

Coaxial

Voltage Controlled Oscillator

ZX95-550+

5V Tuning for PLL IC's 515 to 550 MHz

Features

- linear tuning characteristics
- low phase noise
- low pushing
- low pulling
- 0.5-5V tuning voltage range
- protected by US patent 6,790,049

Applications

- r & d
- lab
- instrumentation
- PLL circuitry
- wireless microphones



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-550-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.	
				1	10	100	1000	Min.	Max.			Typ.									Typ.
ZX95-550+	515	550	-1	-90	-112	-132	-151	0.5	5	12-13	80	60	-90	-23	-14	0.2	0.2	5	17		

Maximum Ratings

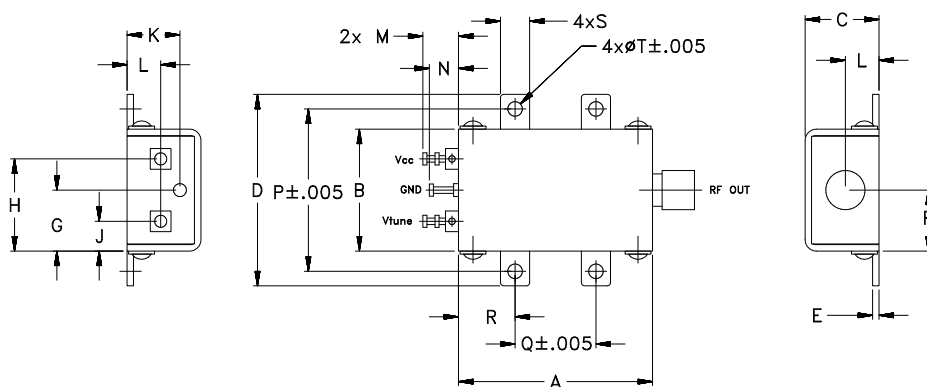
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

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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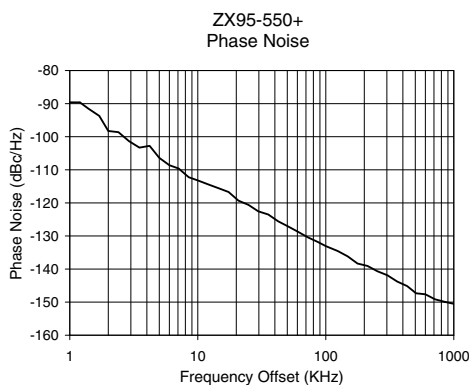
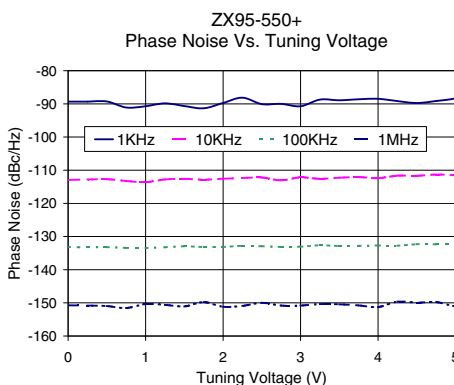
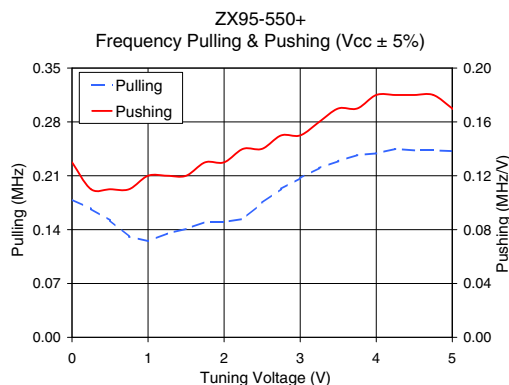
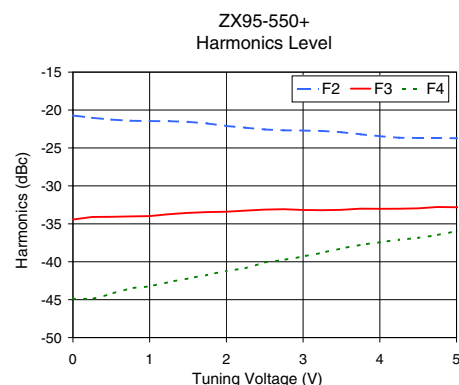
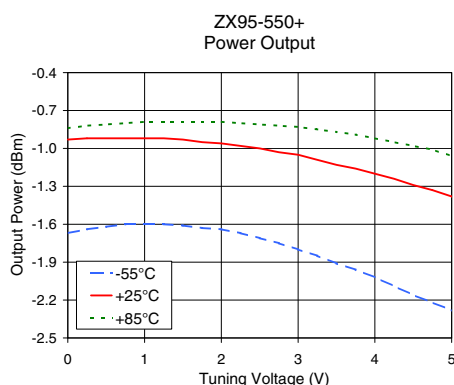
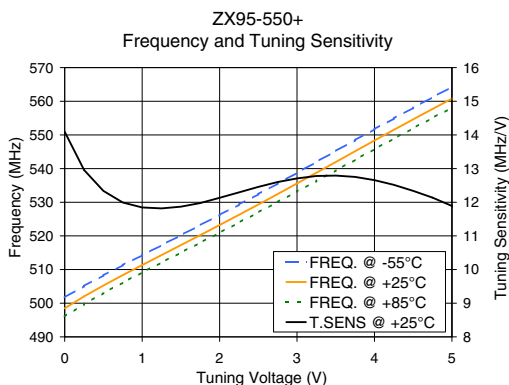
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ZX95-550+
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Page 1 of 2

Performance Data & Curves*

ZX95-550+

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 530 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	14.09	501.7	498.5	496.1	-1.67	-0.93	-0.84	11.87	-20.7	-34.4	-44.9	0.13	0.18	-89.3	-112.9	-133.1	-150.8	1.0	-89.61
0.50	12.34	508.3	505.3	503.0	-1.62	-0.92	-0.81	11.90	-21.3	-34.1	-44.2	0.11	0.15	-89.3	-112.7	-133.2	-151.0	2.0	-98.27
0.75	11.99	511.3	508.3	506.1	-1.60	-0.92	-0.80	11.90	-21.4	-34.0	-43.5	0.11	0.13	-91.1	-113.2	-133.4	-151.5	3.5	-103.30
1.00	11.84	514.3	511.3	509.1	-1.60	-0.92	-0.79	11.91	-21.5	-34.0	-43.3	0.12	0.13	-90.7	-113.6	-133.4	-150.4	6.0	-108.61
1.25	11.82	517.2	514.3	512.1	-1.60	-0.92	-0.79	11.92	-21.5	-33.7	-42.7	0.12	0.14	-89.9	-112.8	-133.2	-150.6	8.5	-112.25
1.50	11.87	520.2	517.3	515.0	-1.61	-0.93	-0.79	11.93	-21.6	-33.6	-42.2	0.12	0.14	-90.7	-112.6	-133.0	-151.1	10.0	-113.21
1.75	11.98	523.2	520.2	518.0	-1.63	-0.95	-0.79	11.94	-21.8	-33.5	-41.7	0.13	0.15	-91.3	-112.9	-133.2	-149.8	20.8	-119.33
1.75	11.98	523.2	520.2	518.0	-1.63	-0.95	-0.79	11.94	-21.8	-33.5	-41.7	0.13	0.15	-91.3	-112.9	-133.2	-149.8	20.8	-119.33
2.00	12.13	526.2	523.2	520.9	-1.64	-0.96	-0.79	11.94	-22.1	-33.4	-41.2	0.13	0.15	-89.7	-112.6	-133.1	-151.2	35.5	-123.50
2.25	12.29	529.3	526.3	523.9	-1.67	-0.98	-0.80	11.95	-22.3	-33.3	-40.9	0.14	0.15	-88.1	-112.4	-132.8	-150.9	60.7	-128.75
2.50	12.46	532.4	529.3	527.0	-1.71	-1.00	-0.81	11.96	-22.6	-33.1	-40.1	0.14	0.18	-90.1	-112.2	-132.9	-150.0	86.7	-131.82
2.75	12.60	535.6	532.4	530.0	-1.75	-1.03	-0.82	11.97	-22.7	-33.1	-39.8	0.15	0.19	-90.0	-113.1	-133.1	-150.8	100.0	-133.06
3.00	12.71	538.8	535.6	533.2	-1.80	-1.05	-0.83	11.97	-22.7	-33.2	-39.3	0.15	0.21	-90.7	-112.2	-133.1	-150.8	148.1	-136.16
3.50	12.79	545.2	542.0	539.5	-1.91	-1.13	-0.87	11.98	-22.9	-33.2	-38.3	0.17	0.23	-88.9	-112.3	-132.9	-150.4	211.6	-139.05
3.75	12.75	548.5	545.2	542.6	-1.96	-1.16	-0.89	11.99	-23.2	-33.0	-37.8	0.17	0.24	-88.6	-112.1	-132.8	-150.8	302.4	-141.86
4.00	12.66	551.7	548.3	545.8	-2.02	-1.20	-0.92	12.00	-23.5	-33.0	-37.4	0.18	0.24	-88.5	-112.4	-132.7	-151.3	361.5	-143.79
4.25	12.52	554.9	551.5	548.9	-2.09	-1.24	-0.95	12.01	-23.7	-33.0	-37.1	0.18	0.25	-89.2	-111.7	-132.8	-149.6	507.5	-147.32
4.50	12.34	558.1	554.6	552.0	-2.16	-1.29	-0.98	12.01	-23.7	-33.0	-36.9	0.18	0.24	-89.8	-111.7	-132.3	-150.0	600.0	-147.64
4.75	12.14	561.2	557.7	555.1	-2.22	-1.33	-1.01	12.02	-23.7	-32.8	-36.5	0.18	0.24	-89.1	-111.3	-132.4	-149.8	851.6	-149.91
5.00	11.89	564.2	560.8	558.1	-2.28	-1.38	-1.06	12.03	-23.7	-32.8	-36.0	0.17	0.24	-88.3	-111.5	-132.3	-151.0	1000.0	-150.52

*at 25°C unless mentioned otherwise



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