

Coaxial

Voltage Controlled Oscillator

ZX95-3800A+

Wide Band 1900 to 3700 MHz

Features

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



CASE STYLE: GB956

Applications

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

Connectors	Model
SMA	ZX95-3800A-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.	Max.	Vcc (volts)	Current (mA)
ZX95-3800A+	1900	3700	+5	-65	-89	-110	-130	0.5	20	60-150	50	70	-90	-22	-10	2	4.5	6	55			

Maximum Ratings

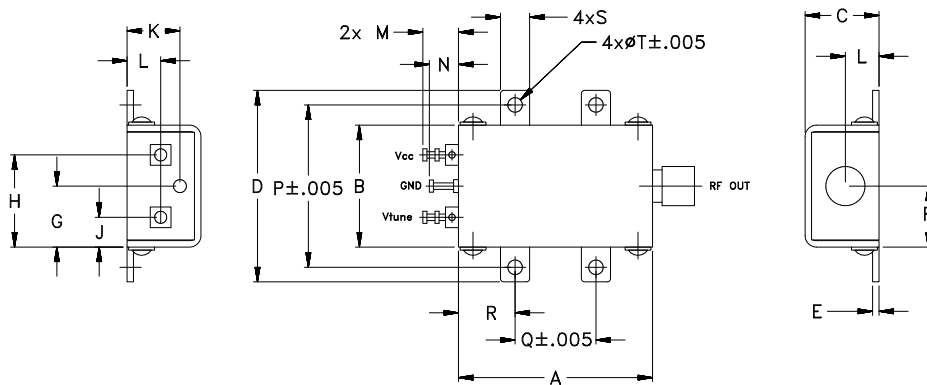
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	21V
All specifications	50 ohm system

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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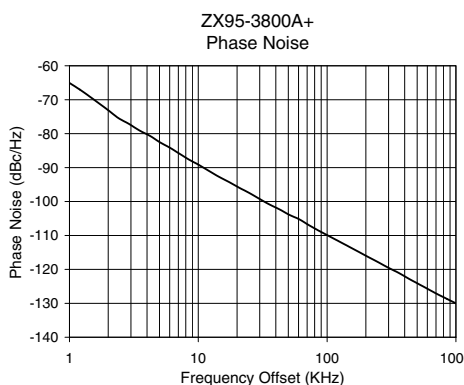
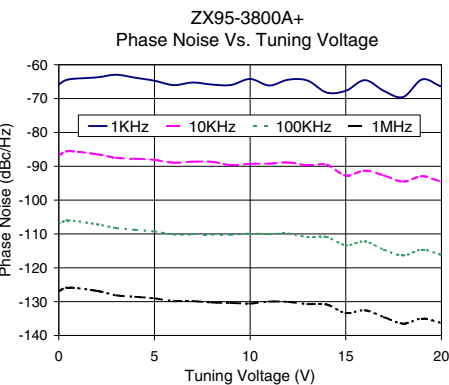
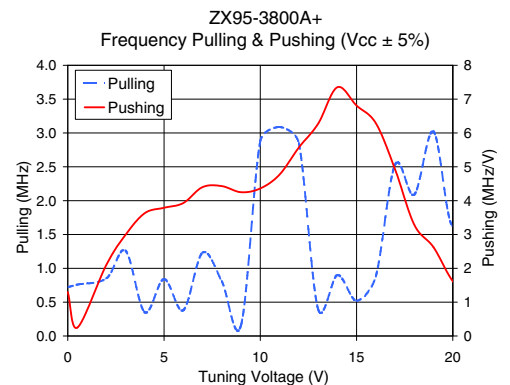
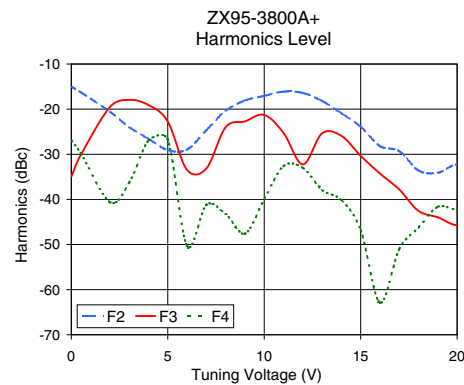
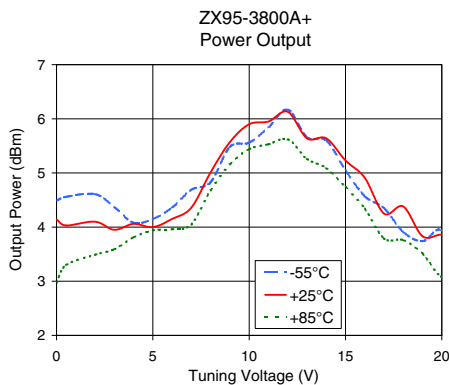
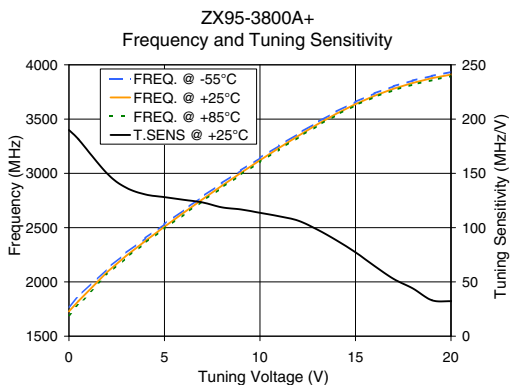
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Performance Data & Curves*

ZX95-3800A+

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 2800 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	189.89	1773.4	1728.6	1694.5	4.49	4.14	2.97	45.57	-15.0	-35.0	-26.9	1.30	0.72	-65.8	-86.8	-106.9	-126.9	1.0	-65.06
0.50	181.35	1865.4	1823.6	1791.2	4.56	4.03	3.30	45.58	-16.3	-30.1	-29.8	0.25	0.76	-64.4	-85.5	-106.0	-125.9	2.0	-73.10
2.00	149.82	2121.5	2091.3	2068.1	4.61	4.10	3.49	45.83	-20.6	-19.5	-40.6	2.10	0.85	-63.7	-86.5	-107.2	-126.8	3.5	-79.07
3.00	136.80	2267.9	2241.1	2222.1	4.37	3.95	3.59	46.08	-24.0	-18.0	-36.3	2.99	1.26	-63.0	-87.5	-108.3	-128.1	6.0	-84.11
4.00	130.57	2402.9	2377.9	2360.4	4.08	4.06	3.81	46.23	-26.6	-19.1	-27.0	3.63	0.35	-63.8	-87.8	-108.8	-128.6	8.5	-87.69
5.00	128.11	2532.7	2508.5	2491.5	4.15	4.00	3.94	46.40	-29.1	-22.8	-26.7	3.79	0.84	-64.7	-88.1	-109.3	-129.0	10.0	-89.12
6.00	125.63	2661.2	2636.6	2619.4	4.36	4.15	3.96	46.48	-29.0	-33.5	-50.3	3.93	0.38	-66.0	-89.0	-110.2	-129.8	20.8	-95.95
7.00	123.22	2786.9	2762.2	2745.0	4.69	4.36	4.05	46.50	-24.7	-33.1	-41.2	4.40	1.23	-65.3	-88.7	-110.2	-129.9	35.5	-100.82
8.00	118.70	2909.2	2885.5	2867.7	4.83	5.01	4.68	46.48	-20.4	-24.0	-43.2	4.43	0.81	-65.9	-88.7	-110.2	-130.3	60.7	-105.23
9.00	116.77	3027.0	3004.2	2987.9	5.48	5.57	5.16	46.50	-18.1	-22.7	-47.6	4.25	0.16	-66.0	-89.6	-110.2	-130.4	86.7	-108.65
10.00	113.65	3142.2	3120.9	3104.8	5.56	5.90	5.44	46.29	-17.1	-21.3	-40.0	4.36	2.88	-64.2	-89.3	-109.9	-130.6	100.0	-109.90
11.00	110.48	3255.1	3234.6	3220.1	5.84	5.95	5.53	46.15	-16.1	-25.3	-32.6	4.77	3.09	-66.1	-89.2	-110.0	-130.0	148.1	-113.33
12.00	106.45	3365.4	3345.1	3331.5	6.17	6.13	5.62	45.91	-16.4	-32.3	-33.0	5.57	2.85	-64.4	-88.9	-109.9	-130.1	177.0	-114.89
13.00	98.24	3470.1	3451.5	3437.7	5.66	5.64	5.26	45.62	-18.2	-25.4	-37.9	6.27	0.40	-64.7	-89.7	-110.9	-130.7	211.6	-116.49
14.00	88.34	3568.9	3549.8	3536.7	5.60	5.64	5.09	45.37	-20.9	-25.9	-40.2	7.35	0.90	-68.2	-89.6	-110.9	-130.8	302.4	-119.62
15.00	77.29	3658.0	3638.1	3626.7	5.05	5.23	4.74	45.19	-23.9	-30.4	-46.8	6.81	0.52	-67.7	-92.7	-113.4	-133.4	361.5	-121.09
16.00	64.66	3736.8	3715.4	3703.6	4.57	4.91	4.34	45.03	-28.2	-34.3	-62.9	6.29	0.88	-64.6	-91.3	-112.2	-132.6	507.5	-124.21
17.00	52.67	3802.4	3780.0	3766.3	4.35	4.25	3.79	44.94	-29.3	-37.8	-51.0	4.93	2.53	-67.7	-92.7	-114.7	-134.6	606.7	-125.81
18.00	44.03	3854.8	3832.7	3817.8	3.91	4.38	3.76	44.86	-33.6	-42.6	-46.3	3.29	2.09	-69.5	-94.5	-116.4	-136.5	851.6	-128.71
20.00	32.21	3934.5	3909.9	3896.2	3.94	3.86	3.08	44.77	-32.3	-45.7	-42.3	1.62	1.63	-66.4	-94.5	-116.1	-136.3	1000.0	-130.02

*at 25°C unless mentioned otherwise



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