

Voltage Controlled Oscillator

ZX95-850+

Linear Tuning 750 to 850 MHz

Features

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

Applications

- r & d
- lab
- instrumentation
- wireless broadband access



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-850-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)
									Min.	Max.													
ZX95-850+	750	850	+5	-86	-110	-130	-150	0	10	18-21	50	100	-90	-25	-15	1	0.5	5	30				

Maximum Ratings

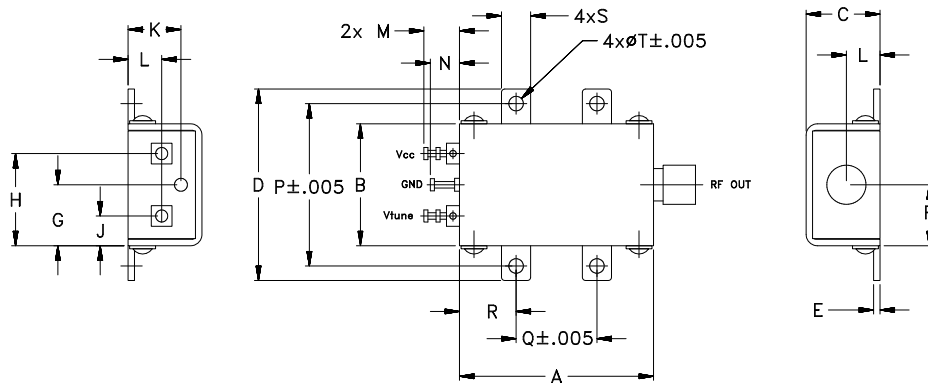
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	12V
All specifications	50 ohm system

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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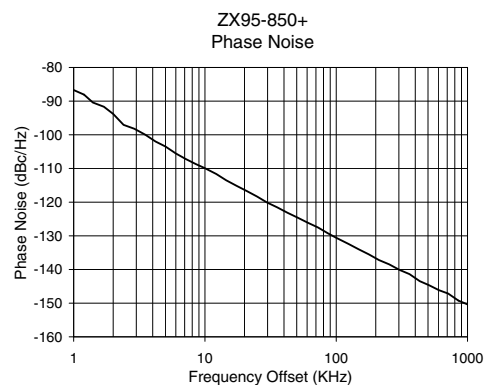
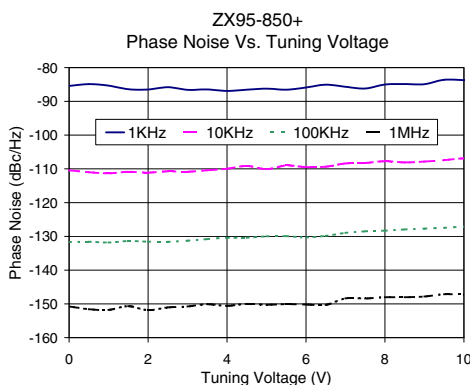
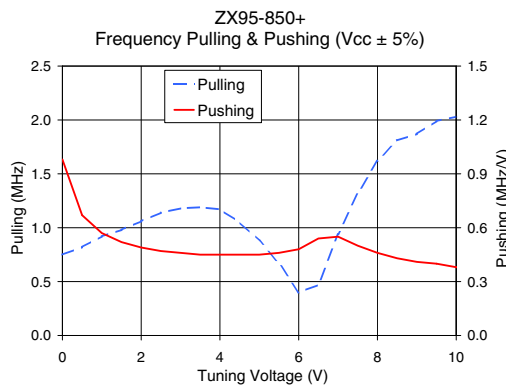
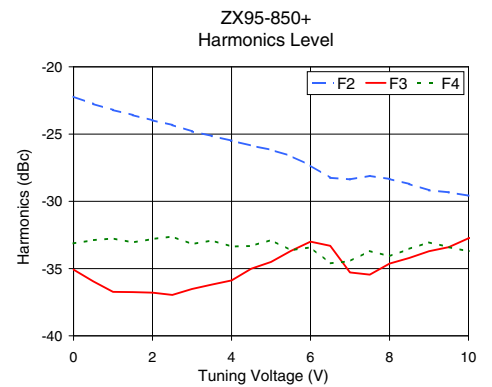
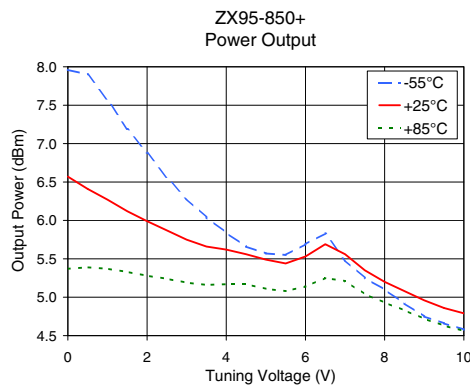
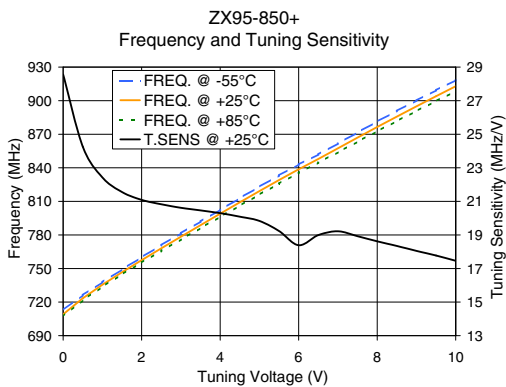


Performance Data & Curves*

ZX95-850+

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 800 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	28.56	712.9	709.1	707.3	7.96	6.57	5.37	24.59	-22.2	-35.1	-33.1	0.98	0.75	-85.4	-110.4	-131.7	-150.8	1.0	-86.70
0.50	24.26	726.2	723.4	721.7	7.90	6.41	5.39	24.61	-22.8	-36.0	-32.9	0.67	0.82	-84.9	-111.0	-131.6	-151.6	2.0	-93.81
1.00	22.43	737.8	735.5	733.7	7.57	6.27	5.37	24.62	-23.2	-36.7	-32.8	0.57	0.92	-85.3	-111.3	-131.8	-151.8	3.5	-99.94
1.50	21.56	749.1	746.7	744.8	7.19	6.12	5.33	24.63	-23.6	-36.8	-33.1	0.52	0.98	-86.4	-110.9	-131.4	-150.7	6.0	-105.54
2.00	21.09	760.1	757.5	755.4	6.88	5.99	5.28	24.64	-24.0	-36.8	-32.8	0.49	1.06	-86.5	-111.1	-131.6	-151.9	8.5	-108.67
2.50	20.83	770.9	768.0	765.8	6.56	5.87	5.24	24.65	-24.3	-37.0	-32.6	0.47	1.14	-85.8	-110.7	-131.6	-151.0	10.0	-109.93
3.00	20.62	781.5	778.4	776.0	6.28	5.75	5.19	24.66	-24.8	-36.5	-33.2	0.46	1.18	-86.6	-110.9	-131.3	-150.8	20.8	-116.69
3.50	20.46	792.1	788.7	786.2	6.04	5.66	5.16	24.67	-25.1	-36.2	-32.9	0.45	1.19	-86.5	-110.4	-130.8	-150.1	35.5	-121.54
4.00	20.30	802.5	799.0	796.2	5.84	5.62	5.17	24.68	-25.5	-35.9	-33.4	0.45	1.17	-86.9	-110.0	-130.4	-150.6	60.7	-126.11
4.50	20.09	812.9	809.1	806.2	5.66	5.56	5.17	24.70	-25.9	-35.0	-33.3	0.45	1.05	-86.5	-109.1	-130.4	-150.0	86.7	-129.29
5.00	19.84	823.1	819.2	816.1	5.57	5.49	5.11	24.71	-26.2	-34.5	-32.9	0.45	0.88	-86.2	-110.1	-130.0	-150.3	100.0	-130.60
5.50	19.23	833.2	829.1	825.9	5.55	5.44	5.08	24.73	-26.6	-33.7	-33.6	0.46	0.67	-86.5	-109.0	-129.9	-150.1	148.1	-134.00
6.00	18.38	842.9	838.7	835.4	5.69	5.53	5.14	24.74	-27.3	-33.0	-33.4	0.48	0.40	-85.9	-109.5	-130.3	-150.2	177.0	-135.51
6.50	18.99	851.9	847.9	844.6	5.83	5.69	5.25	24.74	-28.3	-33.3	-34.6	0.54	0.47	-85.1	-109.4	-129.8	-150.3	211.6	-137.19
7.00	19.22	861.7	857.4	853.9	5.48	5.56	5.21	24.74	-28.4	-35.3	-34.5	0.55	0.94	-85.7	-108.4	-129.0	-148.4	302.4	-140.09
7.50	18.93	871.7	867.0	863.3	5.25	5.35	5.04	24.76	-28.1	-35.5	-33.7	0.50	1.32	-86.2	-108.3	-128.5	-148.4	361.5	-141.37
8.00	18.62	881.3	876.5	872.6	5.10	5.20	4.93	24.77	-28.3	-34.6	-34.1	0.46	1.62	-85.0	-107.7	-128.3	-148.0	507.5	-144.64
8.50	18.34	890.8	885.8	881.7	4.92	5.08	4.83	24.79	-28.7	-34.2	-33.5	0.43	1.81	-84.9	-108.1	-128.0	-148.0	606.7	-146.16
9.00	18.05	900.1	894.9	890.7	4.75	4.96	4.72	24.82	-29.2	-33.7	-33.1	0.41	1.87	-84.9	-107.8	-127.7	-147.8	851.6	-149.23
10.00	17.46	918.3	912.9	908.3	4.58	4.79	4.56	24.86	-29.6	-32.8	-33.7	0.38	2.03	-83.7	-106.9	-127.1	-147.3	1000.0	-150.38

*at 25°C unless mentioned otherwise



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