

Coaxial

Voltage Controlled Oscillator

ZX95-4303+

5V Tuning for PLL IC's 4195 to 4415 MHz

Features

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

Applications

- r & d
- lab
- instrumentation
- wireless communications
- WiMAX



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-4303-S+

+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)	SENSITIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Max.	Vcc (volts)	Current (mA)
ZX95-4303+	4195	4415	+4.6	-69	-96	-117	-137	0.5	4.5	78-90	10	180	-90	-25	-15	3	0.5	5	50

Maximum Ratings

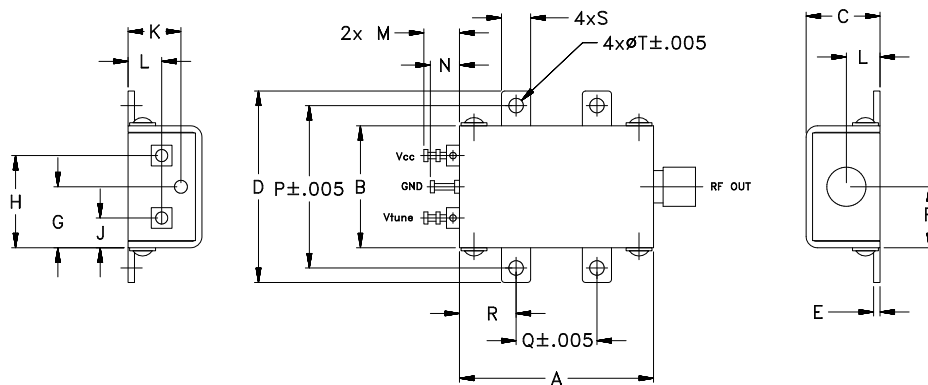
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

Permanent damage may occur if any of these limits are exceeded.



NOTE: When soldering the DC connections, caution must be used to avoid overheating the DC terminals. See Application Note [AN-40-10](#).

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

Notes

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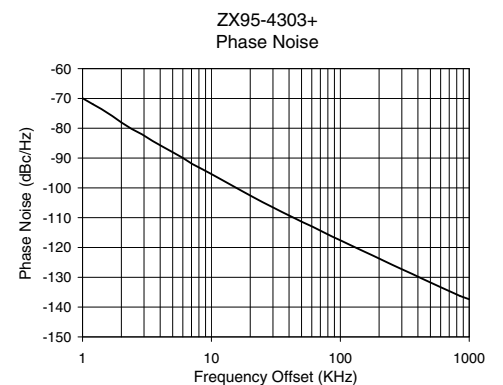
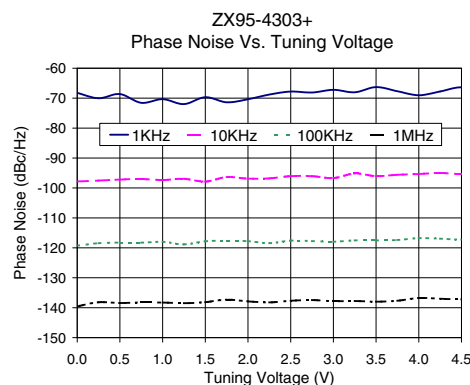
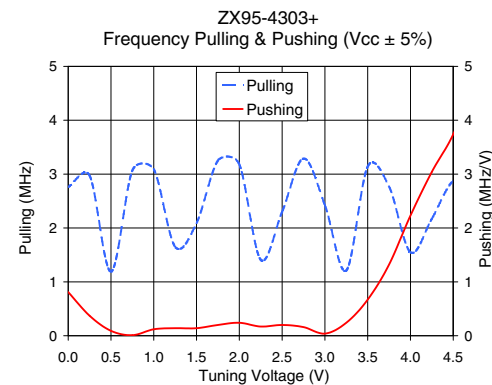
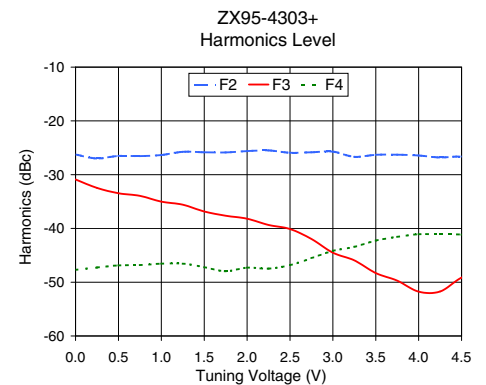
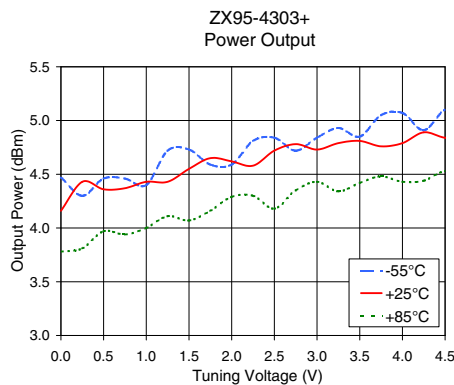
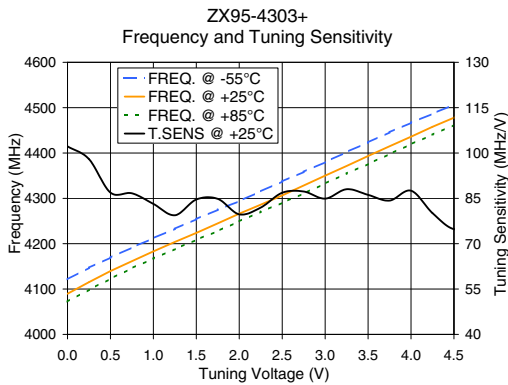
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Performance Data & Curves*

ZX95-4303+

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 4303 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	102.21	4121.3	4089.7	4072.3	4.47	4.16	3.78	41.40	-26.2	-30.9	-47.7	0.81	2.76	-68.2	-97.8	-119.3	-139.6	1.0	-69.93
0.25	97.96	4146.9	4115.2	4098.6	4.30	4.43	3.81	41.43	-27.0	-32.5	-47.3	0.37	2.97	-70.0	-97.5	-118.5	-138.2	2.0	-78.05
0.50	86.91	4169.5	4139.7	4122.6	4.46	4.36	3.97	41.50	-26.5	-33.5	-46.9	0.09	1.19	-68.6	-97.2	-118.2	-138.4	3.5	-84.28
0.75	86.67	4191.6	4161.5	4146.0	4.46	4.37	3.94	41.60	-26.6	-33.9	-46.8	0.01	3.07	-71.6	-97.0	-118.3	-138.2	6.0	-89.95
1.00	83.18	4212.0	4183.1	4167.0	4.40	4.43	4.00	41.66	-26.4	-35.0	-46.6	0.12	3.09	-70.3	-97.3	-118.0	-138.3	8.5	-93.74
1.25	79.40	4232.7	4203.9	4188.2	4.72	4.43	4.11	41.76	-25.8	-35.6	-46.6	0.14	1.65	-72.0	-96.9	-118.9	-138.5	10.0	-95.38
1.50	84.62	4254.1	4223.8	4208.6	4.73	4.55	4.07	41.78	-25.8	-36.9	-47.2	0.14	2.09	-69.7	-97.9	-117.8	-138.1	20.8	-102.97
1.75	84.84	4275.0	4244.9	4228.0	4.59	4.65	4.16	41.80	-25.9	-37.6	-48.0	0.20	3.25	-71.4	-96.4	-117.6	-137.3	35.5	-108.17
2.00	79.72	4293.9	4266.1	4249.2	4.59	4.62	4.29	41.88	-25.6	-38.2	-47.3	0.24	3.18	-70.4	-96.9	-117.8	-137.9	60.7	-113.00
2.25	81.95	4315.3	4286.1	4270.3	4.81	4.58	4.30	41.98	-25.5	-39.4	-47.5	0.17	1.41	-68.8	-96.8	-118.5	-138.2	86.7	-116.37
2.50	86.85	4337.3	4306.6	4290.2	4.84	4.72	4.18	41.95	-25.9	-40.1	-46.8	0.20	2.30	-67.8	-96.1	-117.6	-137.7	100.0	-117.60
2.75	87.28	4358.3	4328.3	4310.6	4.72	4.78	4.35	41.94	-25.8	-42.0	-45.5	0.16	3.29	-68.1	-96.1	-117.8	-137.5	148.1	-121.08
3.00	84.90	4379.8	4350.1	4332.7	4.84	4.73	4.43	42.00	-25.7	-44.5	-44.2	0.04	2.42	-67.2	-96.7	-118.0	-137.8	211.6	-124.23
3.25	88.02	4402.0	4371.3	4354.8	4.93	4.79	4.34	41.99	-26.7	-45.9	-43.4	0.24	1.21	-68.0	-95.2	-117.5	-137.8	302.4	-127.36
3.50	86.15	4423.4	4393.3	4375.7	4.85	4.81	4.42	42.00	-26.3	-48.3	-42.3	0.67	3.14	-66.3	-96.0	-117.5	-138.0	361.5	-128.89
3.75	84.27	4445.6	4414.9	4397.7	5.05	4.76	4.48	41.99	-26.3	-49.7	-41.6	1.32	2.77	-67.7	-95.6	-117.4	-137.7	507.5	-131.87
4.00	87.52	4466.8	4435.9	4419.3	5.07	4.79	4.43	41.94	-26.4	-51.8	-41.1	2.23	1.55	-69.0	-95.3	-116.8	-136.8	606.7	-133.42
4.25	80.13	4486.5	4457.8	4440.3	4.91	4.89	4.44	41.93	-26.8	-51.7	-41.1	3.04	2.17	-67.8	-95.0	-117.0	-137.0	851.6	-136.31
4.50	74.80	4506.6	4477.8	4461.7	5.10	4.84	4.53	41.99	-26.6	-49.1	-41.2	3.74	2.87	-66.4	-95.4	-117.2	-137.2	1000.0	-137.37

*at 25°C unless mentioned otherwise



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