

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	Price	Qty.
SMA	ZX95-209-S+	\$51.95 ea.	(1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications

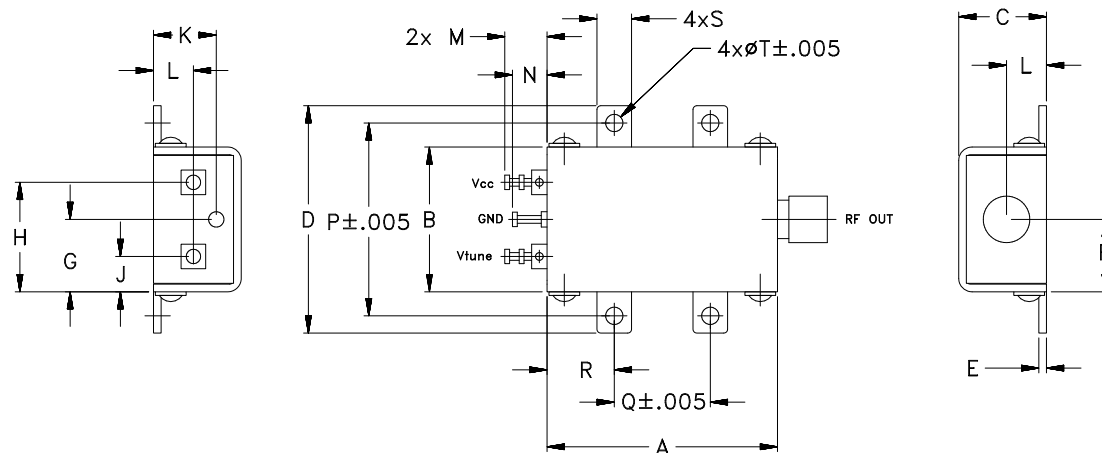
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING				NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB Br (MHz)	PUSHING (MHz/V)	DC OPERATING POWER		
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Max.	Typ.
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.

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	.45	.57	.18	.33	.21	.22	.18	1.00	.50	.35	.18	.106	GRAM
30.48	19.05	11.68	29.97	1.02	9.65	11.43	14.48	4.57	8.38	5.33	5.59	4.57	25.40	12.70	8.89	4.57	2.69	35.0

Mini-Circuits®

ISO 9001 ISO 14001 AS 9100 CERTIFIED

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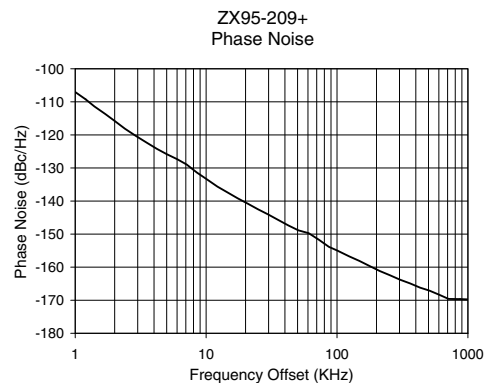
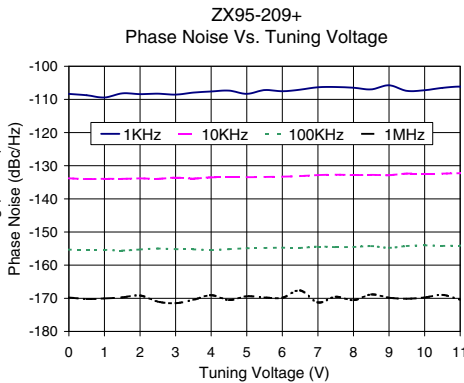
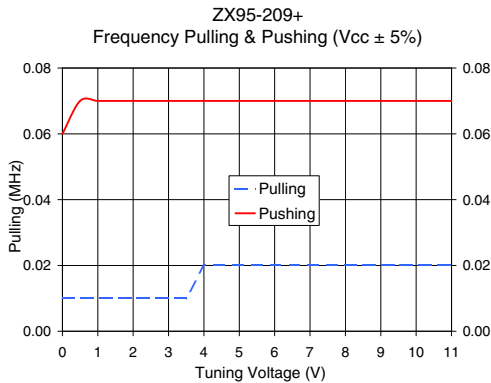
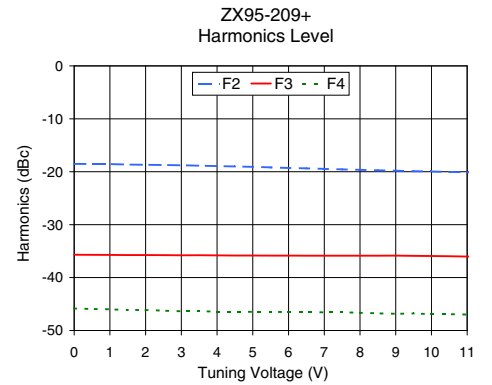
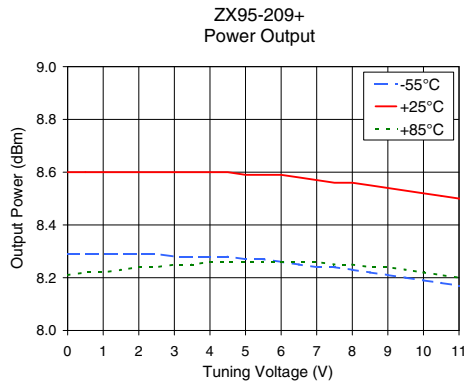
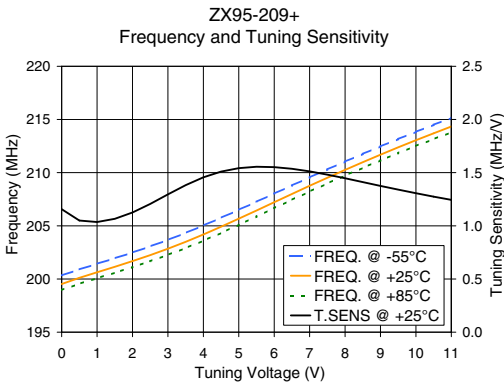
REV. OR
M125121
EDR-8984/1F2
ZX95-209+
RAV
091029
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Performance Data & Curves*

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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