

Voltage Controlled Oscillator

ZX95-4215+

Linear Tuning 4014 to 4185 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
SMA	ZX95-4215-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.	Typ.	Max.			Typ.	Typ.	Vcc (volts)	Current (mA)
ZX95-4215+	4014	4185	+6	-69	-95	-115	-135	1	10	37-46	18	150	-90	-23	-15	2.5	2	5	45			

Maximum Ratings

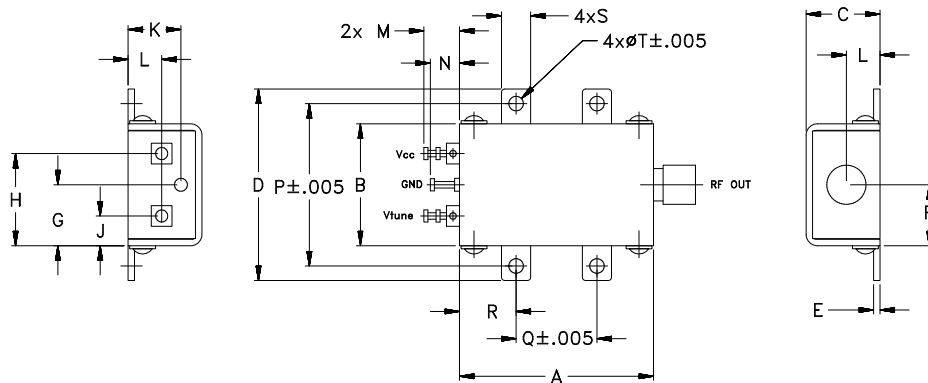
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	12V
All specifications	50 ohm system

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



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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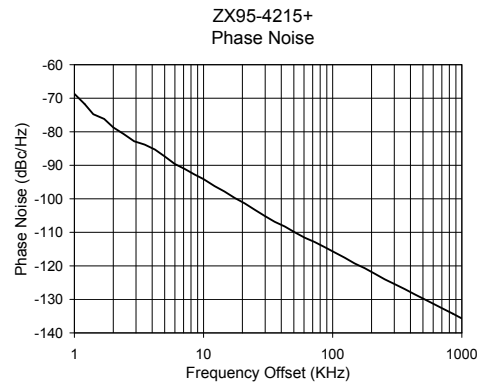
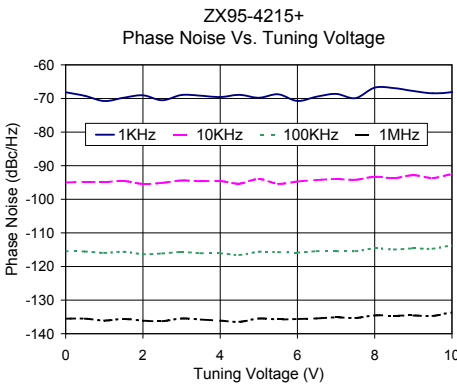
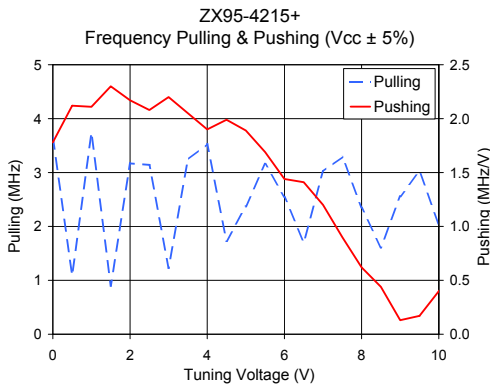
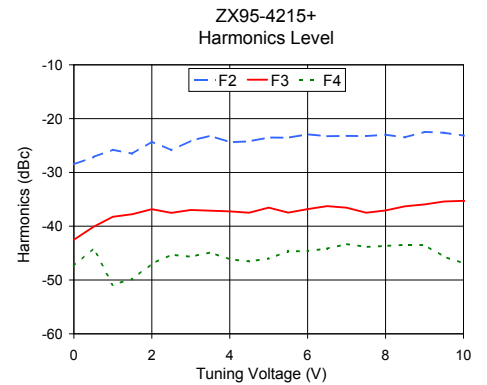
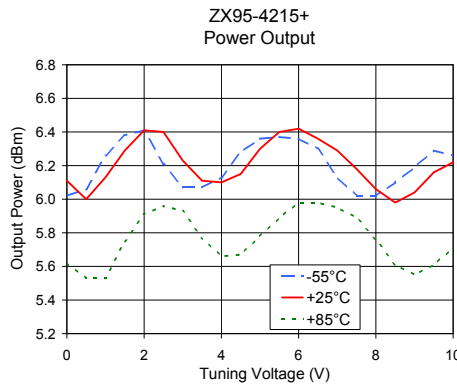
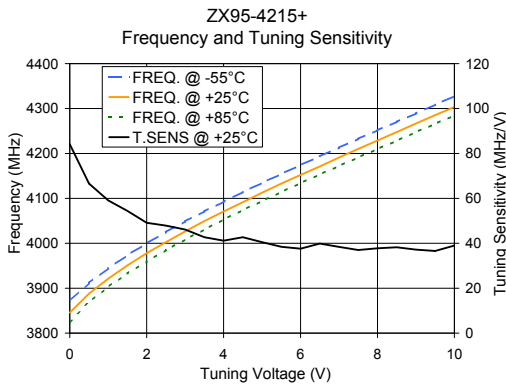


Performance Data & Curves*

ZX95-4215+

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 4115 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	84.13	3871.7	3845.9	3825.7	6.02	6.11	5.62	36.42	-28.5	-42.5	-47.4	1.78	3.65	-68.2	-95.0	-115.5	-135.5	1.0	-68.70
1.00	59.09	3944.3	3921.2	3903.2	6.26	6.13	5.53	36.59	-25.8	-38.3	-50.9	2.11	3.73	-70.8	-94.9	-116.0	-136.1	2.0	-78.71
1.50	54.40	3973.6	3950.8	3932.8	6.38	6.29	5.75	36.63	-26.5	-37.8	-49.8	2.30	0.90	-69.8	-94.6	-115.6	-135.6	3.5	-83.84
2.00	49.12	3999.7	3978.0	3959.6	6.41	6.41	5.91	36.72	-24.3	-36.8	-47.0	2.17	3.17	-69.1	-95.4	-116.3	-136.1	6.0	-89.64
2.50	47.88	4025.1	4002.5	3984.8	6.21	6.40	5.96	36.78	-25.9	-37.5	-45.3	2.08	3.14	-70.5	-95.1	-116.1	-136.3	8.5	-92.72
3.00	46.12	4048.9	4026.5	4008.3	6.07	6.23	5.93	36.82	-24.1	-37.0	-45.7	2.20	1.23	-69.0	-94.4	-115.7	-135.5	10.0	-94.14
3.50	42.70	4071.2	4049.5	4030.6	6.07	6.11	5.77	36.91	-23.2	-37.1	-44.9	2.05	3.24	-69.2	-94.6	-116.1	-135.8	20.8	-101.36
4.00	41.18	4092.3	4070.9	4052.9	6.13	6.10	5.66	36.98	-24.4	-37.2	-46.2	1.90	3.53	-69.6	-94.6	-116.1	-136.1	35.5	-106.86
4.50	42.70	4114.1	4091.5	4073.9	6.28	6.15	5.67	37.00	-24.2	-37.5	-46.5	1.99	1.73	-68.9	-95.3	-116.6	-136.5	60.7	-111.60
5.00	40.51	4134.7	4112.8	4094.1	6.36	6.30	5.78	37.04	-23.5	-36.6	-46.0	1.89	2.37	-69.8	-94.0	-115.6	-135.5	86.7	-114.43
5.50	38.42	4154.4	4133.1	4114.2	6.37	6.40	5.89	37.12	-23.6	-37.5	-44.7	1.69	3.16	-68.8	-95.4	-115.7	-135.8	100.0	-115.68
6.00	37.60	4174.3	4152.3	4134.1	6.36	6.42	5.98	37.18	-22.9	-36.8	-44.6	1.44	2.55	-70.8	-94.7	-115.8	-135.6	148.1	-119.30
6.50	39.86	4193.7	4171.1	4153.3	6.30	6.36	5.98	37.18	-23.3	-36.3	-44.2	1.41	1.71	-69.5	-94.3	-115.5	-135.5	177.0	-120.68
7.00	38.40	4213.0	4191.0	4172.2	6.13	6.29	5.95	37.20	-23.2	-36.6	-43.3	1.20	3.02	-68.7	-94.0	-115.4	-135.1	211.6	-122.33
7.50	37.01	4232.7	4210.2	4191.2	6.02	6.18	5.89	37.24	-23.3	-37.5	-43.9	0.90	3.29	-69.9	-94.2	-115.4	-135.3	302.4	-125.47
8.00	37.76	4251.7	4228.7	4209.8	6.02	6.06	5.76	37.27	-23.0	-37.1	-43.7	0.62	2.35	-66.8	-93.3	-114.6	-134.6	361.5	-126.93
8.50	38.23	4270.3	4247.6	4228.3	6.10	5.98	5.61	37.26	-23.5	-36.3	-43.5	0.44	1.61	-66.9	-93.7	-114.9	-134.6	507.5	-129.86
9.00	37.18	4289.1	4266.7	4247.5	6.19	6.04	5.55	37.28	-22.5	-36.0	-43.5	0.13	2.56	-67.8	-92.8	-114.6	-134.6	606.7	-131.37
9.50	36.59	4308.7	4285.3	4266.0	6.29	6.16	5.61	37.28	-22.6	-35.4	-45.7	0.17	3.02	-68.5	-93.7	-114.7	-134.7	851.6	-134.27
10.00	39.01	4327.6	4303.6	4284.4	6.26	6.22	5.71	37.25	-23.2	-35.3	-46.9	0.40	2.04	-68.1	-92.6	-113.8	-133.7	1000.0	-135.69

*at 25°C unless mentioned otherwise



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