

Coaxial

# Voltage Controlled Oscillator

## ZX95-6520C+

Frequency Doubling 6385 to 6520 MHz

### Features

- Frequency based on multiplication of carrier frequency
- Low phase noise
- Low pushing
- Low pulling
- Protected by US patent 6,790,049



CASE STYLE: GB956

### Applications

- R&D
- LAB
- Instrumentation
- Wireless communications
- Wireless broadband access

Connectors	Model	Price	Qty.
SMA	ZX95-6520C-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

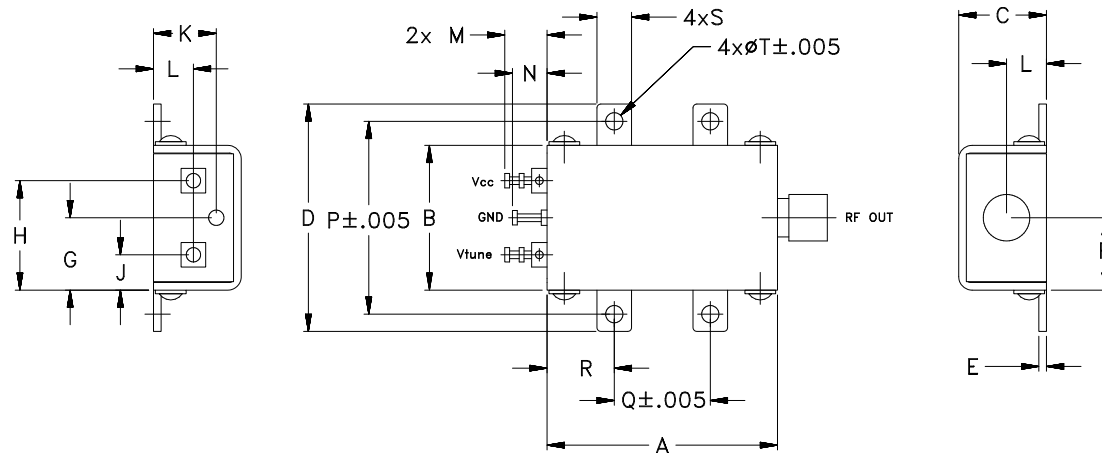
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc) Max.			PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	F 2X(1/2F)			Typ.				VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP 0	3 dB MODULATION BANDWIDTH (MHz)	F0.5		F1.5	F2	Vcc (volts)			Current (mA)	
	Min.	Max.		1	10	100	1000													Min.
ZX95-6520C+	6385	6520	+1.3	-74	-103	-123	-143	0.5	4.5	62 - 95	13	110	-90	-13	-13	-15	0.7	2.5	5	38

### Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6.5V
Absolute Max. Tuning Voltage (Vtune)	6.5V
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-Circuit's 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).

REV. OR  
M119741  
EDR-8391F2  
ZX95-6520C+  
RAV  
090907  
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# Performance Data & Curves\*

# ZX95-6520C+

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 6453 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	60.21	6292.4	6278.1	6264.9	0.68	-0.68	-3.15	25.26	-19.9	-17.9	-33.0	1.88	0.32	-77.4	-101.7	-119.6	-141.3	1.0	-74.26
0.25	57.49	6307.1	6293.2	6280.8	1.18	-0.14	-3.20	25.39	-20.4	-18.6	-33.6	1.91	0.61	-78.3	-102.3	-120.2	-142.7	2.0	-84.03
0.50	57.27	6321.5	6307.5	6295.7	1.46	0.24	-2.44	25.50	-20.7	-19.9	-35.2	1.98	1.00	-76.5	-101.3	-121.2	-143.2	3.5	-90.73
0.75	58.50	6335.9	6321.9	6309.8	1.46	0.39	-1.81	25.58	-20.8	-20.7	-34.3	2.05	1.07	-75.7	-102.5	-122.3	-143.0	6.0	-96.87
1.00	59.54	6350.4	6336.5	6323.9	1.13	0.18	-1.45	25.65	-20.8	-20.2	-33.0	2.14	0.75	-76.0	-101.3	-122.5	-142.3	8.5	-100.94
1.25	58.95	6365.2	6351.4	6338.4	1.15	0.46	-1.37	25.74	-20.8	-19.7	-33.9	2.13	0.26	-75.7	-102.3	-121.6	-142.4	10.0	-102.51
1.50	59.63	6379.8	6366.1	6353.1	1.83	0.89	-1.46	25.85	-21.2	-22.7	-35.6	2.12	0.61	-74.2	-101.5	-122.5	-143.2	20.8	-109.95
1.75	61.63	6394.7	6381.0	6368.3	2.10	1.14	-1.69	25.96	-21.4	-23.8	-34.6	2.13	1.02	-74.0	-103.6	-123.7	-143.2	35.5	-114.74
2.00	65.43	6410.6	6396.4	6383.7	1.97	1.26	-1.20	26.06	-21.4	-23.8	-34.5	2.19	1.07	-75.3	-103.6	-123.6	-142.9	60.7	-119.32
2.25	70.47	6427.6	6412.8	6399.5	2.22	1.18	-0.84	26.14	-21.4	-22.7	-34.5	2.30	0.59	-74.2	-102.7	-121.5	-143.2	86.7	-122.56
2.50	73.53	6445.2	6430.4	6416.3	2.53	1.11	-0.96	26.20	-21.3	-21.6	-34.0	2.39	0.41	-75.8	-104.1	-123.1	-144.0	100.0	-123.83
2.75	77.01	6463.6	6448.8	6434.3	2.31	1.43	-0.71	26.30	-21.6	-20.1	-32.5	2.42	0.96	-74.5	-102.7	-123.4	-143.2	148.1	-127.56
3.00	80.17	6483.5	6468.0	6453.1	1.58	1.39	-0.43	26.41	-21.6	-22.0	-34.5	2.48	1.00	-74.4	-101.6	-122.5	-143.4	177.0	-129.24
3.25	85.38	6503.7	6488.1	6472.9	2.43	1.50	-0.69	26.53	-21.5	-20.9	-32.5	2.46	0.40	-73.0	-103.1	-124.7	-144.2	211.6	-130.95
3.50	92.38	6525.9	6509.4	6494.0	2.29	1.27	-1.24	26.61	-21.3	-20.3	-33.7	2.51	0.41	-71.6	-101.6	-123.3	-143.7	361.5	-135.02
3.75	95.41	6549.4	6532.5	6515.8	1.94	0.97	-0.63	26.69	-20.9	-21.9	-33.0	2.31	0.83	-70.9	-101.7	-122.8	-142.8	507.5	-138.49
4.00	93.17	6573.4	6556.4	6539.1	1.30	0.63	-0.72	26.81	-20.6	-21.7	-32.7	1.78	0.46	-71.7	-100.0	-122.7	-143.8	606.7	-139.61
4.25	94.30	6596.8	6579.7	6562.8	1.85	1.13	-1.17	26.95	-21.2	-22.1	-33.0	0.95	0.26	-73.2	-100.4	-121.4	-141.6	851.6	-142.50
4.50	93.84	6621.2	6603.2	6586.2	1.27	0.57	-1.40	27.03	-20.8	-23.5	-31.6	0.04	0.85	-71.7	-100.0	-120.3	-140.7	1000.0	-143.34

\*at 25°C unless mentioned otherwise

