

Coaxial

# Voltage Controlled Oscillator

## ZX95-4100+

Linear Tuning 3950 to 4100 MHz

### Features

- Linear tuning characteristics
- Low pushing
- Low pulling
- Protected by US patent 6,790,049

### Applications

- R&D
- LAB
- Instrumentation
- Wireless communications
- WiMAX



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-4100-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

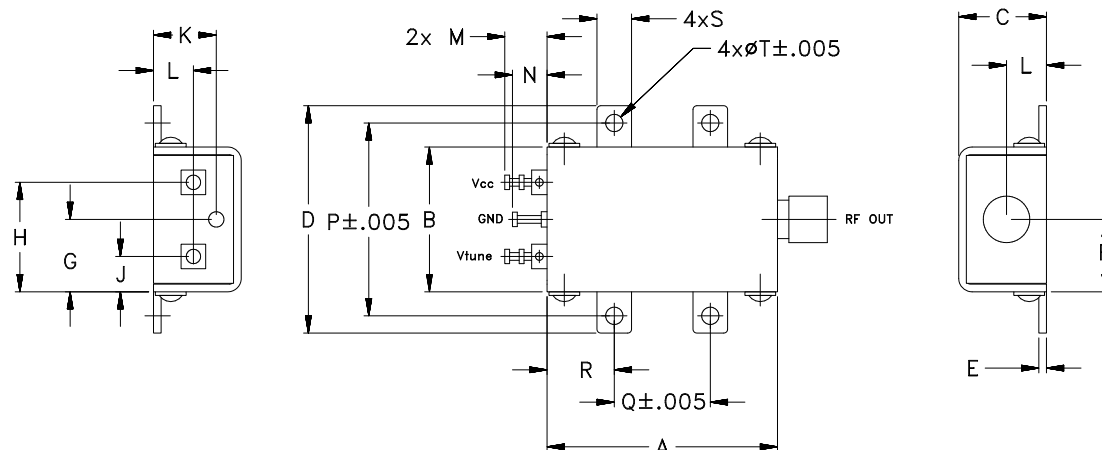
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, KHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSITIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Max.	Typ.
ZX95-4100+	3950	4100	+5.5	-71	-96	-117	-137	0.5	10	25	30	10	-90	-31	-20	2	1.5	5	35

### 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)	12V
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)

IF/RF MICROWAVE COMPONENTS

**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  
M108877  
EDR-7822/1  
ZX95-4100+  
RAV  
090906  
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# Performance Data & Curves\*

# ZX95-4100+

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 4025 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	23.66	3905.2	3890.1	3877.3	5.14	4.56	3.91	30.50	-32.2	-55.9	-56.1	2.15	2.20	-71.4	-97.0	-118.2	-138.4	1.0	-70.03
0.50	22.60	3917.2	3901.9	3890.1	5.17	4.64	3.97	30.50	-31.8	-53.3	-58.6	2.15	2.66	-72.1	-96.9	-118.4	-138.3	2.0	-80.07
1.00	22.80	3928.6	3913.2	3901.0	5.19	4.70	4.06	30.50	-32.3	-54.9	-58.1	2.17	2.61	-74.0	-97.2	-118.1	-137.8	3.5	-85.68
1.50	23.32	3939.9	3924.6	3911.9	5.27	4.73	4.14	30.51	-33.3	-57.1	-57.3	2.12	1.83	-72.9	-96.1	-117.6	-137.4	6.0	-90.69
2.00	24.08	3951.7	3936.3	3923.5	5.37	4.80	4.19	30.51	-32.9	-54.8	-58.5	2.01	0.55	-72.8	-96.8	-117.5	-137.5	8.5	-95.48
2.50	26.05	3964.6	3948.3	3935.6	5.46	4.90	4.26	30.52	-32.0	-57.3	-58.6	1.90	0.96	-70.5	-95.4	-117.7	-137.6	10.0	-95.42
3.00	26.82	3977.1	3961.3	3948.1	5.59	5.00	4.35	30.52	-32.1	-58.3	-61.2	1.88	2.21	-70.2	-95.5	-117.4	-137.6	20.8	-103.57
3.50	25.11	3989.6	3974.7	3961.3	5.64	5.13	4.43	30.55	-33.2	-62.1	-60.3	1.60	2.56	-72.4	-96.5	-117.8	-138.0	35.5	-98.37
4.00	26.55	4002.8	3987.3	3975.2	5.67	5.23	4.55	30.56	-33.5	-65.7	-61.1	1.42	2.39	-72.1	-96.6	-117.9	-138.0	60.7	-112.57
4.50	26.80	4016.6	4000.6	3987.8	5.73	5.25	4.74	30.55	-33.2	-63.1	-62.5	1.26	1.71	-72.1	-95.8	-117.4	-137.6	86.7	-115.57
5.00	26.93	4030.5	4014.0	4000.9	5.80	5.31	4.79	30.53	-32.6	-59.0	-62.5	1.15	0.44	-71.9	-95.4	-116.8	-137.3	100.0	-117.13
5.50	26.26	4044.1	4027.4	4013.9	5.88	5.39	4.82	30.53	-31.9	-55.9	-62.5	1.00	1.58	-70.2	-95.9	-117.0	-137.0	148.1	-120.64
6.00	25.70	4057.4	4040.5	4027.0	5.95	5.46	4.92	30.52	-32.3	-53.2	-62.4	0.85	2.60	-70.0	-95.2	-116.7	-137.0	177.0	-121.94
7.00	23.17	4081.3	4065.8	4052.3	6.22	5.61	5.06	30.51	-33.6	-47.1	-62.3	0.41	2.40	-71.0	-94.5	-116.5	-136.4	211.6	-123.97
7.50	21.67	4092.8	4077.4	4064.6	6.21	5.74	5.08	30.51	-33.0	-47.3	-62.7	0.16	1.30	-70.2	-95.9	-117.5	-137.5	302.4	-126.73
8.00	22.71	4104.6	4088.3	4076.3	6.12	5.79	5.19	30.49	-32.5	-46.8	-63.1	0.02	0.43	-68.4	-94.3	-116.6	-136.6	361.5	-128.58
8.50	22.51	4116.0	4099.6	4086.7	6.10	5.73	5.30	30.46	-32.6	-44.2	-61.1	0.09	1.49	-70.7	-94.5	-116.0	-136.3	507.5	-131.19
9.00	21.69	4127.1	4110.9	4097.6	6.11	5.67	5.26	30.45	-32.8	-44.6	-60.3	0.20	2.44	-70.1	-94.6	-116.1	-136.0	606.7	-132.80
9.50	21.46	4138.3	4121.7	4108.7	6.15	5.62	5.22	30.43	-33.4	-43.5	-57.8	0.33	2.68	-69.6	-94.6	-116.0	-136.4	851.6	-135.67
10.00	21.79	4149.4	4132.4	4119.7	6.17	5.61	5.18	30.40	-33.7	-41.1	-57.8	0.44	2.61	-69.4	-94.9	-115.5	-135.8	1000.0	-136.96

\*at 25°C unless mentioned otherwise

