

Coaxial

Voltage Controlled Oscillator

ZX95-1048+

5V Tuning for PLL IC's 988 to 1048 MHz

Features

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

Applications

- r & d
- lab
- instrumentation
- wireless communications
- cellular infrastructure



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-1048-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.			Max.	Typ.
ZX95-1048+	988	1048	+0.9	-84	-112	-133	-153	0.5	5	22-27	40	40	-90	-22	-15	0.3	0.2	5	25

Maximum Ratings

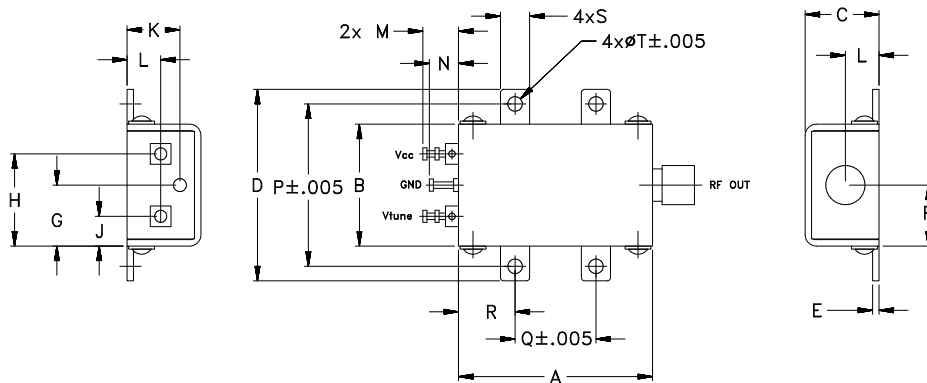
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

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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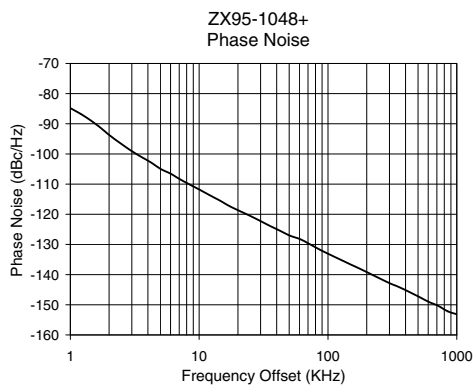
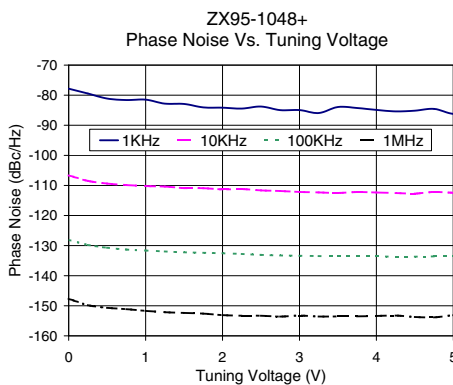
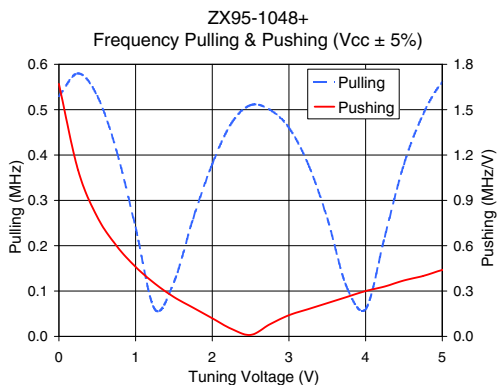
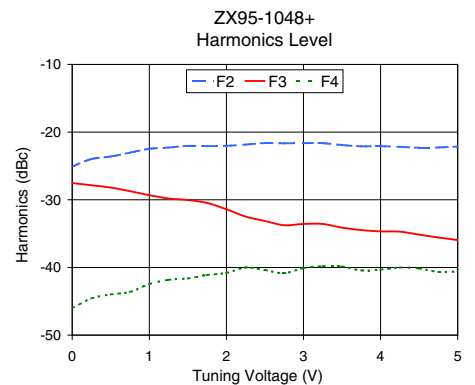
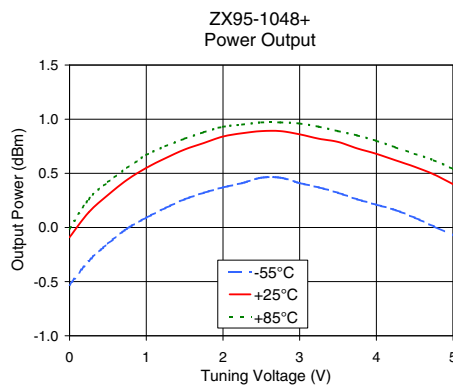
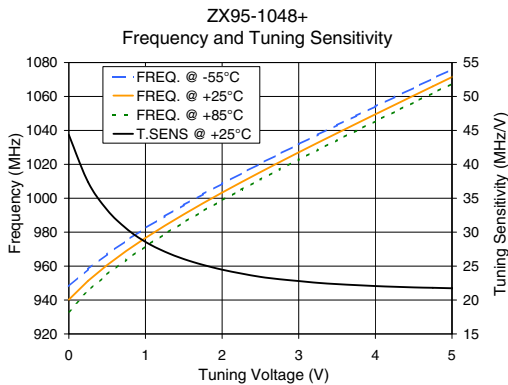
REV. A
M152326
EDR-9499F2
ZX95-1048+
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Performance Data & Curves*

ZX95-1048+

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 1018 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	44.34	948.0	940.2	933.2	-0.53	-0.09	-0.01	14.89	-25.1	-27.5	-46.0	1.67	0.53	-77.8	-106.7	-128.1	-147.7	1.0	-84.80
0.50	33.28	967.0	960.6	955.2	-0.15	0.30	0.42	15.05	-23.6	-28.2	-44.0	0.79	0.53	-81.1	-109.4	-130.7	-150.7	2.0	-93.69
0.75	30.54	975.0	969.0	963.8	-0.01	0.44	0.55	15.10	-23.0	-28.7	-43.6	0.60	0.41	-81.6	-109.9	-131.3	-151.1	3.5	-100.82
1.00	28.57	982.4	976.6	971.6	0.09	0.55	0.67	15.15	-22.5	-29.3	-42.5	0.46	0.24	-81.5	-110.2	-131.6	-151.7	6.0	-106.53
1.25	27.14	989.4	983.7	978.9	0.18	0.64	0.75	15.18	-22.3	-29.8	-41.8	0.35	0.06	-82.8	-110.4	-131.9	-152.1	8.5	-110.20
1.50	26.03	996.0	990.5	985.8	0.26	0.72	0.82	15.21	-22.0	-30.0	-41.6	0.26	0.12	-82.9	-110.9	-132.2	-152.4	10.0	-111.76
1.75	25.18	1002.4	997.0	992.4	0.32	0.78	0.88	15.23	-22.1	-30.5	-41.1	0.19	0.26	-84.1	-110.9	-132.4	-152.6	20.8	-118.98
2.00	24.48	1008.6	1003.3	998.8	0.37	0.84	0.93	15.26	-22.0	-31.4	-40.8	0.12	0.38	-84.2	-111.3	-132.6	-153.1	35.5	-123.87
2.25	23.91	1014.6	1009.5	1005.0	0.41	0.87	0.95	15.29	-21.9	-32.5	-40.0	0.05	0.47	-84.5	-111.2	-132.8	-153.3	60.7	-128.23
2.50	23.41	1020.4	1015.4	1011.0	0.46	0.89	0.97	15.30	-21.6	-33.1	-40.4	0.01	0.51	-83.8	-111.6	-133.1	-153.3	86.7	-131.76
2.75	23.06	1026.2	1021.3	1017.0	0.46	0.89	0.97	15.33	-21.7	-33.8	-40.9	0.08	0.50	-85.0	-111.8	-133.3	-153.6	100.0	-133.06
3.00	22.79	1031.8	1027.0	1022.8	0.41	0.86	0.96	15.35	-21.6	-33.6	-40.1	0.14	0.46	-84.9	-112.2	-133.4	-153.3	148.1	-136.53
3.25	22.52	1037.5	1032.7	1028.6	0.37	0.82	0.93	15.36	-21.6	-33.6	-39.8	0.18	0.38	-85.9	-112.3	-133.5	-153.6	177.0	-138.06
3.50	22.35	1043.1	1038.4	1034.2	0.32	0.79	0.89	15.36	-21.9	-34.1	-39.9	0.22	0.26	-83.9	-112.5	-133.6	-153.5	211.6	-139.67
3.75	22.19	1048.6	1044.0	1039.9	0.26	0.73	0.85	15.37	-22.1	-34.5	-40.4	0.26	0.11	-84.3	-112.2	-133.6	-153.5	302.4	-142.89
4.00	22.06	1054.2	1049.5	1045.4	0.21	0.68	0.80	15.37	-22.1	-34.7	-40.3	0.30	0.06	-84.9	-112.3	-133.6	-153.4	361.5	-144.26
4.25	21.95	1059.6	1055.0	1051.0	0.16	0.62	0.74	15.37	-22.2	-34.7	-40.0	0.33	0.22	-85.4	-112.5	-133.7	-153.3	507.5	-147.35
4.50	21.86	1065.1	1060.5	1056.5	0.09	0.56	0.68	15.36	-22.3	-35.2	-40.2	0.37	0.38	-85.1	-112.7	-133.7	-153.7	606.7	-149.06
4.75	21.80	1070.6	1066.0	1062.0	0.01	0.49	0.62	15.36	-22.3	-35.6	-40.7	0.40	0.49	-84.6	-112.2	-133.6	-153.9	851.6	-152.17
5.00	21.74	1076.0	1071.4	1067.5	-0.07	0.40	0.54	15.36	-22.2	-36.0	-40.6	0.44	0.56	-86.2	-112.4	-133.6	-153.2	1000.0	-153.15

*at 25°C unless mentioned otherwise



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