

Coaxial

# Voltage Controlled Oscillator

ZX95-200+

Linear Tuning 100 to 200 MHz

## Features

- excellent harmonic suppression
- low phase noise
- octave bandwidth
- low pushing & pulling
- linear tuning
- protected by US patent 6,790,049



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-200-S+

## Applications

- R & D
- lab
- instrumentation
- test equipment

**+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.
ZX95-200+	100	200	+10	-86	-106	-128	-148	1	17	7-10	540	0.12	-90	-30	-20	0.5	0.2	12	20

## Maximum Ratings

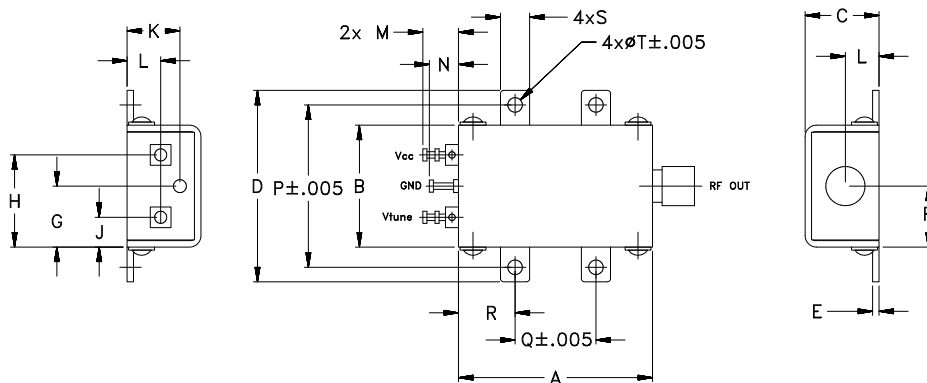
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	13V
Absolute Max. Tuning Voltage (Vtune)	18V
All specifications	50 ohm system

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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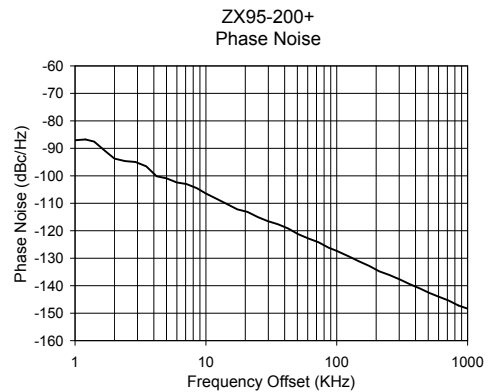
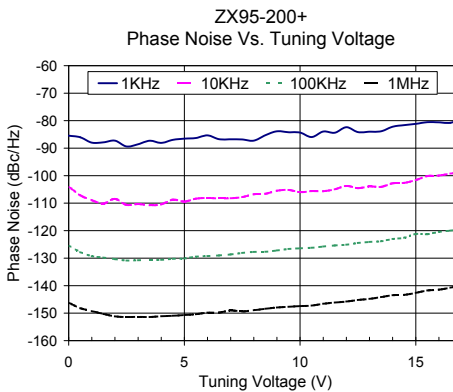
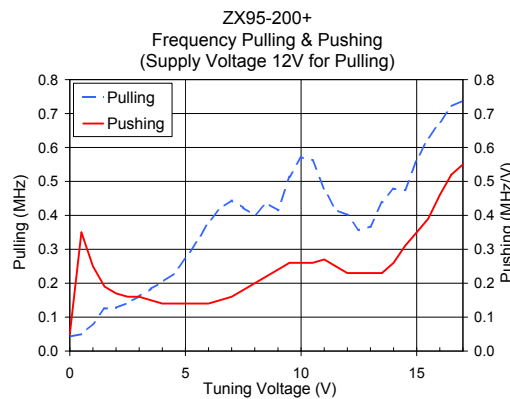
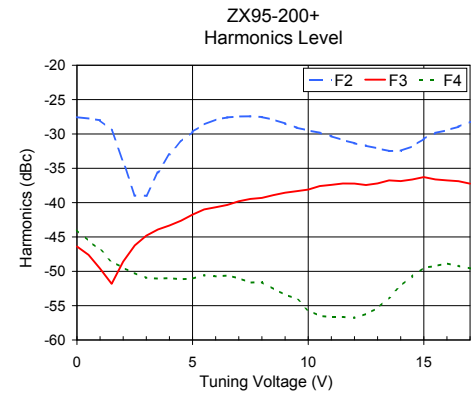
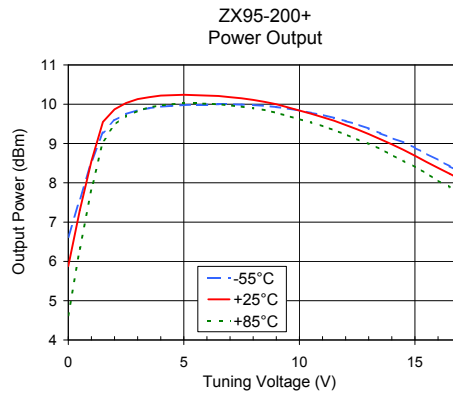
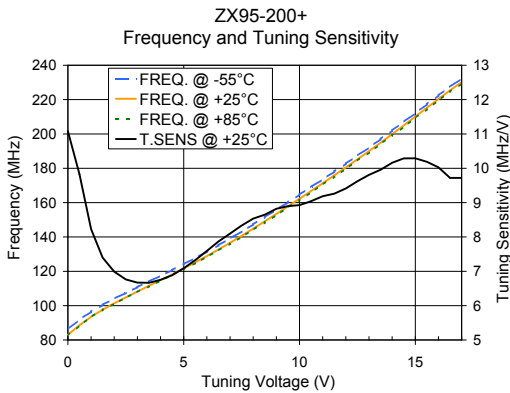
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ZX95-200+  
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# Performance Data & Curves\*

# ZX95-200+

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 150 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	11.08	86.2	83.1	82.7	6.62	5.88	4.63	15.52	-27.6	-46.4	-44.0	0.05	0.04	-85.5	-104.0	-125.4	-146.2	1.0	-87.0
0.50	9.82	91.9	88.6	88.5	7.58	7.30	6.32	15.52	-27.8	-47.6	-45.6	0.35	0.05	-86.1	-107.1	-127.8	-148.2	2.0	-93.72
1.00	8.23	96.5	93.5	93.4	8.53	8.55	7.83	15.45	-28.0	-49.6	-46.8	0.25	0.08	-88.0	-108.9	-129.3	-149.2	3.5	-96.56
1.50	7.40	100.4	97.6	97.5	9.28	9.55	9.05	15.39	-29.5	-51.8	-48.6	0.19	0.13	-87.9	-110.1	-129.8	-150.3	6.0	-102.44
2.00	6.99	104.0	101.3	101.2	9.59	9.87	9.48	15.34	-34.0	-48.6	-49.5	0.17	0.13	-87.3	-108.4	-130.4	-151.2	8.5	-104.48
3.00	6.67	110.8	108.2	108.0	9.85	10.13	9.83	15.26	-39.0	-44.8	-51.0	0.16	0.16	-88.6	-110.3	-130.8	-151.4	10.0	-106.44
4.00	6.75	117.4	114.9	114.6	9.94	10.22	9.97	15.19	-33.0	-43.3	-51.0	0.14	0.20	-88.1	-110.4	-130.6	-151.1	24.9	-115.02
5.00	7.09	124.2	121.7	121.3	9.98	10.24	10.02	15.12	-29.7	-41.8	-51.1	0.14	0.27	-86.5	-109.4	-130.1	-150.7	35.5	-117.64
6.00	7.59	131.4	128.9	128.4	9.99	10.22	10.01	15.05	-27.9	-40.7	-50.7	0.14	0.38	-85.3	-108.1	-129.3	-149.8	60.7	-122.81
7.00	8.10	139.1	136.6	136.0	10.00	10.18	9.97	14.99	-27.5	-39.8	-51.0	0.16	0.44	-86.8	-108.2	-128.6	-149.0	86.7	-126.16
8.00	8.53	147.3	144.8	144.2	9.98	10.11	9.90	14.93	-27.5	-39.3	-51.6	0.20	0.40	-87.3	-106.8	-127.7	-149.0	100.0	-127.33
9.00	8.82	155.9	153.4	152.8	9.93	10.00	9.78	14.88	-28.5	-38.6	-53.4	0.24	0.41	-83.9	-105.5	-127.2	-148.0	148.1	-131.14
10.00	8.93	164.7	162.3	161.6	9.84	9.84	9.62	14.83	-29.5	-38.1	-55.7	0.26	0.57	-84.3	-106.0	-126.4	-147.4	211.6	-134.78
11.00	9.19	173.6	171.3	170.5	9.73	9.67	9.44	14.80	-30.3	-37.4	-56.7	0.27	0.48	-84.0	-105.7	-125.8	-146.6	361.5	-139.44
12.00	9.41	182.7	180.5	179.7	9.57	9.47	9.23	14.76	-31.4	-37.2	-56.8	0.23	0.40	-82.4	-103.7	-125.1	-145.8	432.2	-141.01
13.00	9.81	192.1	190.0	189.2	9.38	9.24	8.99	14.73	-32.1	-37.2	-55.4	0.23	0.37	-84.0	-103.9	-124.1	-144.8	507.5	-142.59
14.00	10.16	202.0	199.9	199.1	9.14	8.98	8.71	14.71	-32.5	-36.9	-52.1	0.26	0.48	-82.2	-102.8	-123.0	-143.5	600.0	-143.97
15.00	10.29	212.1	210.1	209.3	8.89	8.69	8.40	14.69	-30.7	-36.3	-49.5	0.35	0.56	-81.1	-101.6	-121.2	-142.6	712.4	-145.36
16.00	10.03	222.4	220.4	219.5	8.58	8.38	8.06	14.68	-29.5	-36.8	-48.9	0.46	0.67	-80.6	-100.0	-120.5	-141.5	851.6	-147.21
17.00	9.72	232.3	230.2	229.3	8.27	8.08	7.72	14.67	-28.2	-37.2	-49.6	0.55	0.74	-79.2	-98.8	-119.6	-139.7	1000.0	-148.36

\*at 25°C unless mentioned otherwise



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