

Coaxial

Voltage Controlled Oscillator

ZX95-2150VW+

Linear Tuning 970 to 2150 MHz

Features

- wide bandwidth, 970 to 2150 MHz
- low phase noise, -142 dBc/Hz typ. @1 MHz offset
- low pushing
- low pulling
- 5V operation
- protected by US patent 6,790,049



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-2150VW-S+

Applications

- r & d
- lab
- instrumentation
- test equipment

+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				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER		
				dBc/Hz SSB at offset frequencies, kHz				VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	Typ.		Typ.	Typ.			Max.	Vcc	Current
	1	10		100	1000	Min.	Max.													
ZX95-2150VW+	970	2150	+4	-74	-101	-122	-142	0.5	25	25	80	135	15	-90	-22	—	3	1	5	27

Maximum Ratings

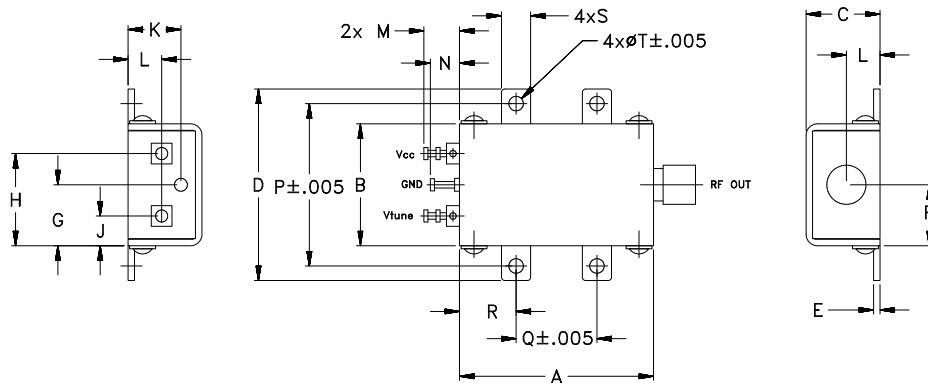
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6V
Absolute Max. Tuning Voltage (Vtune)	28V
All specifications	50 ohm system

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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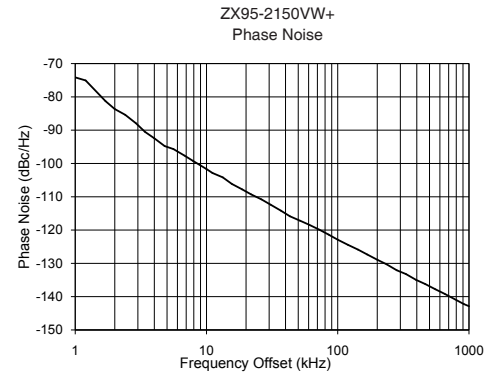
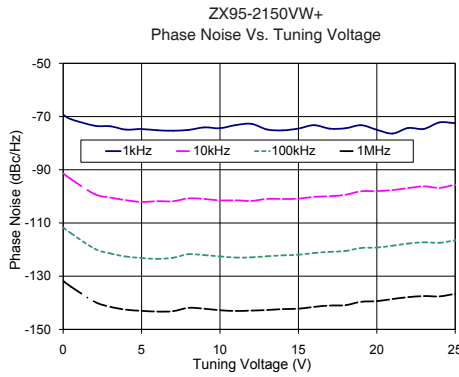
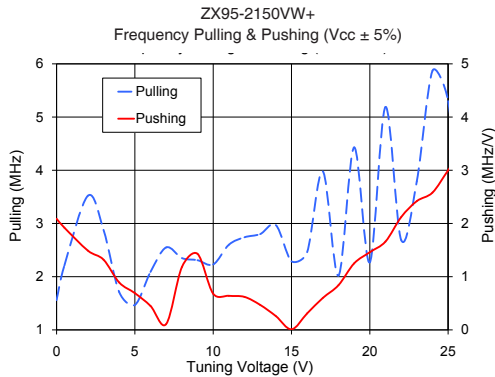
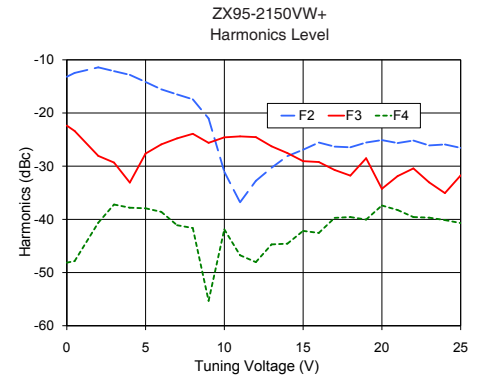
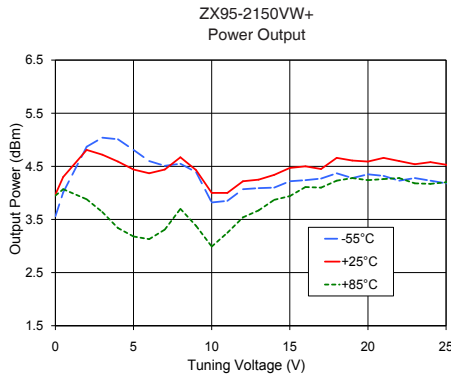
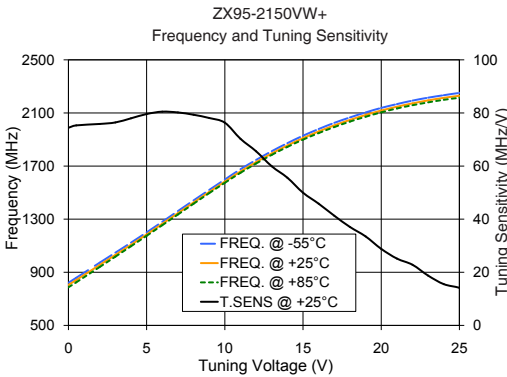
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Page 1 of 2

Performance Data & Curves*

ZX95-2150VW+

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 1560 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	74.41	820.8	804.3	786.8	3.56	3.97	3.95	22.20	-13.2	-22.4	-48.1	2.09	1.56	-69.33	-91.3	-111.7	-131.7	1.0	-74.15
0.50	75.30	858.5	841.5	824.1	4.01	4.30	4.07	22.34	-12.5	-23.4	-47.9	1.92	2.21	-71.01	-93.5	-113.9	-134.0	2.4	-85.39
2.00	75.85	972.1	954.9	939.6	4.87	4.81	3.88	22.58	-11.4	-28.1	-40.6	1.49	3.52	-73.44	-99.1	-119.7	-139.6	4.0	-92.44
3.00	76.41	1047.1	1030.8	1017.5	5.04	4.72	3.64	22.54	-12.1	-29.3	-37.2	1.32	2.88	-73.65	-100.4	-121.4	-141.5	6.8	-97.65
5.00	79.59	1200.5	1185.2	1174.5	4.81	4.44	3.18	22.38	-14.2	-27.6	-37.9	0.69	1.47	-74.68	-102.1	-123.1	-143.0	10.0	-101.67
7.00	80.17	1360.8	1345.2	1335.1	4.51	4.44	3.31	22.27	-16.5	-24.8	-41.1	0.11	2.55	-75.30	-101.8	-123.1	-143.2	11.1	-102.87
8.00	79.30	1441.2	1425.4	1415.8	4.55	4.67	3.70	22.23	-17.4	-23.9	-41.6	1.18	2.35	-75.00	-100.8	-121.7	-141.9	21.9	-109.30
10.00	76.31	1598.4	1582.8	1573.7	3.82	4.00	2.99	22.10	-31.1	-24.6	-41.9	0.68	2.23	-74.38	-101.5	-122.6	-142.8	36.8	-114.15
11.00	70.26	1675.8	1659.1	1649.1	3.85	4.00	3.25	22.15	-36.8	-24.4	-46.8	0.64	2.60	-73.22	-101.5	-123.0	-143.1	60.7	-118.43
12.00	65.57	1745.9	1729.3	1719.1	4.07	4.22	3.54	22.25	-32.8	-24.5	-48.1	0.62	2.74	-72.73	-101.7	-122.9	-142.9	85.2	-121.36
14.00	55.60	1872.2	1854.8	1843.8	4.10	4.34	3.87	22.31	-28.1	-27.5	-44.6	0.26	2.97	-75.18	-101.0	-122.2	-142.4	100.0	-122.89
15.00	49.95	1928.1	1910.4	1898.8	4.22	4.47	3.94	22.35	-26.9	-29.1	-42.2	0.01	2.29	-74.50	-100.9	-122.0	-142.2	142.9	-125.88
17.00	41.26	2025.0	2006.2	1993.7	4.27	4.45	4.10	22.35	-26.3	-30.7	-39.7	0.60	3.98	-74.54	-100.0	-120.8	-141.0	167.8	-127.34
18.00	37.06	2066.0	2047.5	2034.9	4.37	4.66	4.23	22.38	-26.5	-31.8	-39.6	0.84	2.02	-74.40	-99.4	-120.5	-140.9	200.6	-128.93
19.00	33.49	2103.8	2084.5	2071.2	4.28	4.61	4.28	22.33	-25.6	-28.5	-40.0	1.25	4.43	-73.24	-98.1	-119.4	-139.6	281.6	-132.06
20.00	28.81	2137.5	2118.0	2104.2	4.35	4.59	4.24	22.32	-25.1	-34.3	-37.4	1.46	2.27	-74.96	-98.0	-119.2	-139.4	330.7	-133.21
21.00	25.15	2166.2	2146.8	2133.3	4.32	4.66	4.26	22.29	-25.7	-31.9	-38.3	1.66	5.19	-76.38	-97.6	-118.5	-138.6	464.2	-136.20
23.00	18.74	2214.9	2194.8	2179.6	4.28	4.54	4.18	22.22	-26.1	-33.1	-39.7	2.42	3.79	-74.64	-96.2	-117.3	-137.5	554.9	-137.79
24.00	15.53	2233.6	2213.5	2198.7	4.23	4.58	4.17	22.21	-25.9	-35.1	-40.1	2.58	5.87	-72.18	-96.8	-117.4	-137.6	914.6	-142.22
25.00	14.13	2250.6	2229.1	2214.3	4.18	4.53	4.20	22.16	-26.6	-31.7	-40.7	3.00	5.30	-72.46	-95.6	-116.5	-136.7	1000.0	-142.86

*at 25°C unless mentioned otherwise



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