

Coaxial

Voltage Controlled Oscillator

ZX95-780+

Linear Tuning 720 to 780 MHz

Features

- high power output, +10dBm typ.
- linear tuning characteristics
- low phase noise
- low pushing
- low pulling
- protected by US patent 6,790,049

Applications

- r & d
- lab
- instrumentation
- wireless communications
- mobile radio services



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-780-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 Typ.				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER Vcc Current (volts) (mA)				
								VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	Typ.								Typ.	Typ.	Typ.
ZX95-780+	720	780	+10	-88	-114	-135	-155	0.5	12	11-14	170	20	-90	-21	-15	1	0.7	12	26			

Maximum Ratings

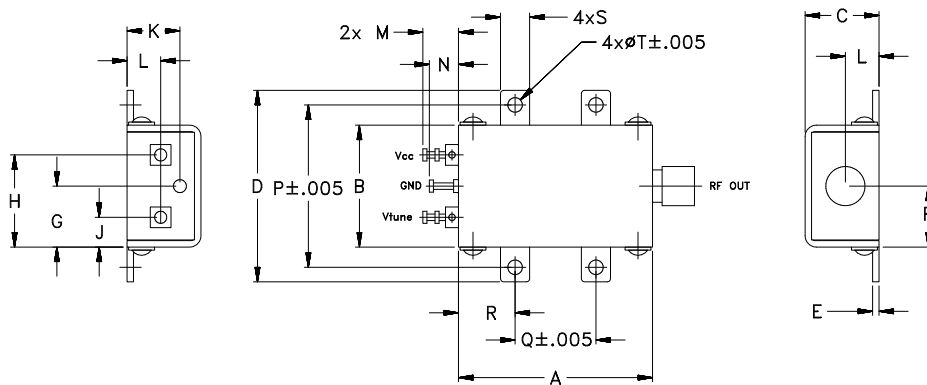
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	13V
Absolute Max. Tuning Voltage (Vtune)	14V
All specifications	50 ohm system

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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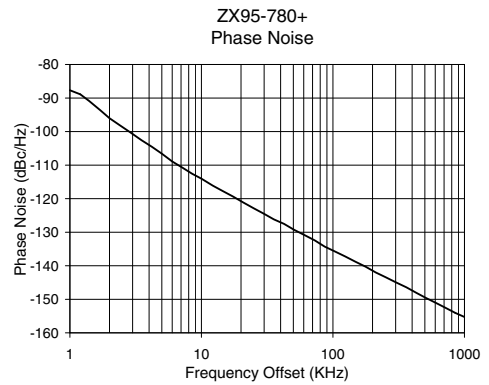
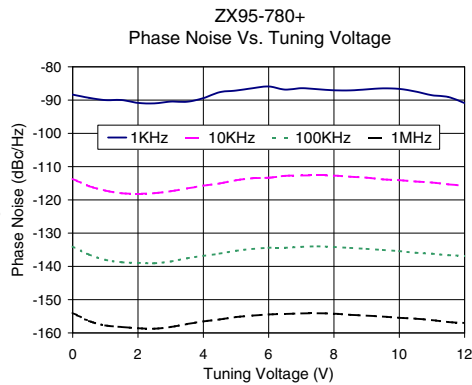
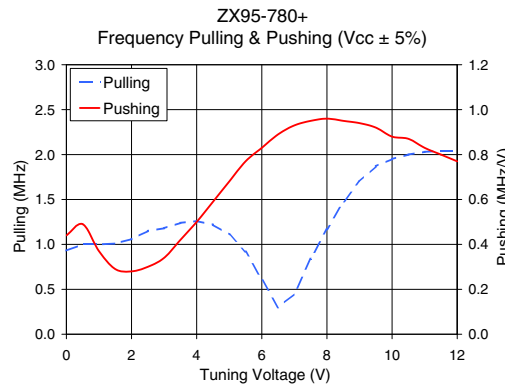
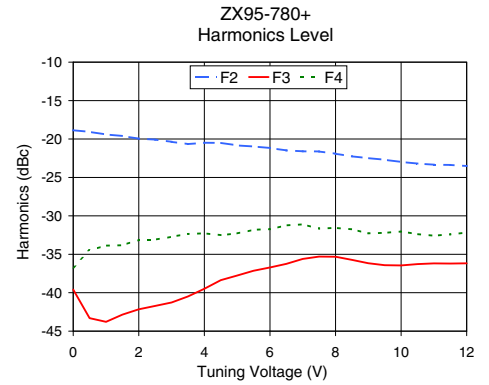
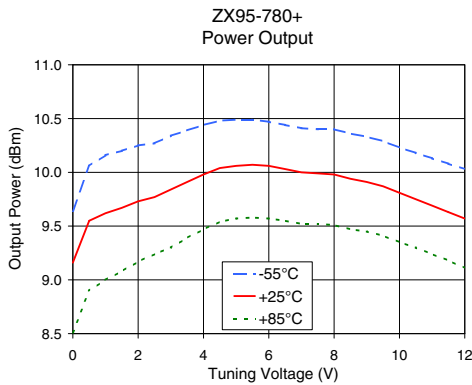
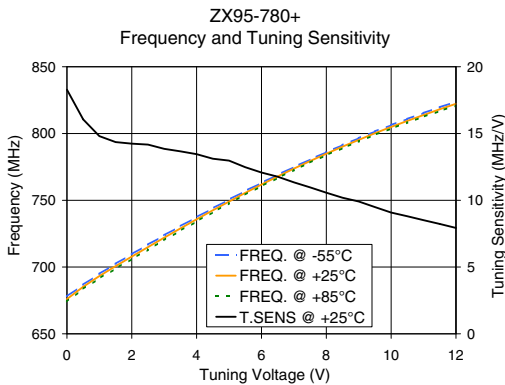
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Performance Data & Curves*

ZX95-780+

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 750 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	18.28	678.0	676.1	674.1	9.64	9.16	8.51	20.76	-18.9	-39.6	-36.7	0.44	0.93	-88.4	-113.7	-134.1	-154.0	1.0	-87.69
0.50	16.06	686.8	685.2	683.6	10.06	9.55	8.90	21.03	-19.1	-43.3	-34.5	0.49	1.00	-89.3	-115.9	-136.5	-156.4	2.0	-96.03
1.00	14.80	694.9	693.2	691.6	10.16	9.62	9.00	21.09	-19.4	-43.8	-33.9	0.37	1.00	-90.0	-117.2	-138.0	-157.8	3.5	-102.56
1.50	14.36	702.4	700.6	698.9	10.20	9.67	9.08	21.12	-19.6	-42.9	-33.8	0.29	1.01	-90.0	-118.0	-138.8	-158.2	6.0	-108.92
2.00	14.24	709.6	707.8	706.0	10.25	9.73	9.17	21.16	-20.0	-42.2	-33.1	0.28	1.06	-90.9	-118.1	-138.9	-158.6	8.5	-112.58
2.50	14.17	716.8	714.9	713.1	10.27	9.77	9.24	21.18	-20.1	-41.7	-33.1	0.30	1.15	-91.0	-118.0	-139.1	-158.7	10.0	-114.05
3.00	13.85	723.8	722.0	720.2	10.34	9.84	9.30	21.21	-20.4	-41.3	-32.7	0.34	1.18	-90.5	-117.4	-138.5	-158.2	20.8	-121.14
4.00	13.45	737.3	735.8	734.2	10.44	9.98	9.47	21.27	-20.5	-39.5	-32.3	0.50	1.26	-89.4	-115.7	-136.8	-156.6	35.5	-126.16
5.00	12.97	750.5	749.1	747.7	10.49	10.06	9.57	21.29	-20.8	-37.8	-32.3	0.68	1.11	-87.1	-114.1	-135.3	-155.2	60.7	-130.85
6.00	12.08	763.0	761.8	760.6	10.47	10.06	9.57	21.30	-21.2	-36.7	-31.7	0.83	0.61	-85.9	-113.3	-134.4	-154.4	86.7	-134.32
7.00	11.34	774.9	773.7	772.6	10.41	10.00	9.52	21.32	-21.6	-35.6	-31.1	0.93	0.45	-86.4	-112.7	-134.1	-154.1	100.0	-135.46
8.00	10.57	786.0	784.9	783.7	10.40	9.98	9.51	21.34	-21.9	-35.3	-31.6	0.96	1.17	-87.1	-112.7	-134.2	-154.2	148.1	-138.79
8.50	10.19	791.3	790.1	789.0	10.36	9.94	9.47	21.34	-22.3	-35.7	-31.8	0.95	1.47	-87.1	-113.0	-134.4	-154.6	177.0	-140.27
9.00	9.91	796.5	795.2	794.1	10.33	9.91	9.45	21.34	-22.5	-36.2	-32.3	0.94	1.70	-86.8	-113.3	-134.7	-154.8	211.6	-142.00
9.50	9.49	801.5	800.2	799.0	10.29	9.87	9.41	21.35	-22.7	-36.4	-32.2	0.92	1.87	-86.5	-113.9	-135.0	-155.1	302.4	-144.98
10.00	9.08	806.3	804.9	803.7	10.23	9.81	9.35	21.36	-23.0	-36.5	-32.0	0.88	1.95	-86.6	-114.1	-135.4	-155.5	361.5	-146.42
10.50	8.81	810.9	809.5	808.2	10.18	9.75	9.30	21.36	-23.2	-36.3	-32.4	0.87	2.00	-87.4	-114.5	-135.9	-155.7	507.5	-149.57
11.00	8.51	815.3	813.9	812.6	10.13	9.69	9.24	21.36	-23.3	-36.2	-32.6	0.83	2.03	-88.6	-114.8	-136.2	-156.1	606.7	-151.08
11.50	8.23	819.6	818.1	816.8	10.08	9.63	9.18	21.37	-23.4	-36.2	-32.4	0.80	2.04	-89.1	-115.3	-136.6	-156.7	851.6	-154.07
12.00	7.93	823.8	822.2	820.9	10.03	9.57	9.11	21.37	-23.5	-36.2	-32.2	0.77	2.04	-90.9	-115.8	-136.8	-157.0	1000.0	-155.28

*at 25°C unless mentioned otherwise



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