

Coaxial

Voltage Controlled Oscillator

ZX95-310A+

Wide Band 160 to 360 MHz

Features

- very wide band frequency
- low phase noise
- low pulling
- low pushing
- protected by US patent 6,790,049



CASE STYLE: GB956

Applications

- R & D
- lab
- instrumentation
- wireline broadband access
- digital TV

Connectors	Model	Price	Qty.
SMA	ZX95-310A-S+	\$ 49.95 ea.	(1-9)

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications

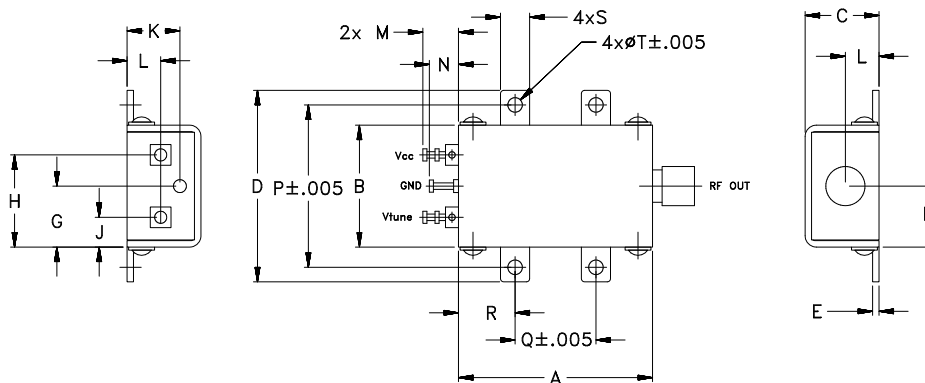
MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING				NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER		
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Max.	Typ.
ZX95-310A+	160	360	+7.5	-81	-103	-125	-145	0.5	18.0	9 - 18	290	0.035	-90	-26	-18	0.2	0.4	10	22

Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	12V
Absolute Max. Tuning Voltage (Vtune)	20V
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	.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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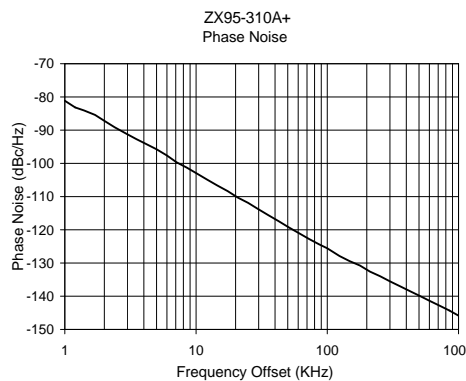
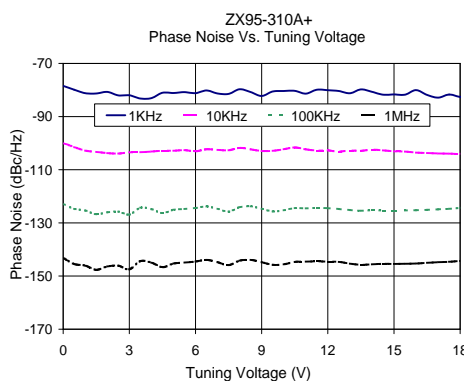
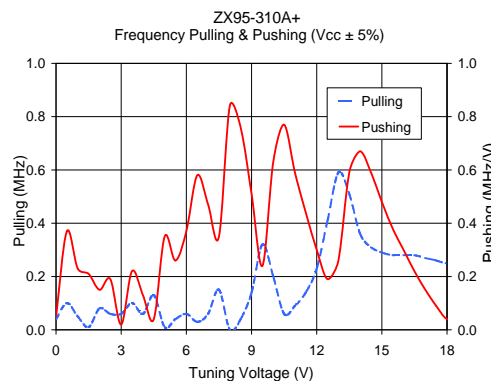
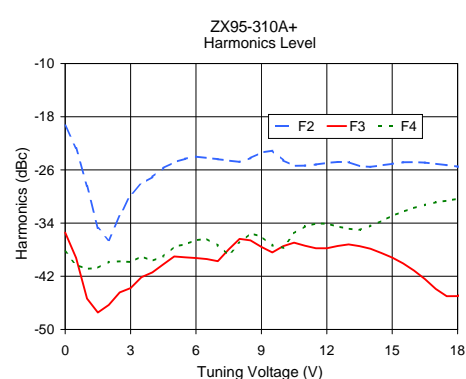
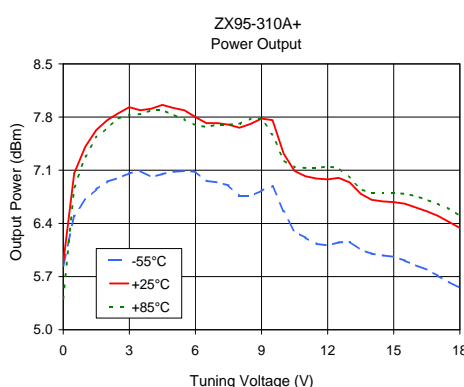
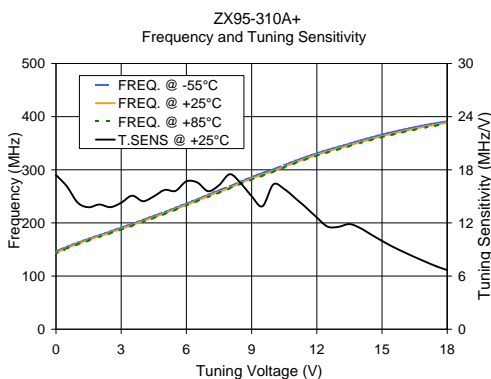
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Performance Data & Curves*

ZX95-310A+

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 260 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	17.42	146.5	144.1	142.5	5.84	5.88	5.41	16.55	-19.3	-35.4	-38.3	0.05	0.04	-78.45	-100.0	-122.8	-143.2	1.0	-81.15
0.50	16.13	154.9	152.8	151.6	6.50	7.06	6.87	16.72	-22.7	-39.2	-40.3	0.37	0.10	-79.89	-101.5	-124.7	-145.5	2.0	-87.20
1.00	14.28	162.8	160.9	159.7	6.71	7.41	7.28	16.70	-28.4	-45.4	-40.9	0.23	0.05	-81.19	-102.8	-125.4	-146.1	3.5	-92.68
2.00	14.08	177.0	174.9	173.7	6.95	7.76	7.66	16.59	-36.6	-46.3	-39.8	0.15	0.08	-80.72	-103.7	-126.0	-146.4	6.0	-97.63
3.00	14.28	191.1	188.8	187.4	7.06	7.93	7.83	16.45	-29.7	-43.8	-39.9	0.02	0.06	-81.98	-103.5	-126.9	-147.5	8.5	-101.29
4.00	14.46	205.6	203.5	202.0	7.01	7.91	7.89	16.32	-27.1	-41.4	-39.7	0.13	0.06	-83.07	-103.2	-124.8	-144.9	10.0	-102.91
5.00	15.73	220.5	218.2	216.9	7.08	7.92	7.83	16.09	-24.9	-39.0	-37.5	0.35	0.01	-81.13	-102.9	-125.1	-145.3	20.8	-110.29
6.00	16.69	236.3	233.9	232.6	7.08	7.80	7.69	15.87	-24.0	-39.3	-36.6	0.37	0.06	-81.20	-103.1	-124.4	-144.6	35.5	-115.59
7.00	15.58	253.0	250.5	248.9	6.94	7.72	7.70	15.72	-24.4	-39.7	-37.4	0.47	0.06	-81.31	-102.5	-124.7	-144.8	60.7	-121.00
8.00	17.50	268.8	266.5	265.2	6.76	7.66	7.71	15.48	-24.8	-36.4	-37.0	0.84	0.00	-79.71	-101.8	-124.1	-144.2	86.7	-124.38
9.00	15.02	286.3	283.5	281.5	6.83	7.78	7.78	15.32	-23.4	-37.6	-36.0	0.51	0.14	-82.26	-103.0	-124.7	-144.8	100.0	-125.58
10.00	16.35	300.6	297.9	296.3	6.56	7.32	7.23	15.07	-24.6	-37.5	-37.7	0.63	0.20	-80.39	-102.3	-125.3	-145.6	148.1	-129.43
11.00	14.81	316.7	314.0	312.4	6.21	7.02	7.13	14.89	-25.4	-37.4	-34.5	0.59	0.09	-81.37	-102.3	-124.5	-144.6	177.0	-130.73
12.00	12.60	331.0	328.3	326.6	6.11	6.98	7.15	14.76	-25.0	-37.8	-34.1	0.30	0.23	-80.09	-102.7	-124.5	-144.6	211.6	-132.59
13.00	11.56	343.2	340.4	338.6	6.16	6.94	7.00	14.63	-24.8	-37.2	-34.8	0.26	0.59	-81.22	-102.8	-125.2	-145.3	302.4	-135.58
14.00	11.41	355.1	352.1	350.4	6.00	6.71	6.80	14.53	-25.6	-37.9	-34.4	0.67	0.36	-80.69	-102.4	-125.3	-145.6	361.5	-137.07
15.00	9.97	366.2	363.1	361.5	5.96	6.68	6.80	14.46	-25.1	-39.2	-32.9	0.48	0.29	-81.69	-103.1	-125.3	-145.5	507.5	-139.91
16.00	8.71	375.8	372.8	371.1	5.85	6.61	6.76	14.41	-24.8	-41.1	-31.7	0.30	0.28	-80.05	-103.5	-125.2	-145.3	606.7	-141.46
17.00	7.62	384.1	381.2	379.6	5.71	6.50	6.66	14.37	-25.1	-43.9	-30.9	0.15	0.27	-82.87	-103.9	-124.9	-144.8	851.6	-144.31
18.00	6.69	391.3	388.6	387.0	5.55	6.34	6.50	14.33	-25.5	-45.0	-30.4	0.04	0.25	-82.59	-104.0	-124.4	-144.3	1000.0	-145.85

*at 25°C unless mentioned otherwise



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