

Voltage Controlled Oscillator

ZX95-860+

5V Tuning for PLL IC's 740 to 860 MHz

Features

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



CASE STYLE: GB956

Applications

- r & d
- lab
- instrumentation
- wireless communications
- industrial microwave & RF

Connectors	Model
SMA	ZX95-860-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)
ZX95-860+	740	860	+6	-80	-107	-128	-148	0.25	5	32-50	35	50	-90	-17	-10	2	0.3	5	30			

Maximum Ratings

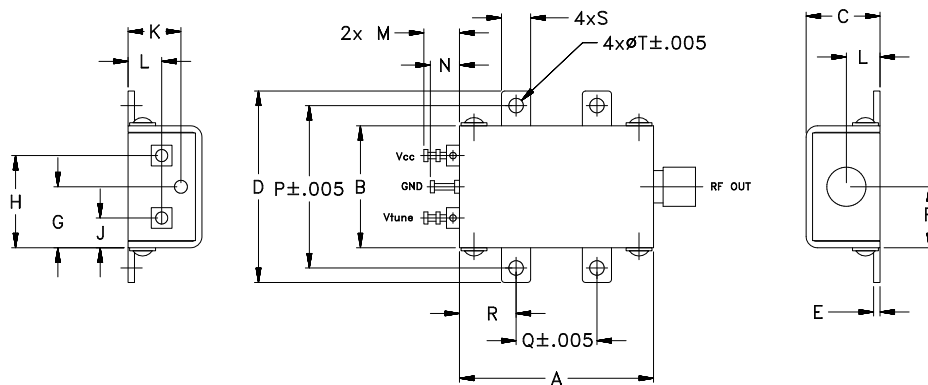
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

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	.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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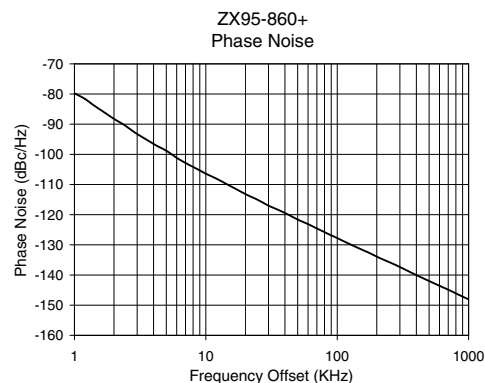
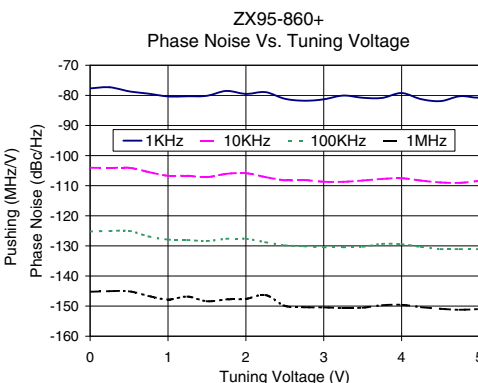
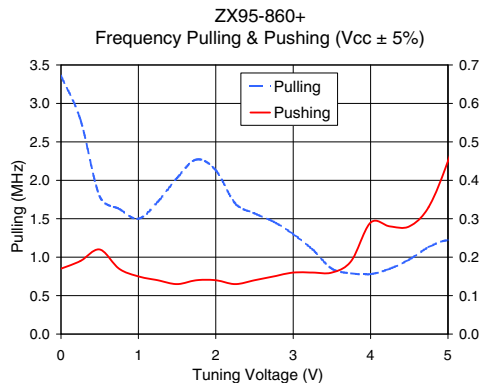
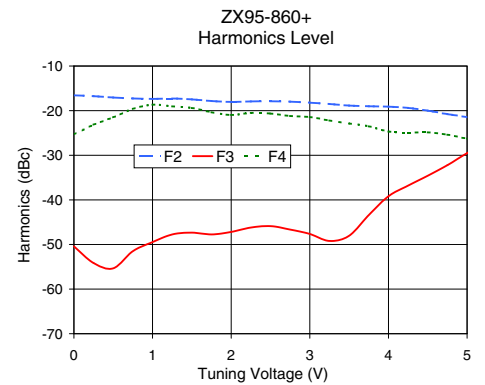
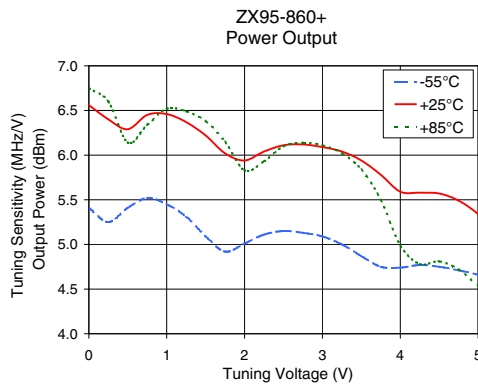
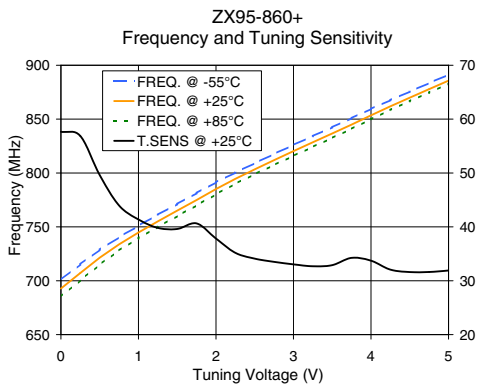


Performance Data & Curves*

ZX95-860+

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	57.66	700.9	692.7	685.3	5.41	6.56	6.75	21.78	-16.6	-50.4	-25.3	0.17	3.36	-77.7	-104.0	-125.2	-145.2	1.0	-79.76
0.25	56.87	715.3	707.2	700.4	5.25	6.40	6.60	21.65	-16.8	-54.2	-23.2	0.19	2.79	-77.3	-104.2	-125.1	-145.1	2.0	-88.23
0.50	49.61	728.8	721.4	714.9	5.41	6.29	6.14	21.63	-17.1	-55.4	-21.5	0.22	1.79	-78.7	-104.1	-125.0	-145.1	3.5	-95.02
0.75	43.97	740.4	733.8	728.1	5.52	6.45	6.34	21.99	-17.3	-51.5	-19.6	0.17	1.63	-79.4	-105.5	-126.9	-146.6	6.0	-101.14
1.00	41.37	751.0	744.8	739.5	5.45	6.46	6.52	22.22	-17.4	-49.5	-18.7	0.15	1.50	-80.4	-106.7	-127.9	-147.8	8.5	-104.77
1.25	39.82	761.2	755.1	750.0	5.31	6.37	6.49	22.29	-17.3	-47.8	-19.0	0.14	1.72	-80.3	-106.7	-128.0	-146.9	10.0	-106.41
1.50	39.62	771.2	765.1	760.1	5.09	6.22	6.38	22.23	-17.5	-47.4	-19.4	0.13	2.03	-80.1	-107.2	-128.4	-148.4	20.8	-113.53
1.75	40.64	781.4	775.0	770.0	4.92	6.02	6.15	22.07	-17.9	-47.7	-20.4	0.14	2.27	-78.5	-106.1	-127.7	-147.8	35.5	-118.38
2.00	37.84	791.4	785.1	780.2	5.01	5.94	5.83	22.07	-18.0	-47.2	-21.0	0.14	2.13	-79.5	-105.9	-127.7	-147.6	60.7	-123.23
2.25	35.18	800.4	794.6	790.0	5.11	6.04	5.93	22.34	-17.9	-46.2	-20.5	0.13	1.70	-78.9	-107.1	-128.8	-146.3	86.7	-126.53
2.50	34.10	809.1	803.4	798.9	5.15	6.11	6.10	22.54	-17.9	-45.9	-20.7	0.14	1.57	-81.1	-108.2	-129.8	-149.9	100.0	-127.76
2.75	33.50	817.6	811.9	807.4	5.13	6.12	6.14	22.64	-18.0	-46.7	-21.2	0.15	1.46	-81.8	-108.1	-130.1	-150.4	148.1	-131.25
3.00	33.03	826.0	820.3	815.9	5.09	6.09	6.11	22.65	-18.2	-47.6	-21.5	0.16	1.30	-81.3	-108.7	-130.4	-150.4	177.0	-132.77
3.25	32.69	834.2	828.5	824.2	5.00	6.04	6.02	22.61	-18.5	-49.2	-22.2	0.16	1.10	-80.1	-108.7	-130.5	-150.6	211.6	-134.42
3.50	32.89	842.4	836.7	832.5	4.87	5.94	5.84	22.52	-18.9	-48.1	-22.9	0.16	0.85	-80.8	-108.3	-130.3	-150.5	302.4	-137.43
3.75	34.25	850.9	844.9	841.0	4.75	5.78	5.50	22.36	-19.0	-43.4	-23.5	0.19	0.79	-80.9	-107.8	-129.3	-149.7	361.5	-139.11
4.00	33.72	859.5	853.5	849.8	4.74	5.59	4.99	22.24	-19.1	-39.2	-24.7	0.29	0.78	-79.2	-107.5	-129.5	-149.6	507.5	-142.11
4.25	32.07	867.7	861.9	858.6	4.77	5.58	4.78	22.35	-19.4	-36.8	-24.9	0.28	0.85	-81.3	-108.3	-130.3	-150.4	606.7	-143.66
4.50	31.61	875.6	869.9	866.7	4.75	5.57	4.81	22.45	-20.0	-34.6	-24.9	0.28	0.97	-81.9	-108.9	-131.1	-150.9	851.6	-146.67
5.00	31.91	891.2	885.8	882.7	4.66	5.34	4.53	22.44	-21.5	-29.5	-26.3	0.45	1.22	-80.7	-108.4	-131.1	-151.0	1000.0	-148.06

*at 25°C unless mentioned otherwise



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