

Coaxial

# Voltage Controlled Oscillator

## ZX95-3610+

5V Tuning for PLL IC's 3500 to 3610 MHz

### Features

- Linear tuning characteristics
- Low pushing
- Low pulling
- 0.5-5V tuning voltage range
- Protected by US patent 6,790,049



CASE STYLE: GB956

### Applications

- R&D
- LAB
- Instrumentation
- Radio location
- Wireless microphones

Connectors	Model	Price	Qty.
SMA	ZX95-3610-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

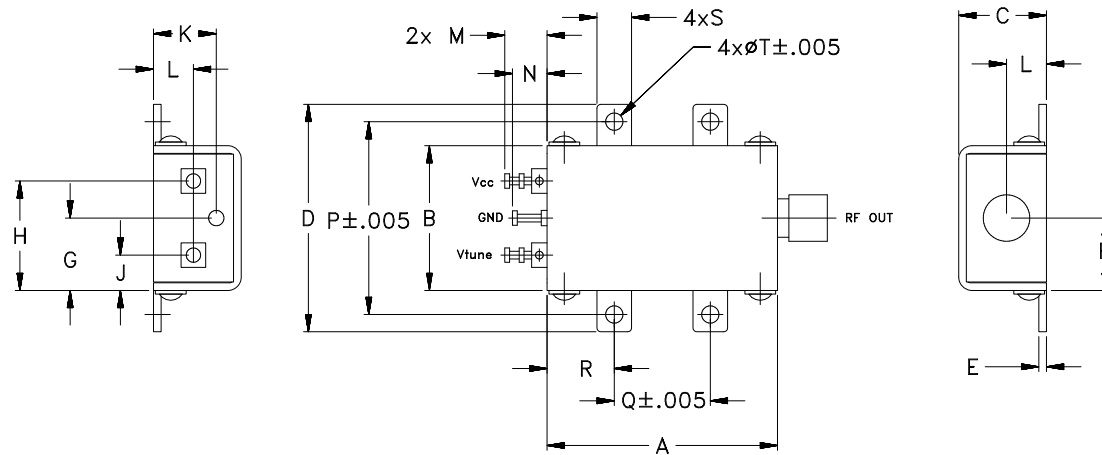
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)			PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.	Max.			Vcc (volts)	Current (mA)
ZX95-3610+	3500	3610	+3.5	-73	-97	-118	-138	0.5	5	80	12	320	-90	-19	-10	1.5	2.5	5	37	

### 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

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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-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).

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 M108877  
 EDR-7771  
 ZX95-3610+  
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# Performance Data & Curves\*

# ZX95-3610+

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 3550 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	111.78	3364.9	3349.4	3336.5	2.86	3.21	3.26	31.37	-18.3	-37.2	-46.4	1.54	1.07	-73.3	-96.0	-118.2	-136.0	1.0	-73.34
0.50	92.34	3417.0	3403.6	3391.6	3.17	3.31	3.18	31.46	-18.5	-37.5	-45.0	2.04	1.59	-73.0	-97.5	-118.5	-137.9	2.0	-80.65
0.75	88.33	3439.9	3426.6	3415.5	3.26	3.44	3.38	31.53	-19.3	-37.5	-44.1	2.19	1.43	-73.3	-96.9	-118.2	-138.2	3.4	-85.72
1.00	86.00	3462.0	3448.7	3437.9	3.12	3.51	3.49	31.58	-18.8	-39.8	-44.6	2.26	0.51	-73.0	-96.6	-117.7	-137.4	5.7	-91.00
1.25	85.29	3483.5	3470.2	3459.5	3.08	3.39	3.45	31.62	-18.8	-40.7	-45.1	2.34	1.08	-73.5	-97.1	-117.3	-137.7	8.1	-97.18
1.50	83.37	3504.7	3491.5	3480.6	3.06	3.31	3.37	31.64	-18.8	-39.0	-47.0	2.50	1.91	-72.0	-97.1	-119.0	-137.0	10.0	-97.19
1.75	81.44	3525.3	3512.4	3501.7	3.20	3.30	3.33	31.69	-18.6	-41.6	-48.9	2.56	1.50	-73.6	-97.3	-118.6	-137.2	19.6	-104.59
2.00	79.70	3545.5	3532.7	3522.3	3.21	3.47	3.41	31.78	-18.7	-41.6	-48.3	2.44	0.76	-73.9	-97.5	-118.6	-137.9	33.3	-112.12
2.25	79.62	3565.3	3552.7	3542.1	3.14	3.46	3.55	31.85	-18.5	-41.4	-50.6	2.50	1.11	-73.7	-97.1	-119.1	-138.7	57.2	-114.33
2.50	79.96	3585.5	3572.6	3562.0	3.02	3.39	3.48	31.89	-18.9	-41.9	-52.1	2.59	1.29	-72.0	-96.5	-118.2	-137.4	81.8	-118.23
2.75	81.25	3605.5	3592.6	3582.0	3.05	3.29	3.42	31.94	-18.0	-42.9	-51.7	2.55	0.93	-72.5	-96.9	-119.3	-138.5	100.0	-117.46
3.00	81.99	3626.2	3612.9	3601.8	3.23	3.33	3.38	31.95	-17.8	-43.8	-46.3	2.81	0.24	-71.7	-96.3	-118.7	-138.2	139.3	-123.10
3.25	77.99	3645.9	3633.4	3622.7	3.30	3.51	3.51	32.11	-18.8	-45.5	-42.9	2.48	1.03	-72.2	-97.1	-118.7	-138.8	167.3	-123.77
3.50	80.59	3666.0	3652.9	3642.2	3.34	3.63	3.59	32.18	-18.6	-47.9	-42.8	2.48	1.70	-72.1	-97.9	-118.7	-141.0	199.2	-124.47
3.75	78.33	3685.8	3673.0	3661.9	3.28	3.65	3.70	32.26	-18.0	-47.7	-41.8	2.42	1.40	-71.7	-96.9	-119.0	-138.1	284.8	-127.83
4.00	82.30	3706.1	3692.6	3681.8	3.29	3.60	3.66	32.33	-18.5	-48.3	-41.8	2.31	1.18	-71.7	-97.1	-118.4	-137.8	342.1	-130.95
4.25	80.11	3726.8	3713.2	3701.3	3.35	3.59	3.65	32.34	-18.3	-53.1	-42.1	2.49	1.80	-69.9	-95.9	-117.4	-138.2	489.1	-131.16
4.50	78.42	3746.4	3733.2	3722.2	3.57	3.69	3.70	32.53	-17.4	-51.4	-42.0	1.94	1.24	-71.7	-96.4	-119.2	-138.1	582.3	-133.55
4.75	76.69	3766.2	3752.8	3741.2	3.65	3.89	3.81	32.62	-17.7	-51.4	-41.6	1.79	0.81	-71.9	-95.8	-118.5	-138.5	832.6	-136.33
5.00	74.77	3785.3	3772.0	3760.7	3.61	3.98	4.00	32.76	-17.1	-51.6	-41.8	1.32	0.40	-71.5	-96.5	-119.2	-139.7	1000.0	-139.17

\*at 25°C unless mentioned otherwise

