

Coaxial

# Voltage Controlled Oscillator

## ZX95-800+

5V Tuning for PLL IC's 797 to 806 MHz

### Features

- Linear tuning characteristics
- Very low phase noise
- Low pushing
- Low pulling
- Protected by US patent 6,790,049

### Applications

- R&D
- LAB
- Instrumentation
- Wireless communications
- Cellular infrastructure



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-800-S+	\$44.95 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

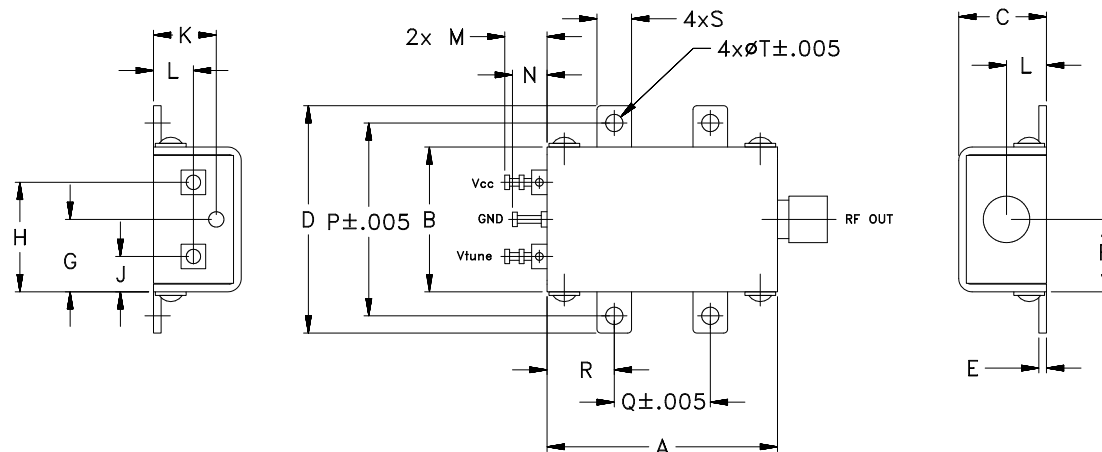
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER					
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)		SENSITIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Max.	Typ.	Max.	Vcc (volts)	Current (mA)
									Min.	Max.													
ZX95-800+	797	806	-0.5	-93	-118	-140	-162	0.5	5	7	20	115	-90	-24	-18	0.2	0.2	5	35				

### Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
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	.45	.57	.18	.33	.21	.22	.18	1.00	.50	.35	.18	.106	GRAM
30.48	19.05	11.68	29.97	1.02	9.65	11.43	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).

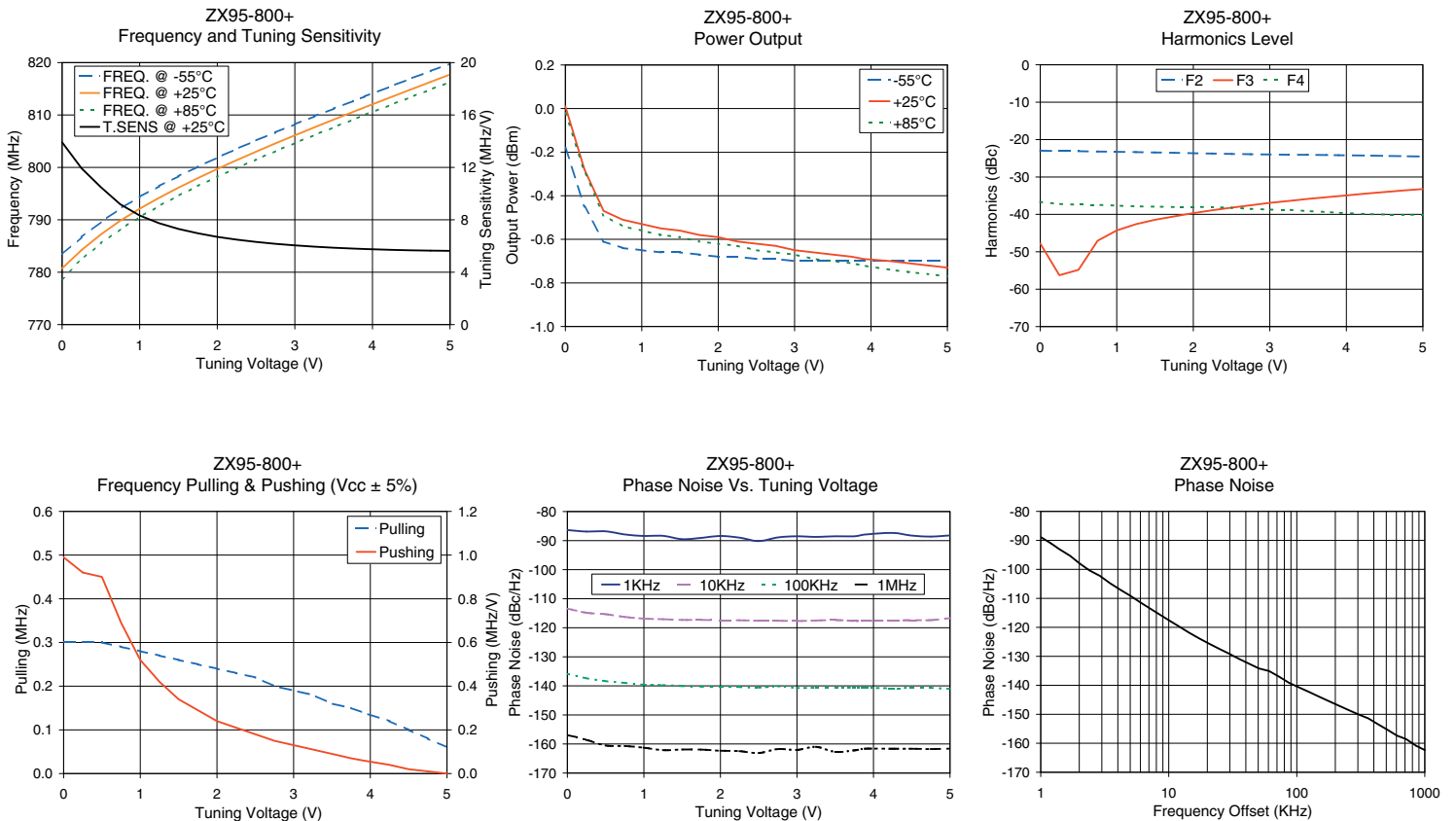
REV. OR  
M115158  
EDR-8482F1  
ZX95-800+  
RAV  
090907  
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# Performance Data & Curves\*

# ZX95-800+

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	13.91	783.4	780.7	778.7	-0.18	0.01	-0.02	24.91	-23.0	-47.8	-36.7	0.99	0.30	-86.4	-113.4	-135.8	-156.9	1.0	-88.85
0.25	11.94	786.7	784.2	782.4	-0.45	-0.28	-0.29	25.01	-23.1	-56.3	-37.2	0.92	0.30	-86.9	-114.8	-137.4	-158.6	2.0	-97.87
0.50	10.49	789.6	787.2	785.5	-0.61	-0.47	-0.49	25.07	-23.1	-54.8	-37.4	0.90	0.30	-86.8	-115.3	-138.4	-160.5	3.5	-104.87
0.75	9.19	792.1	789.8	788.2	-0.64	-0.51	-0.54	25.10	-23.2	-47.0	-37.4	0.69	0.29	-87.9	-116.3	-139.0	-160.7	6.0	-111.41
1.00	8.33	794.4	792.1	790.5	-0.65	-0.53	-0.56	25.12	-23.3	-44.3	-37.7	0.52	0.28	-88.4	-116.9	-139.6	-161.3	8.5	-115.60
1.25	7.74	796.4	794.2	792.6	-0.66	-0.55	-0.58	25.14	-23.3	-42.6	-37.9	0.42	0.27	-88.4	-117.1	-139.7	-162.1	10.0	-117.53
1.50	7.30	798.3	796.1	794.6	-0.66	-0.56	-0.59	25.15	-23.5	-41.4	-37.9	0.34	0.26	-89.5	-117.3	-140.1	-161.9	20.8	-125.72
1.75	6.97	800.1	798.0	796.4	-0.67	-0.58	-0.61	25.17	-23.5	-40.6	-38.0	0.29	0.25	-89.1	-117.3	-140.3	-161.9	35.5	-130.93
2.00	6.70	801.9	799.7	798.2	-0.68	-0.59	-0.62	25.18	-23.7	-39.7	-38.0	0.24	0.24	-88.4	-117.4	-140.4	-162.3	60.7	-135.06
2.25	6.48	803.5	801.4	799.9	-0.68	-0.61	-0.63	25.20	-23.7	-38.9	-38.1	0.21	0.23	-89.0	-117.4	-140.4	-162.5	86.7	-139.11
2.50	6.31	805.1	803.0	801.5	-0.69	-0.62	-0.65	25.21	-23.8	-38.2	-38.2	0.18	0.22	-90.2	-117.6	-140.6	-163.1	100.0	-140.38
2.75	6.16	806.7	804.6	803.1	-0.69	-0.63	-0.66	25.22	-23.9	-37.6	-38.5	0.15	0.20	-88.9	-117.6	-140.1	-161.7	148.1	-143.84
3.00	6.05	808.2	806.1	804.6	-0.70	-0.65	-0.67	25.24	-24.0	-36.9	-38.7	0.13	0.19	-88.5	-117.7	-140.7	-162.0	253.0	-148.50
3.25	5.95	809.7	807.6	806.2	-0.70	-0.66	-0.69	25.25	-24.1	-36.4	-38.8	0.11	0.18	-88.7	-117.5	-140.6	-161.0	302.4	-150.03
3.50	5.87	811.2	809.1	807.7	-0.70	-0.67	-0.70	25.27	-24.1	-35.9	-39.1	0.09	0.16	-88.5	-117.3	-140.7	-162.7	361.5	-151.39
3.75	5.80	812.7	810.6	809.1	-0.70	-0.68	-0.71	25.28	-24.2	-35.4	-39.4	0.07	0.15	-88.5	-117.6	-140.6	-162.2	432.2	-153.46
3.90	5.77	813.5	811.5	810.0	-0.70	-0.69	-0.72	25.29	-24.2	-35.1	-39.6	0.06	0.14	-87.9	-117.6	-140.7	-161.6	507.5	-155.26
4.25	5.71	815.5	813.5	812.0	-0.70	-0.70	-0.74	25.31	-24.3	-34.5	-39.9	0.04	0.12	-87.4	-117.5	-140.8	-161.6	712.4	-158.51
4.50	5.67	817.0	814.9	813.4	-0.70	-0.71	-0.75	25.33	-24.4	-34.0	-40.0	0.02	0.10	-88.3	-117.4	-140.7	-161.7	851.6	-160.80
5.00	5.63	819.8	817.7	816.3	-0.70	-0.73	-0.77	25.36	-24.5	-33.2	-40.1	0.00	0.06	-88.2	-116.7	-141.0	-161.6	1000.0	-162.35

\*at 25°C unless mentioned otherwise



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IF/RF MICROWAVE COMPONENTS

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