2X Fundamental

Voltage Controlled Oscillator ZX95-6030C+

Frequency Doubling 5890 to 6010 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 radio

CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-6030C-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

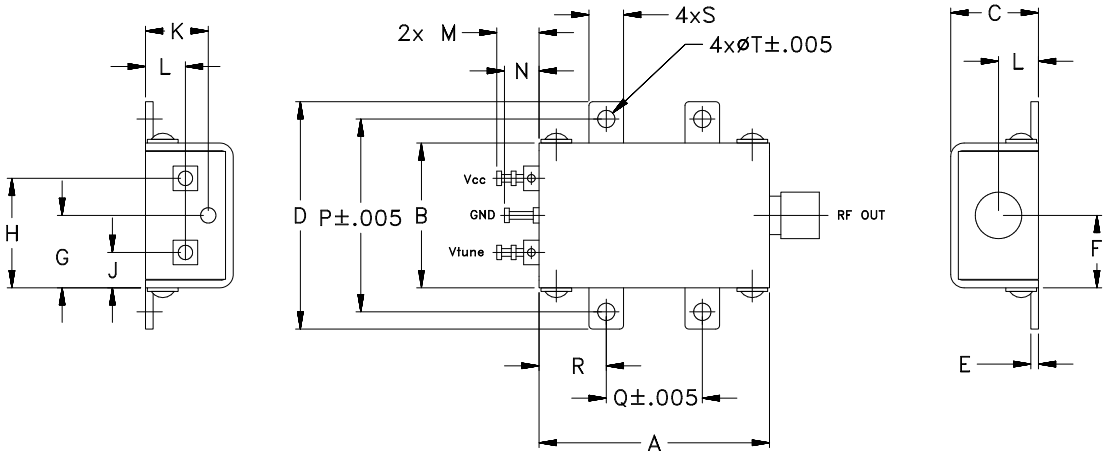
MODEL NO.	FREQ. (MHz) F 2X(1/2F)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies,kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)			PULLING pk-pk @12 dBr (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
								VOLTAGE RANGE (V)		SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)							Vcc (volts)	Current (mA)
	Min.	Max.	Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.	Typ.	Typ.	F0.5	F1.5	F2	Typ.	Typ.		Max.
ZX95-6030C+	5890	6010	+2	-73	-102	-124	-144	0.5	5	62 - 90	13	220	-90	-30	-22	-23	0.7	2	5	28

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

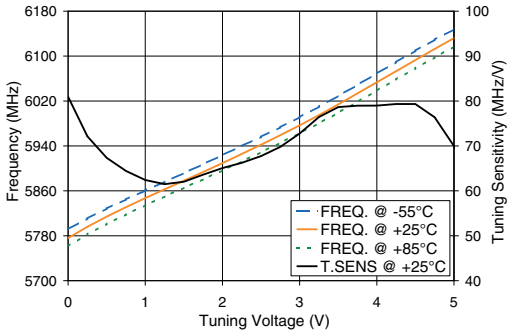
Performance Data & Curves*

ZX95-6030C+

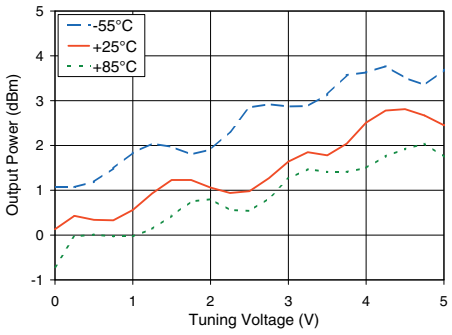
V TUNE	TUNE SENS (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)			Icc (mA)	HARMONICS (dBc)			FREQ. PUSH (MHz/V)	FREQ. PULL (MHz)	PHASE NOISE (dBc/Hz) at offsets				FREQ OFFSET (KHz)	PHASE NOISE at 5960 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F0.5	F1.5	F2			1kHz	10kHz	100kHz	1MHz		
0.00	80.96	5791.5	5775.9	5761.4	1.07	0.13	-0.71	20.50	-40.6	-31.1	-32.2	2.69	0.81	-69.2	-98.6	-120.0	-140.4	1.0	-74.79
0.25	72.14	5810.9	5796.1	5782.6	1.07	0.43	-0.03	20.69	-40.3	-32.1	-30.4	1.36	0.49	-72.4	-99.8	-121.7	-142.1	2.0	-83.94
0.50	67.34	5828.4	5814.1	5801.0	1.19	0.34	0.01	20.78	-40.3	-31.1	-30.4	0.29	0.26	-74.1	-101.3	-123.4	-143.5	3.5	-91.27
0.75	64.42	5844.8	5831.0	5818.0	1.49	0.33	-0.03	20.86	-40.3	-30.7	-31.5	0.22	0.61	-73.5	-101.5	-124.1	-143.8	6.0	-96.98
1.00	62.41	5860.5	5847.1	5834.3	1.84	0.56	-0.03	20.94	-40.4	-31.9	-30.7	0.55	0.76	-74.1	-102.2	-124.3	-144.3	8.5	-100.71
1.25	61.50	5876.0	5862.7	5850.0	2.04	0.93	0.14	21.02	-40.1	-32.5	-30.8	0.79	0.55	-74.0	-102.5	-124.7	-144.8	10.0	-102.64
1.50	62.03	5891.6	5878.0	5865.5	1.97	1.23	0.43	21.08	-40.2	-31.9	-32.5	1.01	0.09	-73.5	-102.7	-124.8	-144.5	20.8	-110.58
1.75	63.60	5907.5	5893.6	5880.7	1.80	1.23	0.75	21.12	-40.1	-31.6	-32.4	1.22	0.61	-74.7	-102.5	-125.3	-144.7	35.5	-115.88
2.00	65.07	5923.6	5909.5	5896.3	1.91	1.06	0.80	21.17	-39.5	-32.0	-31.3	1.43	0.90	-74.0	-102.5	-124.9	-144.9	60.7	-120.31
2.25	66.24	5939.8	5925.7	5912.3	2.31	0.94	0.56	21.22	-39.6	-32.8	-32.6	1.61	0.59	-73.9	-102.6	-125.1	-144.9	86.7	-123.97
2.50	67.75	5956.3	5942.3	5928.8	2.85	0.98	0.54	21.28	-39.4	-32.9	-33.3	1.77	0.15	-73.8	-102.7	-125.0	-144.7	100.0	-125.03
2.75	69.79	5973.2	5959.2	5945.6	2.92	1.27	0.82	21.33	-39.9	-33.3	-32.4	1.95	0.61	-74.5	-102.6	-125.3	-144.9	148.1	-127.99
3.00	72.77	5991.2	5976.7	5962.8	2.87	1.64	1.26	21.37	-40.2	-33.2	-33.6	2.12	0.65	-74.7	-102.8	-125.1	-145.0	177.0	-129.52
3.25	76.43	6009.9	5994.9	5980.5	2.88	1.85	1.47	21.40	-40.0	-33.9	-34.3	2.29	0.42	-73.0	-102.5	-125.1	-144.7	211.6	-130.78
3.50	78.65	6029.2	6014.0	5999.1	3.14	1.78	1.41	21.44	-39.9	-34.7	-33.2	2.36	0.12	-73.2	-102.3	-124.8	-144.6	302.4	-132.66
3.75	78.95	6048.8	6033.6	6018.6	3.57	2.04	1.41	21.49	-38.9	-34.8	-34.6	2.20	0.65	-73.3	-101.9	-125.0	-144.3	361.5	-134.10
4.00	78.98	6069.0	6053.4	6038.5	3.63	2.51	1.50	21.54	-39.8	-36.3	-34.4	1.80	0.86	-73.4	-101.8	-124.4	-144.4	507.5	-138.27
4.25	79.34	6089.3	6073.1	6058.3	3.77	2.78	1.76	21.54	-39.9	-37.2	-33.1	1.24	0.27	-72.2	-101.1	-123.9	-143.6	606.7	-140.28
4.50	79.33	6109.6	6092.9	6078.2	3.51	2.81	1.92	21.52	-39.9	-37.0	-33.9	0.50	0.78	-71.6	-100.0	-122.9	-142.9	851.6	-143.78
5.00	69.97	6147.6	6131.9	6116.9	3.68	2.45	1.75	21.54	-39.8	-38.3	-30.7	1.29	0.22	-70.3	-98.0	-120.4	-140.6	1000.0	-144.55

*at 25°C unless mentioned otherwise

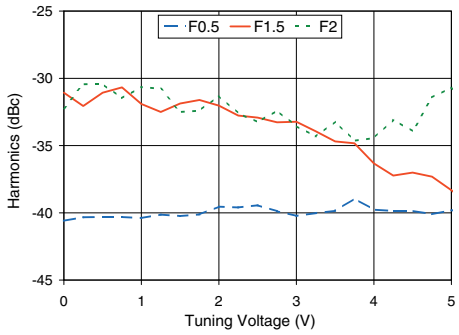
ZX95-6030C+
Frequency and Tuning Sensitivity



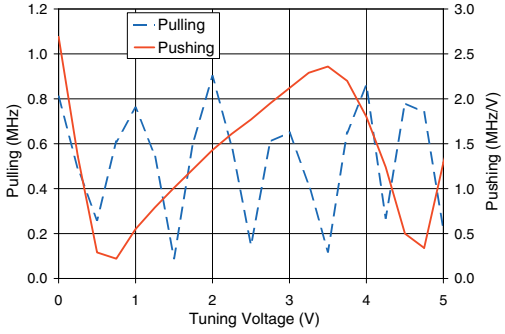
ZX95-6030C+
Power Output



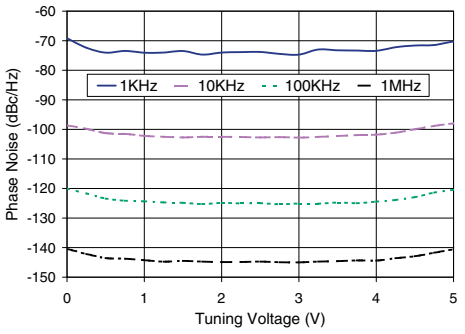
ZX95-6030C+
Harmonics Level



ZX95-6030C+
Frequency Pulling & Pushing (Vcc ± 5%)



ZX95-6030C+
Phase Noise Vs. Tuning Voltage



ZX95-6030C+
Phase Noise