

Coaxial

Voltage Controlled Oscillator ZX95-1750W-S+

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
SMA	ZX95-1750W-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	
								VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)								
	Typ.	Min.		Max.	Typ.	Typ.	Typ.	Typ.	Max.										
	Min.	Max.	Typ.	1	10	100	1000	Min.	Max.	Typ.	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Typ.	Vcc (volts)	Current (mA)
ZX95-1750W-S+	950	1750	+5	-71	-99	-121	-143	0.5	12	65-100	60	50	-90	-14	-	0.5	1.2	10	37

Maximum Ratings

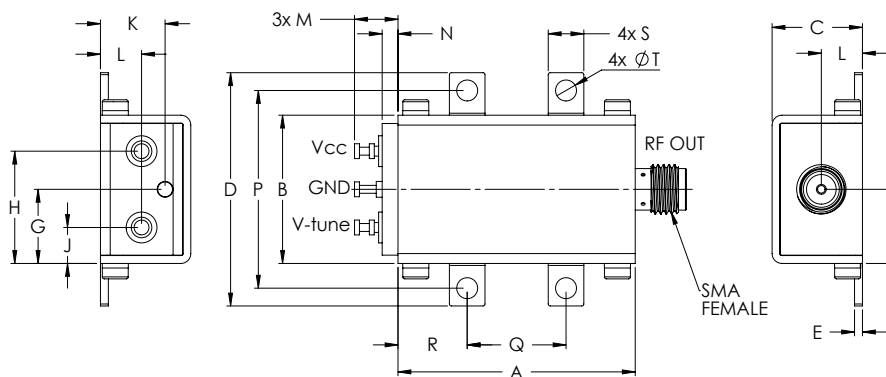
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	11V
Absolute Max. Tuning Voltage (Vtune)	14V
All specifications	50 ohm system

Permanent damage may occur if any of these limits are exceeded.



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	.08	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	2.03	25.40	12.70	8.89	4.57	2.69	35.0

Notes

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B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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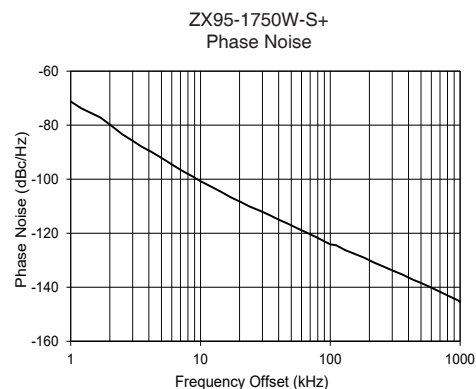
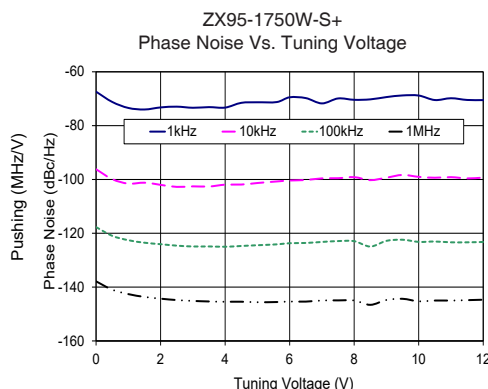
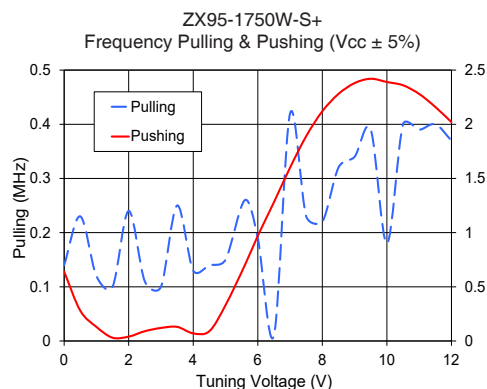
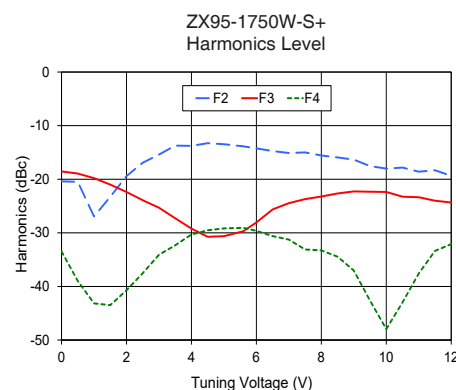
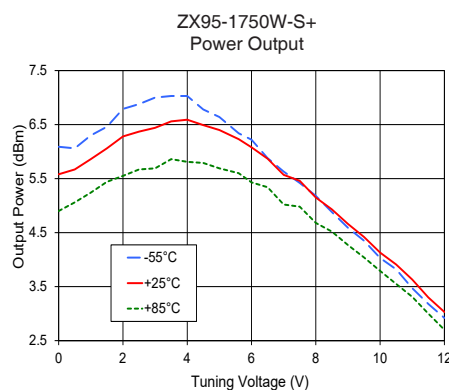
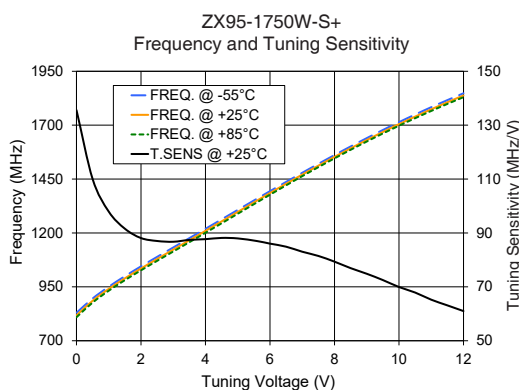
REV. C
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ZX95-1750W-S+
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Page 1 of 2

Performance Data & Curves*

ZX95-1750W-S+

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	135.58	829.5	817.5	809.2	6.09	5.58	4.90	30.26	-20.4	-18.6	-33.5	0.64	0.14	-67.40	-96.2	-117.7	-137.9	1.0	-71.24
1.00	97.92	950.3	940.3	932.2	6.30	5.86	5.24	30.63	-27.0	-19.8	-43.2	0.13	0.12	-73.43	-101.5	-122.6	-142.6	2.5	-83.39
1.50	91.58	999.1	989.2	981.1	6.46	6.06	5.44	30.83	-23.3	-21.0	-43.5	0.03	0.10	-74.00	-101.2	-123.5	-143.7	4.2	-89.93
2.00	88.11	1044.8	1035.0	1026.8	6.79	6.28	5.55	31.03	-19.4	-22.4	-40.7	0.04	0.24	-73.23	-102.0	-124.1	-144.3	7.2	-96.85
2.50	87.02	1088.8	1079.1	1070.8	6.88	6.37	5.67	31.24	-16.9	-23.9	-37.5	0.09	0.11	-72.95	-102.8	-124.6	-144.8	10.0	-100.74
3.00	86.74	1132.4	1122.6	1114.0	7.00	6.44	5.69	31.46	-15.4	-25.3	-34.1	0.12	0.10	-73.36	-102.6	-124.9	-145.1	12.1	-102.78
3.50	87.42	1175.7	1165.9	1157.3	7.03	6.56	5.86	31.66	-13.7	-27.3	-32.3	0.13	0.25	-73.12	-102.6	-124.9	-145.3	23.9	-110.11
4.00	87.70	1219.2	1209.7	1201.0	7.03	6.59	5.81	31.85	-13.8	-29.2	-30.3	0.07	0.13	-73.29	-101.9	-125.0	-145.5	40.1	-114.99
4.50	88.16	1262.9	1253.5	1244.9	6.78	6.49	5.79	32.00	-13.3	-30.7	-29.5	0.09	0.14	-71.53	-101.9	-124.7	-145.4	66.1	-119.82
5.00	87.97	1306.7	1297.6	1289.3	6.64	6.40	5.69	32.12	-13.5	-30.6	-29.2	0.33	0.15	-71.32	-101.3	-124.4	-145.6	100.0	-124.11
5.60	86.99	1359.1	1350.3	1342.4	6.34	6.23	5.60	32.18	-13.9	-29.7	-29.1	0.70	0.26	-71.24	-100.7	-124.1	-145.6	110.9	-124.45
6.00	86.04	1393.8	1385.2	1377.6	6.22	6.08	5.43	32.18	-14.2	-28.1	-29.6	0.97	0.19	-69.47	-100.4	-123.7	-145.4	155.7	-127.74
6.50	84.90	1436.6	1428.2	1421.1	5.88	5.87	5.34	32.16	-14.8	-25.6	-30.6	1.28	0.01	-69.77	-100.2	-123.6	-145.4	182.8	-129.06
7.00	83.04	1478.9	1470.7	1463.7	5.63	5.57	5.02	32.10	-15.1	-24.5	-31.3	1.60	0.42	-71.74	-99.6	-123.2	-145.0	218.5	-130.92
7.50	81.47	1520.4	1512.2	1505.4	5.42	5.46	4.98	32.06	-15.0	-23.7	-33.1	1.89	0.23	-69.90	-99.5	-122.9	-144.9	306.7	-133.95
8.00	79.35	1561.2	1552.9	1546.2	5.18	5.15	4.68	32.01	-15.6	-23.2	-33.3	2.12	0.22	-70.41	-99.2	-122.9	-145.0	360.2	-135.30
8.50	76.95	1601.0	1592.6	1585.8	4.88	4.93	4.52	31.95	-15.9	-22.7	-34.5	2.28	0.32	-70.24	-100.3	-124.9	-146.6	505.5	-138.50
9.00	74.86	1639.7	1631.1	1624.3	4.59	4.66	4.27	31.89	-16.3	-22.3	-37.0	2.38	0.34	-69.39	-99.3	-122.8	-144.8	604.2	-140.22
9.50	72.52	1677.4	1668.5	1661.6	4.35	4.42	4.04	31.85	-17.6	-22.3	-42.6	2.42	0.39	-68.78	-98.3	-122.4	-144.4	995.8	-145.18
10.00	69.94	1713.9	1704.7	1697.7	4.03	4.13	3.79	31.83	-18.0	-22.4	-48.0	2.39	0.18	-68.82	-99.0	-123.2	-145.3	1000.0	-145.55

*at 25°C unless mentioned otherwise



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