

Coaxial

# Voltage Controlled Oscillator

## ZX95-1750W+

Wide Band 950 to 1750 MHz

### Features

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

### Applications

- r & d
- lab
- instrumentation
- wireless communications
- satellite
- defence communications & radar



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-1750W-S+	\$49.95 ea.	(1-9)

**+RoHS Compliant**  
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

### Electrical Specifications

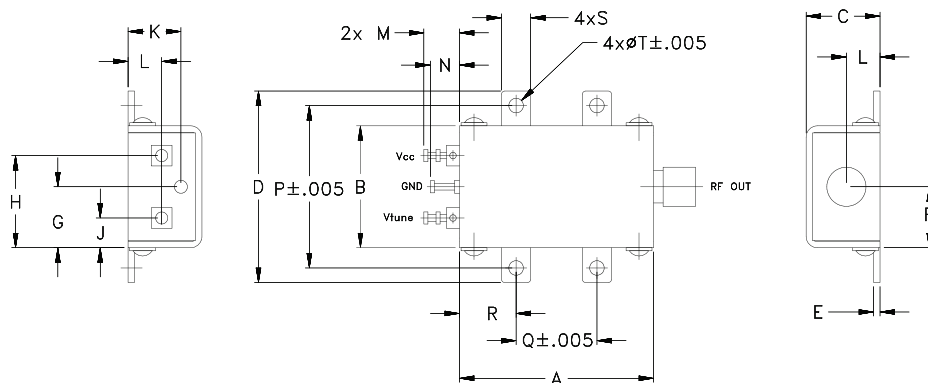
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Max.	Typ.
ZX95-1750W+	950	1750	+6	-71	-99	-121	-143	0.5	12	71-103	50	50	-90	-20	-10	0.3	0.2	10	35

### Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	11V
Absolute Max. Tuning Voltage (Vtune)	14V
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	.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



For detailed performance specs & shopping online see web site

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**Notes:** 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

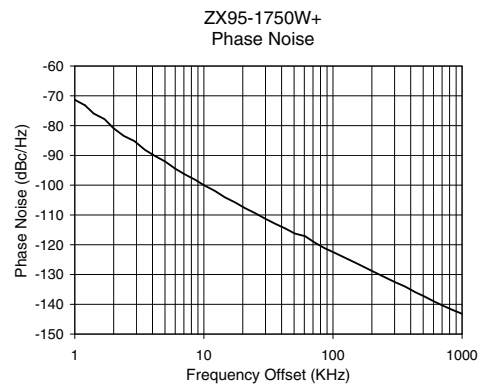
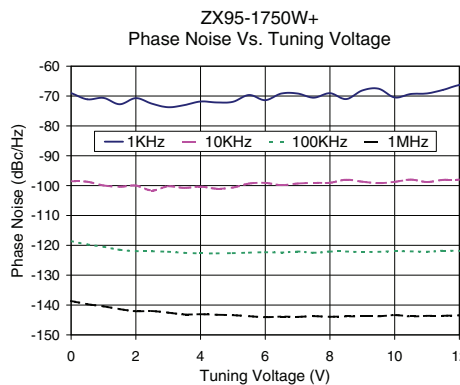
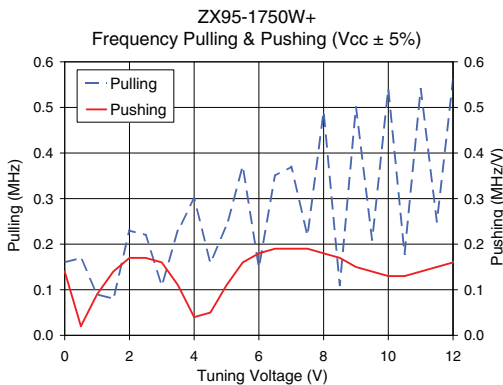
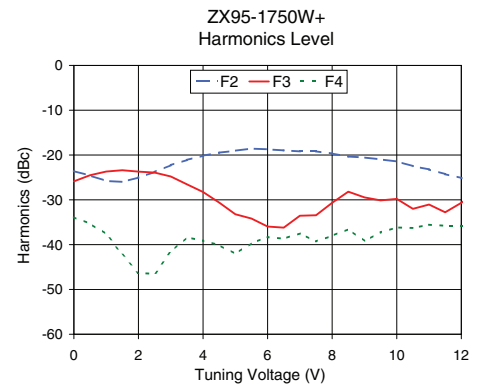
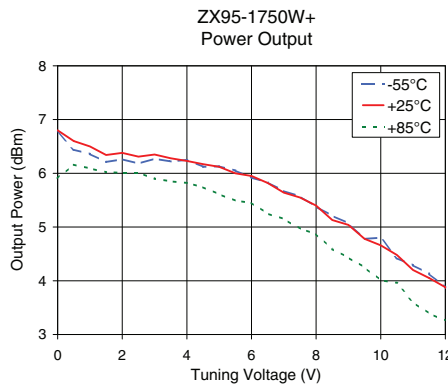
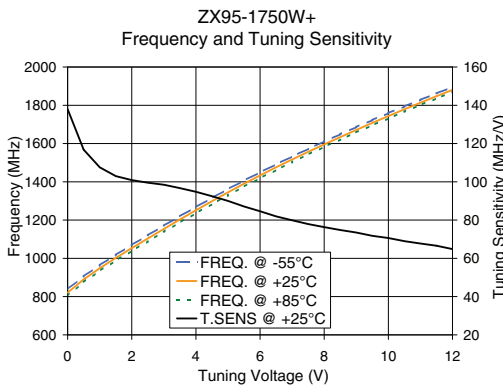
REV. OR  
M118009  
EDR-9056F2  
ZX95-1750W+  
RAV  
120903  
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# Performance Data & Curves\*

# ZX95-1750W+

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 1350 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	137.95	838.5	820.8	804.7	6.76	6.80	5.91	24.21	-23.6	-25.9	-33.9	0.14	0.16	-69.0	-98.5	-118.6	-138.6	1.0	-71.34
0.50	116.79	905.6	889.8	875.6	6.44	6.60	6.16	24.29	-24.6	-24.5	-35.3	0.02	0.17	-71.1	-98.7	-119.7	-139.7	2.0	-80.93
1.00	107.59	963.8	948.2	934.3	6.36	6.50	6.09	24.35	-25.8	-23.7	-37.6	0.09	0.09	-70.6	-99.9	-120.5	-140.4	3.5	-88.17
2.00	100.87	1069.6	1053.5	1039.1	6.26	6.38	6.01	24.46	-25.0	-23.7	-46.3	0.17	0.23	-70.7	-100.0	-121.9	-142.1	6.0	-94.47
3.00	98.45	1170.5	1153.6	1138.5	6.27	6.35	5.90	24.54	-22.3	-24.8	-41.6	0.16	0.11	-73.7	-100.2	-122.2	-142.5	8.5	-98.10
3.50	96.70	1219.7	1202.9	1187.6	6.22	6.28	5.85	24.57	-21.1	-26.5	-38.4	0.11	0.23	-73.0	-100.7	-122.5	-143.2	10.0	-100.00
4.00	94.77	1268.2	1251.2	1235.9	6.25	6.23	5.82	24.58	-20.2	-28.3	-39.1	0.04	0.30	-71.8	-100.3	-122.7	-143.1	20.8	-107.71
4.50	92.49	1315.6	1298.6	1283.4	6.12	6.17	5.74	24.60	-19.5	-30.6	-40.1	0.05	0.16	-72.1	-101.1	-122.7	-143.3	35.5	-112.93
5.00	90.00	1361.6	1344.9	1329.8	6.13	6.12	5.61	24.60	-19.0	-33.2	-42.0	0.11	0.24	-71.9	-100.6	-122.6	-143.4	60.7	-117.12
5.50	87.10	1406.3	1389.9	1375.0	6.05	6.00	5.49	24.59	-18.6	-34.2	-39.7	0.16	0.37	-69.7	-99.3	-122.5	-143.7	86.7	-121.24
6.00	84.62	1449.6	1433.4	1418.8	5.92	5.95	5.45	24.57	-18.7	-36.0	-38.3	0.18	0.15	-71.4	-99.1	-122.3	-144.1	100.0	-122.43
6.50	81.95	1491.6	1475.7	1461.4	5.83	5.82	5.25	24.56	-19.0	-36.2	-38.7	0.19	0.35	-69.1	-99.8	-122.4	-143.9	148.1	-125.98
7.00	79.89	1532.3	1516.7	1502.7	5.67	5.64	5.15	24.53	-19.2	-33.6	-37.5	0.19	0.37	-69.2	-99.3	-122.1	-144.0	177.0	-127.64
7.50	77.91	1572.1	1556.6	1543.0	5.57	5.55	4.97	24.50	-19.2	-33.4	-39.3	0.19	0.22	-70.5	-99.0	-122.5	-143.7	211.6	-129.30
8.00	76.31	1611.0	1595.6	1582.2	5.38	5.40	4.87	24.47	-19.7	-30.7	-38.0	0.18	0.49	-69.1	-99.0	-122.1	-143.9	302.4	-132.56
8.50	74.80	1649.0	1633.7	1620.7	5.21	5.13	4.59	24.44	-20.3	-28.2	-36.6	0.17	0.11	-71.0	-98.0	-122.1	-143.8	361.5	-134.04
9.00	73.48	1686.3	1671.1	1658.2	5.07	5.04	4.43	24.42	-20.6	-29.5	-39.2	0.15	0.50	-68.1	-98.7	-122.3	-143.8	507.5	-137.32
10.00	70.61	1758.6	1743.8	1731.2	4.80	4.66	4.01	24.37	-21.4	-29.8	-36.2	0.13	0.54	-70.5	-98.7	-122.0	-143.4	606.7	-139.03
11.00	67.75	1828.0	1813.6	1801.5	4.29	4.20	3.60	24.32	-23.2	-31.1	-35.6	0.14	0.54	-69.1	-98.8	-122.2	-143.6	851.6	-141.98
12.00	64.82	1894.8	1880.7	1869.0	3.88	3.88	3.26	24.27	-25.1	-30.7	-35.8	0.16	0.56	-66.3	-98.0	-121.9	-143.5	1000.0	-143.17

\*at 25°C unless mentioned otherwise



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