

# Voltage Controlled Oscillator

## ZX95-6740C+

Frequency Doubling 6640 to 6740 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 broadband access



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-6740C-S+	\$ 54.95 ea.	(1-9)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

*The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.*

### Electrical Specifications

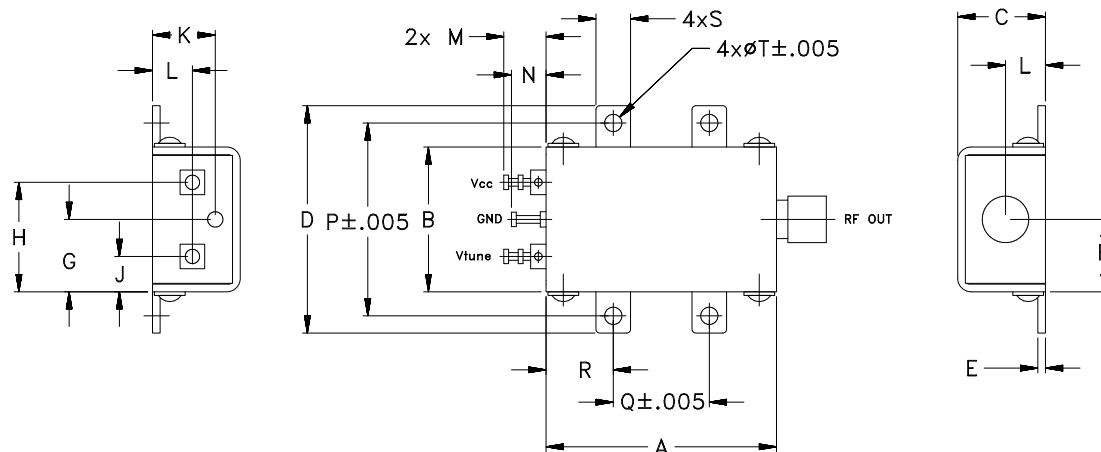
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING				NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)			PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER				
	F 2X(1/2F)			Typ.				VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Max.	F0.5	F1.5			F2	Typ.	Typ.	Vcc (volts)	Current (mA)
	Min.	Max.		1	10	100	1000															
ZX95-6740C+	6640	6740	+2	-70	-97	-120	-140	0.5	5	75 - 90	10	300	-90	-22	-17	-18	1	3	5	35		

### 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	.45	.57	.18	.33	.21	.22	.18	1.00	.50	.35	.18	.106	GRAM
30.48	19.05	11.68	29.97	1.02	9.65	11.43	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

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

**Notes:** 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

# Performance Data & Curves\*

# ZX95-6740C+

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 6690 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	80.09	6524.1	6500.1	6482.6	1.48	0.12	-1.10	26.86	-33.3	-25.9	-25.6	1.62	0.34	-70.9	-97.5	-121.1	-140.7	1.0	-68.29
0.25	73.73	6543.1	6520.1	6503.2	2.01	0.45	-0.77	27.01	-33.1	-27.9	-26.8	2.04	0.55	-70.1	-98.3	-121.3	-141.0	2.0	-77.64
0.50	72.64	6561.6	6538.6	6522.0	1.84	1.20	-0.88	27.13	-33.1	-27.9	-30.0	2.30	0.88	-69.5	-98.9	-122.0	-141.6	3.5	-84.80
0.75	71.99	6579.5	6556.7	6540.0	1.58	1.25	-0.14	27.22	-32.5	-32.4	-31.3	2.53	0.74	-69.5	-98.1	-121.4	-140.7	6.0	-92.26
1.00	71.71	6597.3	6574.7	6557.7	1.67	1.06	0.05	27.32	-31.9	-32.5	-30.3	2.64	0.32	-69.3	-98.6	-121.1	-140.3	8.5	-94.57
1.25	69.81	6614.5	6592.7	6575.5	2.56	0.61	-0.09	27.43	-31.3	-28.4	-26.9	2.74	0.91	-69.9	-97.6	-121.5	-141.2	10.0	-96.96
1.50	70.48	6632.0	6610.1	6593.2	3.01	1.42	-0.31	27.54	-32.0	-32.3	-26.3	2.74	1.00	-70.3	-98.0	-121.7	-141.2	20.8	-105.66
1.75	74.24	6650.5	6627.7	6611.0	2.67	1.87	-0.21	27.59	-32.5	-31.0	-28.6	2.94	0.71	-69.8	-97.9	-121.2	-140.9	35.5	-111.33
2.00	77.62	6669.5	6646.3	6628.7	2.69	1.70	0.47	27.60	-32.3	-31.8	-29.8	3.23	0.68	-68.8	-96.5	-121.0	-140.8	60.7	-116.27
2.25	77.58	6688.2	6665.7	6647.3	3.00	1.66	0.52	27.66	-31.7	-30.0	-28.1	3.31	1.21	-69.5	-96.6	-121.3	-140.9	86.7	-119.47
2.50	78.59	6707.3	6685.1	6666.9	2.84	1.94	0.15	27.75	-31.2	-33.8	-27.0	3.35	1.16	-68.4	-96.6	-120.7	-140.6	100.0	-120.70
2.75	83.00	6727.7	6704.7	6686.6	3.17	1.82	0.47	27.79	-30.4	-30.1	-26.6	3.55	0.70	-68.8	-96.2	-121.6	-140.5	148.1	-123.25
3.00	85.07	6748.7	6725.5	6706.6	3.44	1.52	0.47	27.82	-29.5	-27.3	-28.2	3.65	1.12	-68.7	-95.9	-120.7	-140.6	177.0	-124.59
3.25	88.86	6770.4	6746.8	6727.7	3.22	1.88	-0.24	27.82	-29.7	-26.7	-31.0	3.91	1.20	-68.2	-96.0	-120.3	-140.1	211.6	-127.11
3.50	90.37	6793.0	6769.0	6749.3	1.86	1.74	0.33	27.84	-29.4	-23.8	-26.5	3.90	0.51	-67.7	-97.0	-120.4	-139.8	302.4	-130.06
3.75	88.58	6815.0	6791.6	6771.6	2.72	0.84	0.30	27.87	-27.9	-26.1	-25.8	3.73	0.98	-67.0	-95.5	-119.9	-139.8	361.5	-131.83
4.00	93.52	6838.8	6813.7	6794.0	2.29	1.24	-0.26	27.82	-27.9	-24.6	-27.7	3.44	0.68	-67.3	-95.2	-119.5	-139.1	507.5	-135.76
4.25	91.85	6862.6	6837.1	6816.5	1.61	0.70	-0.89	27.80	-26.7	-22.1	-29.8	2.93	0.48	-65.7	-93.9	-118.3	-138.6	606.7	-136.26
4.50	85.47	6884.8	6860.1	6839.0	1.88	0.10	-0.89	27.85	-25.7	-20.9	-29.2	1.96	0.86	-64.4	-93.7	-117.8	-138.5	851.6	-139.39
5.00	78.37	6928.1	6901.9	6882.0	-0.23	0.07	-1.84	27.84	-26.2	-20.8	-28.3	0.17	0.36	-63.4	-92.6	-116.2	-136.4	1000.0	-141.04

\*at 25°C unless mentioned otherwise

