

Coaxial

Voltage Controlled Oscillator

ZX95-6520C-S+

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

Applications

- r & d
- lab
- instrumentation
- wireless communications
- wireless broadband access



Generic photo used for illustration purposes only

CASE STYLE: GB956

Connectors	Model
SMA	ZX95-6520C-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		
	F	2X(1/2F)		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Max.	F0.5			F1.5	F2	Vcc (volts)
	Min.	Max.	Typ.					Min.	Max.	Typ.	Typ.	Typ.				Typ.	Typ.		Max.	
ZX95-6520C-S+	6385	6520	+2	-72	-100	-123	-143	0.5	4.5	77-92	13	260	-90	-17	-14	-19	2.0	2.5	5	35

Maximum Ratings

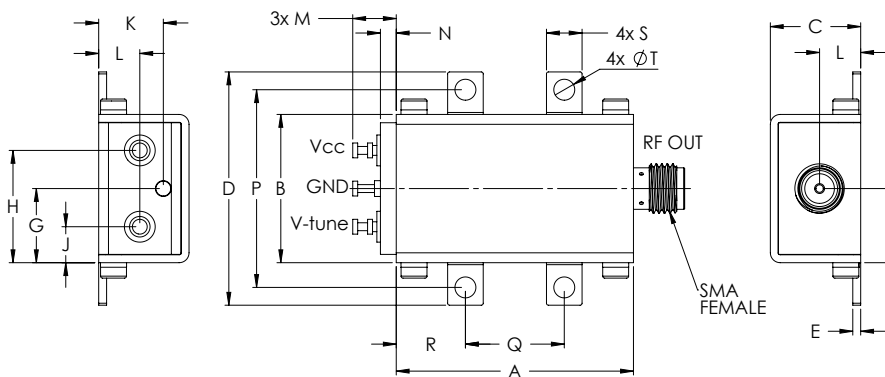
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6.5V
Absolute Max. Tuning Voltage (Vtune)	6.5V
All specifications	50 ohm system

Permanent damage may occur if any of these limits are exceeded.



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	.08	1.00	.50	.35	.18	.106	grams
30.48	19.15	11.61	30.07	1.02	9.53	9.53	14.43	4.62	8.31	5.28	5.59	2.03	25.40	12.70	8.89	4.57	2.69	35.0

Notes

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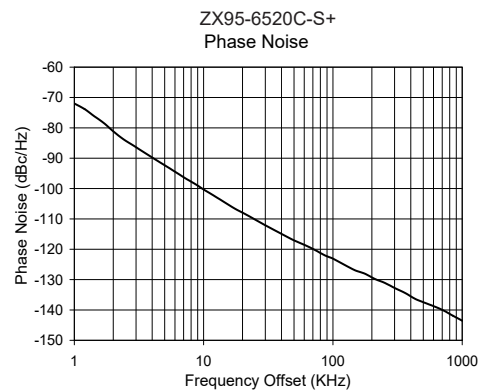
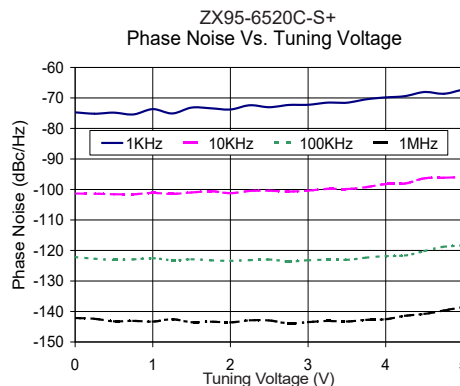
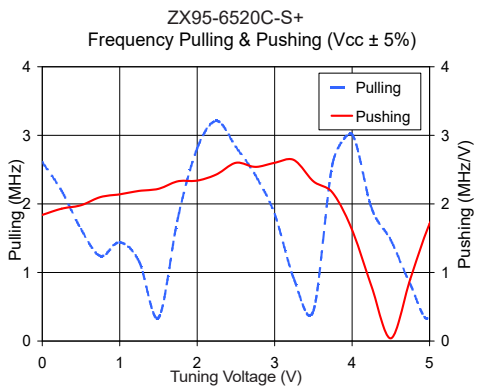
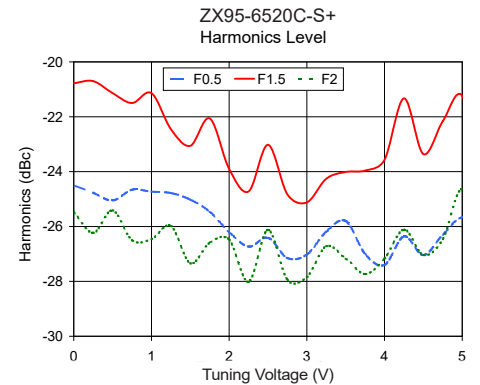
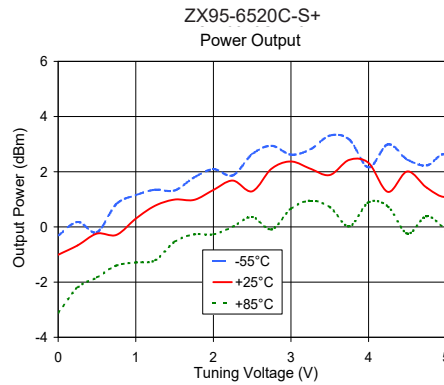
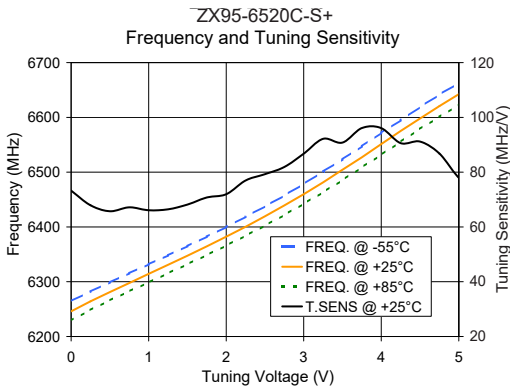


Performance Data & Curves*

ZX95-6520C-S+

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	73.25	6264.7	6245.9	6229.3	-0.32	-1.01	-3.11	24.52	-24.5	-20.8	-25.5	1.84	2.61	-74.7	-101.3	-122.1	-142.1	1.0	-71.97
0.25	67.92	6282.0	6264.2	6248.5	0.18	-0.67	-2.20	24.65	-24.8	-20.7	-26.2	1.93	2.19	-75.2	-101.4	-122.7	-142.4	2.0	-81.13
0.50	65.72	6298.9	6281.2	6266.0	-0.19	-0.24	-1.83	24.78	-25.1	-21.1	-25.4	1.98	1.63	-74.8	-101.6	-123.1	-143.2	3.5	-88.20
0.75	67.18	6315.5	6297.6	6282.6	0.83	-0.29	-1.40	24.88	-24.7	-21.5	-26.5	2.10	1.24	-75.4	-101.6	-122.9	-143.1	5.0	-92.32
1.00	66.09	6331.8	6314.4	6298.8	1.15	0.30	-1.29	24.98	-24.7	-21.1	-26.5	2.14	1.44	-73.7	-101.1	-122.5	-143.3	7.1	-96.43
1.25	66.43	6348.2	6330.9	6315.4	1.35	0.77	-1.21	25.09	-24.8	-22.5	-26.0	2.19	1.16	-75.1	-101.5	-123.2	-142.6	8.5	-98.36
1.50	68.17	6365.0	6347.5	6332.0	1.32	0.99	-0.54	25.20	-25.0	-23.1	-27.3	2.22	0.34	-73.2	-101.0	-122.9	-143.5	20.8	-108.32
1.75	70.75	6382.2	6364.6	6348.8	1.79	0.98	-0.27	25.30	-25.5	-22.1	-26.6	2.33	1.79	-73.4	-100.6	-123.2	-143.4	35.5	-113.77
2.00	71.96	6399.8	6382.3	6366.0	2.09	1.34	-0.27	25.42	-26.2	-23.9	-26.5	2.34	2.81	-73.8	-101.2	-123.4	-143.6	60.7	-118.61
2.25	76.96	6418.5	6400.3	6384.0	1.87	1.68	0.01	25.52	-26.7	-24.7	-28.0	2.43	3.21	-72.4	-100.5	-123.2	-142.9	72.5	-120.21
2.50	79.28	6437.6	6419.5	6402.4	2.64	1.29	0.36	25.62	-26.4	-23.0	-26.1	2.60	2.83	-73.0	-100.4	-123.0	-142.9	86.7	-122.02
2.75	81.88	6457.5	6439.3	6422.0	2.94	2.11	-0.09	25.75	-27.2	-24.8	-27.9	2.54	2.42	-72.3	-100.7	-123.6	-143.9	148.1	-126.93
3.00	86.74	6478.5	6459.8	6442.4	2.62	2.37	0.66	25.85	-27.0	-25.1	-27.8	2.60	1.85	-72.2	-100.4	-123.2	-143.5	177.0	-128.07
3.25	92.18	6501.0	6481.5	6463.4	2.81	2.11	0.95	25.95	-26.2	-24.3	-26.7	2.64	0.90	-71.5	-99.8	-123.0	-143.1	211.6	-129.81
3.50	90.80	6523.4	6504.5	6485.5	3.31	1.88	0.72	26.10	-25.8	-24.0	-27.2	2.33	0.44	-71.6	-99.9	-123.1	-143.3	302.4	-132.82
3.75	96.10	6547.4	6527.2	6508.9	3.17	2.43	0.02	26.18	-27.0	-24.0	-27.7	2.16	2.60	-70.5	-99.2	-122.4	-142.8	361.5	-134.41
4.00	96.08	6571.9	6551.2	6531.7	2.16	2.32	0.89	26.29	-27.4	-23.6	-27.2	1.62	3.01	-69.8	-98.2	-121.9	-142.6	507.5	-137.54
4.25	90.58	6594.9	6575.3	6555.5	2.99	1.27	0.74	26.43	-26.4	-21.3	-26.1	0.80	1.94	-69.4	-98.1	-121.6	-141.4	606.7	-138.83
4.50	91.16	6618.8	6597.9	6579.0	2.44	2.01	-0.24	26.52	-27.0	-23.4	-27.0	0.04	1.47	-68.1	-96.3	-120.2	-140.8	851.6	-141.94

*at 25°C unless mentioned otherwise



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