

Coaxial

# Voltage Controlled Oscillator

## ZX95-3100C-S+

Linear Tuning 2875 to 3100 MHz

### Features

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

### Applications

- r & d
- lab
- instrumentation
- wireless communications
- point-to-point
- military



Generic photo used for illustration purposes only  
CASE STYLE: GB956

Connectors	Model
SMA	ZX95-3100C-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.	Typ.	Vcc (volts)	Current (mA)
ZX95-3100C-S+	2875	3100	+1.2	-78	-105	-126	-146	0.5	11	29-37	17	100	-90	-35	-20	0.6	0.3	8	37			

### Maximum Ratings

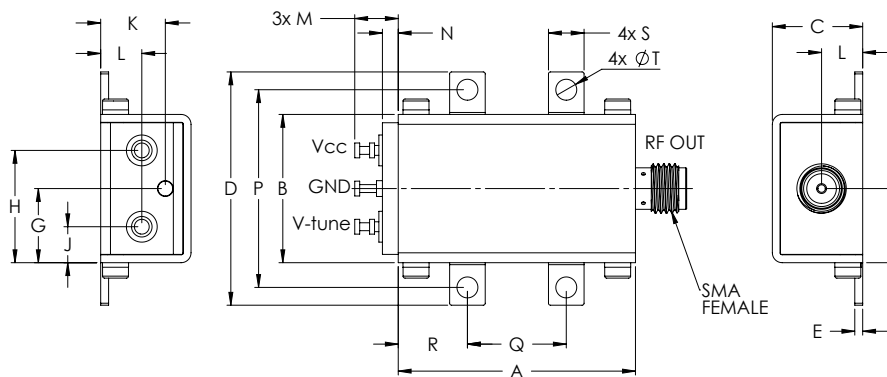
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	8.5V
Absolute Max. Tuning Voltage (Vtune)	13.0V
All specifications	50 ohm system

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	.08	1.00	.50	.35	.18	.106	grams
30.48	19.15	11.61	30.07	1.02	9.53	9.53	14.43	4.62	8.31	5.28	5.59	2.03	25.40	12.70	8.89	4.57	2.69	35.0

#### Notes

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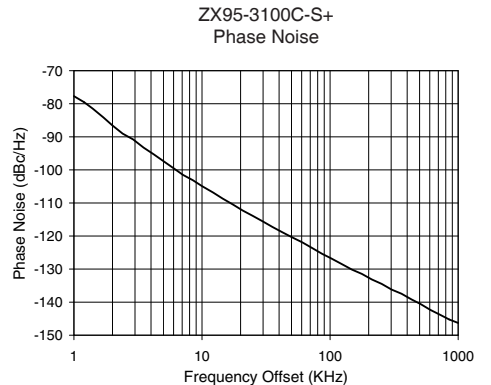
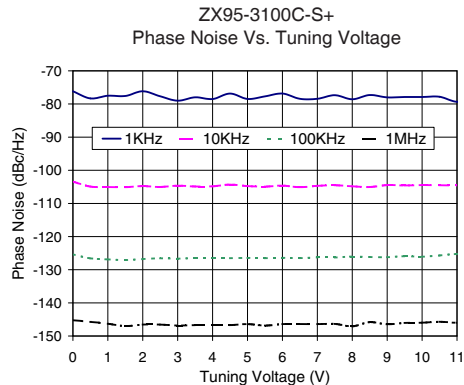
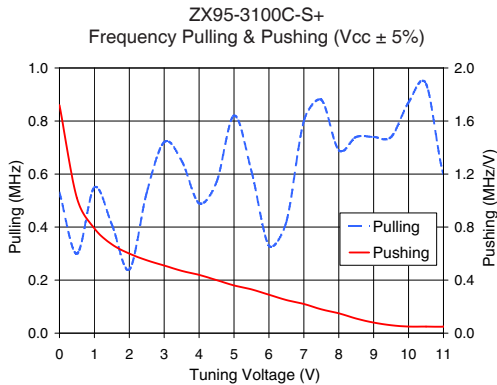
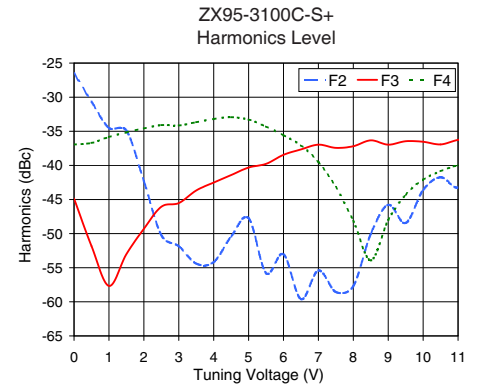
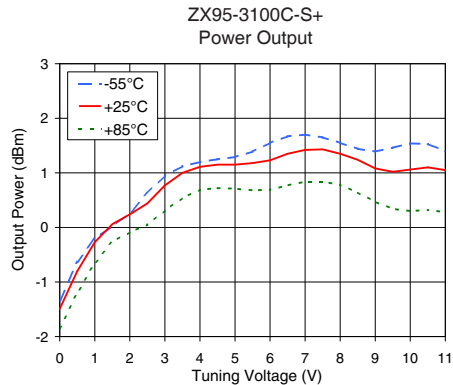
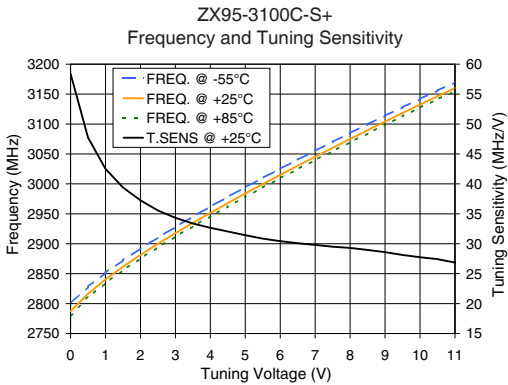
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Page 1 of 2

## Performance Data & Curves\*

## ZX95-3100C-S+

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 2988 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	58.40	2800.1	2787.3	2780.2	-1.35	-1.49	-1.85	31.17	-26.5	-44.9	-36.9	1.72	0.53	-76.2	-103.4	-125.4	-145.2	1.0	-77.71
0.50	47.73	2828.1	2816.5	2810.3	-0.63	-0.80	-1.20	31.20	-30.7	-51.8	-36.7	1.02	0.30	-78.3	-104.9	-126.6	-145.7	2.0	-86.58
1.00	42.51	2851.5	2840.4	2834.4	-0.20	-0.27	-0.65	31.20	-34.5	-57.7	-35.8	0.79	0.55	-77.5	-105.1	-126.9	-146.3	3.5	-93.27
1.50	39.41	2872.5	2861.6	2855.8	0.02	0.06	-0.26	31.19	-34.9	-53.0	-35.2	0.67	0.41	-77.6	-105.1	-127.1	-147.0	6.0	-99.51
2.00	37.25	2892.1	2881.3	2875.5	0.26	0.24	-0.09	31.17	-42.3	-49.3	-34.6	0.60	0.24	-76.2	-104.8	-126.8	-146.6	8.5	-103.15
2.50	35.57	2910.5	2899.9	2894.1	0.63	0.44	0.05	31.15	-50.2	-46.1	-34.1	0.55	0.53	-77.7	-105.0	-126.5	-146.6	10.0	-104.90
3.00	34.33	2928.2	2917.7	2911.9	0.95	0.77	0.31	31.13	-51.9	-45.5	-34.2	0.51	0.72	-79.0	-104.7	-126.7	-146.8	20.8	-112.31
4.00	32.66	2962.0	2951.6	2945.8	1.20	1.11	0.69	31.08	-54.2	-42.5	-33.2	0.44	0.49	-78.5	-104.8	-126.6	-146.7	35.5	-117.27
4.50	32.05	2978.3	2967.9	2962.1	1.25	1.15	0.72	31.06	-50.4	-41.4	-32.9	0.40	0.57	-76.9	-104.3	-126.5	-146.7	60.7	-121.92
5.00	31.43	2994.2	2983.9	2978.1	1.29	1.15	0.71	31.04	-47.8	-40.3	-33.3	0.36	0.82	-78.5	-104.8	-126.4	-146.4	86.7	-125.39
5.50	30.86	3009.8	2999.7	2993.9	1.39	1.18	0.68	31.02	-55.8	-39.8	-34.3	0.33	0.61	-77.7	-104.9	-126.5	-146.9	100.0	-126.60
6.00	30.44	3025.2	3015.1	3009.4	1.55	1.23	0.69	31.00	-53.0	-38.5	-35.6	0.29	0.33	-76.9	-104.6	-126.4	-146.4	148.1	-130.16
6.50	30.09	3040.3	3030.3	3024.7	1.67	1.35	0.77	30.99	-59.6	-37.7	-37.1	0.25	0.42	-78.4	-105.1	-126.5	-146.4	177.0	-131.47
7.00	29.80	3055.3	3045.3	3039.7	1.70	1.42	0.84	30.98	-55.4	-37.0	-39.5	0.22	0.80	-78.4	-104.7	-126.3	-146.4	211.6	-133.14
7.50	29.50	3070.1	3060.2	3054.7	1.65	1.43	0.84	30.97	-58.6	-37.4	-43.2	0.18	0.88	-77.3	-104.5	-126.3	-146.3	302.4	-136.21
8.00	29.31	3084.9	3075.0	3069.5	1.55	1.35	0.78	30.96	-57.7	-37.2	-48.2	0.15	0.69	-78.6	-104.9	-126.0	-147.1	361.5	-137.46
8.50	28.97	3099.4	3089.7	3084.2	1.44	1.24	0.64	30.95	-50.1	-36.3	-53.9	0.11	0.74	-77.3	-105.1	-126.2	-145.8	507.5	-140.56
9.00	28.60	3113.7	3104.1	3098.8	1.39	1.08	0.47	30.95	-45.8	-37.0	-48.0	0.08	0.74	-78.0	-104.5	-126.2	-146.5	606.7	-142.34
10.00	27.74	3141.9	3132.5	3127.3	1.54	1.06	0.30	30.94	-43.6	-36.5	-42.1	0.05	0.87	-77.9	-104.5	-126.1	-146.0	851.6	-145.25
11.00	26.86	3169.4	3160.1	3155.0	1.40	1.05	0.28	30.93	-43.3	-36.3	-40.0	0.05	0.60	-79.3	-104.6	-125.3	-146.0	1000.0	-146.28

\*at 25°C unless mentioned otherwise



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