

Coaxial

Voltage Controlled Oscillator

ZX95-3000+

5V Tuning for PLL IC's 2800 to 2970 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
- satellite systems



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-3000-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)		PORT TIVITY (MHz/V)	CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Max.	Typ.	Max.	Vcc (volts)	Current (mA)
									Min.	Max.													
ZX95-3000+	2800	2970	+10	-74	-102	-123	-144	0.5	5	55-68	10	150	-90	-25	-15	4	1.5	5	36				

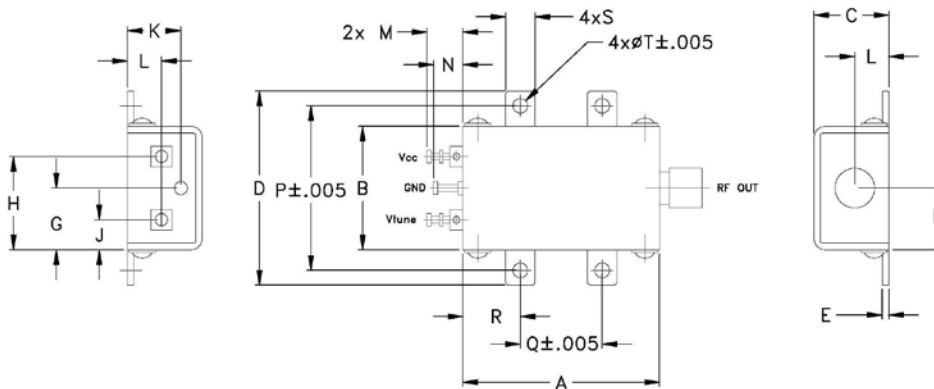
Maximum Ratings

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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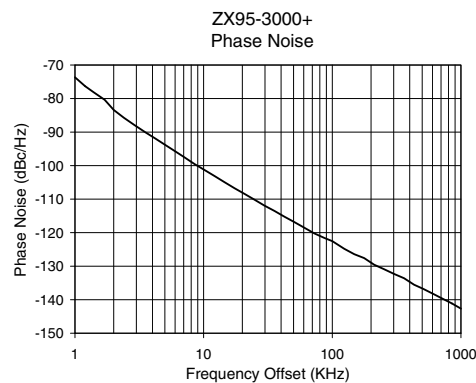
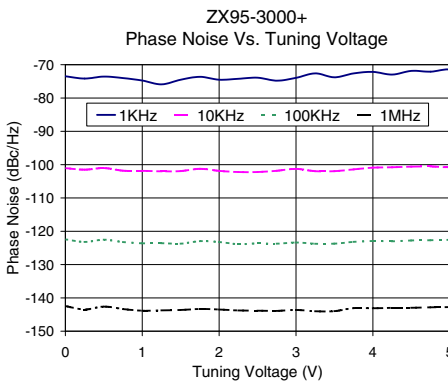
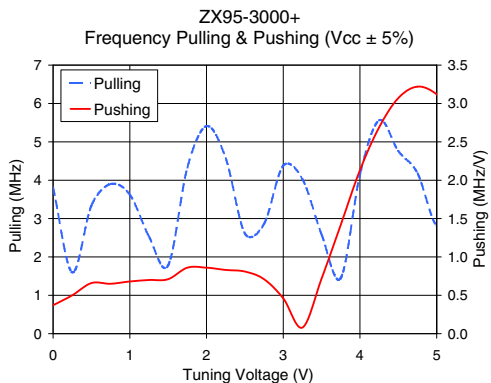
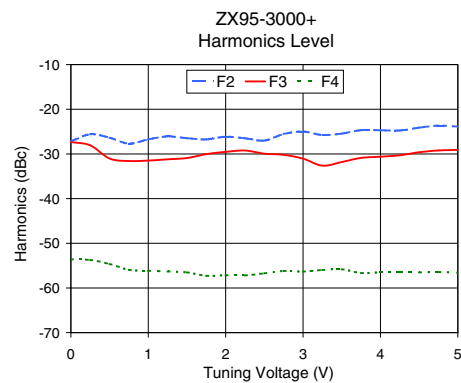
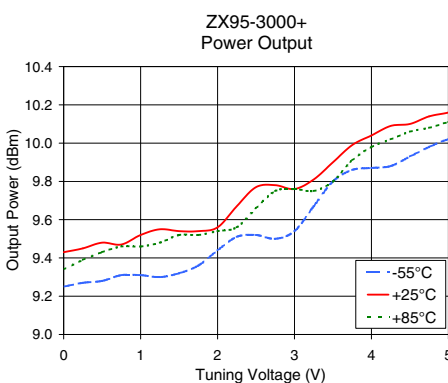
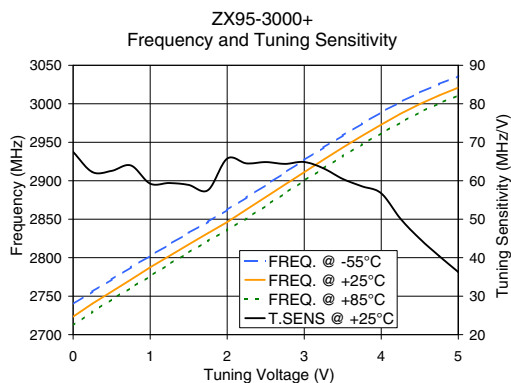
REV. B
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ZX95-3000+
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Performance Data & Curves*

ZX95-3000+

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 2885 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1KHz	10KHz	100KHz	1MHz		
0.00	67.5	2739.6	2723.4	2711.9	9.25	9.43	9.34	30.17	-27.2	-27.3	-53.6	0.37	3.81	-73.5	-101.1	-122.5	-142.5	1.0	-73.7
0.50	62.6	2771.7	2755.8	2745.6	9.28	9.48	9.43	30.20	-26.4	-31.0	-54.6	0.66	3.34	-73.6	-101.0	-122.5	-142.6	2.0	-83.4
0.75	64.0	2787.5	2771.5	2760.7	9.31	9.47	9.46	30.15	-27.7	-31.6	-55.9	0.65	3.90	-74.0	-101.8	-123.2	-143.4	3.5	-90.0
1.00	59.2	2802.5	2787.5	2776.0	9.31	9.52	9.46	30.22	-26.8	-31.5	-56.2	0.68	3.62	-74.8	-101.9	-123.6	-143.8	6.0	-95.7
1.25	59.4	2817.3	2802.3	2791.8	9.30	9.55	9.48	30.27	-26.1	-31.2	-56.3	0.70	2.53	-75.9	-102.0	-123.6	-143.7	8.5	-99.6
1.50	58.9	2832.1	2817.1	2806.8	9.32	9.54	9.52	30.30	-26.5	-30.9	-56.5	0.71	1.78	-74.5	-101.9	-123.7	-143.6	10.0	-101.1
1.75	57.6	2846.6	2831.9	2821.7	9.36	9.54	9.52	30.31	-26.8	-30.0	-57.3	0.86	4.33	-73.6	-101.3	-123.0	-143.3	20.8	-108.5
2.00	65.8	2862.2	2846.3	2836.2	9.44	9.56	9.54	30.27	-26.2	-29.5	-57.1	0.86	5.41	-74.5	-101.9	-123.2	-143.5	35.5	-113.5
2.25	64.5	2878.2	2862.7	2851.0	9.51	9.67	9.56	30.26	-26.5	-29.2	-57.2	0.83	4.57	-74.2	-102.2	-123.9	-143.8	60.7	-118.6
2.50	64.9	2894.4	2878.8	2867.4	9.52	9.77	9.66	30.29	-27.0	-29.9	-56.7	0.81	2.61	-73.9	-102.2	-123.7	-143.8	86.7	-121.6
2.75	64.4	2910.6	2895.0	2883.8	9.50	9.78	9.75	30.33	-25.5	-30.2	-56.2	0.71	2.86	-74.8	-101.8	-123.7	-143.9	100.0	-122.5
3.00	64.9	2926.9	2911.1	2900.0	9.54	9.76	9.76	30.37	-25.0	-31.1	-56.3	0.46	4.38	-73.9	-101.3	-123.4	-143.6	148.1	-126.4
3.25	63.2	2943.1	2927.3	2916.0	9.67	9.81	9.75	30.37	-25.8	-32.6	-56.0	0.08	4.03	-72.6	-102.0	-123.8	-144.0	177.0	-127.6
3.50	60.5	2958.8	2943.2	2932.0	9.80	9.90	9.80	30.37	-25.5	-31.8	-55.8	0.72	2.58	-73.8	-102.0	-123.7	-144.0	211.6	-129.6
3.75	58.6	2974.2	2958.3	2947.3	9.86	9.99	9.91	30.35	-24.7	-30.9	-56.7	1.42	1.45	-72.6	-101.4	-123.2	-143.1	302.4	-132.3
4.00	56.7	2989.0	2972.9	2961.7	9.87	10.04	9.98	30.31	-24.7	-30.6	-56.5	2.13	4.14	-72.2	-100.9	-122.9	-143.1	361.5	-133.6
4.25	50.1	3002.4	2987.1	2975.5	9.88	10.09	10.02	30.32	-24.8	-30.3	-56.5	2.69	5.56	-73.0	-100.8	-123.0	-143.0	507.5	-136.7
4.50	44.9	3014.6	2999.6	2988.9	9.93	10.10	10.06	30.34	-24.1	-29.6	-56.5	3.07	4.76	-71.9	-100.6	-122.8	-143.0	606.7	-138.2
4.75	40.5	3025.7	3010.9	3000.6	9.98	10.14	10.08	30.35	-23.7	-29.2	-56.4	3.22	4.18	-72.1	-100.6	-122.7	-142.8	851.6	-141.1
5.00	36.3	3035.8	3021.0	3010.9	10.02	10.16	10.11	30.33	-23.9	-29.1	-56.6	3.12	2.81	-71.4	-100.8	-122.5	-142.8	1000.0	-142.7

*at 25°C unless mentioned otherwise



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