

Coaxial

Voltage Controlled Oscillator

ZX95-2170+

Linear Tuning 1730 to 2170 MHz

Features

- linear tuning characteristics
- low pulling
- low pushing
- protected by US patent 6,790,049

Applications

- r & d
- lab
- instrumentation
- wireless communications
- base station
- WCDMA
- UMTS



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-2170-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	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Max.	Vcc (volts)
ZX95-2170+	1730	2170	+7.2	-76	-103	-124	-144	0.5	12	55-59	50	30	-90	-17	-	4	0.3	12	34

Maximum Ratings

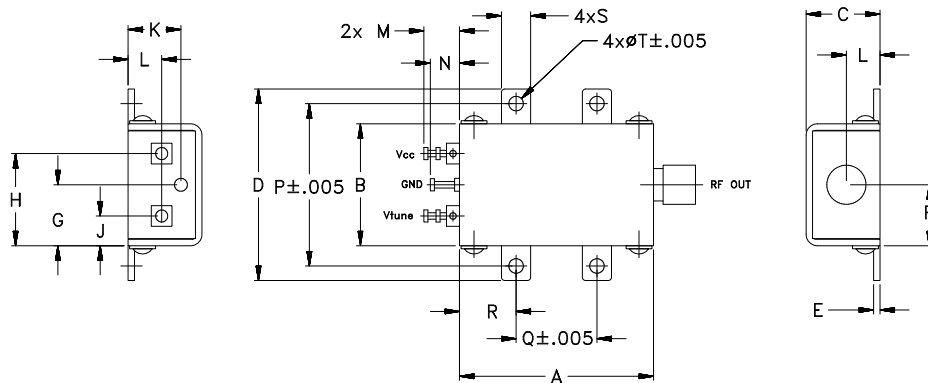
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	13V
Absolute Max. Tuning Voltage (Vtune)	14V
All specifications	50 ohm system

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	.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

Notes

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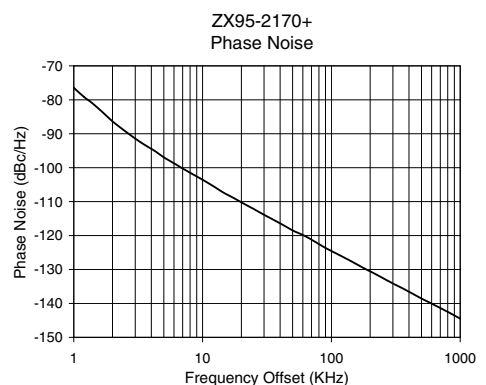
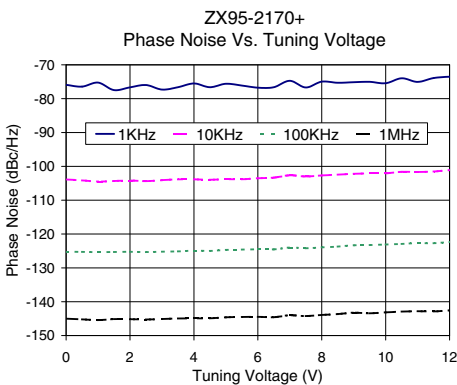
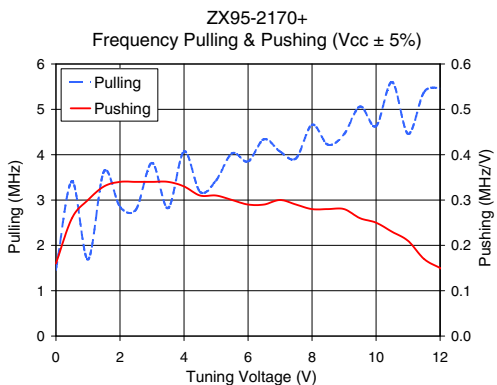
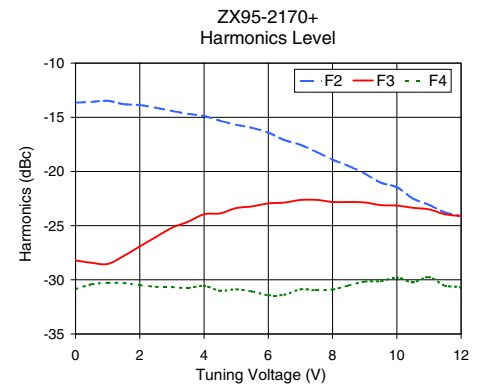
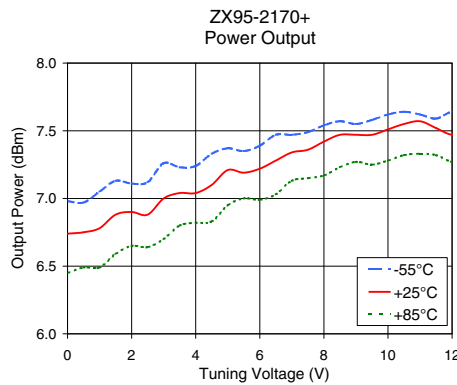
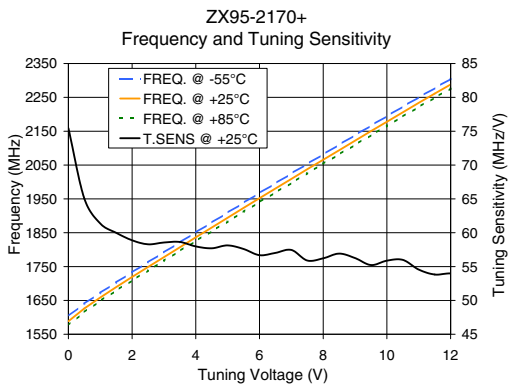
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Performance Data & Curves*

ZX95-2170+

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 1950 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	75.46	1603.6	1588.3	1576.7	6.98	6.74	6.45	28.66	-13.7	-28.2	-30.9	0.16	1.46	-75.9	-103.9	-125.2	-145.0	1.0	-76.47
0.50	65.07	1640.1	1626.0	1615.4	6.97	6.75	6.49	28.67	-13.6	-28.4	-30.4	0.26	3.41	-76.4	-104.2	-125.3	-145.2	2.0	-86.36
1.00	61.37	1672.2	1658.6	1648.6	7.05	6.78	6.49	28.69	-13.5	-28.5	-30.3	0.30	1.69	-75.3	-104.5	-125.4	-145.4	3.5	-93.14
2.00	58.88	1733.1	1719.2	1708.9	7.11	6.90	6.65	28.69	-13.9	-26.9	-30.5	0.34	2.85	-76.7	-104.2	-125.3	-145.2	6.0	-98.72
2.50	58.29	1762.6	1748.7	1738.4	7.12	6.88	6.64	28.70	-14.1	-26.1	-30.7	0.34	2.79	-76.0	-104.4	-125.3	-145.3	8.5	-102.05
3.00	58.56	1792.0	1777.8	1767.3	7.26	7.00	6.70	28.70	-14.4	-25.2	-30.7	0.34	3.82	-77.3	-104.1	-125.2	-145.1	10.0	-103.56
3.50	58.64	1821.6	1807.1	1796.3	7.23	7.04	6.80	28.70	-14.7	-24.6	-30.8	0.34	2.82	-76.6	-103.8	-125.1	-145.0	20.8	-110.58
4.00	57.98	1851.0	1836.4	1825.5	7.24	7.04	6.82	28.71	-14.9	-24.0	-30.6	0.33	4.07	-75.5	-103.8	-124.9	-144.9	35.5	-115.36
5.00	58.13	1909.3	1894.3	1883.0	7.37	7.21	6.95	28.70	-15.7	-23.4	-30.9	0.31	3.43	-75.6	-103.8	-124.7	-144.6	60.7	-119.91
5.50	57.60	1938.5	1923.3	1911.8	7.35	7.19	7.00	28.70	-16.0	-23.2	-31.1	0.30	4.03	-76.1	-103.8	-124.6	-144.5	86.7	-123.31
6.00	56.68	1967.4	1952.1	1940.6	7.39	7.22	6.99	28.70	-16.4	-23.0	-31.4	0.29	3.85	-76.8	-103.5	-124.5	-144.5	100.0	-124.56
6.50	57.02	1995.9	1980.5	1969.0	7.47	7.28	7.03	28.69	-17.1	-22.9	-31.4	0.29	4.34	-76.6	-103.3	-124.5	-144.6	148.1	-127.93
7.00	57.46	2025.0	2009.0	1997.1	7.47	7.34	7.13	28.66	-17.5	-22.6	-30.9	0.30	4.07	-74.7	-102.6	-124.0	-144.0	177.0	-129.54
8.00	56.22	2081.6	2065.7	2053.9	7.54	7.42	7.17	28.65	-18.9	-22.8	-30.9	0.28	4.66	-75.0	-102.7	-124.0	-143.9	211.6	-131.04
8.50	56.91	2110.0	2093.8	2081.7	7.57	7.47	7.23	28.62	-19.5	-22.8	-30.5	0.28	4.22	-75.3	-102.5	-123.7	-143.7	302.4	-134.19
9.00	56.25	2138.6	2122.2	2109.8	7.55	7.47	7.27	28.60	-20.2	-22.9	-30.2	0.28	4.45	-75.1	-102.2	-123.3	-143.3	361.5	-135.66
9.50	55.23	2166.5	2150.3	2138.2	7.58	7.47	7.25	28.59	-21.0	-23.1	-30.1	0.26	5.06	-75.0	-102.1	-123.3	-143.4	507.5	-138.67
10.00	55.88	2194.5	2178.0	2165.9	7.62	7.51	7.28	28.56	-21.5	-23.2	-29.8	0.25	4.63	-75.4	-102.1	-123.1	-143.2	606.7	-140.16
11.00	54.56	2250.4	2233.9	2221.5	7.62	7.57	7.33	28.51	-23.1	-23.5	-29.8	0.21	4.46	-75.1	-101.7	-122.7	-142.8	851.6	-143.06
12.00	53.98	2304.7	2288.1	2276.0	7.64	7.47	7.27	28.44	-24.1	-24.1	-30.7	0.15	5.46	-73.5	-101.1	-122.4	-142.6	1000.0	-144.49

*at 25°C unless mentioned otherwise



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