

Coaxial

# Voltage Controlled Oscillator

## ZX95-850A+

5V Tuning for PLL IC's 800 to 850 MHz

### Features

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

### Applications

- R&D
- LAB
- Instrumentation
- Point-to-point radio
- CDMA / TDMA



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-850A-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

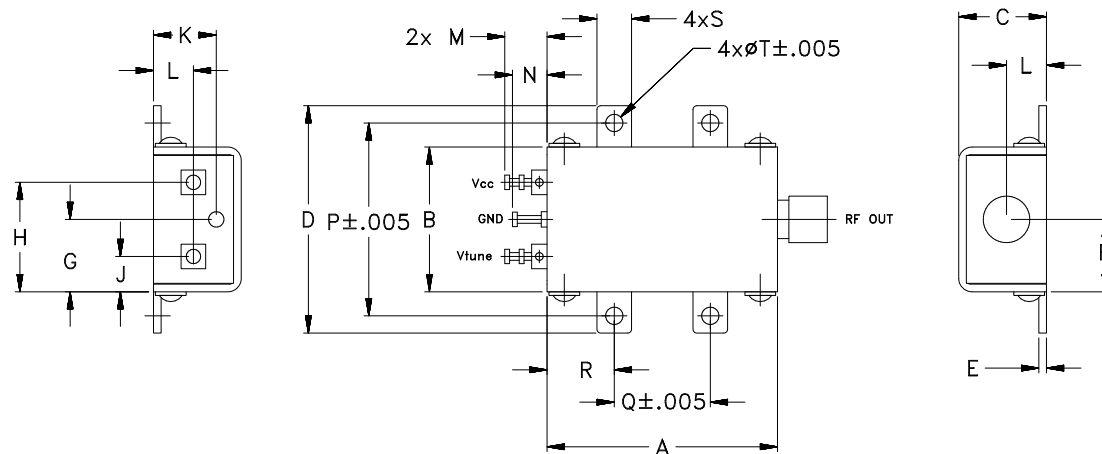
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Typ.	Typ.
ZX95-850A+	800	850	-0.5	-84	-110	-131	-151	0.5	5	18	50	160	-90	-25	-15	0.2	0.4	5	24

### 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  
M111692  
EDR-6623/1F2  
ZX95-850A+  
RAV  
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# Performance Data & Curves\*

# ZX95-850A+

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 825 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	22.11	781.9	776.6	772.6	-0.78	-0.87	-0.81	16.90	-24.2	-44.9	-67.9	0.87	0.45	-83.9	-108.0	-128.9	-149.5	1.0	-84.89
0.50	18.71	792.3	787.1	783.3	-0.69	-0.73	-0.60	16.97	-24.5	-48.2	-63.7	0.51	0.39	-85.0	-109.3	-130.5	-150.4	2.0	-93.81
0.75	18.07	797.0	791.8	788.0	-0.67	-0.69	-0.53	17.00	-24.6	-48.5	-63.7	0.43	0.37	-83.1	-110.7	-130.6	-150.7	3.5	-100.17
1.00	17.77	801.5	796.3	792.5	-0.66	-0.66	-0.49	17.02	-24.8	-49.0	-62.2	0.38	0.34	-85.7	-110.4	-131.1	-151.5	6.0	-105.21
1.25	17.68	806.0	800.7	796.9	-0.66	-0.64	-0.45	17.05	-25.0	-49.0	-60.7	0.34	0.31	-84.8	-110.3	-131.2	-150.1	8.5	-109.39
1.50	17.72	810.5	805.1	801.3	-0.67	-0.64	-0.42	17.07	-25.1	-48.6	-60.9	0.31	0.26	-83.8	-110.4	-131.3	-150.6	10.0	-111.03
1.75	17.86	815.0	809.6	805.7	-0.69	-0.64	-0.41	17.09	-25.2	-48.1	-60.7	0.30	0.22	-83.1	-111.3	-131.7	-152.0	20.8	-117.36
2.00	18.06	819.5	814.0	810.1	-0.70	-0.65	-0.40	17.12	-25.2	-47.9	-59.2	0.30	0.16	-83.6	-111.2	-131.7	-151.6	35.5	-122.07
2.25	18.24	824.0	818.5	814.6	-0.73	-0.67	-0.40	17.13	-25.2	-47.4	-58.0	0.31	0.10	-84.7	-110.7	-131.7	-152.8	60.7	-126.55
2.50	18.44	828.6	823.1	819.2	-0.75	-0.68	-0.41	17.16	-25.1	-46.9	-57.9	0.34	0.10	-85.0	-111.4	-131.8	-151.7	86.7	-130.26
2.75	18.59	833.2	827.7	823.7	-0.79	-0.71	-0.41	17.18	-25.2	-46.3	-54.8	0.38	0.13	-84.9	-110.5	-131.5	-151.7	100.0	-131.42
3.00	18.70	837.9	832.4	828.4	-0.82	-0.75	-0.43	17.20	-25.3	-45.9	-55.4	0.44	0.19	-84.1	-110.2	-131.2	-151.2	148.1	-134.92
3.25	18.74	842.5	837.0	833.0	-0.84	-0.78	-0.46	17.22	-25.4	-46.2	-53.7	0.51	0.25	-84.6	-110.3	-131.1	-151.0	177.0	-136.37
3.50	18.73	847.1	841.7	837.7	-0.86	-0.80	-0.48	17.25	-25.5	-45.8	-53.6	0.59	0.31	-83.2	-109.6	-131.0	-150.7	211.6	-138.04
3.75	18.66	851.8	846.4	842.4	-0.87	-0.82	-0.49	17.27	-25.4	-46.5	-52.9	0.68	0.35	-83.5	-108.7	-130.7	-151.1	302.4	-141.19
4.00	18.58	856.4	851.1	847.1	-0.89	-0.84	-0.50	17.30	-25.3	-46.5	-53.0	0.78	0.39	-84.0	-108.9	-130.8	-150.5	361.5	-142.68
4.25	18.44	861.0	855.7	851.7	-0.90	-0.86	-0.51	17.31	-25.2	-46.3	-52.3	0.88	0.41	-83.9	-109.3	-130.4	-150.4	507.5	-145.71
4.50	18.25	865.5	860.3	856.3	-0.91	-0.88	-0.52	17.33	-25.2	-46.2	-51.7	0.97	0.42	-82.5	-109.6	-130.2	-150.0	606.7	-147.15
4.75	18.01	870.0	864.9	860.9	-0.92	-0.89	-0.53	17.36	-25.3	-46.8	-52.3	1.05	0.41	-83.4	-109.1	-129.8	-150.2	851.6	-150.82
5.00	17.75	874.5	869.4	865.4	-0.93	-0.90	-0.54	17.38	-25.5	-46.9	-52.2	1.13	0.39	-83.3	-108.1	-129.8	-149.7	1000.0	-152.10

\*at 25°C unless mentioned otherwise

