

Coaxial

Voltage Controlled Oscillator

ZX95-3000W+

Wide Band 2000 to 3000 MHz

Features

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

Applications

- r & d
- lab
- instrumentation
- wireless communications
- satellite systems
- defense systems
- SAP / SAB
- RFID



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-3000W-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 _r (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.	1	10	100	1000	Min.	Max.	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Typ.	V _{cc} (volts)	Current (mA)
ZX95-3000W+	2000	3000	+5.5	-71	-96	-117	-138	0.5	14	84-125	20	140	-90	-22	-10	13.5	1.5	12	35

Maximum Ratings

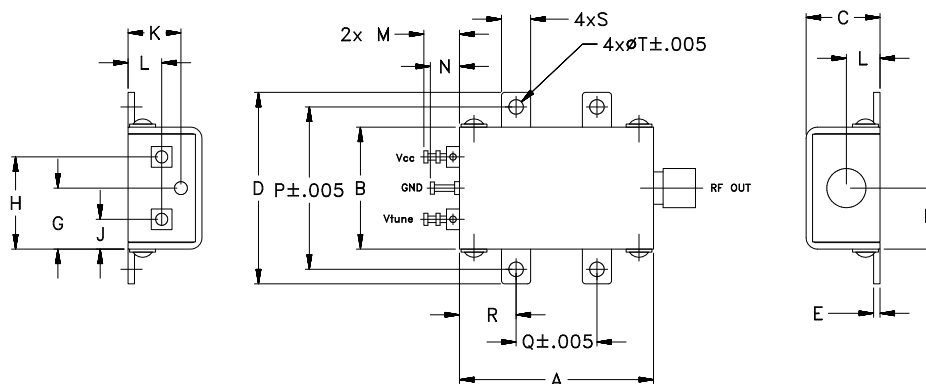
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	13V
Absolute Max. Tuning Voltage (Vtune)	16V
All specifications	50 ohm system

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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 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
 C. The parts covered by this specification document 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



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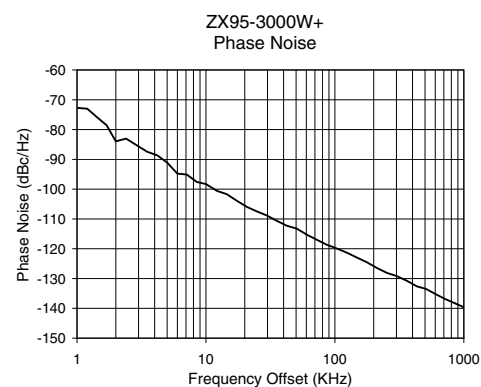
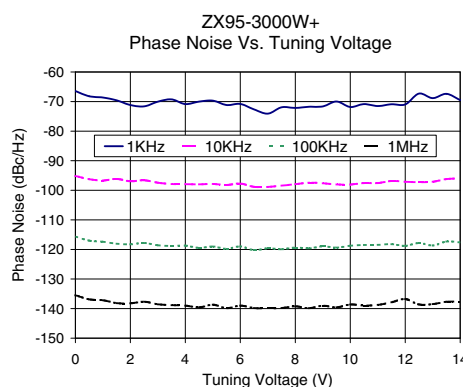
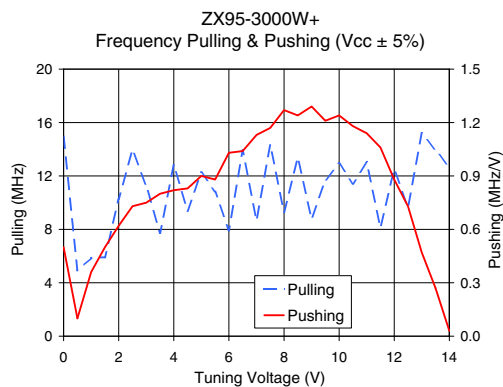
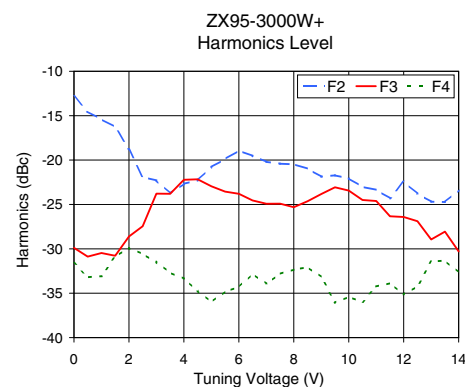
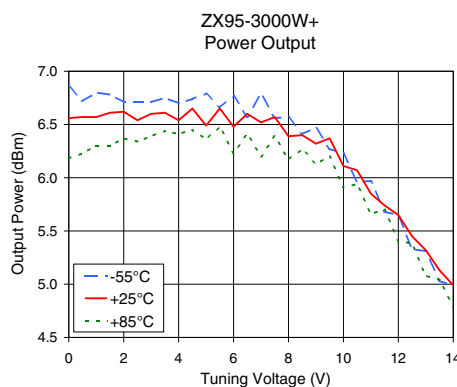
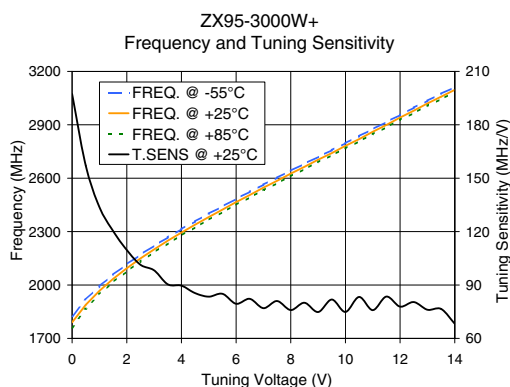
REV. A
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ZX95-3000W+
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Performance Data & Curves*

ZX95-3000W+

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 2500 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	197.29	1825.2	1790.1	1761.1	6.86	6.56	6.18	26.73	-12.8	-29.9	-31.6	0.50	14.94	-66.4	-95.2	-115.6	-135.5	1.0	-72.71
0.50	157.09	1917.9	1888.8	1866.8	6.72	6.57	6.23	26.77	-14.6	-30.9	-33.2	0.10	4.93	-68.2	-96.3	-117.0	-136.9	2.0	-83.96
1.00	133.75	1992.8	1967.3	1947.8	6.80	6.57	6.30	26.81	-15.4	-30.5	-33.1	0.36	5.86	-68.6	-96.7	-117.4	-137.2	3.5	-87.45
1.50	120.38	2057.8	2034.2	2016.5	6.78	6.61	6.30	26.86	-16.3	-30.8	-30.9	0.50	5.91	-69.6	-96.2	-118.0	-138.1	6.0	-94.77
2.00	109.64	2116.3	2094.4	2077.0	6.71	6.62	6.37	26.90	-18.8	-28.6	-29.9	0.62	10.28	-71.2	-97.0	-118.3	-138.2	8.5	-97.58
3.00	98.24	2220.7	2199.9	2184.0	6.71	6.60	6.39	26.95	-22.3	-23.8	-31.5	0.75	11.26	-70.0	-97.4	-118.6	-138.6	10.0	-98.30
4.00	89.65	2314.0	2294.2	2278.8	6.70	6.54	6.41	26.99	-22.7	-22.2	-33.4	0.82	12.82	-70.8	-97.9	-118.7	-139.0	20.8	-105.97
5.00	83.47	2400.8	2381.7	2366.2	6.79	6.49	6.36	27.01	-20.8	-23.0	-36.0	0.90	12.26	-69.7	-97.9	-119.0	-138.7	35.5	-110.64
6.00	79.46	2483.8	2466.0	2450.7	6.77	6.48	6.23	27.04	-18.9	-23.8	-34.3	1.03	7.93	-70.8	-97.7	-119.0	-139.0	60.7	-115.29
6.50	82.21	2524.1	2505.7	2491.8	6.57	6.60	6.41	27.06	-19.5	-24.6	-32.8	1.04	13.91	-72.7	-98.8	-120.3	-139.8	86.7	-118.67
7.00	76.96	2563.7	2546.8	2532.4	6.79	6.52	6.20	27.07	-20.2	-24.9	-33.9	1.13	8.69	-74.1	-98.9	-119.6	-139.9	100.0	-119.64
8.00	75.93	2642.2	2625.8	2611.5	6.57	6.39	6.17	27.05	-20.5	-25.3	-32.3	1.27	9.29	-72.2	-97.9	-119.4	-139.2	148.1	-122.94
9.00	74.81	2719.9	2703.8	2689.7	6.47	6.32	6.13	27.05	-21.9	-23.8	-33.2	1.29	8.80	-71.6	-97.6	-119.0	-139.0	177.0	-124.53
10.00	74.84	2796.9	2782.1	2767.9	6.23	6.11	5.91	27.02	-22.1	-23.4	-35.4	1.24	12.94	-71.8	-98.0	-118.7	-138.6	211.6	-126.44
11.00	75.88	2875.6	2861.1	2847.4	5.97	5.85	5.66	26.97	-23.4	-24.6	-34.2	1.14	12.98	-71.5	-97.6	-118.4	-138.7	302.4	-129.18
12.00	77.84	2955.3	2940.8	2927.7	5.65	5.65	5.41	26.93	-22.4	-26.4	-35.1	0.88	12.49	-71.0	-97.1	-118.8	-136.8	361.5	-130.73
12.50	80.41	2996.2	2979.7	2966.0	5.33	5.45	5.38	26.88	-23.8	-26.9	-34.2	0.73	9.66	-67.3	-97.3	-117.8	-138.6	507.5	-133.47
13.00	76.08	3035.0	3019.9	3006.9	5.31	5.32	5.08	26.87	-24.7	-28.9	-31.4	0.47	15.20	-68.9	-97.1	-118.7	-138.5	606.7	-135.27
13.50	76.51	3074.5	3058.0	3044.3	5.03	5.13	5.04	26.83	-24.7	-28.1	-31.3	0.27	13.95	-67.4	-96.2	-117.3	-137.7	851.6	-138.28
14.00	68.26	3111.4	3096.2	3082.4	4.99	4.99	4.79	26.82	-23.4	-30.3	-32.7	0.03	12.65	-69.5	-96.0	-117.6	-137.6	1000.0	-139.63

*at 25°C unless mentioned otherwise



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