

Coaxial

Voltage Controlled Oscillator

ZX95-3800-S+

5V Tuning for PLL ICs 3630 to 3800 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
- CATV



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-3800-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)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

Maximum Ratings

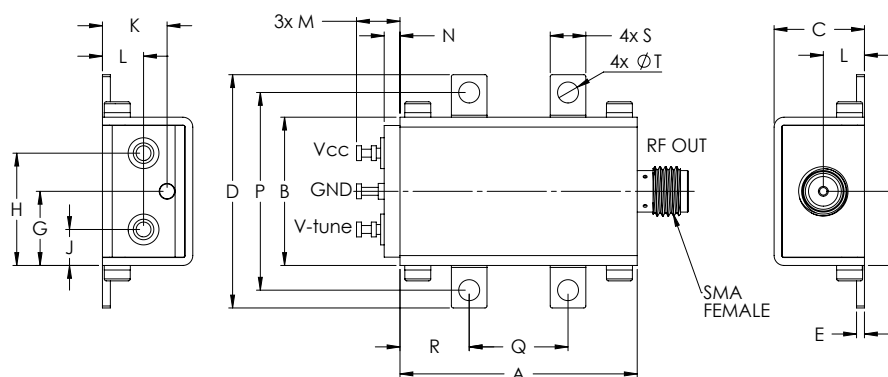
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

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	.08	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	2.03	25.40	12.70	8.89	4.57	2.69	35.0

Notes

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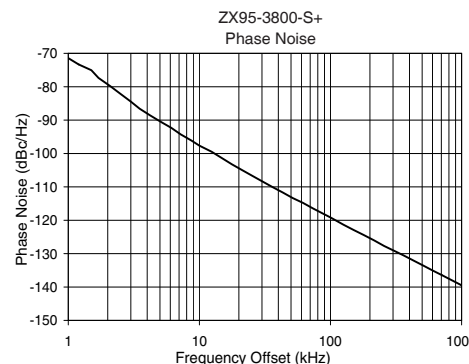
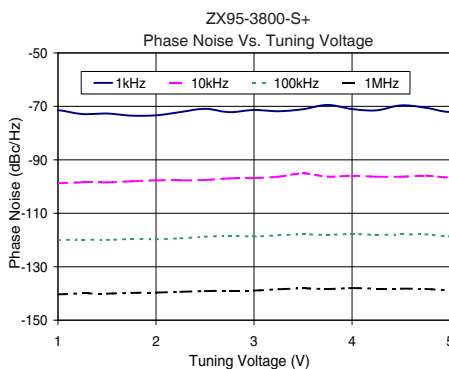
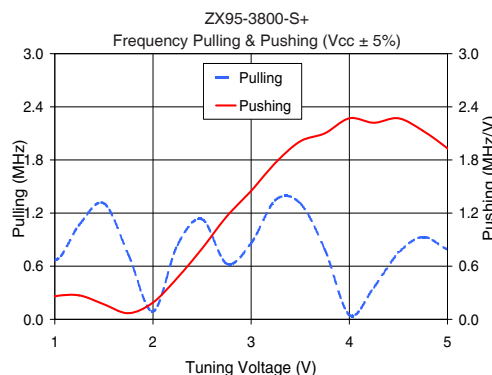
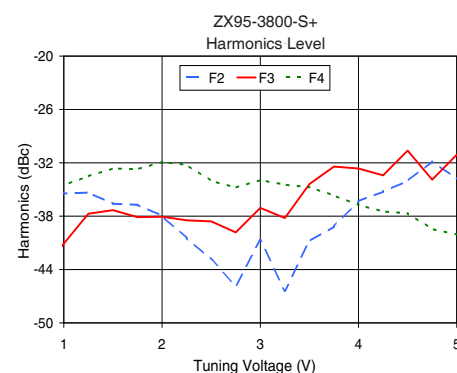
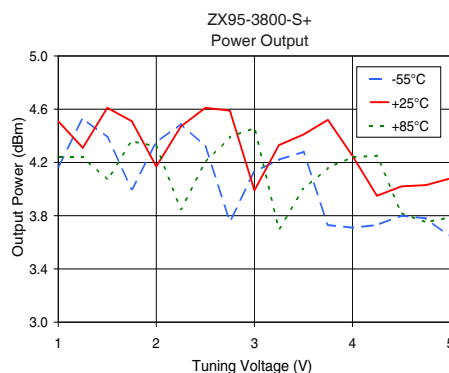
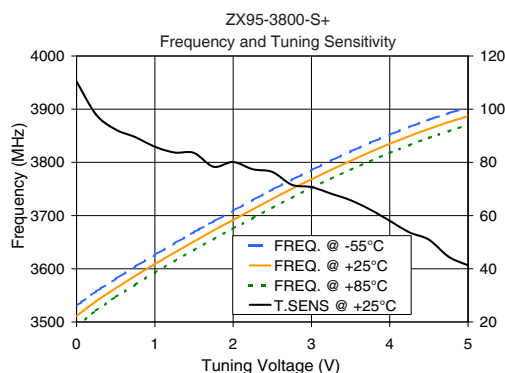
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Performance Data & Curves*

ZX95-3800-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 3715 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	110.43	3530.8	3511.3	3492.7	4.54	4.29	3.49	33.24	-32.7	-35.8	-38.5	0.93	1.53	-71.70	-98.2	-119.3	-139.4	1.0	-71.43
0.50	92.35	3581.2	3563.4	3547.1	4.46	4.12	4.21	33.46	-33.1	-43.7	-36.9	0.04	0.73	-72.76	-98.5	-119.9	-140.4	2.1	-79.88
0.75	89.51	3604.3	3586.5	3570.1	4.51	4.51	3.87	33.51	-34.0	-44.9	-35.6	0.18	1.11	-71.28	-98.6	-120.0	-140.4	3.5	-86.57
1.00	85.91	3626.3	3608.9	3592.4	4.17	4.51	4.24	33.60	-35.5	-41.1	-34.5	0.26	0.67	-71.43	-98.7	-120.0	-140.3	6.1	-92.30
1.25	83.71	3647.7	3630.4	3614.1	4.53	4.31	4.24	33.71	-35.3	-37.7	-33.5	0.27	1.07	-72.86	-98.4	-119.8	-140.0	8.7	-96.13
1.50	83.57	3668.9	3651.3	3634.9	4.39	4.61	4.07	33.79	-36.6	-37.3	-32.6	0.17	1.31	-72.65	-98.4	-120.0	-140.1	10.0	-97.66
1.75	78.36	3688.9	3672.2	3655.3	4.00	4.51	4.36	33.89	-36.7	-38.1	-32.7	0.07	0.73	-73.46	-98.0	-119.6	-139.8	21.1	-104.94
2.00	80.14	3709.4	3691.8	3675.8	4.35	4.17	4.32	34.01	-38.0	-38.1	-31.9	0.19	0.09	-73.35	-97.7	-119.7	-139.7	36.1	-110.06
2.25	77.44	3729.2	3711.8	3694.9	4.49	4.47	3.85	34.08	-40.5	-38.5	-32.2	0.47	0.84	-72.11	-97.7	-119.4	-139.4	61.6	-114.78
2.50	76.41	3748.9	3731.2	3714.3	4.32	4.61	4.20	34.15	-42.9	-38.6	-34.0	0.80	1.13	-70.92	-97.6	-118.8	-139.1	88.0	-118.04
2.75	71.58	3767.3	3750.3	3733.1	3.76	4.59	4.39	34.25	-45.8	-39.8	-34.8	1.16	0.63	-72.15	-96.9	-118.4	-139.0	100.0	-119.15
3.00	70.71	3785.6	3768.2	3751.6	4.13	3.99	4.46	34.38	-40.7	-37.1	-33.9	1.45	0.86	-71.35	-96.8	-118.7	-138.9	150.3	-122.94
3.25	68.25	3803.3	3785.8	3769.1	4.22	4.33	3.70	34.40	-46.4	-38.2	-34.5	1.77	1.35	-71.82	-96.3	-118.2	-138.4	179.6	-124.43
3.50	65.76	3820.4	3802.9	3785.8	4.28	4.41	4.00	34.44	-40.8	-34.4	-34.7	2.01	1.31	-71.08	-95.1	-117.9	-138.1	214.7	-126.01
3.75	62.26	3836.9	3819.3	3802.0	3.73	4.52	4.16	34.50	-39.2	-32.4	-35.7	2.10	0.79	-69.46	-96.3	-118.1	-138.4	306.7	-129.17
4.00	58.04	3852.1	3834.9	3817.8	3.71	4.25	4.24	34.53	-36.3	-32.6	-36.7	2.27	0.05	-71.01	-96.0	-117.7	-138.0	360.2	-130.52
4.25	53.69	3866.6	3849.4	3832.2	3.73	3.95	4.25	34.57	-35.2	-33.4	-37.5	2.22	0.36	-71.50	-96.3	-118.1	-138.2	505.5	-133.49
4.50	50.96	3880.2	3862.8	3846.1	3.80	4.02	3.82	34.57	-34.0	-30.6	-37.7	2.27	0.75	-69.64	-96.3	-117.9	-138.2	604.2	-135.11
4.75	44.57	3892.3	3875.6	3858.4	3.78	4.03	3.75	34.57	-31.8	-33.9	-39.5	2.13	0.93	-70.50	-96.0	-117.9	-138.3	995.8	-139.45
5.00	41.31	3903.9	3886.7	3869.9	3.64	4.08	3.79	34.56	-33.8	-31.1	-40.1	1.93	0.79	-72.05	-96.7	-118.6	-138.8	1000.0	-139.48

*at 25°C unless mentioned otherwise



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