

Voltage Controlled Oscillator

ZX95-1500C+

5V Tuning for PLL IC's 1440 to 1500 MHz

Features

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



CASE STYLE: GB956

Applications

- r & d
- lab
- instrumentation
- wireless communications
- transceiver

Connectors	Model
SMA	ZX95-1500C-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.	Max.	Vcc (volts)	Current (mA)
									Min.	Max.												
ZX95-1500C+	1440	1500	+4.5	-79	-108	-130	-150	0.5	4.5	36-43	9	120	-90	-25	-15	1	1	5	32			

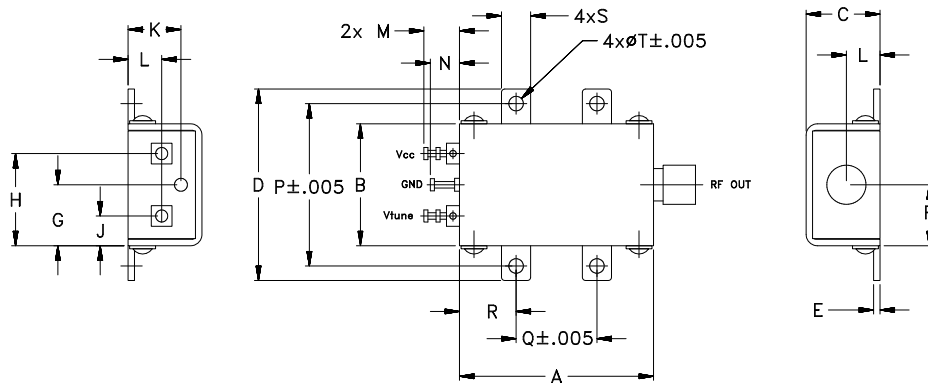
Maximum Ratings

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.

! 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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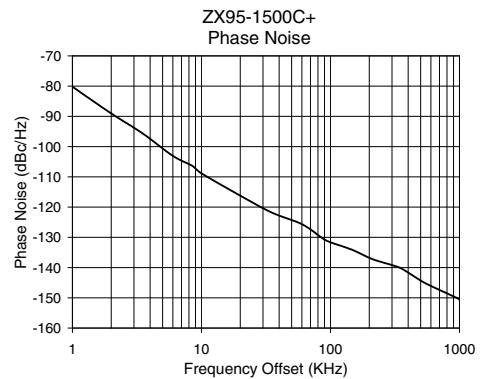
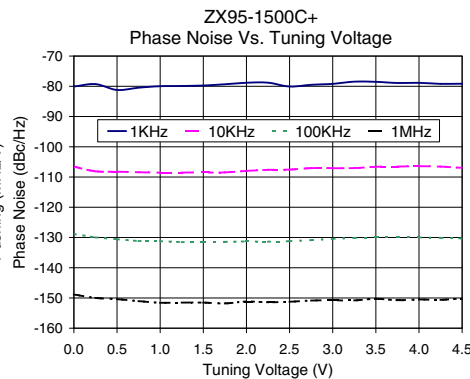
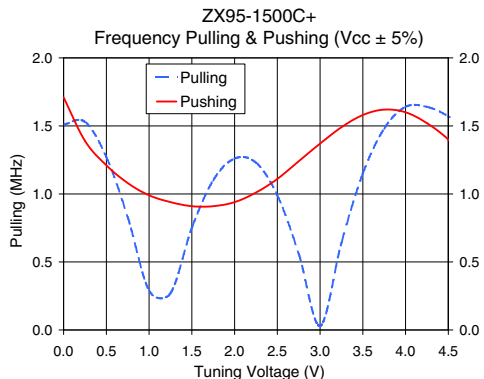
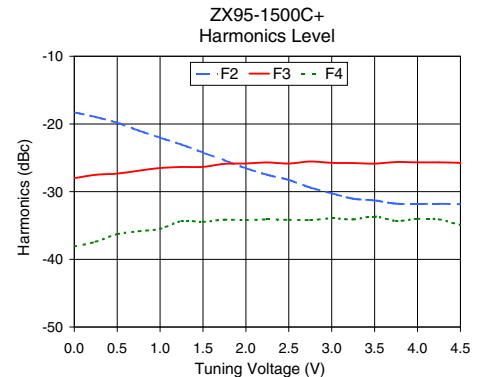
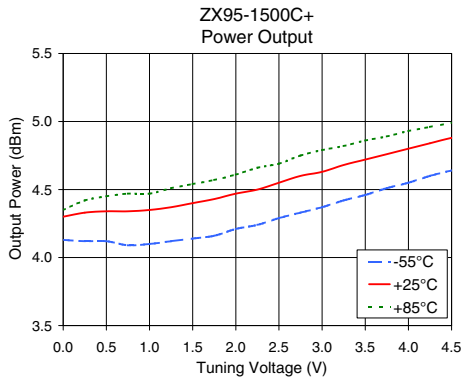
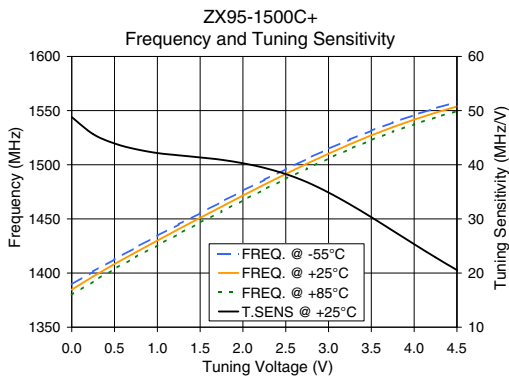


Performance Data & Curves*

ZX95-1500C+

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 1470 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	48.79	1389.5	1384.7	1379.8	4.13	4.30	4.35	25.85	-18.3	-28.0	-38.1	1.71	1.51	-80.1	-106.6	-128.8	-148.9	1.0	-80.19
0.25	45.65	1401.5	1396.9	1392.3	4.12	4.33	4.42	25.89	-19.0	-27.5	-37.4	1.39	1.53	-79.3	-108.1	-129.9	-150.0	2.0	-89.03
0.50	43.93	1412.8	1408.3	1403.9	4.12	4.34	4.45	25.91	-19.8	-27.3	-36.3	1.21	1.27	-81.2	-108.2	-130.6	-150.4	3.5	-95.65
0.75	42.87	1423.7	1419.3	1414.9	4.09	4.34	4.47	25.93	-21.0	-26.9	-35.9	1.08	0.83	-80.5	-108.4	-131.2	-151.0	6.0	-103.05
1.00	42.16	1434.4	1430.0	1425.6	4.10	4.35	4.47	25.95	-22.0	-26.5	-35.5	0.99	0.29	-80.0	-108.5	-131.2	-151.6	8.5	-106.37
1.25	41.73	1444.9	1440.6	1436.2	4.12	4.37	4.51	25.97	-23.1	-26.4	-34.4	0.94	0.27	-79.9	-108.5	-131.5	-151.5	10.0	-108.84
1.50	41.35	1455.4	1451.0	1446.6	4.14	4.40	4.54	25.99	-24.2	-26.3	-34.5	0.91	0.75	-79.7	-108.5	-131.5	-151.5	20.8	-116.62
1.75	40.91	1465.7	1461.3	1456.9	4.16	4.43	4.57	26.00	-25.4	-25.9	-34.2	0.91	1.10	-79.3	-108.5	-131.4	-151.8	35.4	-121.89
2.00	40.27	1476.0	1471.6	1467.1	4.21	4.47	4.61	26.01	-26.6	-25.8	-34.2	0.94	1.26	-78.8	-108.0	-131.3	-151.2	60.5	-125.71
2.25	39.42	1486.1	1481.6	1477.1	4.24	4.50	4.66	26.01	-27.5	-25.7	-34.1	1.01	1.23	-78.8	-107.6	-131.4	-151.4	86.5	-130.27
2.50	38.28	1496.0	1491.5	1487.0	4.29	4.55	4.69	26.01	-28.3	-25.9	-34.2	1.11	0.99	-80.1	-107.6	-131.2	-151.3	100.0	-131.64
2.75	36.78	1505.5	1501.1	1496.6	4.33	4.60	4.75	26.00	-29.4	-25.6	-34.2	1.24	0.56	-79.5	-107.0	-130.9	-150.9	147.7	-134.15
3.00	34.87	1514.7	1510.3	1505.8	4.37	4.63	4.79	26.00	-30.2	-25.7	-34.0	1.37	0.03	-79.2	-107.1	-130.5	-150.8	211.0	-137.20
3.25	32.69	1523.4	1519.0	1514.5	4.42	4.68	4.82	26.00	-31.0	-25.8	-34.1	1.49	0.64	-78.5	-107.0	-130.2	-150.8	301.5	-139.21
3.50	30.31	1531.5	1527.1	1522.8	4.46	4.72	4.86	26.00	-31.3	-25.9	-33.7	1.58	1.15	-78.5	-106.6	-130.0	-150.3	360.3	-140.47
3.75	27.82	1539.0	1534.7	1530.4	4.51	4.76	4.89	26.00	-31.8	-25.6	-34.3	1.62	1.48	-78.9	-106.5	-130.0	-150.8	505.7	-144.43
4.00	25.34	1545.9	1541.7	1537.4	4.55	4.80	4.93	26.00	-31.8	-25.7	-34.0	1.60	1.64	-78.9	-106.4	-130.0	-150.5	604.5	-146.13
4.25	22.90	1552.2	1548.0	1543.8	4.60	4.84	4.96	25.99	-31.8	-25.7	-34.1	1.52	1.64	-79.2	-106.6	-130.1	-150.6	996.1	-150.42
4.50	20.55	1557.9	1553.7	1549.6	4.64	4.88	4.99	25.99	-31.9	-25.8	-34.9	1.40	1.57	-79.1	-107.0	-130.3	-150.3	1000.0	-150.72

*at 25°C unless mentioned otherwise



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