

Coaxial

# Voltage Controlled Oscillator

ZX95-3800+

5V Tuning for PLL IC's 3630 to 3800 MHz

## Features

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

## Applications

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



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-3800-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

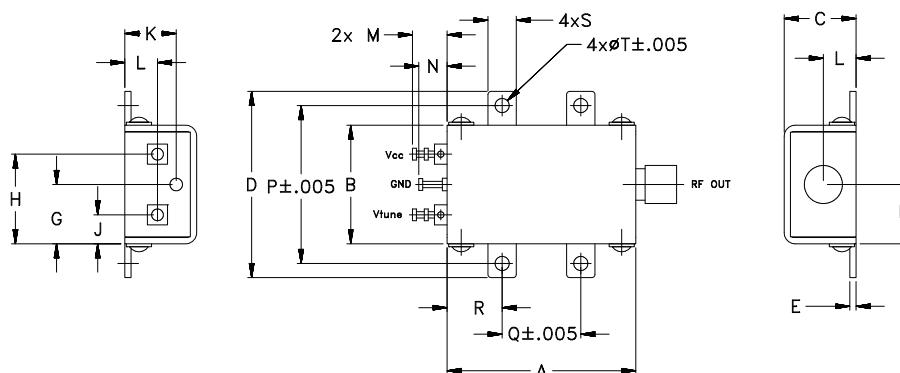
MODEL NO.	FREQ. (MHz)	POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies,KHz				TUNING				NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)	PULLING pk-pk @12 dBr (MHz)	PUSHING (MHz/V)	DC OPERATING POWER Vcc Current (volts) (mA)	
			Typ.				VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)					Max.	
ZX95-3800+	3630 3800	+4.5	-69 -95 -117 -137	0.5	5	70-86	12	50			-90	-34	-24	1	1	5 40

## 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	.38	.57	.18	.33	.21	.22	.18	1.00	.50	.35	.18	.106	grams

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

For detailed performance specs & shopping online see web site

REV. A  
M139258  
EDR-10955MPF2  
ZX95-3800+  
RAV  
121024  
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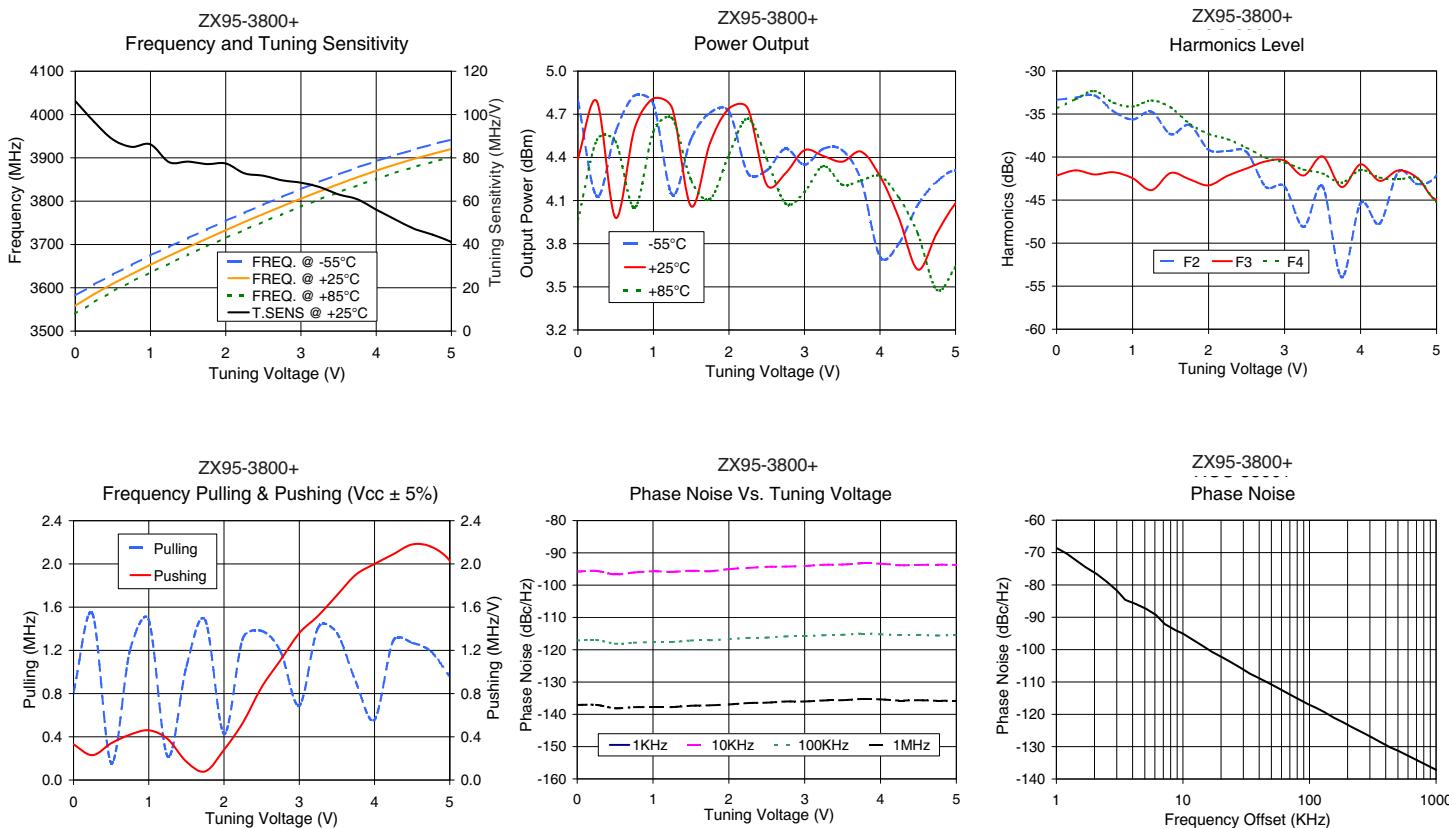
Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's 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-Circuit's website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

## Performance Data & Curves\*

**ZX95-3800+**

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 3715 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	106.25	3581.9	3558.8	3540.1	4.80	4.39	3.96	34.08	-33.4	-42.2	-34.4	0.33	0.81	-68.34	-95.8	-117.1	-137.1	1.0	-68.58
0.50	88.50	3630.6	3609.5	3591.8	4.58	3.98	4.51	34.36	-32.8	-42.0	-32.3	0.34	0.16	-69.62	-96.7	-118.1	-138.1	2.1	-76.71
0.75	85.08	3652.6	3631.7	3614.3	4.83	4.60	4.05	34.45	-34.7	-41.8	-33.7	0.42	1.20	-69.38	-96.1	-117.8	-137.8	3.5	-84.62
1.00	86.22	3674.9	3652.9	3635.5	4.77	4.81	4.58	34.53	-35.6	-42.5	-34.1	0.46	1.48	-68.01	-95.7	-117.6	-137.8	6.1	-89.25
1.25	77.97	3694.8	3674.5	3656.1	4.14	4.74	4.67	34.68	-34.7	-43.8	-33.4	0.38	0.22	-68.37	-95.9	-117.6	-137.8	8.7	-93.97
1.50	78.28	3714.7	3694.0	3677.1	4.53	4.06	4.24	34.79	-37.3	-41.9	-34.2	0.17	1.05	-69.02	-95.6	-117.1	-137.3	10.0	-95.05
1.75	77.12	3734.6	3713.5	3696.0	4.71	4.50	4.11	34.89	-36.3	-42.6	-36.1	0.08	1.48	-69.28	-95.7	-117.1	-137.2	20.4	-102.35
2.00	77.40	3754.6	3732.8	3715.0	4.72	4.74	4.42	34.95	-39.1	-43.3	-37.3	0.28	0.43	-70.11	-95.0	-116.7	-137.0	33.6	-107.36
2.25	72.86	3773.2	3752.2	3733.7	4.29	4.74	4.67	35.06	-39.3	-42.2	-37.9	0.53	1.31	-67.35	-94.7	-116.3	-136.5	56.3	-111.85
2.50	71.74	3791.8	3770.4	3752.5	4.31	4.21	4.39	35.17	-39.4	-41.3	-38.9	0.86	1.38	-68.14	-94.3	-116.2	-136.4	79.0	-114.99
2.75	69.62	3809.9	3788.3	3770.2	4.46	4.29	4.08	35.24	-43.4	-40.5	-40.1	1.11	1.19	-67.91	-94.3	-115.9	-136.0	100.0	-117.08
3.00	68.55	3827.8	3805.7	3787.4	4.35	4.45	4.16	35.30	-43.4	-40.4	-40.6	1.36	0.69	-67.51	-94.1	-115.8	-136.0	155.7	-121.06
3.25	66.48	3845.0	3822.9	3804.3	4.46	4.41	4.34	35.34	-48.1	-42.1	-41.5	1.52	1.41	-67.90	-93.7	-115.5	-135.7	182.8	-122.39
3.50	63.12	3861.8	3839.5	3820.6	4.45	4.37	4.21	35.39	-43.4	-39.9	-41.9	1.71	1.36	-66.26	-93.6	-115.4	-135.6	218.5	-124.06
3.75	60.89	3877.6	3855.3	3836.4	4.24	4.44	4.24	35.42	-54.0	-43.5	-43.0	1.90	0.91	-67.90	-93.2	-115.0	-135.3	306.7	-127.00
4.00	56.10	3892.3	3870.5	3851.3	3.71	4.27	4.27	35.45	-45.4	-40.9	-41.5	2.00	0.56	-66.81	-93.4	-115.2	-135.4	360.2	-128.51
4.25	51.67	3906.0	3884.5	3865.4	3.80	3.98	4.12	35.47	-47.7	-42.8	-42.4	2.09	1.29	-67.34	-93.8	-115.5	-135.7	505.5	-131.33
4.50	47.29	3919.1	3897.4	3878.7	4.07	3.62	3.87	35.45	-41.7	-41.6	-42.6	2.18	1.27	-67.21	-93.7	-115.4	-135.6	604.2	-132.84
4.75	44.55	3931.3	3909.2	3890.8	4.23	3.87	3.48	35.40	-43.1	-42.4	-42.5	2.16	1.19	-66.65	-93.7	-115.6	-135.8	709.5	-134.22
5.00	41.12	3942.2	3920.4	3901.7	4.31	4.08	3.64	35.34	-42.1	-44.9	-45.2	2.03	0.96	-65.50	-93.8	-115.5	-135.8	1000.0	-137.16

\*at 25°C unless mentioned otherwise



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