

Coaxial

Voltage Controlled Oscillator

ZX95-2041+

Linear Tuning 1844 to 2042 MHz

Features

- low phase noise
- low pushing
- low pulling
- protected by US patent 6,790,049

Applications

- r & d
- lab
- instrumentation
- wireless communication
- WiMAX



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-2041-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)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Max.	Typ.
ZX95-2041+	1844	2042	+5	-81	-106	-126	-146	1	10	29	17	120	-90	-20	-13	0.3	0.3	5	40

Maximum Ratings

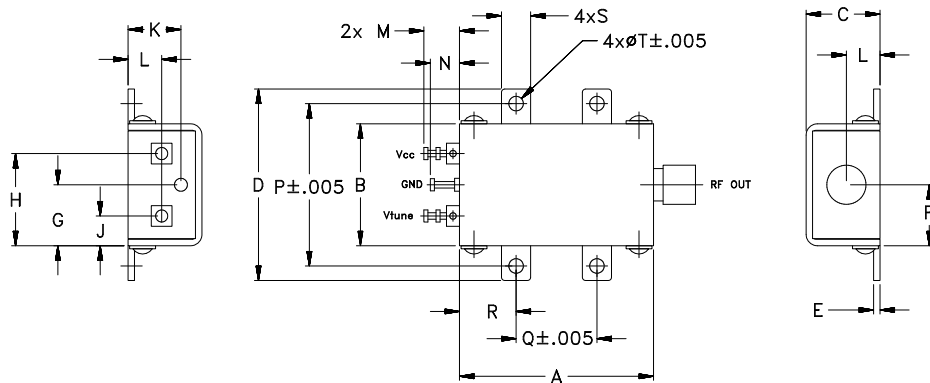
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	12V
All specifications	50 ohm system

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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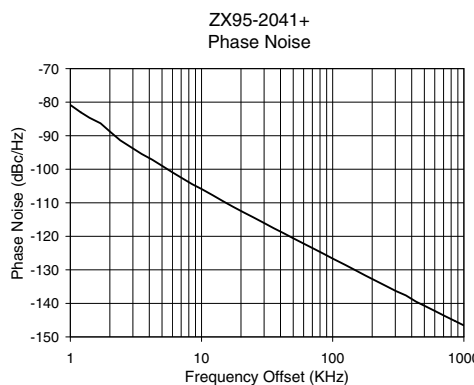
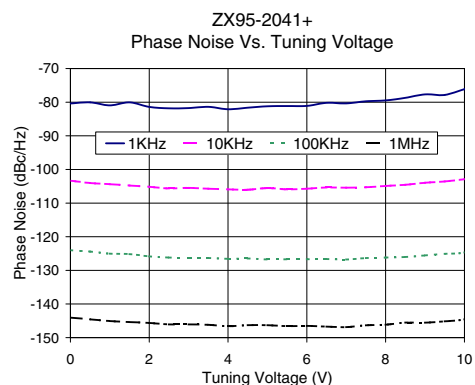
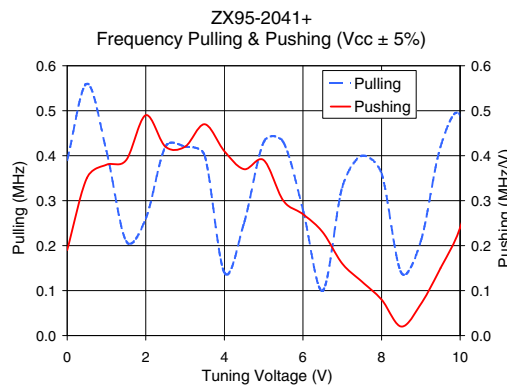
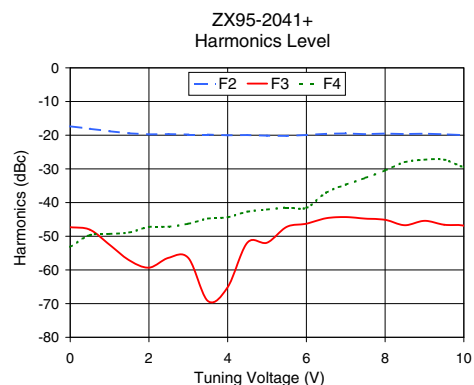
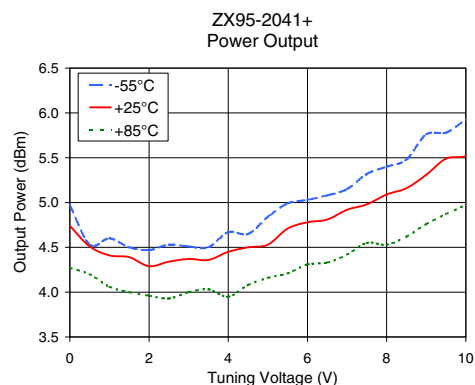
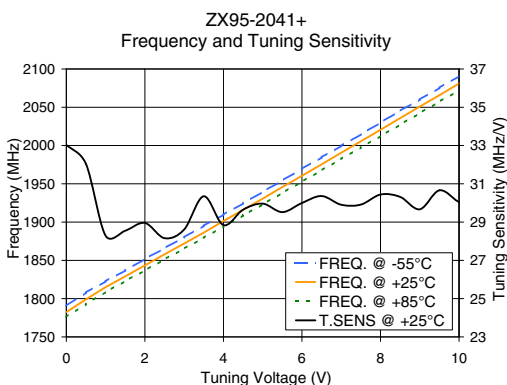
REV. A
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Performance Data & Curves*

ZX95-2041+

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 1946 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	33.03	1790.6	1782.4	1776.1	4.97	4.74	4.27	30.12	-17.4	-47.3	-53.2	0.19	0.39	-80.4	-103.3	-124.0	-144.1	1.0	-80.84
0.50	32.04	1807.9	1799.0	1792.9	4.53	4.51	4.20	30.14	-18.1	-48.0	-49.7	0.35	0.56	-80.1	-104.0	-124.4	-144.6	2.0	-88.74
1.00	28.29	1822.7	1815.0	1808.6	4.60	4.41	4.06	30.21	-18.8	-52.5	-49.3	0.38	0.41	-80.9	-104.4	-125.0	-145.1	3.5	-95.46
1.50	28.55	1837.0	1829.1	1823.0	4.50	4.39	4.00	30.28	-19.5	-57.1	-48.9	0.39	0.21	-80.1	-104.8	-125.2	-145.4	6.0	-100.92
2.00	28.96	1851.8	1843.4	1836.8	4.47	4.29	3.96	30.29	-19.7	-59.3	-47.2	0.49	0.26	-81.4	-105.1	-125.9	-145.6	8.5	-104.46
2.50	28.16	1865.8	1857.9	1851.3	4.53	4.34	3.93	30.37	-19.7	-56.4	-47.2	0.42	0.42	-81.8	-105.6	-126.2	-146.1	10.0	-105.89
3.00	28.61	1880.1	1872.0	1865.3	4.51	4.37	4.00	30.41	-19.8	-56.5	-46.3	0.42	0.42	-81.8	-105.5	-126.3	-146.1	20.8	-112.81
3.50	30.35	1895.2	1886.3	1879.4	4.50	4.36	4.03	30.40	-19.8	-69.3	-44.8	0.47	0.40	-81.4	-105.7	-126.3	-146.2	35.5	-117.58
4.00	28.84	1909.7	1901.4	1894.0	4.67	4.45	3.95	30.45	-20.0	-65.1	-44.4	0.41	0.14	-82.1	-105.9	-126.6	-146.6	60.7	-122.27
4.50	29.65	1924.5	1915.9	1908.7	4.65	4.50	4.08	30.49	-20.0	-51.9	-42.7	0.37	0.25	-81.6	-106.0	-126.5	-146.3	86.7	-125.37
5.00	29.96	1939.6	1930.7	1923.2	4.84	4.53	4.16	30.48	-20.1	-51.9	-42.1	0.39	0.43	-81.2	-105.6	-126.8	-146.3	100.0	-126.63
5.50	29.52	1954.3	1945.7	1938.1	4.99	4.71	4.21	30.53	-20.2	-47.2	-41.5	0.30	0.43	-81.2	-105.9	-126.7	-146.6	148.1	-130.06
6.00	29.99	1969.5	1960.4	1952.8	5.03	4.78	4.31	30.53	-19.9	-46.3	-41.6	0.27	0.28	-81.1	-105.7	-126.7	-146.5	177.0	-131.66
6.50	30.36	1984.5	1975.4	1967.6	5.08	4.81	4.33	30.54	-19.6	-44.7	-37.1	0.23	0.10	-80.2	-105.4	-126.6	-146.7	211.6	-133.21
7.00	29.91	1999.6	1990.6	1982.5	5.15	4.92	4.42	30.56	-19.5	-44.3	-34.7	0.16	0.33	-80.4	-105.4	-126.8	-146.9	302.4	-136.30
7.50	29.92	2014.7	2005.6	1997.5	5.32	4.98	4.55	30.55	-19.7	-44.8	-32.7	0.12	0.40	-79.7	-105.3	-126.4	-146.3	361.5	-137.63
8.00	30.44	2030.0	2020.5	2012.4	5.40	5.09	4.53	30.54	-19.5	-45.1	-30.4	0.08	0.36	-79.5	-104.9	-126.2	-146.2	507.5	-140.82
8.50	30.32	2045.3	2035.7	2027.3	5.48	5.16	4.62	30.53	-19.7	-46.7	-28.0	0.02	0.14	-78.7	-104.6	-126.0	-145.5	606.7	-142.33
9.00	29.67	2060.1	2050.9	2042.3	5.76	5.31	4.76	30.54	-19.5	-45.4	-27.3	0.07	0.21	-77.7	-104.0	-125.6	-145.6	851.6	-145.23
10.00	30.05	2090.8	2081.1	2072.0	5.92	5.52	4.97	30.47	-20.0	-46.9	-29.5	0.24	0.49	-76.2	-102.9	-124.7	-144.6	1000.0	-146.58

*at 25°C unless mentioned otherwise



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