

Coaxial

# Voltage Controlled Oscillator

## ZX95-1012+

5V Tuning for PLL IC's 925 to 1012 MHz

### Features

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

### Applications

- r & d
- lab
- instrumentation
- wireless communications
- point-to-point



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-1012-S+	\$44.95 ea.	(1-9)

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

### Electrical Specifications

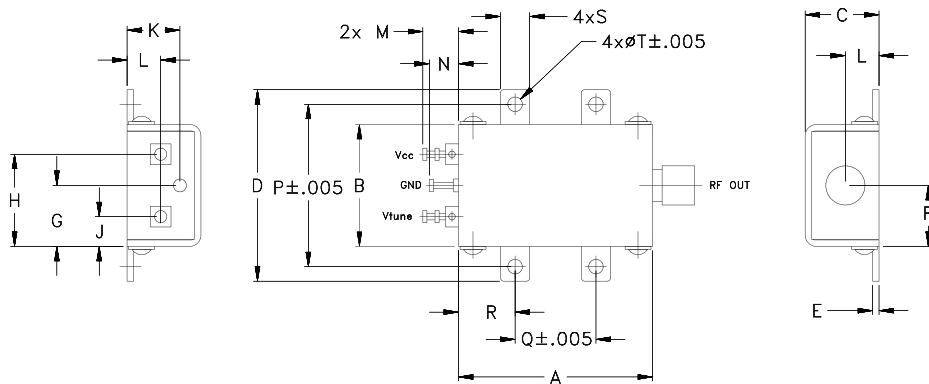
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Typ.	Typ.
ZX95-1012+	925	1012	+4.5	-76	-104	-126	-146	0.5	5	55	40	80	-90	-24	-13	2	1.5	5	35

### Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6V
Absolute Max. Tuning Voltage (Vtune)	7V
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

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

**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).

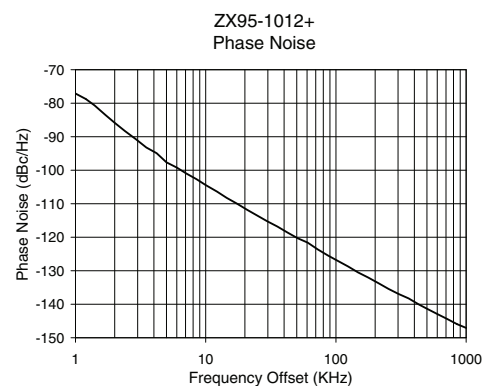
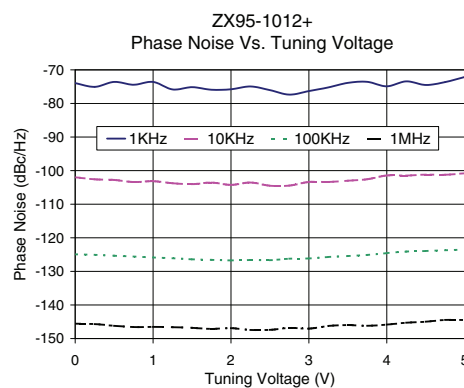
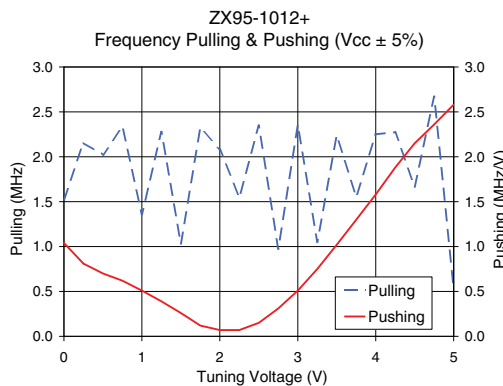
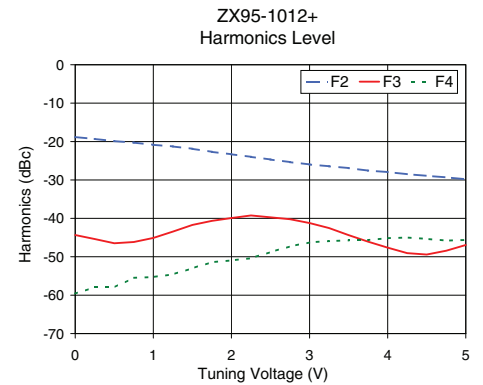
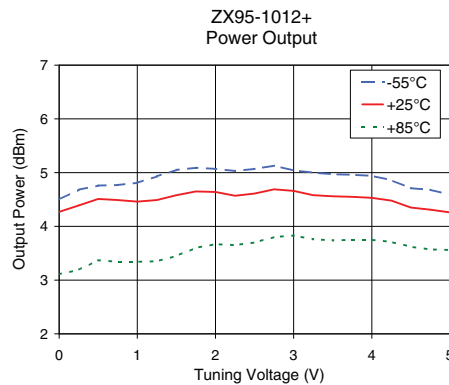
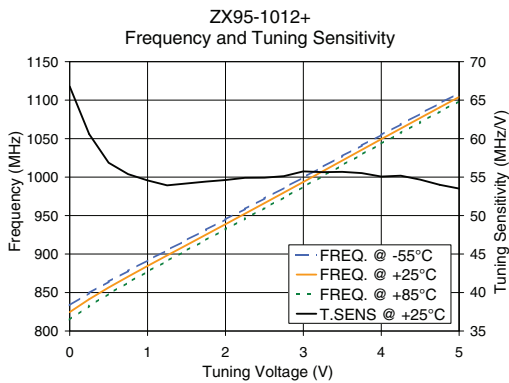
REV. A  
M118389  
EDR-7155F2  
ZX95-1012+  
RAV  
120902  
Page 1 of 2

# Performance Data & Curves\*

# ZX95-1012+

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 980 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	66.78	833.5	824.6	814.8	4.50	4.27	3.11	23.59	-18.8	-44.4	-59.6	1.04	1.52	-74.0	-102.0	-124.9	-145.6	1.0	-77.10
0.25	60.58	849.5	841.3	832.6	4.68	4.39	3.19	23.75	-19.3	-45.4	-57.9	0.81	2.16	-75.1	-102.6	-125.1	-145.7	2.0	-85.86
0.50	56.87	864.2	856.5	848.3	4.76	4.51	3.37	23.87	-19.9	-46.5	-58.0	0.70	2.02	-73.6	-102.8	-125.3	-146.2	3.5	-93.22
0.75	55.38	878.1	870.7	863.1	4.77	4.49	3.34	23.97	-20.3	-46.2	-55.5	0.62	2.33	-74.4	-103.4	-125.6	-146.6	6.0	-99.21
1.00	54.57	891.7	884.5	877.2	4.81	4.46	3.34	24.04	-20.9	-45.1	-55.3	0.51	1.36	-73.6	-103.1	-125.9	-146.5	8.5	-102.69
1.25	53.93	905.0	898.2	891.0	4.93	4.49	3.35	24.13	-21.3	-43.5	-54.6	0.39	2.28	-75.8	-103.8	-126.1	-146.6	10.0	-104.43
1.50	54.18	918.2	911.6	904.8	5.05	4.58	3.45	24.21	-21.9	-41.7	-53.0	0.26	1.03	-75.2	-104.0	-126.4	-146.8	20.8	-111.81
1.75	54.42	931.6	925.2	918.4	5.09	4.65	3.60	24.27	-22.7	-40.7	-51.4	0.12	2.32	-75.9	-103.6	-126.6	-147.1	35.5	-116.81
2.00	54.62	945.0	938.8	932.1	5.07	4.64	3.67	24.35	-23.3	-39.9	-50.9	0.07	2.09	-75.8	-104.2	-126.7	-146.9	60.7	-121.61
2.25	54.90	958.6	952.5	945.9	5.03	4.57	3.65	24.42	-24.0	-39.2	-50.4	0.07	1.55	-74.9	-103.6	-126.6	-147.4	86.7	-125.44
2.50	54.92	972.2	966.2	959.7	5.07	4.61	3.70	24.47	-24.7	-39.7	-48.8	0.15	2.35	-76.0	-104.5	-126.7	-147.4	100.0	-126.76
2.75	55.12	985.9	979.9	973.5	5.13	4.69	3.80	24.52	-25.4	-40.2	-47.3	0.31	0.98	-77.4	-104.5	-126.2	-146.8	148.1	-130.51
3.00	55.74	999.6	993.7	987.4	5.04	4.66	3.83	24.53	-26.0	-41.2	-46.3	0.51	2.35	-76.3	-103.4	-126.2	-147.1	177.0	-132.02
3.25	55.64	1013.5	1007.6	1001.3	5.00	4.58	3.76	24.51	-26.4	-42.5	-45.9	0.75	1.05	-75.2	-103.4	-125.7	-146.2	211.6	-133.68
3.50	55.68	1027.3	1021.5	1015.4	4.97	4.56	3.74	24.49	-26.9	-44.4	-45.7	1.02	2.23	-73.9	-103.0	-125.4	-146.0	302.4	-136.92
3.75	55.52	1041.1	1035.5	1029.5	4.96	4.55	3.75	24.46	-27.6	-46.1	-45.7	1.30	1.56	-73.6	-102.6	-125.1	-146.2	361.5	-138.25
4.00	55.07	1054.8	1049.3	1043.5	4.94	4.53	3.75	24.42	-27.9	-47.6	-45.2	1.58	2.25	-74.9	-101.4	-124.6	-145.9	507.5	-141.47
4.25	55.18	1068.5	1063.1	1057.4	4.86	4.48	3.71	24.37	-28.5	-49.1	-45.0	1.88	2.27	-73.4	-101.5	-124.1	-145.3	606.7	-143.01
4.50	54.67	1082.2	1076.9	1071.3	4.71	4.35	3.62	24.30	-28.9	-49.4	-45.3	2.15	1.67	-74.5	-101.2	-124.0	-145.0	851.6	-145.94
5.00	53.51	1109.2	1104.1	1098.7	4.59	4.26	3.56	24.21	-29.8	-46.9	-45.6	2.58	0.53	-72.1	-100.8	-123.6	-144.5	1000.0	-147.06

\*at 25°C unless mentioned otherwise



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

IF/RF MICROWAVE COMPONENTS

**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).