

# Voltage Controlled Oscillator

## ZX95-6840C+

Frequency Doubling 6740 to 6840 MHz

### Features

- frequency based on multiplication of carrier frequency
- low phase noise
- low pushing
- low pulling
- 5V tuning voltage range
- protected by US patent 6,790,049

### Applications

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



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-6840C-S+

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

### Electrical Specifications

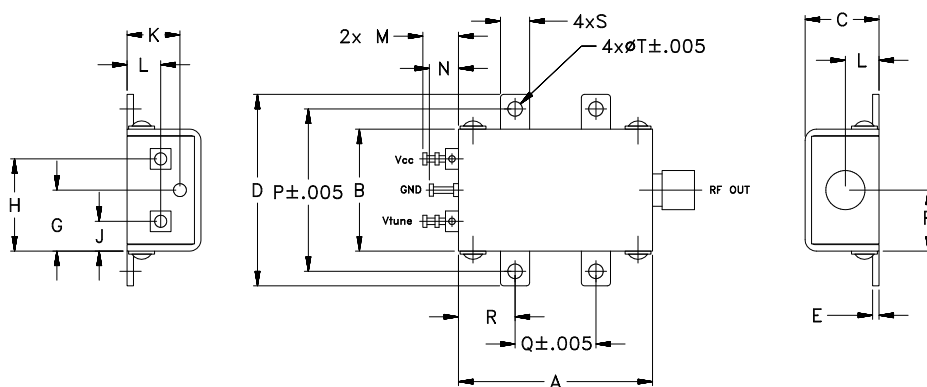
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)			PULLING pk-pk @12 dBr (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	F 2X(1/2F)			dBc/Hz SSB at offset frequencies,kHz				VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	Max.		F0.5	F1.5	F2			Vcc (volts)	Current (mA)
	Min.	Max.		Typ.	1	10	100													
ZX95-6840C+	6740	6840	+1	-69	-95	-119	-139	0.5	4.5	85-100	15	125	-90	-15	-12	-15	1	6	5	38

### 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

# Performance Data & Curves\*

# ZX95-6840C+

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 6790 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F0.5	F1.5	F2			1kHz	10kHz	100kHz	1MHz		
0.00	107.5	6645.7	6619.4	6596.9	2.92	0.28	0.23	27.59	-31.2	-24.3	-22.6	1.31	1.77	-69.4	-96.9	-119.0	-138.7	1.0	-68.19
0.25	97.8	6671.7	6646.2	6625.1	2.22	2.12	-0.81	27.86	-32.5	-27.7	-24.1	2.56	1.91	-69.9	-97.9	-120.7	-140.4	2.0	-77.16
0.50	95.9	6695.7	6670.7	6650.1	3.31	2.15	0.56	28.00	-32.1	-28.8	-24.0	3.52	1.31	-70.7	-97.6	-120.8	-140.7	3.5	-84.09
0.75	90.1	6719.0	6694.7	6673.4	2.21	2.29	0.73	28.18	-31.8	-29.2	-24.4	4.05	1.89	-70.8	-97.7	-120.9	-141.0	6.0	-89.65
1.00	94.0	6742.3	6717.2	6696.5	3.12	2.52	0.67	28.30	-32.0	-30.9	-24.5	4.68	2.37	-69.7	-97.6	-121.2	-141.0	8.5	-92.73
1.25	88.2	6764.2	6740.7	6718.5	3.72	0.76	1.02	28.40	-29.8	-27.8	-23.4	5.58	0.81	-69.2	-96.2	-120.2	-140.2	10.0	-94.37
1.50	88.1	6786.8	6762.7	6741.1	2.78	2.69	-0.31	28.61	-31.3	-32.5	-25.8	5.55	2.01	-70.2	-96.8	-121.0	-140.6	20.8	-103.69
1.75	92.6	6810.6	6784.8	6763.3	2.04	2.73	0.65	28.70	-31.0	-28.4	-26.2	6.17	3.08	-69.7	-95.9	-120.4	-140.6	35.5	-109.21
2.00	90.4	6831.8	6807.9	6784.9	4.04	1.09	1.18	28.78	-28.9	-26.9	-25.1	7.00	1.11	-67.5	-94.8	-119.4	-139.6	60.7	-114.03
2.25	87.6	6854.6	6830.5	6807.3	3.34	2.36	0.44	29.00	-29.7	-28.4	-26.3	6.37	1.27	-66.6	-95.7	-120.5	-140.6	86.7	-117.42
2.50	91.4	6878.5	6852.4	6830.6	0.99	2.93	-0.99	29.02	-29.8	-25.1	-26.8	7.11	2.91	-68.6	-94.7	-119.7	-139.5	100.0	-118.85
2.75	94.4	6900.6	6875.3	6851.6	3.33	1.93	1.25	29.07	-28.8	-26.0	-25.6	7.52	1.92	-68.1	-93.7	-119.0	-138.9	148.1	-122.24
3.00	86.8	6923.7	6898.9	6873.9	2.79	0.32	0.78	29.24	-26.9	-21.0	-24.1	7.00	0.81	-67.7	-94.2	-119.0	-138.9	177.0	-123.84
3.25	90.0	6947.0	6920.6	6896.9	1.45	2.12	-1.33	29.29	-28.4	-22.3	-26.0	7.45	2.07	-67.9	-93.5	-118.4	-138.5	302.4	-128.66
3.50	86.3	6968.5	6943.0	6918.2	2.35	1.16	0.01	29.41	-26.9	-21.3	-25.1	7.39	2.09	-66.9	-92.8	-117.2	-137.6	361.5	-130.23
3.75	81.9	6990.8	6964.6	6939.6	1.29	0.71	-0.03	29.56	-25.9	-19.5	-24.5	6.55	1.12	-66.1	-93.1	-117.5	-137.8	507.5	-133.12
4.00	82.0	7011.7	6985.1	6960.7	1.04	1.13	-1.34	29.57	-26.1	-20.2	-24.8	7.02	1.32	-65.8	-92.7	-116.4	-136.6	606.7	-134.68
4.25	73.2	7030.9	7005.6	6979.8	2.20	-0.32	-0.60	29.69	-24.3	-18.9	-23.0	6.72	1.52	-66.2	-91.9	-115.7	-135.7	851.6	-137.31
4.50	67.4	7050.2	7023.9	6998.7	0.79	-0.13	-0.96	29.79	-24.1	-18.1	-23.1	6.00	1.35	-66.2	-92.6	-116.4	-136.4	1000.0	-138.79

\*at 25°C unless mentioned otherwise

