

Coaxial

# Voltage Controlled Oscillator

## ZX95-2890+

Linear Tuning 2700 to 2890 MHz

### Features

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

### Applications

- R&D
- LAB
- Instrumentation
- Wireless communications
- Point-to-point radio



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-2890-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

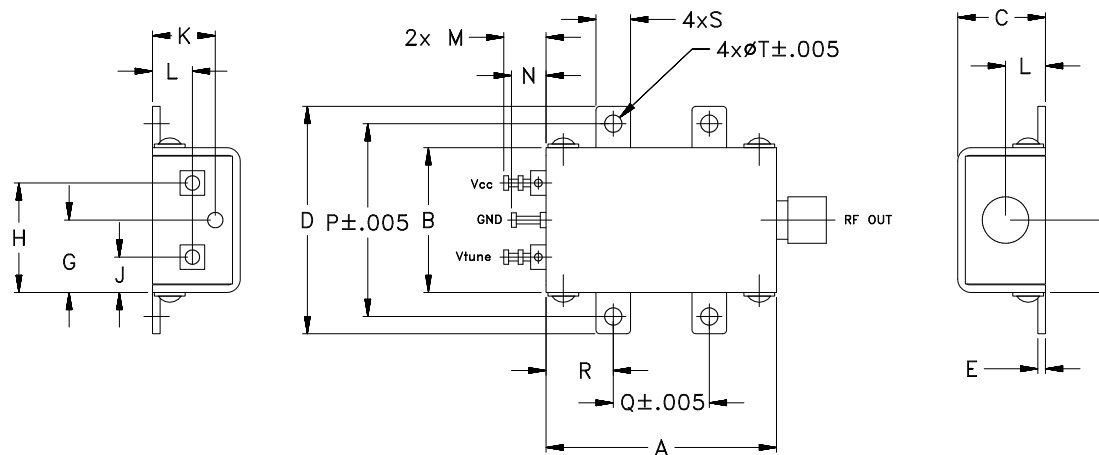
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING				NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)			PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER		
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.	Typ.			Max.	Vcc (volts)	Current (mA)
ZX95-2890+	2700	2890	+5	-80	-106	-126	-146	0.5	16	24	34	20	170	-90	-25	-15	3	0.7	5	40

### Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6.5V
Absolute Max. Tuning Voltage (Vtune)	17V
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).

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M110222  
EDR-7348F2  
ZX95-2890+  
RAV  
090902  
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# Performance Data & Curves\*

# ZX95-2890+

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 2795 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	22.78	2576.7	2573.3	2571.7	2.36	1.16	0.36	29.68	-23.0	-36.3	-37.3	0.50	3.05	-82.5	-106.4	-127.2	-147.3	1.0	-80.47
0.50	20.18	2588.0	2584.6	2583.0	2.70	1.58	0.85	29.77	-23.9	-35.0	-36.4	0.67	2.83	-83.7	-107.2	-127.6	-147.8	2.0	-89.68
1.00	19.03	2598.0	2594.7	2593.0	2.93	1.86	1.17	29.83	-24.0	-36.0	-36.5	0.72	2.08	-83.1	-107.2	-128.4	-148.2	3.5	-96.19
1.50	18.61	2607.6	2604.3	2602.4	3.13	2.10	1.43	29.89	-24.2	-36.0	-37.7	0.74	1.54	-83.0	-107.8	-128.2	-148.1	6.0	-101.17
2.00	18.54	2616.9	2613.6	2611.6	3.29	2.31	1.66	29.93	-24.8	-35.8	-37.6	0.75	1.34	-83.5	-107.7	-128.1	-148.0	8.5	-104.72
3.00	18.88	2635.7	2632.1	2630.0	3.49	2.59	1.98	29.99	-24.6	-36.2	-36.5	0.74	2.84	-82.4	-107.7	-128.4	-147.9	10.0	-106.22
4.00	19.81	2655.0	2651.2	2648.8	3.70	2.85	2.27	30.02	-25.9	-34.7	-38.0	0.72	2.93	-83.5	-107.1	-128.2	-147.9	20.8	-113.10
5.00	21.20	2675.5	2671.3	2668.6	4.05	3.17	2.58	30.03	-25.7	-35.9	-37.7	0.70	1.89	-82.6	-107.0	-127.8	-148.2	35.5	-118.00
6.00	22.79	2697.5	2692.9	2689.9	4.41	3.59	3.02	30.03	-26.6	-35.3	-38.5	0.68	2.37	-82.6	-107.0	-128.0	-148.4	60.7	-122.96
7.00	24.91	2721.2	2716.1	2712.8	4.81	4.01	3.46	30.01	-27.8	-35.9	-38.5	0.67	3.30	-81.7	-106.6	-127.8	-147.9	86.7	-126.15
8.00	26.73	2746.9	2741.5	2737.9	5.06	4.39	3.88	30.00	-28.2	-34.2	-39.2	0.70	3.25	-81.0	-106.2	-127.6	-147.5	100.0	-127.28
9.00	28.93	2774.6	2768.7	2764.8	5.17	4.52	4.08	29.97	-27.5	-31.7	-39.0	0.76	2.19	-80.2	-106.3	-127.3	-147.7	148.1	-130.45
10.00	31.64	2805.2	2798.4	2793.9	5.68	4.92	4.42	29.90	-27.8	-28.9	-40.0	0.88	3.90	-81.3	-106.6	-127.6	-147.5	177.0	-132.07
11.00	32.60	2837.6	2830.4	2825.6	6.09	5.50	5.00	29.88	-27.8	-27.5	-39.2	0.88	2.06	-79.8	-106.3	-127.3	-147.5	211.6	-133.70
12.00	33.42	2871.0	2863.2	2858.5	6.38	5.82	5.33	29.83	-27.9	-26.7	-40.6	0.65	4.06	-79.5	-106.1	-127.2	-146.7	302.4	-135.19
13.00	34.54	2905.4	2897.1	2892.1	6.91	6.13	5.63	29.71	-27.9	-28.2	-41.1	0.19	4.70	-79.0	-105.9	-127.5	-147.5	361.5	-138.31
14.00	32.15	2939.3	2931.2	2926.3	7.28	6.65	6.15	29.65	-28.3	-29.0	-41.7	0.61	2.20	-78.1	-105.7	-127.0	-147.7	507.5	-141.67
15.00	29.00	2970.7	2962.6	2957.8	7.36	6.74	6.30	29.56	-27.8	-30.1	-41.1	1.44	5.02	-77.5	-103.5	-126.0	-146.6	606.7	-142.60
15.50	27.27	2985.4	2977.1	2972.3	7.37	6.76	6.31	29.50	-27.9	-30.4	-41.7	1.80	4.05	-77.0	-102.9	-125.4	-146.2	851.6	-146.00
16.00	25.05	2999.1	2990.7	2986.0	7.48	6.78	6.31	29.46	-27.0	-29.6	-40.9	2.00	1.97	-76.3	-102.7	-125.1	-145.3	1000.0	-147.23

\*at 25°C unless mentioned otherwise

