

Coaxial

# Voltage Controlled Oscillator

## ZX95-1034+

5V Tuning for PLL IC's 1014 to 1034 MHz

### Features

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

### Applications

- r & d
- lab
- instrumentation
- wireless communications
- cellular infrastructure



CASE STYLE: GB956

Connectors	Model	Price	Qty.
SMA	ZX95-1034-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

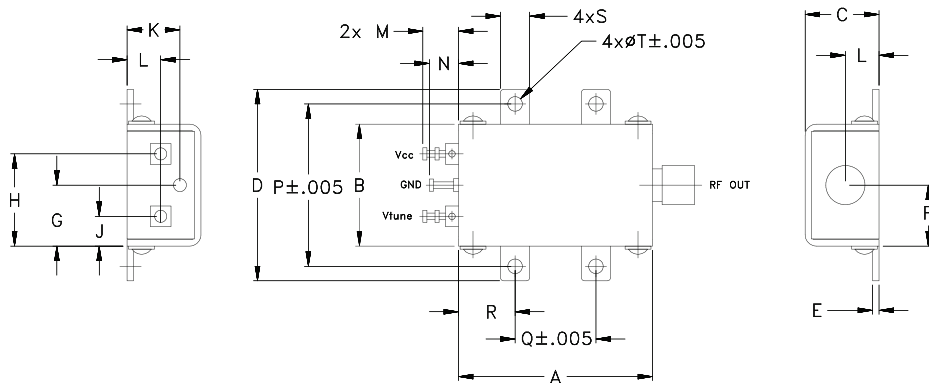
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Typ.	Typ.
ZX95-1034+	1014	1034	+3	-85	-112	-133	-153	0.5	5	26	40	45	-90	-22	-15	1	0.2	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)	7.0V
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
30.48	19.05	11.68	29.97	1.02	9.65	9.65	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

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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).

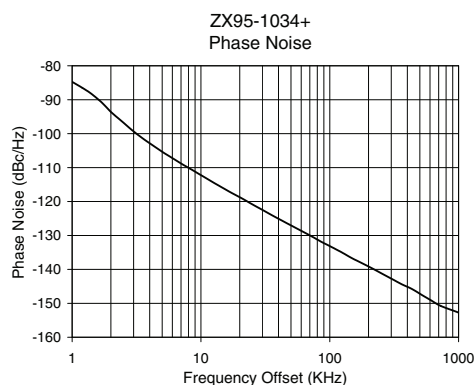
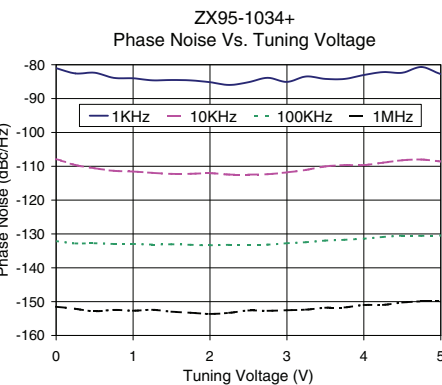
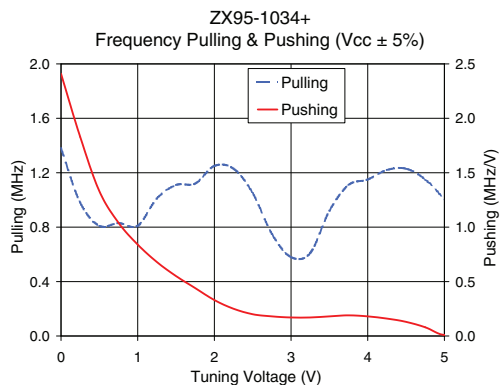
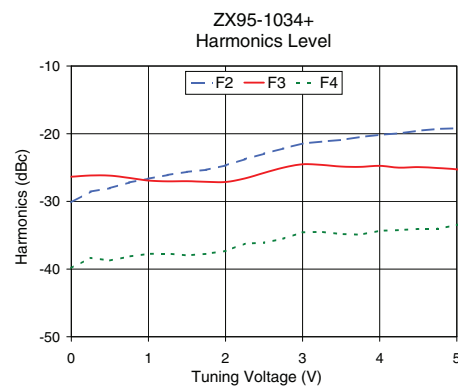
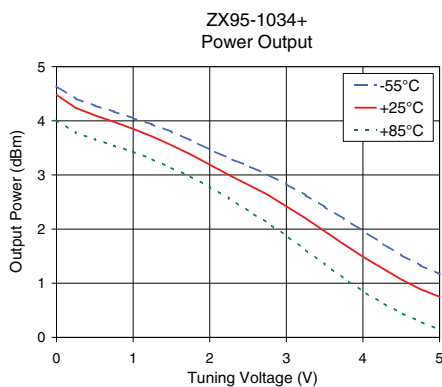
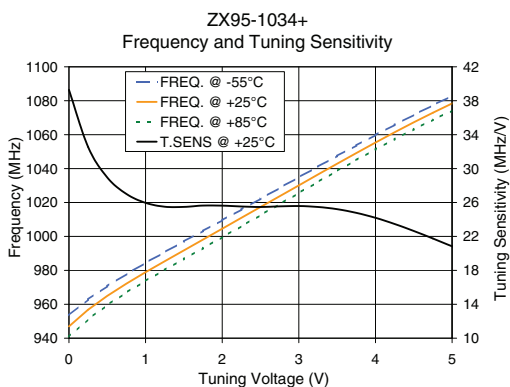
REV. OR  
M122533  
EDR-9237F2  
ZX95-1034+  
RAV  
120902  
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# Performance Data & Curves\*

# ZX95-1034+

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 1022 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	39.29	953.5	947.0	940.8	4.64	4.48	4.01	30.93	-30.1	-26.4	-39.9	2.41	1.38	-81.0	-107.9	-132.1	-151.5	1.0	-84.73
0.50	28.95	970.7	964.9	959.5	4.28	4.10	3.66	30.89	-28.1	-26.2	-38.7	1.33	0.81	-82.4	-110.6	-132.8	-152.8	2.0	-93.60
0.75	27.01	977.8	972.2	966.9	4.17	3.98	3.54	30.82	-27.2	-26.5	-38.1	1.04	0.83	-83.9	-111.3	-133.0	-152.4	3.5	-101.30
1.00	25.96	984.4	978.9	973.8	4.05	3.85	3.43	30.75	-26.6	-26.9	-37.8	0.84	0.81	-84.0	-111.6	-133.0	-152.7	6.0	-107.21
1.25	25.50	990.8	985.4	980.3	3.93	3.71	3.29	30.68	-26.1	-27.0	-37.7	0.68	1.01	-84.6	-112.0	-133.1	-152.4	8.5	-110.64
1.50	25.48	997.0	991.8	986.7	3.80	3.55	3.13	30.61	-25.6	-27.0	-38.0	0.55	1.11	-84.5	-112.3	-133.1	-153.0	10.0	-112.23
1.75	25.64	1003.3	998.1	993.1	3.64	3.38	2.97	30.53	-25.3	-27.1	-37.8	0.44	1.12	-84.6	-112.2	-133.2	-153.3	20.8	-119.09
2.00	25.63	1009.5	1004.6	999.5	3.47	3.19	2.78	30.46	-24.7	-27.1	-37.3	0.33	1.25	-85.2	-112.0	-133.4	-153.6	35.5	-124.02
2.25	25.53	1015.9	1011.0	1006.0	3.31	3.00	2.57	30.40	-23.8	-26.6	-36.3	0.25	1.23	-86.0	-112.5	-133.2	-153.3	60.7	-128.73
2.50	25.47	1022.3	1017.3	1012.5	3.17	2.82	2.34	30.34	-23.0	-25.8	-36.1	0.20	1.05	-85.2	-112.5	-133.2	-152.6	86.7	-131.94
2.75	25.54	1028.6	1023.7	1019.1	3.01	2.64	2.12	30.26	-22.2	-25.0	-35.5	0.18	0.75	-83.9	-112.4	-133.2	-152.7	100.0	-133.15
3.00	25.59	1034.9	1030.1	1025.6	2.83	2.42	1.88	30.18	-21.4	-24.5	-34.6	0.17	0.58	-85.1	-111.8	-132.8	-152.6	148.1	-136.66
3.25	25.47	1041.2	1036.5	1032.1	2.63	2.20	1.62	30.09	-21.2	-24.6	-34.5	0.17	0.61	-83.5	-111.1	-132.4	-152.4	177.0	-138.14
3.50	25.21	1047.4	1042.9	1038.6	2.41	1.96	1.35	30.01	-20.9	-24.9	-34.8	0.18	0.92	-84.2	-110.1	-132.0	-151.8	211.6	-139.64
3.75	24.78	1053.6	1049.2	1045.0	2.19	1.72	1.09	29.94	-20.5	-24.9	-34.9	0.19	1.11	-84.2	-109.7	-131.7	-151.7	302.4	-142.78
4.00	24.19	1059.8	1055.4	1051.3	1.97	1.49	0.85	29.87	-20.2	-24.8	-34.3	0.18	1.15	-83.0	-109.7	-131.4	-151.0	361.5	-144.37
4.25	23.47	1065.8	1061.4	1057.3	1.74	1.28	0.64	29.81	-20.0	-25.0	-34.3	0.16	1.22	-82.2	-108.9	-130.9	-151.0	516.6	-147.51
4.50	22.65	1071.7	1067.3	1063.2	1.52	1.07	0.45	29.77	-19.6	-24.9	-34.1	0.13	1.23	-82.4	-108.2	-130.5	-150.3	617.6	-149.23
4.75	21.75	1077.4	1072.9	1068.8	1.33	0.89	0.29	29.74	-19.3	-25.1	-34.1	0.08	1.15	-80.7	-108.0	-130.6	-149.9	725.2	-150.74
5.00	20.84	1082.9	1078.4	1074.1	1.17	0.75	0.14	29.72	-19.2	-25.3	-33.5	0.01	1.00	-82.7	-108.6	-130.5	-149.9	1000.0	-152.73

\*at 25°C unless mentioned otherwise



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