

Coaxial

Voltage Controlled Oscillator

ZX95-4424+

5V Tuning for PLL IC's 4420 to 4430 MHz

Features

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

Applications

- r & d
- lab
- instrumentation
- wireless communications
- test equipment



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-4424-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)		SENSI- TIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Max.	Typ.	Max.	Vcc (volts)	Current (mA)
									Min.	Max.													
ZX95-4424+	4420	4430	+7.5	-76	-99	-119	-139	0.5	5	21	20	100	-90	-27	-17	6	1.4	5	51				

Maximum Ratings

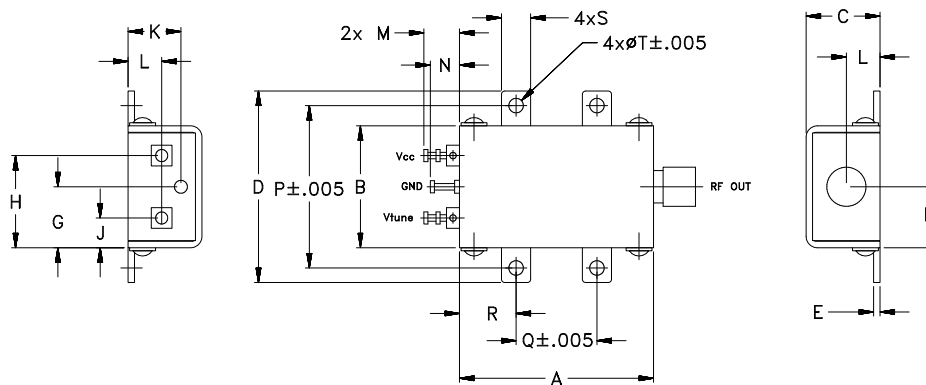
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

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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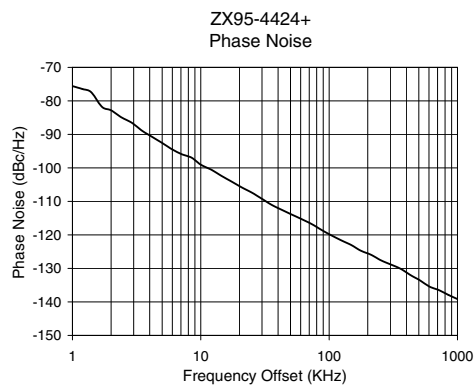
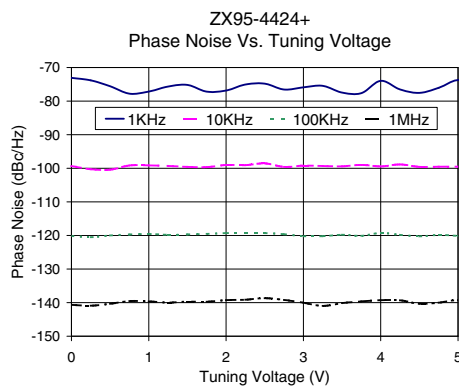
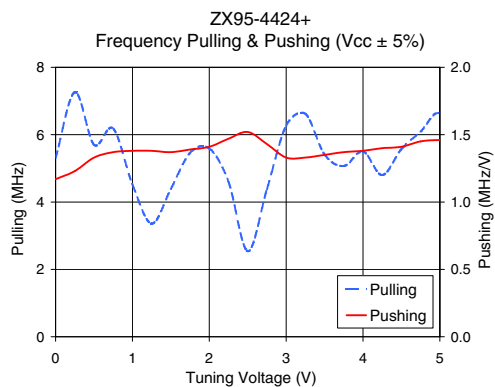
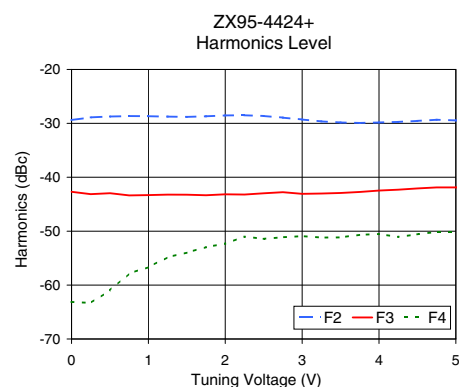
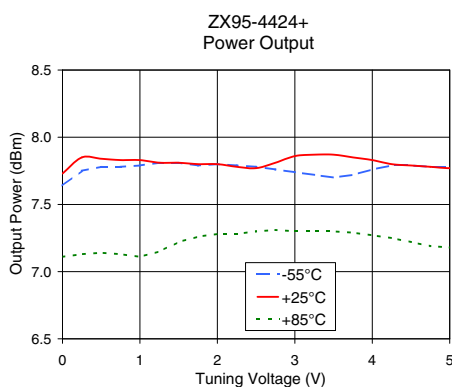
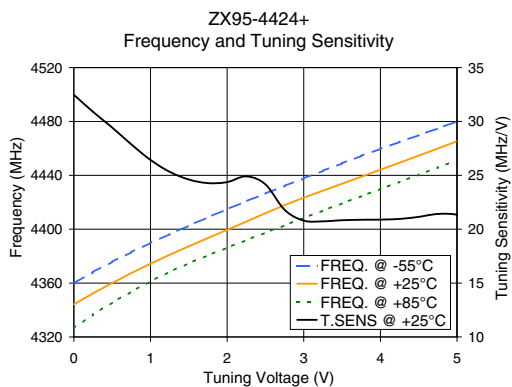
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ZX95-4424+
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Performance Data & Curves*

ZX95-4424+

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 4425 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	32.47	4359.8	4344.2	4326.5	7.64	7.73	7.11	44.64	-29.4	-42.7	-63.1	1.17	5.31	-73.1	-99.3	-120.1	-140.7	1.0	-75.60
0.50	29.44	4375.8	4360.1	4345.6	7.78	7.84	7.14	44.72	-28.7	-43.0	-61.0	1.33	5.70	-75.6	-100.4	-120.0	-140.4	2.0	-82.81
0.75	27.88	4382.9	4367.4	4353.6	7.78	7.83	7.13	44.71	-28.7	-43.4	-57.8	1.37	6.18	-77.8	-99.2	-119.7	-139.5	3.5	-88.96
1.00	26.44	4389.8	4374.4	4361.2	7.79	7.83	7.11	44.70	-28.7	-43.3	-56.7	1.38	4.52	-77.2	-99.1	-119.6	-139.6	6.0	-94.49
1.25	25.33	4396.4	4381.0	4368.4	7.81	7.81	7.15	44.68	-28.8	-43.2	-54.8	1.38	3.36	-75.7	-99.3	-119.8	-140.0	8.5	-96.97
1.50	24.61	4402.7	4387.3	4374.7	7.81	7.81	7.22	44.66	-28.8	-43.2	-54.0	1.37	4.39	-75.2	-99.6	-119.7	-139.7	10.0	-99.05
1.75	24.28	4408.8	4393.5	4380.6	7.79	7.80	7.26	44.64	-28.7	-43.3	-53.0	1.39	5.46	-77.2	-99.7	-119.5	-139.7	20.8	-105.80
2.00	24.38	4414.8	4399.6	4386.3	7.80	7.80	7.28	44.61	-28.5	-43.2	-52.3	1.41	5.59	-76.9	-99.0	-119.3	-139.3	35.5	-111.00
2.25	24.91	4420.7	4405.6	4391.8	7.79	7.78	7.28	44.58	-28.5	-43.2	-51.0	1.47	4.60	-75.1	-99.1	-119.3	-139.1	60.7	-115.24
2.50	24.16	4426.5	4411.9	4397.4	7.78	7.77	7.30	44.56	-28.6	-43.0	-51.4	1.52	2.54	-74.8	-98.5	-119.3	-138.7	86.7	-118.46
2.75	21.80	4432.1	4417.9	4402.9	7.76	7.81	7.31	44.59	-28.9	-42.8	-51.1	1.43	4.38	-76.6	-99.6	-119.6	-139.2	100.0	-119.80
3.00	20.80	4437.8	4423.4	4408.4	7.74	7.86	7.30	44.62	-29.3	-43.1	-50.9	1.33	6.27	-75.9	-99.2	-120.2	-140.0	148.1	-122.99
3.25	20.73	4443.3	4428.6	4413.8	7.72	7.87	7.30	44.62	-29.6	-43.0	-51.2	1.33	6.62	-75.5	-99.3	-120.2	-141.0	177.0	-124.73
3.50	20.83	4448.9	4433.7	4419.2	7.70	7.87	7.30	44.62	-29.8	-42.9	-51.2	1.35	5.41	-77.5	-99.4	-119.8	-140.2	211.6	-125.91
3.75	20.88	4454.4	4439.0	4424.5	7.72	7.85	7.29	44.60	-29.9	-42.7	-50.7	1.37	5.07	-77.6	-99.0	-120.1	-139.6	302.4	-128.84
4.00	20.89	4459.7	4444.2	4429.8	7.76	7.83	7.27	44.58	-29.8	-42.5	-50.5	1.38	5.50	-74.0	-99.5	-119.3	-139.3	361.5	-130.14
4.25	20.96	4464.8	4449.4	4435.2	7.79	7.80	7.25	44.56	-29.7	-42.3	-51.1	1.40	4.80	-76.5	-98.9	-119.8	-139.3	507.5	-133.53
4.50	21.14	4469.8	4454.6	4440.5	7.79	7.79	7.22	44.54	-29.5	-42.1	-50.6	1.41	5.57	-77.6	-99.6	-120.3	-140.3	606.7	-135.45
4.75	21.41	4474.9	4459.9	4445.8	7.78	7.78	7.19	44.52	-29.3	-41.9	-50.1	1.45	6.09	-76.0	-99.5	-119.8	-140.0	851.6	-137.93
5.00	21.35	4480.0	4465.3	4451.2	7.78	7.77	7.18	44.50	-29.5	-41.9	-50.1	1.46	6.63	-73.7	-99.5	-120.1	-139.3	1000.0	-139.15

*at 25°C unless mentioned otherwise



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