

Coaxial

# Voltage Controlled Oscillator

## ZX95-550A+

Linear Tuning 535 to 550 MHz

### Features

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

### Applications

- r & d
- lab
- instrumentation
- wireless communications
- military & avionics



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-550A-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.				VOLTAGE RANGE (V)	SENSI- TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	Typ.		Typ.	Max.			Typ.	Max.	Vcc (volts)	Current (mA)
				1	10	100	1000														
ZX95-550A+	535	550	+3	-94	-120	-141	-160	0.5	14	5.5	85	40	-90	-20	-10	0.2	0.1	5	30		

### Maximum Ratings

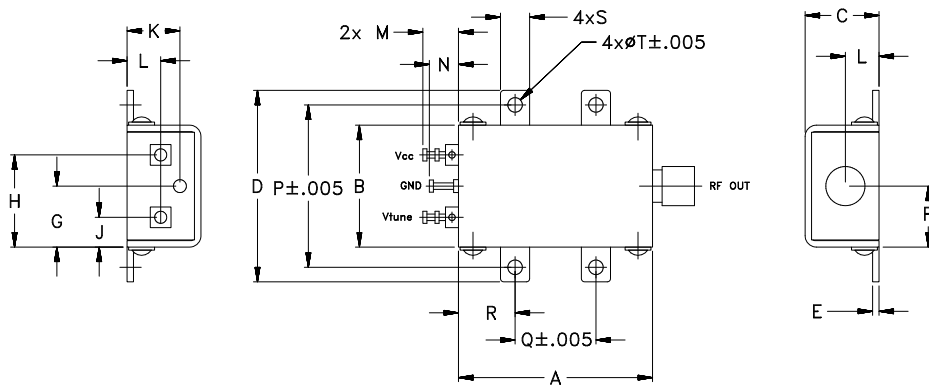
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	16V
All specifications	50 ohm system

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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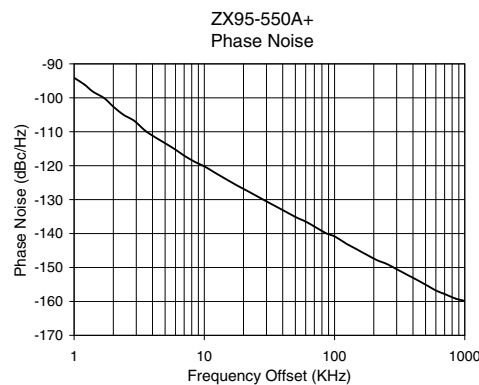
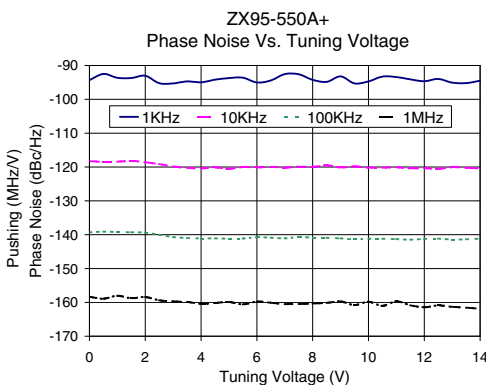
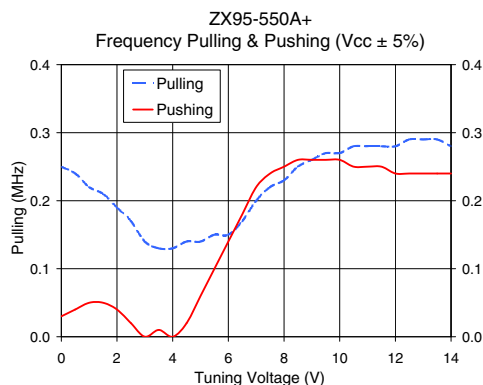
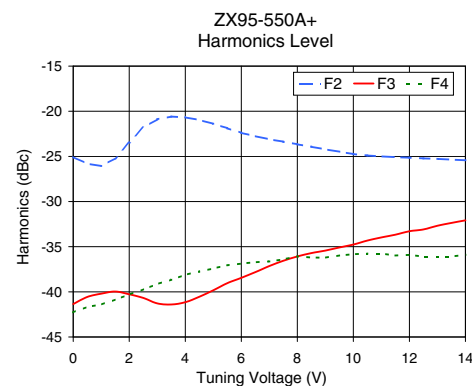
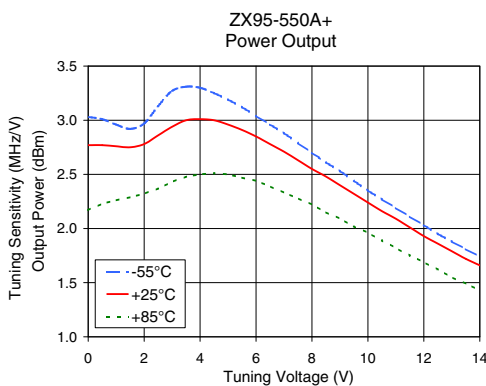
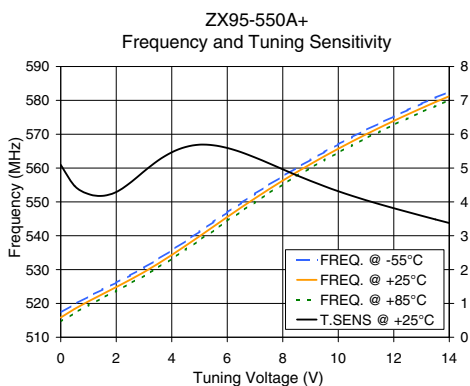
REV. A  
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# Performance Data & Curves\*

# ZX95-550A+

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 543 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	5.10	517.3	515.8	514.6	3.03	2.77	2.17	21.43	-25.1	-41.4	-42.3	0.03	0.25	-94.3	-118.3	-139.3	-158.3	1.0	-94.09
0.50	4.47	519.8	518.4	517.2	3.01	2.77	2.23	21.61	-25.8	-40.6	-41.7	0.04	0.24	-92.5	-118.5	-139.1	-158.9	2.0	-102.61
1.00	4.23	522.0	520.6	519.5	2.96	2.76	2.26	21.75	-26.1	-40.2	-41.4	0.05	0.22	-93.6	-118.4	-139.2	-158.0	3.5	-109.63
2.00	4.29	526.2	524.8	523.7	2.97	2.78	2.32	22.05	-23.5	-40.3	-40.3	0.04	0.19	-93.0	-118.6	-139.4	-158.4	6.0	-115.27
3.00	4.90	530.6	529.3	528.2	3.27	2.94	2.43	22.31	-20.9	-41.3	-39.1	0.00	0.14	-95.3	-119.8	-140.7	-159.7	8.5	-118.93
4.00	5.46	535.7	534.3	533.2	3.30	3.01	2.50	22.46	-20.7	-41.2	-38.1	0.00	0.13	-95.0	-120.4	-141.1	-160.4	10.0	-120.19
5.00	5.69	541.3	539.9	538.7	3.19	2.96	2.50	22.56	-21.4	-39.8	-37.4	0.06	0.14	-93.7	-120.5	-141.2	-159.9	20.8	-127.20
5.50	5.67	544.1	542.7	541.5	3.12	2.91	2.47	22.60	-21.9	-39.0	-37.1	0.10	0.15	-93.6	-120.0	-141.1	-160.6	35.5	-132.03
6.00	5.59	546.9	545.5	544.4	3.04	2.85	2.44	22.64	-22.4	-38.5	-36.9	0.14	0.15	-95.0	-120.1	-140.8	-159.8	60.7	-136.58
7.00	5.31	552.4	551.1	549.9	2.88	2.71	2.33	22.70	-23.1	-37.1	-36.6	0.22	0.20	-92.6	-120.2	-141.1	-160.5	86.7	-139.96
8.00	4.96	557.6	556.3	555.2	2.70	2.55	2.22	22.74	-23.7	-36.1	-36.1	0.25	0.23	-94.2	-120.0	-140.8	-160.4	100.0	-140.85
8.50	4.79	560.1	558.8	557.7	2.61	2.48	2.15	22.76	-23.9	-35.7	-36.2	0.26	0.25	-94.8	-119.5	-140.9	-160.1	148.1	-144.64
9.00	4.62	562.5	561.2	560.0	2.53	2.40	2.09	22.77	-24.2	-35.4	-36.2	0.26	0.26	-93.2	-120.1	-141.1	-159.7	177.0	-146.27
9.50	4.46	564.8	563.5	562.4	2.44	2.32	2.02	22.78	-24.5	-35.1	-36.0	0.26	0.27	-95.3	-119.8	-141.4	-160.8	211.6	-147.83
10.00	4.31	567.0	565.7	564.6	2.35	2.24	1.96	22.79	-24.7	-34.8	-35.8	0.26	0.27	-94.7	-120.2	-141.2	-159.8	302.4	-150.58
10.50	4.18	569.2	567.9	566.7	2.27	2.16	1.89	22.79	-24.9	-34.3	-35.8	0.25	0.28	-93.3	-120.2	-141.2	-161.0	361.5	-152.16
11.00	4.05	571.3	570.0	568.8	2.19	2.09	1.82	22.79	-25.0	-34.0	-35.8	0.25	0.28	-93.4	-120.1	-141.3	-159.7	507.5	-155.21
12.00	3.81	575.2	573.9	572.8	2.03	1.93	1.69	22.80	-25.1	-33.3	-35.9	0.24	0.28	-94.6	-120.3	-141.3	-161.5	606.7	-156.86
13.00	3.59	579.0	577.7	576.5	1.88	1.79	1.55	22.79	-25.3	-32.7	-36.1	0.24	0.29	-95.1	-120.1	-141.4	-161.3	851.6	-159.19
14.00	3.37	582.5	581.2	580.1	1.74	1.66	1.43	22.79	-25.4	-32.1	-35.9	0.24	0.28	-94.5	-120.5	-141.2	-161.9	1000.0	-159.83

\*at 25°C unless mentioned otherwise



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