

Coaxial

# Voltage Controlled Oscillator

## ZX95-1200W+

Linear Tuning 612 to 1200 MHz

### Features

- wide bandwidth
- high power output, +10 dBm typ.
- linear tuning characteristics
- low pushing
- protected by US patent 6,790,049

### Applications

- r & d
- lab
- instrumentation
- test equipment



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-1200W-S+	\$49.95 ea.	(1-9)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

*The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.*

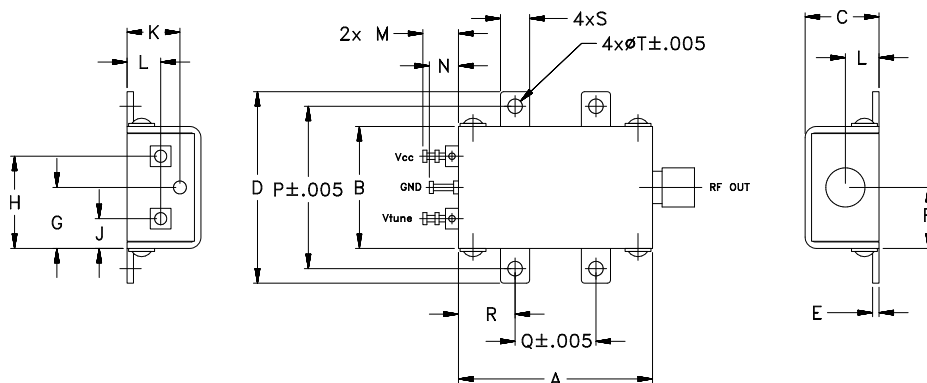
### Electrical Specifications

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)
ZX95-1200W+	612	1200	+10	-71	-96	-117	-139	0.5	18	35-50	220	40	-90	-16	-	11	0.9	12	30			

### Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	15V
Absolute Max. Tuning Voltage (Vtune)	25V
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).

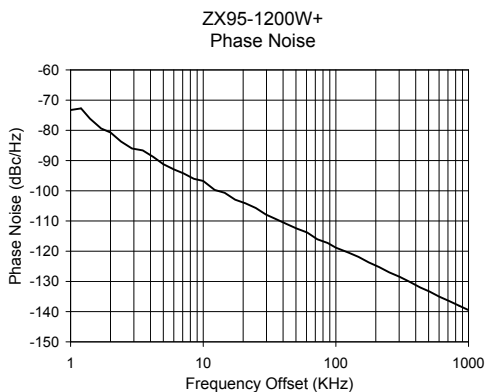
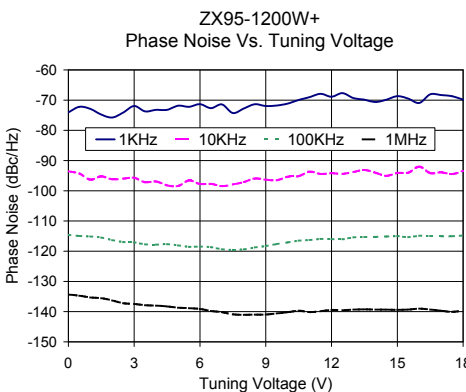
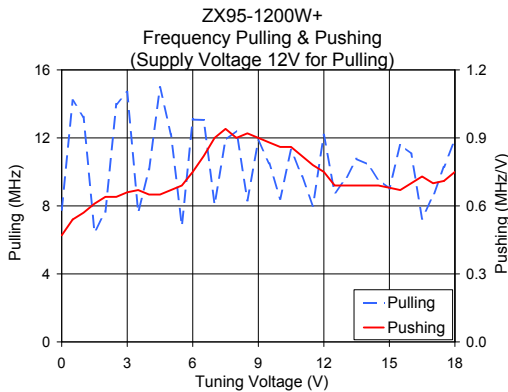
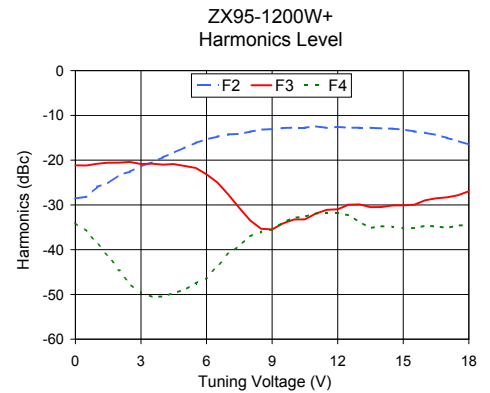
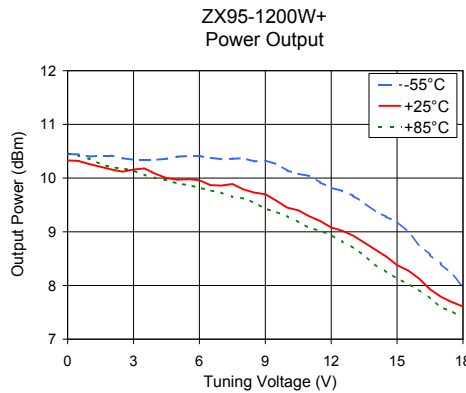
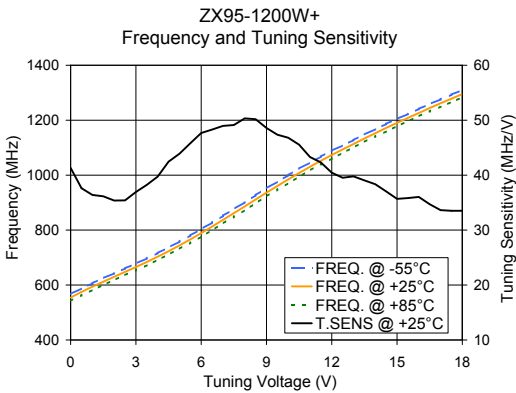
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# Performance Data & Curves\*

# ZX95-1200W+

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 800 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	41.32	567.3	554.4	542.1	10.45	10.33	10.46	23.78	-28.6	-21.2	-34.1	0.47	7.77	-74.0	-93.6	-114.6	-134.4	1.0	-73.26
0.50	37.62	587.7	575.1	563.2	10.44	10.32	10.42	23.80	-28.2	-21.2	-35.8	0.54	14.20	-72.2	-94.3	-114.9	-134.7	2.0	-80.70
1.00	36.40	606.4	593.9	582.1	10.40	10.26	10.35	23.82	-26.0	-20.8	-38.7	0.57	13.24	-72.9	-96.3	-115.1	-135.3	3.5	-86.64
2.00	35.38	642.7	630.2	618.3	10.42	10.16	10.20	23.87	-23.3	-20.6	-44.6	0.64	7.66	-75.8	-96.2	-116.3	-136.3	5.0	-91.18
3.00	36.93	678.2	665.6	654.0	10.34	10.16	10.14	23.92	-21.4	-20.9	-49.6	0.66	14.70	-71.9	-95.7	-117.1	-137.5	7.1	-94.24
4.00	39.74	716.1	703.1	691.4	10.34	10.08	10.00	23.99	-19.4	-21.0	-50.5	0.65	10.15	-73.2	-96.9	-117.8	-138.0	10.0	-96.74
5.00	43.89	758.1	744.2	731.8	10.40	9.97	9.90	24.07	-17.2	-21.3	-49.0	0.67	12.22	-71.8	-98.4	-118.1	-138.7	20.8	-104.15
6.00	47.66	803.6	789.1	776.2	10.41	9.96	9.82	24.18	-15.4	-23.2	-46.3	0.75	13.08	-71.3	-97.8	-118.5	-139.1	35.5	-109.41
7.00	48.96	851.9	837.1	824.0	10.35	9.86	9.73	24.32	-14.2	-27.7	-40.9	0.90	8.10	-71.4	-98.5	-119.4	-140.2	50.7	-112.51
8.00	50.34	901.5	886.1	873.1	10.37	9.79	9.62	24.47	-13.6	-33.5	-37.0	0.90	12.42	-72.8	-97.1	-119.4	-141.0	72.5	-116.05
9.00	48.59	952.0	936.4	922.8	10.33	9.70	9.43	24.63	-13.1	-35.5	-35.5	0.90	11.84	-71.9	-96.3	-118.3	-141.0	100.0	-118.83
10.00	46.81	999.9	984.4	971.1	10.14	9.45	9.29	24.77	-12.8	-33.3	-32.9	0.86	8.42	-71.2	-95.3	-117.1	-140.2	148.1	-121.87
11.00	43.30	1045.8	1030.5	1017.4	10.04	9.29	9.07	24.90	-12.5	-31.9	-31.9	0.82	9.75	-69.0	-93.7	-116.3	-140.2	211.6	-125.24
12.00	40.45	1088.6	1073.3	1060.5	9.82	9.08	8.94	24.98	-12.6	-31.0	-31.8	0.75	12.18	-68.9	-94.2	-116.0	-139.4	361.5	-130.17
13.00	39.77	1127.8	1113.3	1101.2	9.67	8.93	8.70	25.05	-12.8	-29.9	-33.8	0.69	9.59	-69.3	-93.8	-115.4	-139.3	432.2	-132.00
14.00	38.34	1167.4	1152.7	1140.7	9.38	8.67	8.39	25.08	-12.9	-30.5	-34.8	0.69	10.45	-70.6	-94.0	-115.3	-139.3	507.5	-133.34
15.00	35.68	1204.7	1190.4	1178.5	9.19	8.38	8.13	25.11	-13.2	-30.1	-35.2	0.68	9.02	-68.7	-94.1	-115.0	-139.4	600.0	-135.01
16.00	36.04	1240.9	1226.2	1214.1	8.76	8.13	7.92	25.10	-13.9	-29.0	-34.7	0.70	11.06	-70.9	-92.0	-114.9	-139.0	712.4	-136.46
17.00	33.63	1275.9	1261.6	1249.5	8.40	7.79	7.59	25.11	-15.0	-28.3	-35.1	0.70	8.58	-68.3	-93.9	-115.1	-139.7	851.6	-138.05
18.00	33.51	1309.7	1295.1	1282.9	7.98	7.61	7.40	25.08	-16.5	-27.0	-34.4	0.75	11.89	-69.8	-93.4	-114.8	-139.7	1000.0	-139.49

\*at 25°C unless mentioned otherwise



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