

Coaxial

# Voltage Controlled Oscillator

## ZX95-680+

5V Tuning for PLL IC's 650 to 680 MHz

### Features

- linear tuning characteristics
- low phase noise
- low pushing
- low pulling
- 0.5-5V tuning voltage range
- protected by US patent 6,790,049



CASE STYLE: GB956

### Applications

- r&d
- lab
- instrumentation
- PLL circuitry
- wireless microphones

Connectors	Model	Price	Qty.
SMA	ZX95-680-S+	\$44.95 ea.	(1-9)

**+RoHS Compliant**  
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

### Electrical Specifications

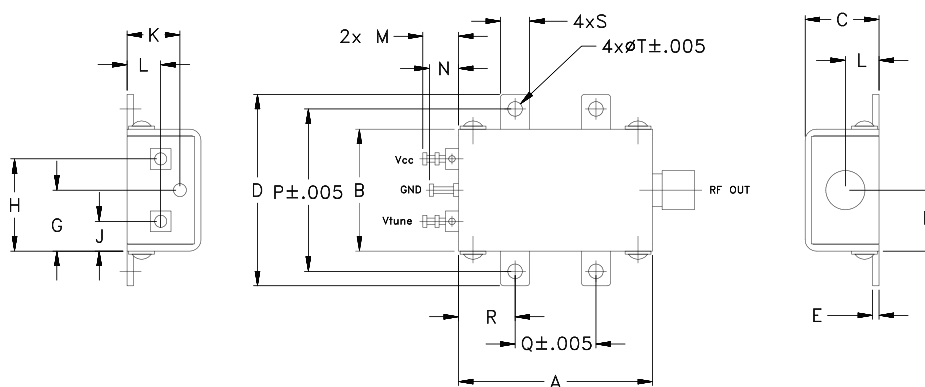
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, KHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Typ.	Typ.
ZX95-680+	650	680	+0.5	-91	-114	-134	-154	0.5	5	11-12	70	50	-90	-24	-16	0.3	0.2	5	18

### 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.

### 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



For detailed performance specs & shopping online see web site

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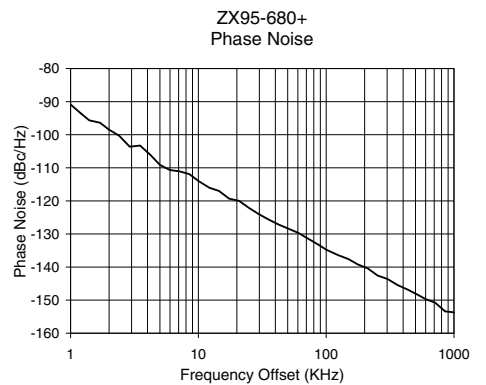
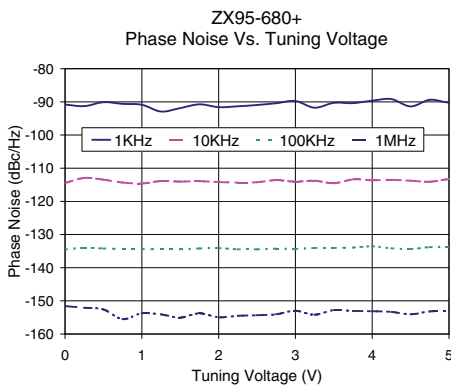
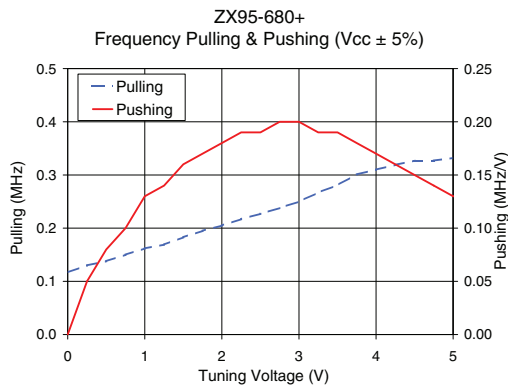
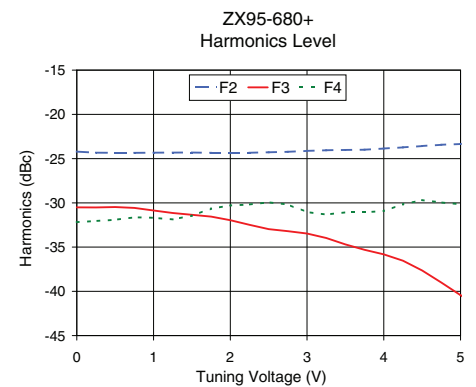
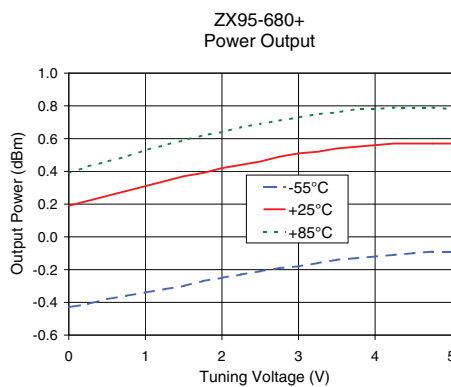
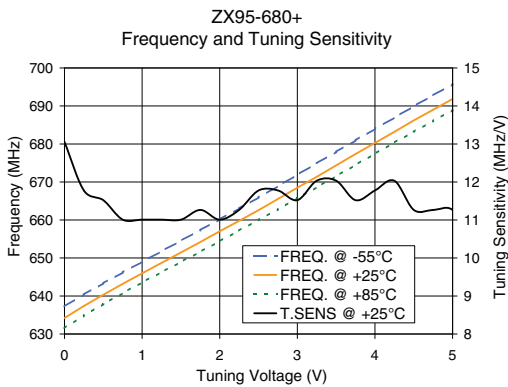
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EDR-7747/17  
ZX95-680+  
RAV  
120830  
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# Performance Data & Curves\*

# ZX95-680+

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 652 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	13.06	637.3	634.2	631.6	-0.43	0.19	0.39	12.87	-24.2	-30.5	-32.2	0.00	0.12	-90.8	-114.5	-134.5	-151.6	1.0	-90.86
0.50	11.52	643.4	640.3	637.9	-0.38	0.25	0.46	12.91	-24.4	-30.5	-31.9	0.08	0.14	-90.1	-113.5	-134.2	-152.6	2.0	-98.49
0.75	11.01	646.2	643.2	640.8	-0.36	0.28	0.49	12.93	-24.4	-30.6	-31.6	0.10	0.15	-90.6	-114.3	-134.3	-155.5	3.5	-103.27
1.00	11.01	649.0	646.0	643.6	-0.34	0.31	0.53	12.95	-24.3	-30.9	-31.7	0.13	0.16	-90.9	-114.6	-134.4	-153.8	6.0	-110.68
1.25	11.01	651.8	648.7	646.3	-0.32	0.34	0.56	12.97	-24.3	-31.2	-31.9	0.14	0.17	-92.9	-113.9	-134.5	-154.1	8.5	-111.92
1.50	11.01	654.5	651.5	649.0	-0.30	0.37	0.59	12.99	-24.3	-31.4	-31.5	0.16	0.18	-91.9	-114.1	-134.4	-155.1	10.0	-113.97
1.75	11.26	657.3	654.2	651.6	-0.27	0.39	0.62	13.00	-24.4	-31.6	-30.7	0.17	0.20	-90.7	-113.9	-134.2	-153.8	20.8	-119.98
2.00	11.01	660.2	657.0	654.4	-0.25	0.42	0.64	13.02	-24.4	-32.0	-30.3	0.18	0.21	-91.6	-114.2	-134.1	-155.0	35.5	-125.65
2.25	11.26	663.0	659.8	657.2	-0.23	0.44	0.67	13.04	-24.3	-32.5	-30.2	0.19	0.22	-91.3	-114.4	-134.5	-154.5	60.7	-129.70
2.50	11.78	666.0	662.6	660.0	-0.21	0.46	0.69	13.07	-24.3	-33.0	-29.9	0.19	0.23	-91.0	-114.2	-134.5	-154.3	86.7	-133.21
2.75	11.78	668.9	665.5	662.8	-0.19	0.49	0.71	13.08	-24.2	-33.2	-30.2	0.20	0.24	-90.4	-113.6	-134.2	-154.1	100.0	-134.74
3.00	11.52	671.9	668.5	665.7	-0.18	0.51	0.73	13.10	-24.1	-33.5	-31.0	0.20	0.25	-89.7	-114.1	-134.3	-153.0	148.1	-137.52
3.25	12.03	674.9	671.4	668.6	-0.16	0.52	0.75	13.12	-24.1	-34.0	-31.3	0.19	0.27	-91.8	-113.8	-134.1	-154.2	177.0	-139.20
3.50	12.03	677.9	674.4	671.6	-0.14	0.54	0.76	13.15	-24.0	-34.7	-31.1	0.19	0.28	-90.3	-114.5	-134.1	-152.8	211.6	-140.40
3.75	11.52	681.0	677.4	674.5	-0.13	0.55	0.78	13.17	-24.0	-35.3	-31.1	0.18	0.30	-90.4	-113.4	-133.9	-153.0	302.4	-143.61
4.00	11.78	684.0	680.3	677.4	-0.12	0.56	0.78	13.19	-23.9	-35.8	-30.9	0.17	0.31	-89.6	-113.7	-133.6	-153.1	361.5	-145.44
4.25	12.03	687.0	683.2	680.4	-0.11	0.57	0.79	13.20	-23.7	-36.5	-30.2	0.16	0.32	-89.2	-113.5	-134.2	-153.3	507.5	-148.16
4.50	11.26	689.9	686.2	683.2	-0.10	0.57	0.79	13.22	-23.6	-37.6	-29.7	0.15	0.33	-91.4	-113.8	-134.3	-154.0	600.0	-149.69
4.75	11.26	692.8	689.0	686.1	-0.09	0.57	0.79	13.24	-23.4	-39.0	-30.0	0.14	0.33	-89.4	-114.1	-133.8	-153.2	851.6	-153.40
5.00	11.26	695.7	691.8	688.9	-0.09	0.57	0.78	13.25	-23.4	-40.4	-30.2	0.13	0.33	-90.2	-113.3	-133.7	-153.2	1000.0	-153.69

\*at 25°C unless mentioned otherwise



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