

Coaxial

# Voltage Controlled Oscillator

## ZX95-1015+

Linear Tuning 750 to 1010 MHz

### Features

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

### Applications

- r & d
- lab
- instrumentation
- wireless communications
- mobile TV



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-1015-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 Br (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.
ZX95-1015+	750	1010	+6	-85	-113	-134	-154	0.5	28	7-15	70	35	-90	-20	-10	1	1.5	5	35

### Maximum Ratings

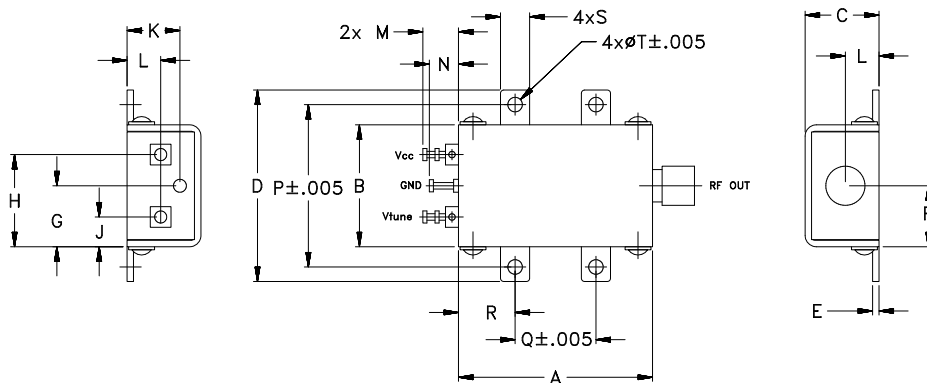
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6V
Absolute Max. Tuning Voltage (Vtune)	30V
All specifications	50 ohm system

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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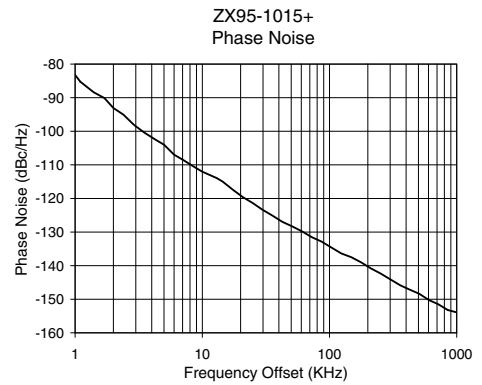
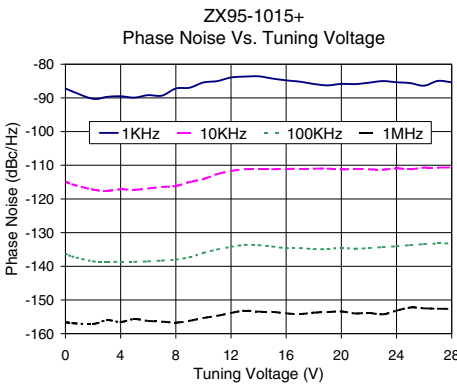
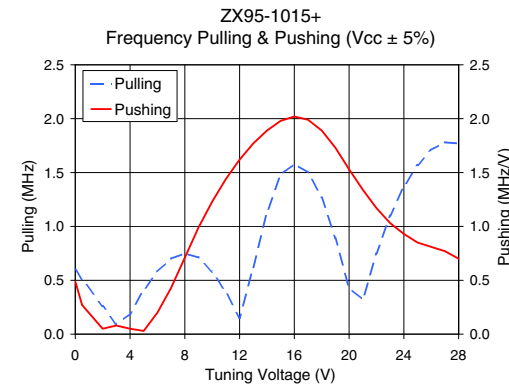
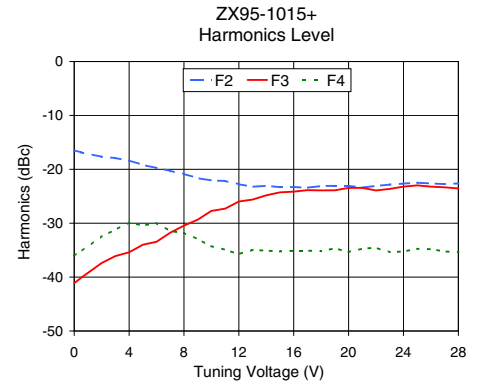
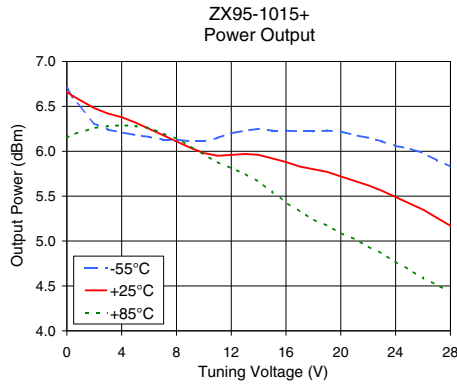
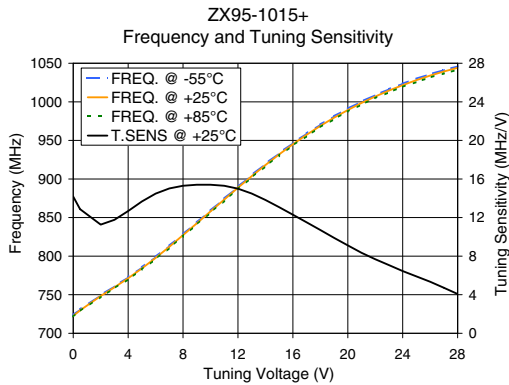
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# Performance Data & Curves\*

# ZX95-1015+

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 880 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	14.17	723.9	722.6	721.6	6.71	6.66	6.15	23.06	-16.5	-41.1	-36.0	0.49	0.60	-87.2	-114.8	-136.3	-156.6	1.0	-83.22
0.50	12.87	731.0	729.7	728.7	6.58	6.61	6.19	23.09	-16.9	-40.1	-35.3	0.27	0.51	-88.1	-115.7	-137.1	-156.9	2.0	-93.07
2.00	11.27	749.7	748.4	747.3	6.31	6.48	6.26	23.12	-17.7	-37.4	-32.4	0.05	0.26	-90.3	-117.2	-138.5	-157.1	3.5	-100.38
4.00	12.68	772.9	771.4	770.0	6.21	6.38	6.29	23.06	-18.4	-35.4	-29.9	0.05	0.19	-89.5	-117.2	-138.7	-156.5	6.0	-106.96
6.00	14.48	799.1	797.7	796.2	6.16	6.25	6.26	22.93	-19.8	-33.5	-30.0	0.20	0.58	-89.2	-116.9	-138.5	-156.2	8.5	-110.45
8.00	15.29	828.5	827.2	825.7	6.13	6.11	6.14	22.82	-20.9	-30.5	-31.8	0.71	0.75	-87.2	-116.2	-138.0	-156.7	10.0	-112.04
10.00	15.40	859.1	857.9	856.3	6.11	5.98	5.96	22.74	-22.1	-27.7	-34.3	1.23	0.58	-85.4	-114.1	-136.0	-155.4	20.8	-119.59
11.00	15.30	874.5	873.3	871.7	6.15	5.95	5.88	22.69	-22.2	-27.3	-34.9	1.44	0.39	-85.0	-112.6	-135.0	-154.7	35.5	-125.08
12.00	14.99	889.9	888.6	886.9	6.20	5.96	5.81	22.68	-22.8	-26.0	-35.7	1.62	0.15	-83.9	-111.7	-134.2	-153.9	60.7	-129.77
13.00	14.49	905.1	903.6	901.9	6.23	5.97	5.75	22.70	-23.2	-25.6	-34.9	1.77	0.62	-83.7	-111.2	-133.7	-153.2	86.7	-132.84
14.00	13.82	919.7	918.1	916.4	6.25	5.96	5.66	22.71	-23.1	-24.8	-35.1	1.89	1.13	-83.6	-111.2	-133.7	-153.5	100.0	-134.27
15.00	13.07	933.6	931.9	930.3	6.23	5.92	5.55	22.72	-23.3	-24.3	-35.2	1.98	1.48	-84.3	-111.2	-134.1	-153.5	148.1	-137.47
16.00	12.30	946.8	945.0	943.4	6.23	5.88	5.43	22.72	-23.3	-24.1	-35.1	2.02	1.58	-84.8	-111.0	-134.6	-154.0	177.0	-139.00
17.00	11.51	959.1	957.3	955.6	6.22	5.83	5.33	22.72	-23.4	-23.9	-35.1	1.99	1.50	-85.2	-111.1	-134.6	-154.2	211.6	-140.82
18.00	10.71	970.6	968.8	967.1	6.22	5.80	5.24	22.73	-23.1	-23.9	-35.2	1.89	1.27	-85.9	-111.0	-134.9	-153.8	302.4	-144.15
20.00	9.12	991.2	989.4	987.5	6.22	5.72	5.09	22.82	-23.1	-23.4	-35.3	1.53	0.43	-85.8	-111.2	-134.5	-153.4	361.5	-145.88
22.00	7.68	1008.8	1006.9	1004.8	6.15	5.62	4.94	22.92	-23.1	-23.9	-34.6	1.17	0.75	-85.5	-111.2	-134.6	-153.9	507.5	-148.37
24.00	6.45	1023.5	1021.6	1019.4	6.06	5.49	4.77	22.98	-22.6	-23.2	-35.3	0.93	1.37	-85.4	-111.0	-134.1	-153.2	606.7	-150.29
26.00	5.35	1035.9	1034.0	1031.6	5.98	5.35	4.59	23.03	-22.6	-23.2	-34.8	0.81	1.71	-86.4	-110.7	-133.4	-152.5	851.6	-153.21
28.00	4.08	1046.0	1044.1	1041.4	5.83	5.17	4.44	23.07	-22.6	-23.6	-35.4	0.70	1.77	-85.4	-110.7	-133.2	-152.7	1000.0	-153.92

\*at 25°C unless mentioned otherwise



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