

Coaxial

# Voltage Controlled Oscillator

## ZX95-3044+

5V Tuning for PLL IC's 2885 to 3044 MHz

### Features

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

### Applications

- r & d
- lab
- instrumentation
- wireless communications
- WiMAX
- defense systems



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-3044-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.
ZX95-3044+	2885	3044	+8	-76	-104	-125	-145	0.5	5	64-72	12	80	-90	-28	-18	4.5	1	5	40

### Maximum Ratings

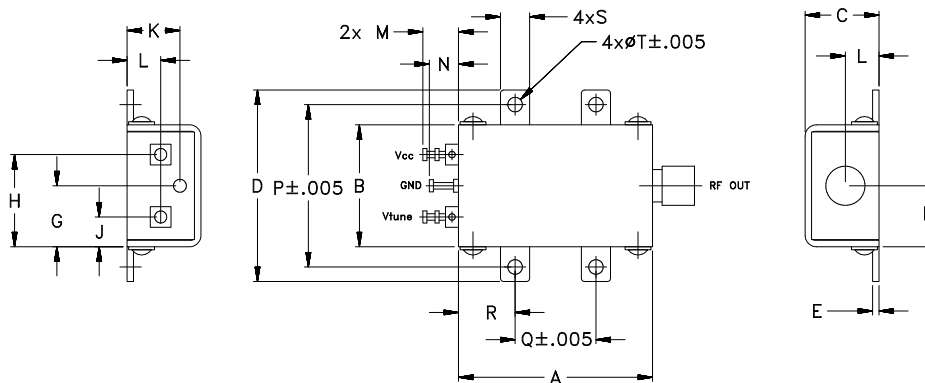
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6V
Absolute Max. Tuning Voltage (Vtune)	6V
All specifications	50 ohm system

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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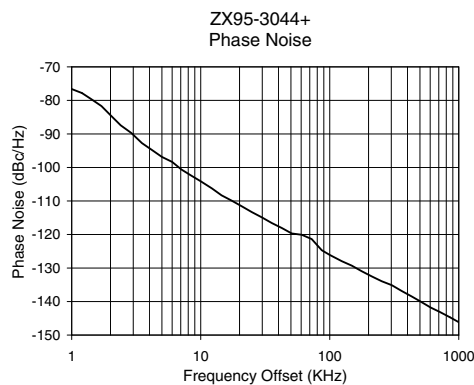
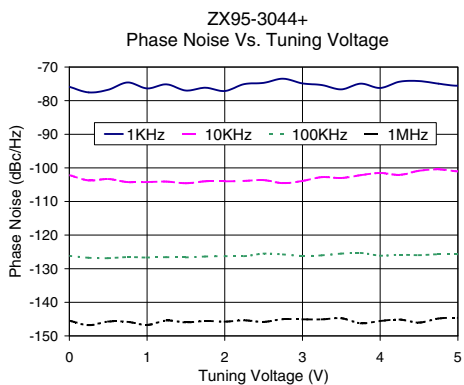
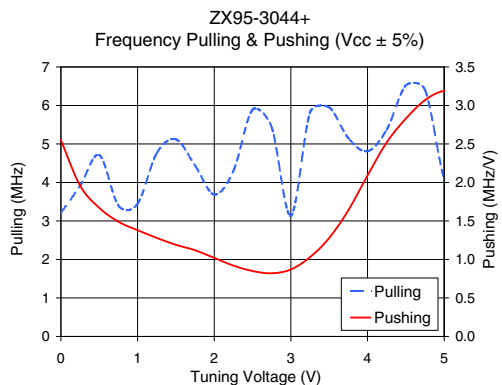
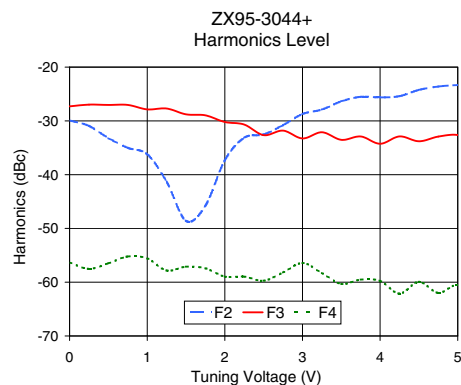
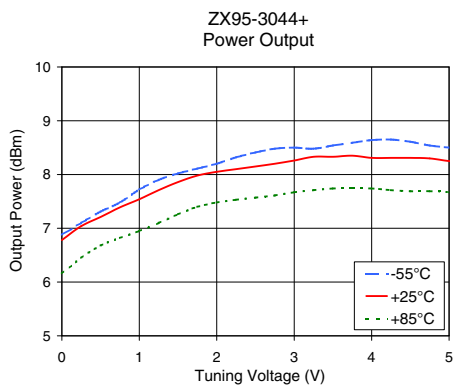
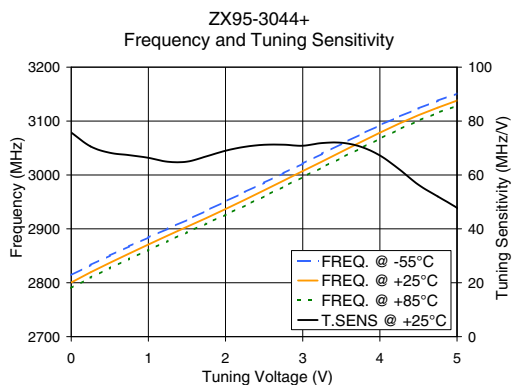
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# Performance Data & Curves\*

# ZX95-3044+

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 2943 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	75.75	2814.0	2800.5	2790.1	6.88	6.78	6.16	29.48	-29.9	-27.3	-56.3	2.55	3.21	-75.9	-102.2	-126.2	-145.5	1.0	-76.62
0.50	68.24	2850.5	2837.1	2827.2	7.31	7.21	6.68	29.49	-33.2	-27.0	-56.5	1.67	4.71	-76.8	-103.3	-126.9	-145.7	2.0	-84.41
0.75	67.35	2867.7	2854.1	2844.1	7.48	7.39	6.82	29.48	-35.0	-27.0	-55.2	1.49	3.40	-74.6	-104.2	-126.5	-145.8	3.5	-92.74
1.00	66.37	2884.1	2871.0	2860.8	7.72	7.54	6.95	29.48	-36.2	-27.9	-55.6	1.38	3.45	-76.4	-104.2	-126.7	-146.7	6.0	-98.35
1.25	64.90	2900.2	2887.5	2877.4	7.90	7.71	7.10	29.50	-41.3	-27.7	-57.8	1.28	4.76	-75.2	-104.1	-126.6	-145.4	8.5	-102.49
1.50	64.94	2916.5	2903.8	2893.7	8.02	7.86	7.26	29.49	-48.6	-28.8	-57.1	1.19	5.12	-77.0	-104.6	-126.6	-146.0	10.0	-104.14
1.75	66.89	2933.5	2920.0	2909.8	8.11	7.98	7.40	29.45	-45.8	-29.0	-57.4	1.12	4.44	-76.1	-104.0	-126.4	-145.5	20.8	-111.59
2.00	68.98	2950.8	2936.7	2926.1	8.20	8.05	7.48	29.40	-37.3	-30.2	-59.0	1.02	3.69	-77.1	-104.0	-126.3	-145.8	35.5	-116.58
2.25	70.43	2968.2	2954.0	2943.0	8.32	8.10	7.53	29.37	-33.1	-30.7	-59.0	0.92	4.30	-75.1	-103.9	-126.3	-145.4	60.7	-120.09
2.50	71.20	2985.6	2971.6	2960.3	8.41	8.15	7.57	29.35	-32.5	-32.7	-59.7	0.85	5.89	-74.7	-103.7	-125.5	-145.8	86.7	-124.70
2.75	71.24	3003.2	2989.4	2978.1	8.48	8.20	7.61	29.34	-30.8	-31.8	-58.2	0.82	5.43	-73.5	-104.6	-125.8	-145.0	100.0	-126.10
3.00	70.85	3021.0	3007.2	2995.9	8.50	8.26	7.67	29.32	-28.7	-33.3	-56.4	0.87	3.14	-74.9	-103.9	-126.2	-145.1	148.1	-129.28
3.25	71.84	3039.3	3024.9	3013.8	8.48	8.33	7.71	29.28	-27.9	-32.1	-58.3	1.03	5.82	-75.4	-102.8	-126.0	-145.1	177.0	-130.96
3.50	71.97	3057.5	3042.9	3031.5	8.54	8.33	7.74	29.23	-26.4	-33.5	-60.3	1.28	5.95	-76.7	-103.0	-125.5	-144.7	211.6	-132.50
3.75	70.50	3075.2	3060.9	3049.5	8.59	8.35	7.74	29.21	-25.5	-32.9	-59.5	1.64	5.15	-74.9	-102.2	-125.3	-146.2	302.4	-135.12
4.00	67.24	3092.2	3078.5	3067.3	8.64	8.31	7.74	29.19	-25.6	-34.3	-59.8	2.09	4.81	-76.2	-101.5	-126.1	-145.6	361.5	-136.85
4.25	62.11	3108.2	3095.3	3084.5	8.65	8.31	7.71	29.19	-25.4	-32.9	-62.1	2.52	5.37	-74.4	-102.1	-125.8	-145.1	507.5	-140.03
4.50	56.38	3123.3	3110.8	3100.7	8.61	8.31	7.69	29.19	-24.2	-33.8	-59.9	2.83	6.52	-74.2	-100.9	-126.0	-146.1	606.7	-141.79
4.75	52.03	3137.7	3124.9	3115.3	8.54	8.30	7.69	29.17	-23.6	-32.9	-62.0	3.07	6.40	-75.0	-100.5	-125.7	-144.8	851.6	-144.67
5.00	47.78	3151.0	3137.9	3128.4	8.50	8.25	7.67	29.13	-23.3	-32.6	-60.5	3.19	4.08	-75.6	-101.0	-125.7	-144.6	1000.0	-146.15

\*at 25°C unless mentioned otherwise



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