

Coaxial

# Voltage Controlled Oscillator

## ZX95-2700A+

Wide Band 1300 to 2700 MHz

### Features

- wide band frequency range
- low phase noise
- low pushing
- protected by US patent 6,790,049

### Applications

- r & d
- lab
- instrumentation
- wireless communications
- upconverter



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-2700A-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)
	Min.	Max.							Min.	Max.													
ZX95-2700A+	1300	2700	+3.3	-69	-93	-114	-136	0.15	25	42-92	65	25	-90	-23	-	6	1.6	5	35				

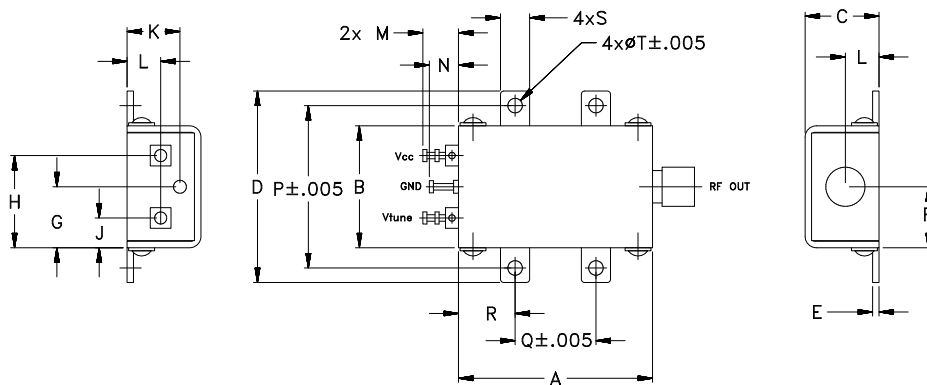
### Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6.5V
Absolute Max. Tuning Voltage (Vtune)	27.0V
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	.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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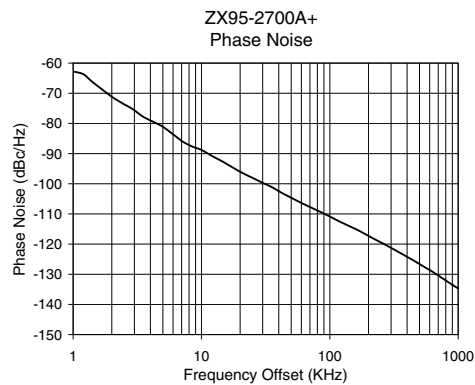
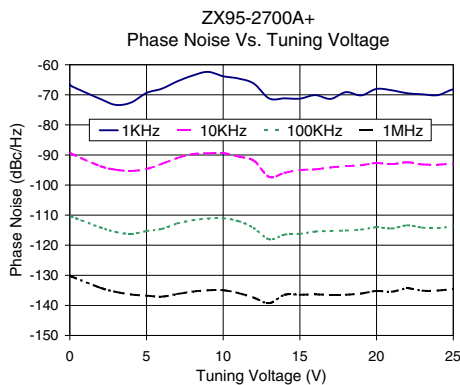
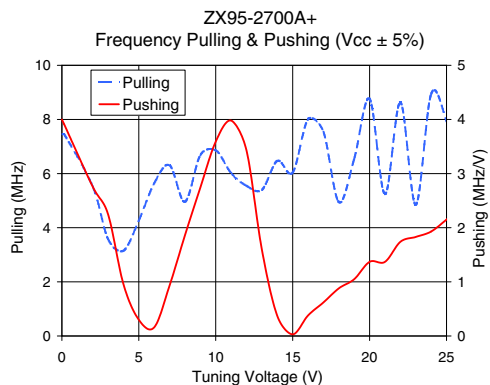
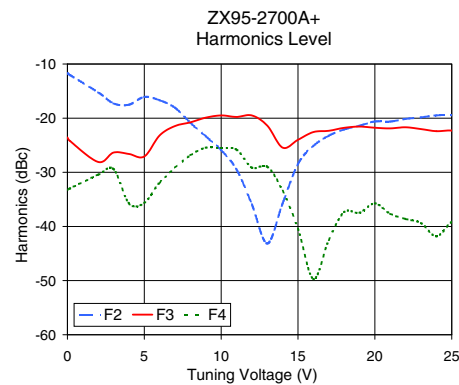
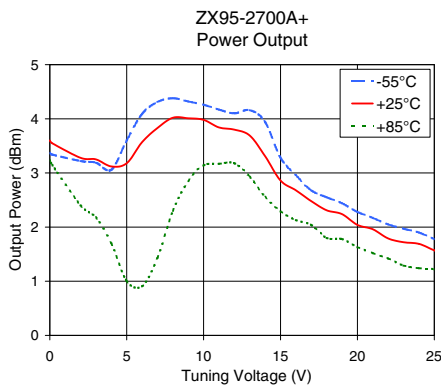
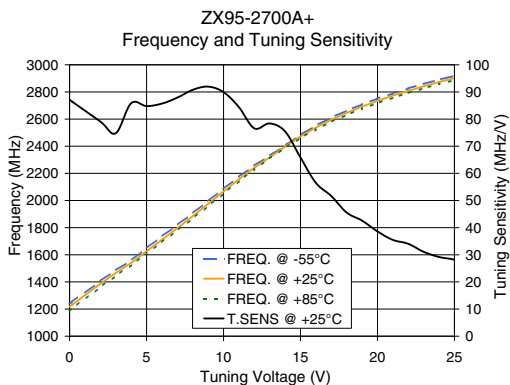
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# Performance Data & Curves\*

# ZX95-2700A+

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 2000 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	87.20	1238.8	1216.7	1188.2	3.37	3.60	3.23	24.68	-11.7	-23.6	-33.2	4.00	7.45	-66.5	-89.3	-110.3	-130.2	1.0	-62.77
0.15	86.49	1251.7	1229.8	1201.7	3.34	3.55	3.15	24.65	-12.0	-24.2	-33.0	3.91	7.45	-67.2	-89.7	-110.6	-130.5	2.0	-71.15
2.00	79.10	1407.4	1386.4	1362.5	3.22	3.28	2.40	24.42	-15.2	-28.1	-30.5	2.76	5.53	-71.4	-93.7	-114.1	-134.1	3.5	-77.73
3.00	74.78	1485.1	1465.4	1444.6	3.19	3.25	2.18	24.42	-17.3	-26.4	-29.4	2.25	3.58	-73.4	-94.9	-115.6	-135.5	6.0	-83.60
4.00	85.86	1558.5	1540.2	1523.9	3.06	3.12	1.70	24.36	-17.5	-26.6	-35.7	0.96	3.15	-72.5	-95.3	-116.3	-136.4	8.5	-87.68
6.00	85.72	1734.9	1710.9	1693.9	4.09	3.57	0.91	24.61	-16.7	-23.2	-31.9	0.16	5.64	-68.0	-93.0	-114.6	-137.1	10.0	-88.79
8.00	90.77	1906.0	1884.5	1867.6	4.38	4.02	2.30	24.90	-20.9	-20.8	-26.8	1.86	4.96	-63.6	-89.7	-111.7	-135.4	20.8	-96.41
9.00	91.96	1995.2	1975.3	1958.4	4.32	4.01	2.85	24.97	-23.3	-19.9	-25.5	2.74	6.68	-62.4	-89.5	-111.1	-135.0	35.5	-101.17
10.00	89.93	2085.9	2067.3	2051.2	4.26	3.98	3.14	24.98	-25.9	-19.5	-25.6	3.59	6.86	-63.8	-89.4	-111.0	-135.0	60.7	-106.46
12.00	76.57	2257.1	2241.6	2229.5	4.10	3.80	3.18	24.86	-35.9	-19.5	-29.1	3.43	5.55	-66.3	-91.9	-114.3	-137.5	85.2	-109.39
14.00	75.45	2404.3	2396.5	2388.9	3.94	3.31	2.56	24.86	-35.7	-25.4	-33.4	0.37	6.47	-71.2	-95.9	-116.5	-136.5	100.0	-110.88
15.00	65.85	2483.3	2472.0	2460.9	3.28	2.86	2.29	24.89	-28.5	-24.0	-40.4	0.03	6.04	-71.3	-95.0	-116.2	-136.5	142.9	-114.09
16.00	56.47	2552.4	2537.8	2524.1	2.96	2.68	2.13	24.86	-25.1	-22.6	-49.7	0.38	8.01	-70.1	-94.8	-115.5	-136.4	167.8	-115.51
17.00	51.66	2610.8	2594.3	2580.0	2.68	2.48	2.04	24.83	-23.3	-22.3	-42.5	0.62	7.54	-71.4	-94.2	-115.3	-136.5	200.6	-117.31
18.00	45.55	2662.6	2646.0	2630.7	2.55	2.31	1.80	24.79	-22.1	-21.8	-37.4	0.88	4.95	-69.1	-93.7	-115.1	-136.5	281.6	-120.62
19.00	42.58	2708.3	2691.5	2676.5	2.44	2.24	1.78	24.75	-21.4	-21.6	-37.5	1.05	6.55	-70.2	-93.4	-114.8	-136.1	330.7	-122.24
20.00	38.61	2751.6	2734.1	2717.9	2.28	2.04	1.63	24.69	-20.6	-21.8	-35.7	1.37	8.76	-68.1	-92.7	-114.0	-135.2	464.2	-125.79
21.00	35.48	2789.0	2772.7	2757.7	2.17	1.96	1.52	24.68	-20.6	-21.9	-37.7	1.37	5.24	-68.5	-93.1	-114.5	-135.4	554.9	-127.78
23.00	31.08	2859.6	2842.2	2826.8	1.97	1.72	1.29	24.57	-19.9	-22.0	-39.4	1.83	4.85	-69.8	-93.2	-114.2	-135.1	914.6	-133.68
25.00	28.19	2919.9	2902.5	2887.3	1.78	1.57	1.22	24.50	-19.5	-22.3	-39.2	2.15	7.94	-68.2	-92.8	-113.7	-134.6	1000.0	-134.71

\*at 25°C unless mentioned otherwise



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