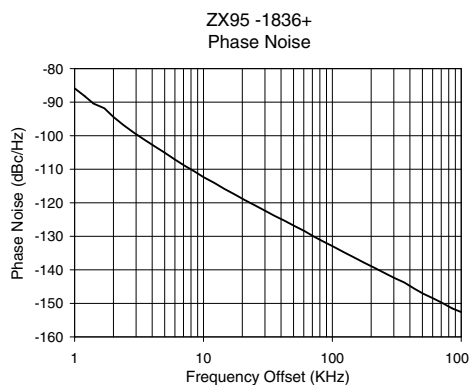
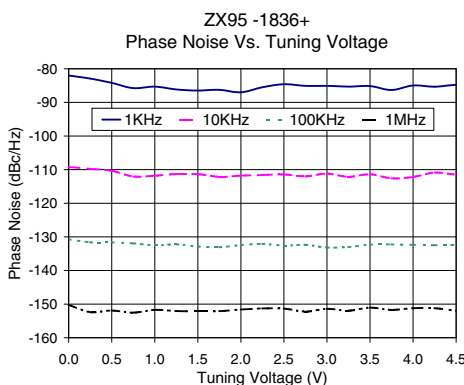
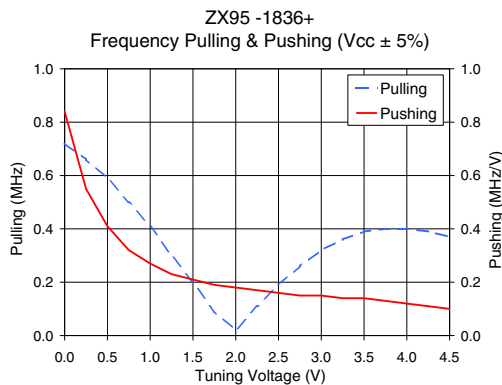
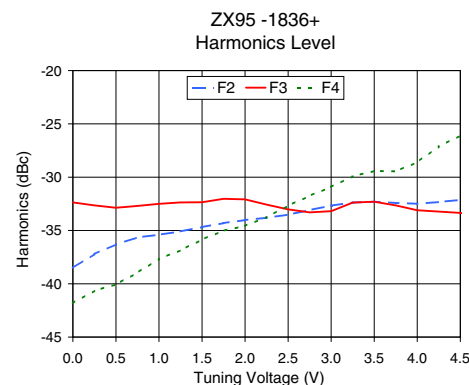
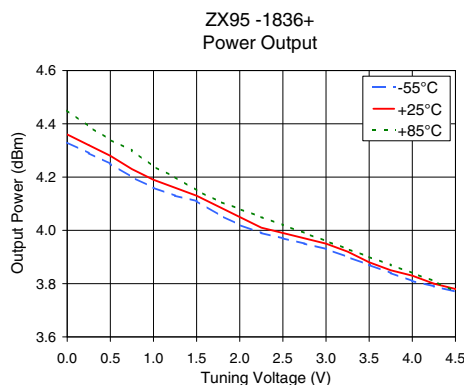
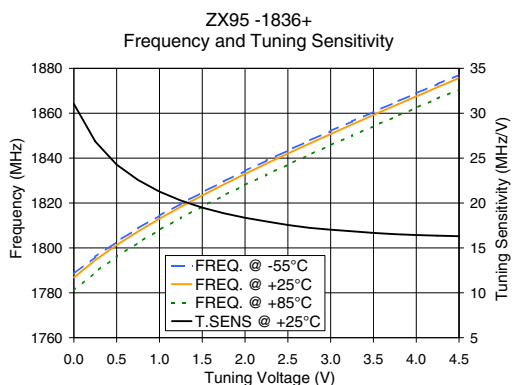


Performance Data & Curves*

ZX95-1836+

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 1835 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	31.04	1788.4	1786.8	1781.0	4.33	4.36	4.45	32.00	-38.5	-32.4	-41.8	0.84	0.72	-82.0	-109.2	-130.8	-150.2	1.0	-85.86
0.25	26.85	1796.1	1794.6	1789.2	4.29	4.32	4.39	32.12	-37.2	-32.7	-40.7	0.55	0.66	-82.9	-109.8	-131.6	-152.4	2.0	-94.41
0.50	24.27	1802.7	1801.3	1796.1	4.25	4.28	4.34	32.22	-36.3	-32.9	-40.1	0.41	0.59	-84.2	-110.3	-131.7	-151.9	3.5	-101.26
0.75	22.56	1808.8	1807.4	1802.3	4.20	4.23	4.30	32.32	-35.7	-32.7	-39.0	0.32	0.50	-85.8	-112.0	-131.9	-152.6	5.0	-105.06
1.00	21.27	1814.4	1813.0	1808.0	4.16	4.19	4.24	32.40	-35.4	-32.5	-37.7	0.27	0.41	-85.3	-111.8	-132.5	-151.7	8.5	-110.64
1.25	20.28	1819.7	1818.3	1813.4	4.13	4.16	4.20	32.48	-35.1	-32.4	-36.9	0.23	0.30	-86.2	-111.3	-132.2	-152.1	10.0	-112.35
1.50	19.49	1824.7	1823.4	1818.4	4.11	4.13	4.15	32.56	-34.7	-32.4	-35.9	0.21	0.20	-86.5	-111.3	-132.9	-152.2	20.8	-119.16
1.75	18.86	1829.6	1828.3	1823.3	4.06	4.09	4.11	32.64	-34.3	-32.0	-35.0	0.19	0.09	-86.3	-112.1	-133.1	-152.1	42.5	-125.34
2.00	18.35	1834.3	1833.0	1828.0	4.02	4.05	4.08	32.72	-34.0	-32.1	-34.6	0.18	0.02	-87.0	-111.8	-132.4	-151.6	60.7	-128.41
2.25	17.94	1838.9	1837.6	1832.6	3.99	4.01	4.05	32.79	-33.8	-32.6	-33.8	0.17	0.11	-85.5	-111.6	-132.1	-151.3	86.7	-131.73
2.50	17.55	1843.4	1842.0	1837.1	3.97	3.99	4.02	32.86	-33.5	-33.0	-32.7	0.16	0.19	-84.6	-111.4	-132.6	-151.3	100.0	-132.92
2.75	17.24	1847.8	1846.4	1841.5	3.95	3.97	3.99	32.94	-33.1	-33.3	-31.8	0.15	0.26	-85.1	-112.0	-132.4	-152.2	211.6	-139.37
3.00	17.03	1852.1	1850.7	1845.8	3.93	3.95	3.96	33.01	-32.7	-33.2	-30.9	0.15	0.32	-85.1	-111.2	-133.2	-151.4	302.4	-142.41
3.25	16.85	1856.4	1855.0	1850.0	3.90	3.92	3.93	33.08	-32.4	-32.4	-29.9	0.14	0.36	-85.3	-112.1	-133.0	-152.0	432.2	-145.60
3.50	16.67	1860.6	1859.2	1854.2	3.87	3.88	3.90	33.15	-32.3	-32.3	-29.4	0.14	0.39	-85.1	-111.4	-132.3	-151.1	507.5	-147.13
3.75	16.53	1864.7	1863.4	1858.3	3.84	3.85	3.87	33.23	-32.4	-32.7	-29.5	0.13	0.40	-86.3	-112.6	-132.2	-151.7	606.7	-148.51
4.00	16.44	1868.9	1867.5	1862.5	3.81	3.83	3.84	33.30	-32.5	-33.1	-28.6	0.12	0.40	-85.0	-112.2	-132.4	-151.2	712.4	-149.86
4.25	16.36	1873.0	1871.6	1866.5	3.79	3.80	3.81	33.37	-32.3	-33.2	-27.1	0.11	0.39	-85.3	-110.9	-132.5	-151.2	851.6	-151.49
4.50	16.30	1877.1	1875.7	1870.6	3.77	3.78	3.77	33.44	-32.1	-33.4	-26.1	0.10	0.37	-84.8	-111.5	-132.4	-151.9	1000.0	-152.60

*at 25°C unless mentioned otherwise



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