

Coaxial

# Voltage Controlled Oscillator

## ZX95-3490+

Linear Tuning 3340 to 3490 MHz

### Features

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

### Applications

- R&D
- LAB
- Instrumentation
- Point-to-point communications
- SAP/SAB



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-3490-S+	\$40.95 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

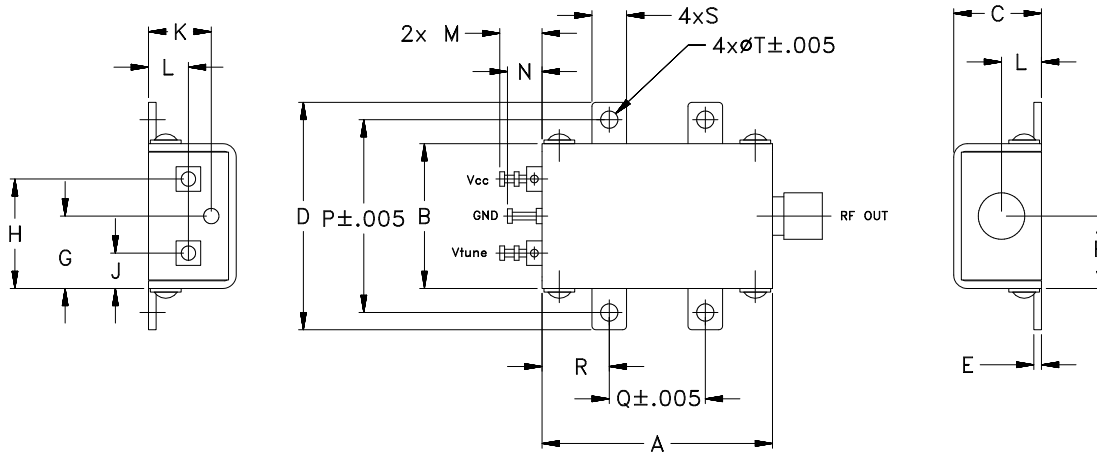
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)			PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER			
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.	Max.			Typ.	Typ.	Vcc (volts)	Current (mA)
ZX95-3490+	3340	3490	0	-75	-98	-119	-139	0.5	12	28 - 32	40	220	-90	-35	-22	0.8	1	8	40			

### Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	9V
Absolute Max. Tuning Voltage (Vtune)	14V
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  
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EDR-7983  
ZX95-3490+  
RAV  
090903  
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# Performance Data & Curves\*

# ZX95-3490+

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 3415 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	26.78	3264.7	3256.6	3251.5	0.18	-0.44	-1.82	32.45	-32.8	-37.8	-42.1	1.27	1.19	-82.7	-99.1	-119.8	-139.3	1.0	-78.35
0.50	23.97	3277.8	3270.0	3265.4	0.21	-0.37	-1.69	32.48	-32.3	-39.5	-40.6	1.25	0.79	-77.1	-98.3	-118.8	-138.6	2.0	-86.43
1.00	23.27	3289.7	3282.0	3277.7	0.23	-0.33	-1.52	32.50	-32.1	-40.6	-39.9	1.22	0.59	-74.9	-98.3	-119.2	-139.1	3.5	-90.72
1.50	24.61	3302.3	3293.6	3289.3	0.20	-0.27	-1.44	32.51	-32.4	-41.9	-39.9	1.21	0.68	-76.6	-99.4	-120.1	-139.3	6.0	-95.40
2.00	28.72	3315.7	3305.9	3301.8	0.22	-0.26	-1.45	32.51	-33.0	-44.0	-39.8	1.33	0.99	-77.8	-100.3	-120.5	-140.2	8.5	-97.81
2.50	28.42	3329.0	3320.3	3315.1	0.32	-0.30	-1.39	32.50	-33.9	-50.8	-40.2	1.34	0.93	-77.4	-100.1	-120.3	-140.2	10.0	-99.75
3.00	29.75	3343.4	3334.5	3328.7	0.36	-0.25	-1.27	32.52	-33.1	-55.2	-40.1	1.28	0.73	-74.0	-97.8	-118.1	-137.7	20.8	-106.23
4.00	30.14	3373.7	3364.5	3358.3	0.38	-0.20	-1.16	32.56	-34.5	-42.0	-39.6	1.24	0.74	-77.6	-99.9	-120.6	-140.0	35.5	-111.08
5.00	31.95	3405.8	3395.8	3389.0	0.48	-0.16	-1.15	32.55	-34.8	-39.0	-39.9	1.35	1.06	-75.1	-98.1	-119.5	-138.9	60.7	-115.86
5.50	30.88	3421.3	3411.7	3404.7	0.58	-0.12	-1.08	32.57	-34.9	-40.0	-39.2	1.23	0.65	-77.8	-99.1	-119.9	-139.4	86.7	-119.00
6.00	30.17	3437.0	3427.2	3419.9	0.58	0.00	-0.95	32.59	-35.7	-39.3	-39.6	1.22	0.53	-78.2	-99.9	-120.6	-139.6	100.0	-120.22
7.00	28.84	3466.8	3456.8	3449.8	0.76	0.13	-0.81	32.62	-36.6	-41.6	-38.9	1.13	0.79	-78.2	-99.5	-120.5	-139.7	148.1	-123.76
8.00	28.24	3496.0	3486.2	3478.7	0.91	0.21	-0.69	32.63	-37.3	-44.3	-39.0	1.14	0.68	-76.5	-99.4	-120.3	-140.0	177.0	-125.12
9.00	27.60	3524.4	3514.3	3506.6	1.00	0.36	-0.50	32.65	-38.2	-46.1	-39.6	1.09	0.81	-75.9	-99.6	-120.7	-138.7	211.6	-126.79
9.50	26.88	3538.2	3528.1	3520.4	1.13	0.46	-0.44	32.66	-38.9	-46.2	-39.4	1.04	0.89	-75.5	-98.5	-119.8	-138.7	302.4	-129.83
10.00	26.85	3551.8	3541.5	3533.9	1.23	0.59	-0.33	32.67	-39.4	-46.2	-40.2	0.99	0.90	-75.0	-98.4	-119.8	-139.1	361.5	-130.65
10.50	27.21	3565.5	3555.0	3547.2	1.22	0.67	-0.23	32.67	-40.1	-47.1	-41.0	1.02	0.66	-75.4	-99.3	-120.1	-139.3	507.5	-134.33
11.00	26.45	3578.9	3568.6	3560.5	1.27	0.65	-0.16	32.68	-40.8	-46.4	-42.4	0.95	0.37	-75.0	-98.9	-120.1	-139.5	606.7	-135.78
11.50	26.05	3592.1	3581.8	3573.7	1.31	0.72	-0.10	32.68	-41.3	-46.5	-43.5	0.89	0.71	-73.6	-98.4	-119.7	-139.6	851.6	-138.63
12.00	26.05	3605.4	3594.8	3586.6	1.33	0.76	-0.02	32.69	-41.3	-46.5	-45.0	0.87	0.87	-71.6	-98.6	-119.5	-139.2	1000.0	-139.62

\*at 25°C unless mentioned otherwise

