

Coaxial

Voltage Controlled Oscillator

ZX95-890C+

Ultra Low Noise 875 to 890 MHz

Features

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



CASE STYLE: GB956

Applications

- r & d
- lab
- instrumentation
- wireless communications
- RFID

Connectors	Model
SMA	ZX95-890C-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 (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.
ZX95-890C+	875	890	+6.2	-97	-125	-145	-164	0.5	11	5	40	60	-90	-19	-12	0.1	0.2	8	35

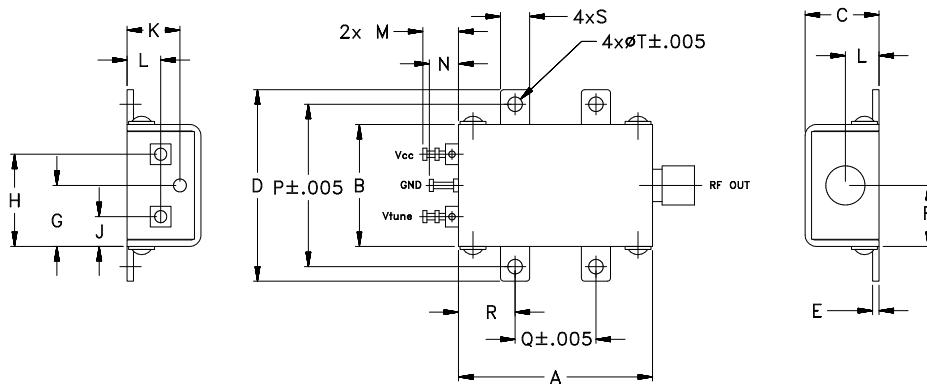
Maximum Ratings

Operating Temperature -55°C to 85°C
 Storage Temperature -55°C to 100°C
 Absolute Max. Supply Voltage (Vcc) 8.5V
 Absolute Max. Tuning Voltage (Vtune) 13.0V
 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

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's 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



www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

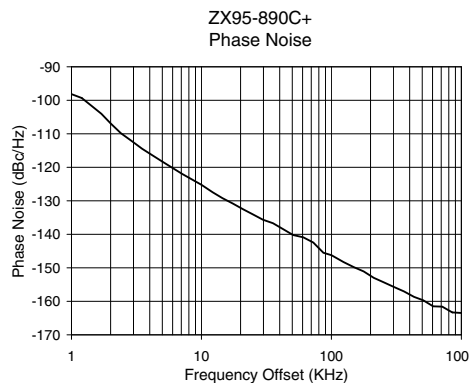
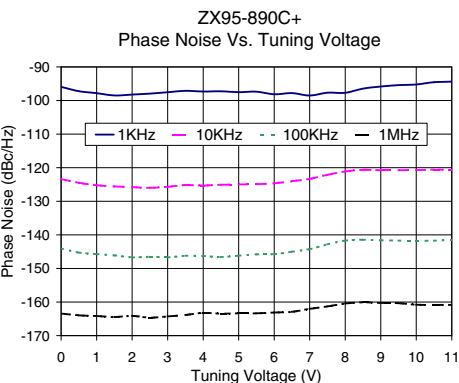
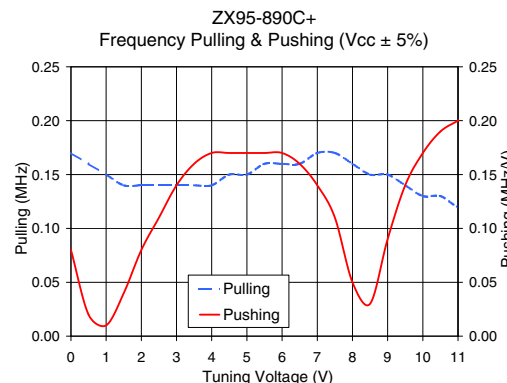
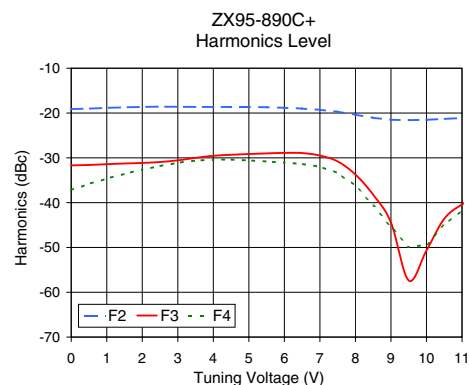
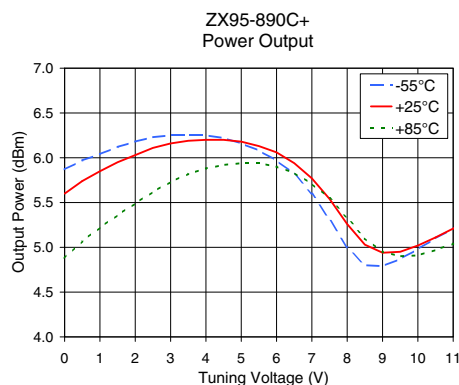
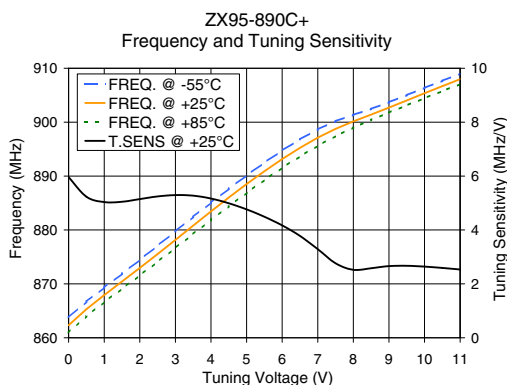
REV. A
 M152326
 EDR-8960F2
 ZX95-890C+
 RAV
 150923
 Page 1 of 2

Performance Data & Curves*

ZX95-890C+

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 883 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	5.96	863.8	862.3	861.0	5.87	5.60	4.88	27.68	-19.1	-31.7	-37.2	0.08	0.17	-96.0	-123.4	-144.0	-163.4	1.0	-98.17
0.50	5.23	866.7	865.3	864.0	5.97	5.74	5.07	27.79	-19.0	-31.6	-35.8	0.02	0.16	-97.2	-124.5	-145.3	-164.0	2.0	-106.90
1.00	5.03	869.3	867.9	866.6	6.04	5.85	5.22	27.88	-18.9	-31.4	-34.6	0.01	0.15	-97.8	-125.2	-145.7	-164.2	3.5	-114.48
1.50	5.05	871.9	870.4	869.1	6.12	5.95	5.36	27.96	-18.7	-31.3	-33.6	0.04	0.14	-98.5	-125.6	-146.1	-164.5	6.0	-120.21
2.00	5.14	874.5	873.0	871.6	6.18	6.03	5.49	28.03	-18.6	-31.1	-32.6	0.08	0.14	-98.2	-125.8	-146.7	-164.1	8.5	-123.68
2.50	5.24	877.1	875.5	874.1	6.23	6.11	5.62	28.09	-18.6	-30.9	-31.8	0.11	0.14	-97.9	-126.0	-146.5	-164.6	10.0	-125.23
3.00	5.30	879.7	878.2	876.7	6.25	6.16	5.73	28.12	-18.6	-30.6	-31.1	0.14	0.14	-97.5	-125.7	-146.7	-164.3	20.8	-132.46
3.50	5.27	882.4	880.8	879.3	6.25	6.19	5.82	28.14	-18.6	-30.0	-30.6	0.16	0.14	-97.1	-125.2	-146.2	-163.9	35.5	-136.70
4.00	5.17	885.1	883.4	881.9	6.25	6.20	5.88	28.11	-18.7	-29.6	-30.4	0.17	0.14	-97.3	-125.3	-146.3	-163.2	60.7	-140.88
4.50	4.99	887.6	886.0	884.4	6.22	6.20	5.92	28.07	-18.6	-29.3	-30.4	0.17	0.15	-97.3	-125.1	-146.6	-163.4	86.7	-145.49
5.00	4.76	890.1	888.5	886.9	6.16	6.18	5.94	28.00	-18.6	-29.1	-30.6	0.17	0.15	-97.5	-125.0	-146.2	-163.4	100.0	-146.22
5.50	4.49	892.5	890.9	889.3	6.08	6.13	5.94	27.89	-18.7	-29.0	-30.8	0.17	0.16	-97.4	-124.9	-145.8	-163.4	148.1	-149.77
6.00	4.17	894.7	893.1	891.5	5.97	6.06	5.90	27.74	-18.8	-28.9	-31.1	0.17	0.16	-98.1	-124.6	-145.7	-163.1	177.0	-151.08
6.50	3.78	896.8	895.2	893.7	5.82	5.94	5.83	27.57	-19.0	-28.9	-31.4	0.16	0.16	-97.8	-124.0	-145.0	-162.9	211.6	-152.98
7.00	3.29	898.7	897.1	895.6	5.60	5.77	5.71	27.36	-19.3	-29.5	-32.0	0.14	0.17	-98.5	-123.3	-144.3	-162.0	302.4	-155.71
7.50	2.76	900.2	898.8	897.4	5.31	5.54	5.55	27.19	-19.7	-30.8	-33.4	0.11	0.17	-97.7	-122.1	-142.8	-161.3	361.5	-157.05
8.00	2.52	901.4	900.1	899.0	5.00	5.26	5.33	27.11	-20.4	-33.7	-36.2	0.05	0.16	-97.7	-121.1	-141.7	-160.5	507.5	-159.67
9.00	2.66	903.7	902.7	901.8	4.79	4.94	4.95	27.39	-21.5	-44.4	-45.4	0.09	0.15	-95.8	-120.8	-141.6	-160.3	606.7	-161.50
10.00	2.64	906.3	905.4	904.4	4.98	5.02	4.91	27.76	-21.5	-50.7	-49.4	0.17	0.13	-95.2	-120.7	-141.8	-160.8	851.6	-163.30
11.00	2.53	909.0	908.0	907.1	5.21	5.21	5.04	28.06	-21.1	-40.4	-41.7	0.20	0.12	-94.4	-120.6	-141.6	-160.9	1000.0	-163.48

*at 25°C unless mentioned otherwise



Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's 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

