Coaxial

Voltage Controlled Oscillator ZX95-1000C+

Ultra Low Noise 1000 MHz

Features

- ultra low phase noise
- linear tuning characteristics
- very low pushing
- very low pulling
- 5V tuning voltage range
- protected by US patent 6,790,049

Applications

- r & d
- lab
- instrumentation
- military & avionics

CASE STYLE: GB956

Connectors	Model
SMA	ZX95-1000C-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 dBr (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
								VOLTAGE RANGE (V)		SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)						Vcc (volts)	Current (mA)
	Min	Max	Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Typ.		Max.
ZX95-1000C+	1000		+1	-96	-126	-146	-162	0.5	5	5	20	150	-90	-22	-14	0.1	0.04	6	35

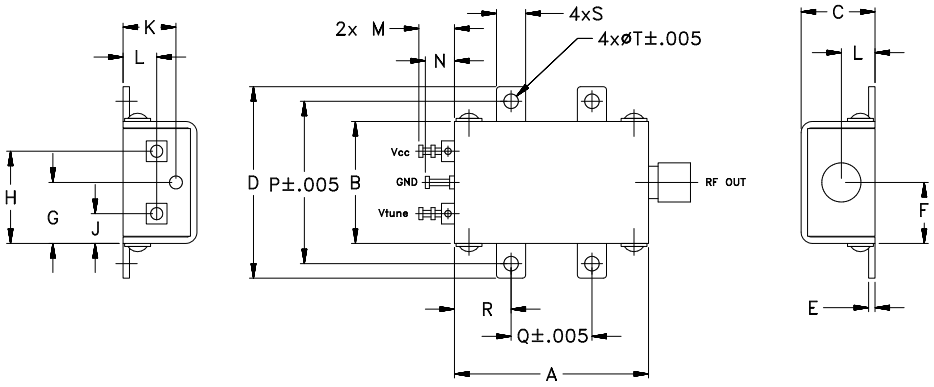
Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	8V
Absolute Max. Tuning Voltage (Vtune)	7V
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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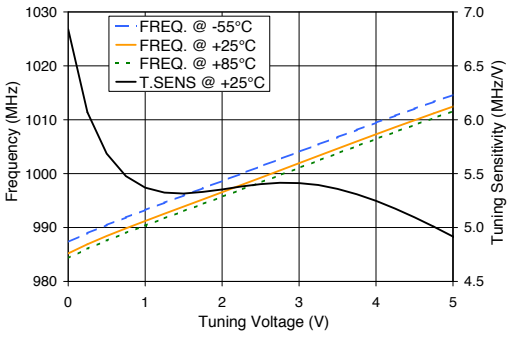
Performance Data & Curves*

ZX95-1000C+

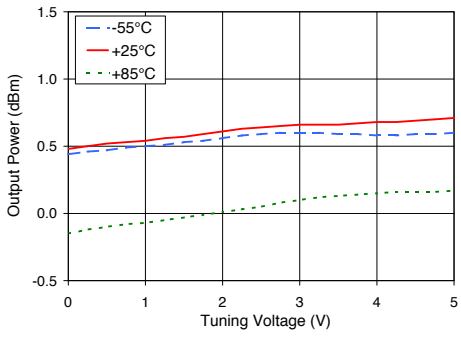
V TUNE	TUNE SENS (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)			Icc (mA)	HARMONICS (dBc)			FREQ. PUSH (MHz/V)	FREQ. PULL (MHz)	PHASE NOISE (dBc/Hz) at offsets				FREQ OFFSET (KHz)	PHASE NOISE at 1000 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	6.84	987.3	985.2	984.3	0.44	0.48	-0.15	28.62	-21.4	-34.4	-32.7	0.22	0.06	-94.0	-122.2	-143.8	-162.7	1.0	-96.87
0.50	5.69	990.5	988.4	987.6	0.47	0.52	-0.10	28.78	-21.3	-33.9	-32.0	0.09	0.06	-96.2	-124.9	-146.1	-161.3	2.0	-105.34
0.75	5.48	991.9	989.8	989.0	0.49	0.53	-0.08	28.84	-21.3	-33.7	-31.7	0.07	0.06	-96.7	-125.3	-146.3	-161.7	3.5	-113.07
1.00	5.37	993.2	991.2	990.4	0.50	0.54	-0.07	28.89	-21.4	-33.4	-31.3	0.05	0.06	-97.0	-125.6	-146.8	-161.1	6.0	-119.34
1.25	5.32	994.6	992.6	991.7	0.51	0.56	-0.05	28.95	-21.4	-33.1	-31.1	0.04	0.06	-96.8	-125.9	-147.0	-161.5	8.5	-122.97
1.50	5.32	995.9	993.9	993.0	0.53	0.57	-0.03	29.00	-21.4	-32.8	-30.8	0.03	0.06	-97.3	-126.1	-147.1	-160.4	10.0	-125.37
1.75	5.33	997.3	995.2	994.4	0.54	0.59	-0.01	29.06	-21.4	-32.5	-30.4	0.03	0.06	-96.8	-126.1	-147.9	-161.5	20.8	-132.65
2.00	5.35	998.6	996.6	995.7	0.56	0.61	0.01	29.11	-21.5	-32.0	-30.1	0.03	0.06	-97.1	-126.4	-147.7	-161.2	35.5	-137.83
2.25	5.38	1000.0	997.9	997.0	0.58	0.63	0.03	29.15	-21.5	-31.9	-29.7	0.03	0.07	-96.5	-125.8	-147.4	-161.6	60.7	-142.38
2.50	5.40	1001.4	999.2	998.4	0.59	0.64	0.05	29.20	-21.5	-31.7	-29.4	0.04	0.07	-96.9	-125.8	-147.4	-161.3	86.7	-146.39
2.75	5.42	1002.7	1000.6	999.7	0.60	0.65	0.08	29.24	-21.6	-32.3	-29.2	0.04	0.07	-96.6	-125.9	-147.8	-161.8	100.0	-147.45
3.00	5.41	1004.1	1001.9	1001.1	0.60	0.66	0.10	29.28	-21.7	-32.0	-28.9	0.05	0.07	-96.3	-125.9	-147.5	-161.4	148.1	-149.76
3.25	5.39	1005.4	1003.3	1002.4	0.60	0.66	0.12	29.32	-21.7	-31.8	-28.7	0.07	0.07	-96.4	-125.9	-146.8	-161.5	177.0	-151.87
3.50	5.36	1006.8	1004.6	1003.8	0.59	0.66	0.13	29.37	-21.8	-31.4	-28.5	0.08	0.07	-96.6	-125.5	-147.7	-161.3	211.6	-153.08
3.75	5.31	1008.1	1006.0	1005.1	0.59	0.67	0.14	29.41	-21.8	-31.1	-28.4	0.09	0.07	-95.6	-124.9	-146.7	-161.9	302.4	-156.12
4.00	5.25	1009.4	1007.3	1006.4	0.58	0.68	0.15	29.46	-21.9	-30.9	-28.1	0.11	0.07	-95.1	-124.5	-146.4	-162.2	361.5	-158.01
4.25	5.17	1010.8	1008.6	1007.7	0.58	0.68	0.16	29.50	-21.9	-30.6	-27.9	0.13	0.07	-95.1	-124.1	-145.6	-163.2	516.6	-161.63
4.50	5.09	1012.1	1009.9	1009.0	0.59	0.69	0.16	29.55	-21.9	-30.4	-27.6	0.14	0.07	-94.8	-124.2	-146.5	-164.6	617.6	-162.17
4.75	5.01	1013.3	1011.2	1010.3	0.59	0.70	0.16	29.60	-21.9	-30.3	-27.3	0.15	0.06	-94.9	-124.0	-145.8	-162.4	1000.0	-161.37
5.00	4.92	1014.6	1012.4	1011.6	0.60	0.71	0.17	29.64	-21.9	-30.2	-27.0	0.16	0.06	-93.9	-123.5	-145.8	-163.5	1018.0	-161.58

*at 25°C unless mentioned otherwise

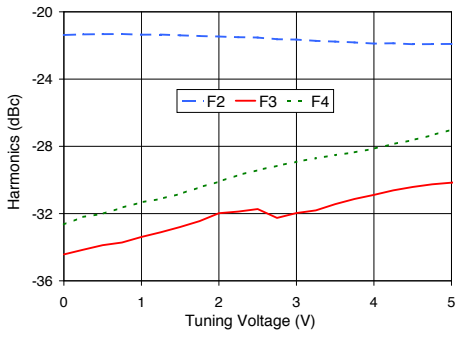
ZX95-1000C+
Frequency and Tuning Sensitivity



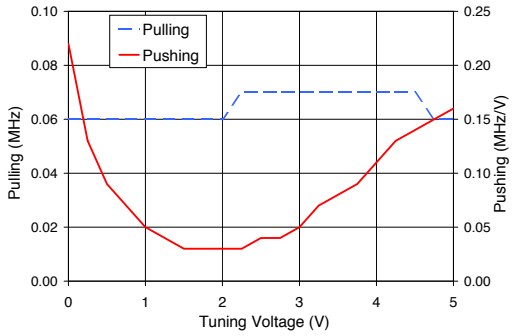
ZX95-1000C+
Power Output



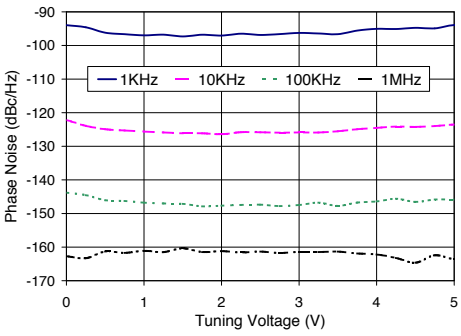
ZX95-1000C+
Harmonics Level



ZX95-1000C+
Frequency Pulling & Pushing (Vcc ± 5%)



ZX95-1000C+
Phase Noise Vs. Tuning Voltage



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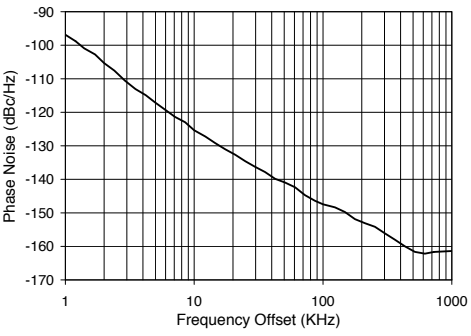
Phase Noise



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