

Voltage Controlled Oscillator

ZX95-3900+

Linear Tuning 3750 to 3900 MHz

Features

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



CASE STYLE: GB956

Applications

- r & d
- lab
- instrumentation
- wireless communications
- radio altimetry

Connectors	Model
SMA	ZX95-3900-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.			Typ.	Max.
ZX95-3900+	3750	3900	+4.5	-76	-97	-118	-138	0.5	10	25-40	5	260	-90	-28	-18	2	3.5	5	40

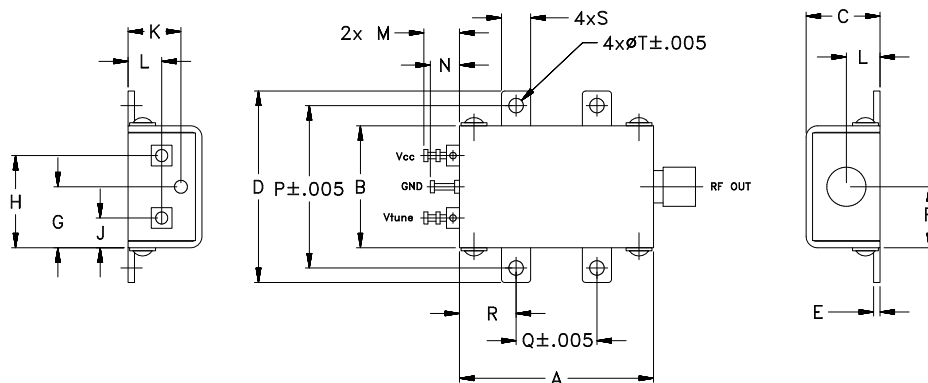
Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	5.5V
Absolute Max. Tuning Voltage (Vtune)	12.0V
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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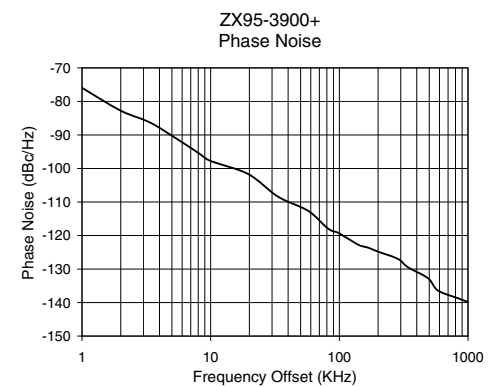
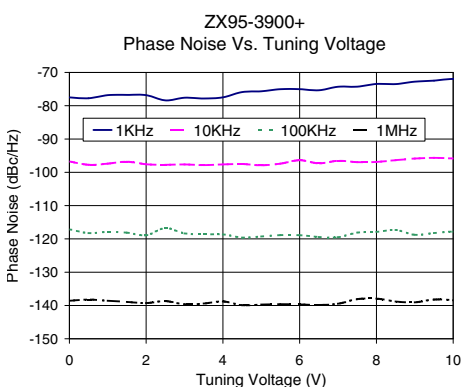
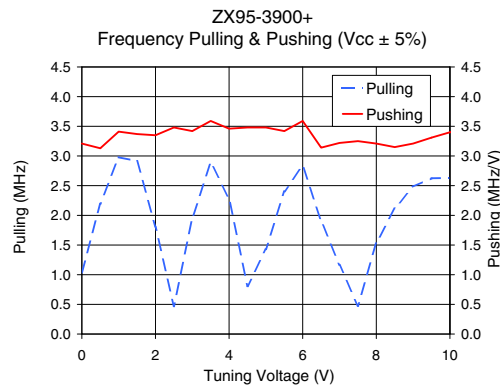
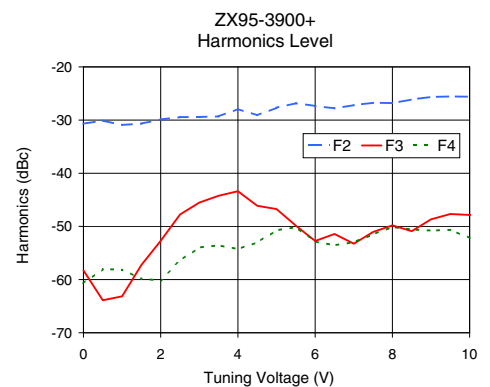
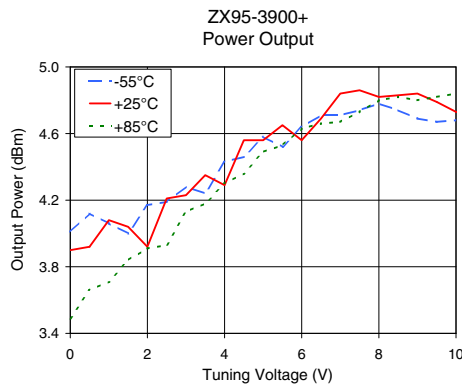
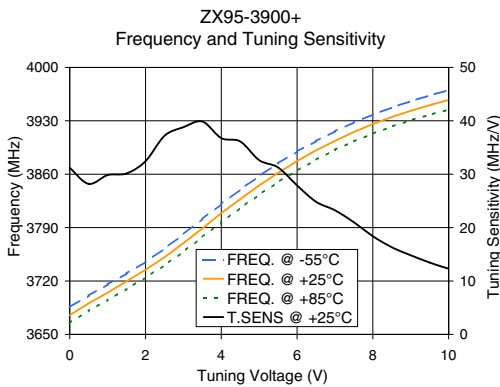


Performance Data & Curves*

ZX95-3900+

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 3825 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	31.18	3685.8	3675.1	3665.0	4.01	3.90	3.49	31.53	-30.7	-58.3	-60.7	3.21	1.04	-77.5	-96.7	-117.2	-138.6	1.0	-75.96
0.50	28.19	3700.8	3690.7	3681.0	4.12	3.92	3.66	31.60	-30.1	-63.9	-58.0	3.13	2.19	-77.8	-97.7	-118.3	-138.2	2.0	-82.77
1.00	29.83	3715.6	3704.8	3695.2	4.06	4.08	3.71	31.63	-30.9	-63.2	-58.1	3.41	2.98	-76.8	-97.4	-117.9	-138.6	3.4	-86.35
1.50	30.14	3729.8	3719.7	3709.5	4.00	4.04	3.84	31.69	-30.7	-57.2	-59.9	3.37	2.92	-76.8	-96.8	-118.1	-138.9	5.7	-91.65
2.00	32.44	3745.1	3734.8	3724.6	4.17	3.92	3.91	31.78	-29.9	-52.7	-60.1	3.35	1.81	-76.8	-97.6	-118.9	-139.3	8.1	-95.48
2.50	37.18	3762.4	3751.0	3740.6	4.19	4.21	3.93	31.84	-29.5	-47.8	-56.4	3.48	0.47	-78.4	-97.7	-116.8	-138.7	10.0	-97.77
3.00	38.80	3781.1	3769.6	3758.4	4.28	4.23	4.13	31.93	-29.4	-45.5	-54.0	3.42	1.95	-77.6	-97.6	-118.3	-139.7	19.6	-101.69
3.50	39.87	3801.4	3789.0	3777.6	4.24	4.35	4.18	32.02	-29.3	-44.2	-53.6	3.59	2.89	-77.8	-97.9	-118.6	-139.4	33.3	-108.40
4.00	36.75	3820.8	3808.9	3797.0	4.43	4.29	4.30	32.17	-27.9	-43.4	-54.3	3.46	2.28	-77.5	-97.6	-118.7	-138.8	57.2	-112.64
4.50	36.13	3839.9	3827.3	3815.7	4.46	4.56	4.36	32.27	-29.1	-46.1	-53.0	3.48	0.81	-75.9	-97.5	-119.6	-139.9	81.8	-117.94
5.00	32.62	3857.5	3845.4	3833.1	4.58	4.56	4.49	32.38	-27.7	-46.7	-50.7	3.48	1.43	-75.7	-97.9	-119.3	-139.7	100.0	-119.37
5.50	31.27	3874.2	3861.7	3849.8	4.52	4.65	4.53	32.48	-26.8	-49.9	-50.1	3.42	2.40	-75.0	-97.4	-118.9	-139.6	139.3	-122.70
6.00	27.90	3889.7	3877.3	3864.7	4.64	4.56	4.63	32.58	-27.4	-52.7	-52.9	3.59	2.84	-75.0	-96.4	-118.9	-139.7	167.3	-123.64
6.50	24.84	3903.4	3891.3	3878.8	4.71	4.69	4.66	32.71	-27.8	-51.4	-53.6	3.14	1.91	-75.4	-97.3	-119.4	-139.8	199.2	-124.80
7.00	23.24	3916.2	3903.7	3892.0	4.71	4.84	4.67	32.78	-27.2	-53.3	-53.0	3.22	1.17	-74.3	-96.6	-119.5	-139.5	284.8	-126.96
7.50	20.98	3927.9	3915.3	3903.0	4.74	4.86	4.73	32.84	-26.8	-51.0	-51.5	3.25	0.47	-74.3	-97.0	-118.1	-138.1	342.1	-129.51
8.00	18.39	3938.2	3925.8	3913.2	4.78	4.82	4.80	32.90	-26.8	-49.8	-50.1	3.21	1.54	-73.5	-96.9	-117.9	-137.9	489.1	-132.73
9.00	14.81	3955.7	3943.1	3930.7	4.69	4.84	4.80	33.00	-25.7	-48.7	-50.8	3.21	2.48	-72.8	-95.9	-118.8	-139.1	582.3	-136.38
9.50	13.45	3963.2	3950.5	3938.0	4.67	4.79	4.82	33.03	-25.6	-47.7	-50.7	3.31	2.63	-72.5	-95.7	-118.3	-138.2	832.6	-138.70
10.00	12.32	3970.2	3957.3	3944.6	4.68	4.73	4.84	33.05	-25.6	-47.8	-52.2	3.40	2.63	-72.0	-95.9	-117.8	-138.4	1000.0	-139.83

*at 25°C unless mentioned otherwise



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