

Coaxial

Voltage Controlled Oscillator

ZX95-209+

Ultra Low Noise 203 to 209 MHz

Features

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

Applications

- R & D
- lab
- instrumentation
- wireless communications
- test equipment



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-209-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.	Typ.	Max.
ZX95-209+	203	209	+8.5	-108	-133	-154	-170	1	11	1.5	365	8	-90	-19	-12	0.02	0.07	5	26

Maximum Ratings

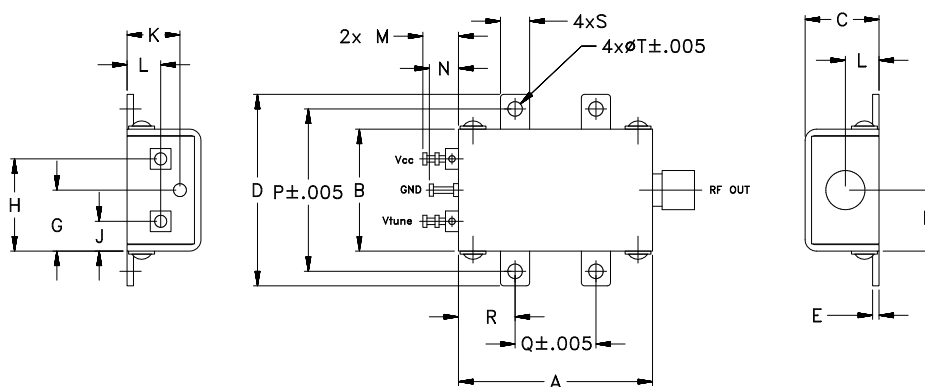
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	6V
Absolute Max. Tuning Voltage (Vtune)	13V
All specifications	50 ohm system

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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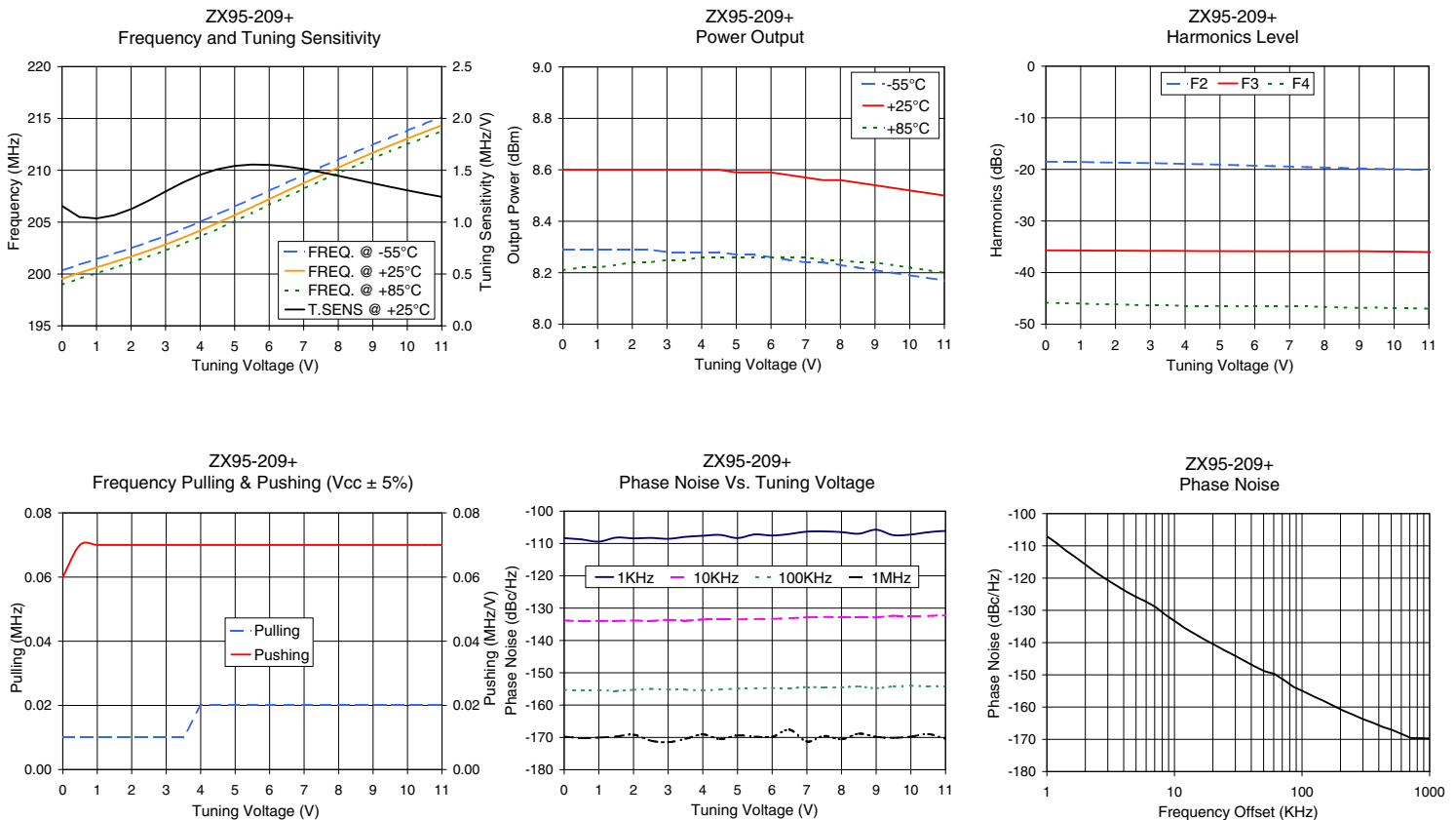
REV. A
M152326
EDR-8984/1F2
ZX95-209+
RAV
151020
Page 1 of 2

Performance Data & Curves*

ZX95-209+

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 206 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	1.16	200.3	199.5	199.0	8.29	8.60	8.21	18.93	-18.5	-35.7	-45.8	0.06	0.01	-108.3	-133.8	-155.3	-169.8	1.0	-107.04
0.50	1.05	200.9	200.1	199.5	8.29	8.60	8.22	18.91	-18.6	-35.7	-45.9	0.07	0.01	-108.7	-134.0	-155.4	-170.2	2.0	-115.78
1.00	1.04	201.4	200.6	200.1	8.29	8.60	8.22	18.89	-18.6	-35.7	-46.0	0.07	0.01	-109.4	-133.9	-155.4	-170.1	3.5	-122.29
1.50	1.07	201.9	201.2	200.6	8.29	8.60	8.23	18.87	-18.6	-35.7	-46.1	0.07	0.01	-108.2	-134.0	-155.6	-169.7	6.0	-127.33
2.00	1.13	202.5	201.7	201.1	8.29	8.60	8.24	18.85	-18.7	-35.7	-46.1	0.07	0.01	-108.4	-133.8	-155.3	-169.2	8.5	-131.39
2.50	1.21	203.1	202.2	201.7	8.29	8.60	8.24	18.82	-18.7	-35.8	-46.3	0.07	0.01	-108.3	-134.0	-155.0	-171.0	10.0	-133.28
3.00	1.30	203.7	202.9	202.3	8.28	8.60	8.25	18.79	-18.8	-35.8	-46.4	0.07	0.01	-108.6	-133.6	-155.2	-171.5	20.8	-140.78
3.50	1.38	204.3	203.5	202.9	8.28	8.60	8.25	18.76	-18.9	-35.8	-46.4	0.07	0.01	-107.9	-133.9	-155.3	-170.5	35.5	-145.70
4.00	1.46	205.0	204.2	203.6	8.28	8.60	8.26	18.73	-18.9	-35.8	-46.4	0.07	0.02	-107.6	-133.5	-155.5	-169.1	60.7	-149.73
4.50	1.51	205.7	204.9	204.3	8.28	8.60	8.26	18.71	-19.0	-35.8	-46.4	0.07	0.02	-107.4	-133.5	-155.2	-170.5	86.7	-153.86
5.00	1.54	206.5	205.7	205.1	8.27	8.59	8.26	18.68	-19.1	-35.8	-46.5	0.07	0.02	-108.3	-133.5	-154.9	-169.4	100.0	-154.95
5.50	1.56	207.3	206.4	205.9	8.27	8.59	8.26	18.65	-19.2	-35.9	-46.5	0.07	0.02	-107.2	-133.4	-154.8	-169.8	148.1	-158.11
6.00	1.55	208.0	207.2	206.7	8.26	8.59	8.26	18.63	-19.3	-35.9	-46.5	0.07	0.02	-107.5	-133.3	-154.7	-169.9	177.0	-159.64
6.50	1.54	208.8	208.0	207.4	8.25	8.58	8.26	18.62	-19.4	-35.9	-46.5	0.07	0.02	-107.1	-133.2	-154.8	-167.6	211.6	-161.15
7.00	1.51	209.5	208.8	208.2	8.24	8.57	8.26	18.60	-19.5	-35.9	-46.6	0.07	0.02	-106.3	-132.8	-154.4	-171.3	302.4	-163.77
7.50	1.48	210.3	209.5	209.0	8.24	8.56	8.25	18.60	-19.6	-35.9	-46.6	0.07	0.02	-106.3	-132.7	-154.6	-169.5	361.5	-164.91
8.00	1.45	211.0	210.3	209.7	8.23	8.56	8.25	18.59	-19.6	-35.9	-46.7	0.07	0.02	-106.5	-132.8	-154.5	-170.6	507.5	-167.07
9.00	1.38	212.5	211.7	211.2	8.21	8.54	8.24	18.58	-19.8	-35.9	-46.8	0.07	0.02	-105.8	-132.9	-154.8	-169.8	606.7	-168.38
10.00	1.31	213.8	213.0	212.5	8.19	8.52	8.22	18.58	-20.0	-35.9	-46.9	0.07	0.02	-107.2	-132.4	-154.0	-169.8	870.0	-169.66
11.00	1.24	215.1	214.3	213.8	8.17	8.50	8.20	18.58	-20.1	-36.0	-47.0	0.07	0.02	-106.1	-132.3	-154.1	-170.3	1000.0	-169.75

*at 25°C unless mentioned otherwise



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