

Coaxial

# Voltage Controlled Oscillator

## ZX95-3450+

Linear Tuning 3250 to 3450 MHz

### Features

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

### Applications

- R&D
- lab
- instrumentation
- wireless communications
- WiMAX
- satellite systems



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-3450-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				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB <sub>r</sub> (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
				dBc/Hz SSB at offset frequencies, kHz				VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)	Typ.		Typ.	Typ.			Max.	V <sub>cc</sub> (volts)
	Typ.	1		10	100	1000	Min.												
ZX95-3450+	3250	3450	+5	-73	-98	-119	-139	0.5	10	28-36	25	12	-90	-19	-13	1.8	1.7	5	40

### Maximum Ratings

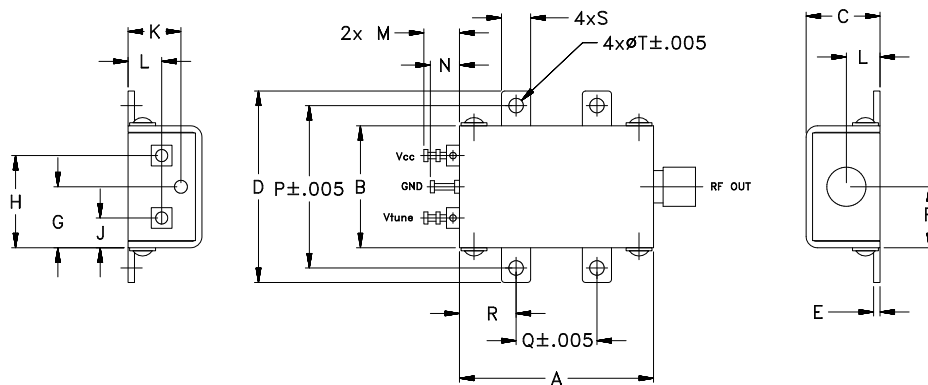
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (V <sub>cc</sub> )	7V
Absolute Max. Tuning Voltage (V <sub>tune</sub> )	12V
All specifications	50 ohm system

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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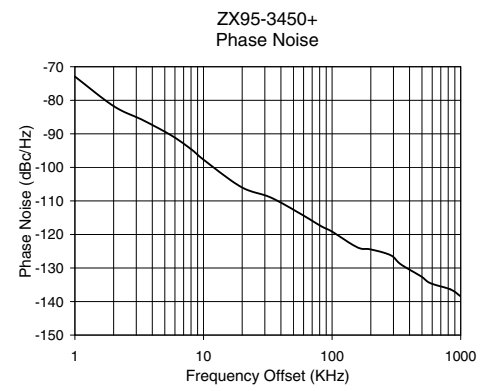
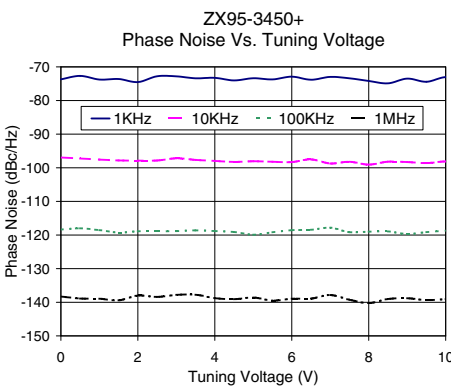
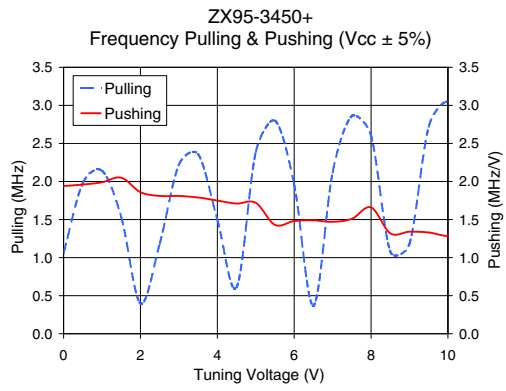
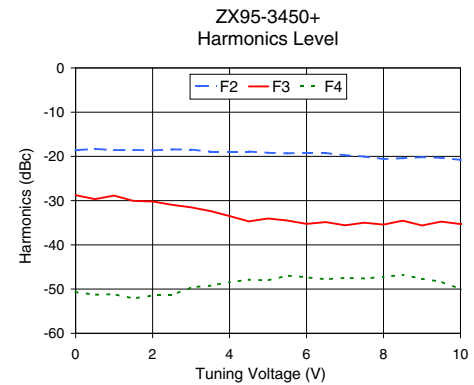
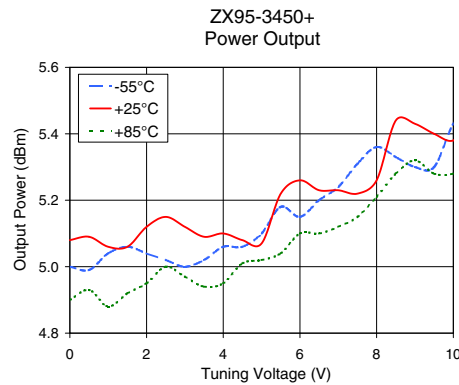
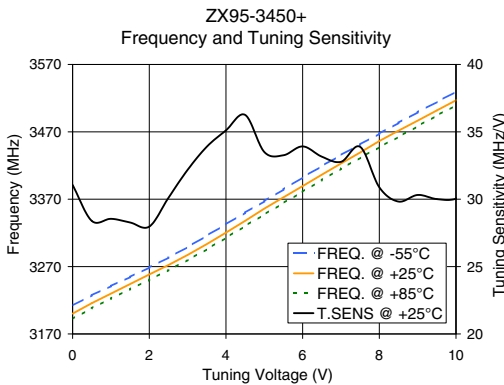
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# Performance Data & Curves\*

# ZX95-3450+

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 3375 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	31.06	3212.1	3200.1	3192.3	5.00	5.08	4.90	34.69	-18.6	-28.8	-50.7	1.94	1.06	-73.7	-96.9	-118.4	-138.3	1.0	-72.94
1.00	28.54	3241.1	3229.9	3222.5	5.04	5.06	4.88	34.71	-18.6	-28.9	-51.2	1.99	2.14	-73.8	-97.6	-118.5	-139.0	2.0	-81.74
1.50	28.27	3254.6	3244.1	3236.5	5.06	5.06	4.92	34.72	-18.6	-30.1	-52.1	2.05	1.53	-73.6	-97.8	-119.3	-139.4	3.4	-85.98
2.00	27.97	3268.6	3258.3	3250.3	5.04	5.12	4.95	34.79	-18.6	-30.2	-51.4	1.86	0.40	-74.5	-97.9	-118.9	-138.0	5.7	-90.62
2.50	30.10	3283.3	3272.3	3264.6	5.02	5.15	5.00	34.82	-18.4	-30.9	-51.4	1.81	1.18	-72.8	-97.8	-118.9	-138.4	8.1	-94.72
3.00	32.18	3299.0	3287.3	3279.8	5.00	5.12	4.97	34.82	-18.5	-31.5	-49.6	1.81	2.22	-72.8	-97.2	-118.8	-137.8	10.0	-97.70
3.50	33.89	3315.9	3303.4	3295.8	5.02	5.09	4.94	34.81	-18.9	-32.4	-49.2	1.79	2.36	-73.4	-97.7	-118.6	-137.8	19.6	-105.84
4.00	35.11	3332.7	3320.3	3312.7	5.06	5.10	4.95	34.80	-18.9	-33.5	-48.4	1.75	1.50	-73.3	-98.0	-118.8	-138.8	33.3	-108.97
4.50	36.25	3350.0	3337.9	3330.1	5.06	5.08	5.01	34.79	-18.9	-34.7	-47.9	1.71	0.61	-74.0	-98.3	-119.1	-139.1	57.2	-113.91
5.00	33.50	3367.1	3356.0	3347.2	5.10	5.07	5.02	34.80	-19.2	-34.0	-48.0	1.72	2.39	-73.4	-98.1	-119.9	-138.6	81.8	-117.49
5.50	33.26	3384.5	3372.8	3364.3	5.18	5.22	5.04	34.88	-19.3	-34.5	-47.0	1.43	2.80	-73.7	-98.2	-119.2	-139.5	100.0	-119.16
6.00	33.92	3402.4	3389.4	3381.1	5.15	5.26	5.10	34.87	-19.2	-35.3	-47.3	1.48	1.96	-72.9	-98.3	-118.6	-139.0	139.3	-122.71
6.50	33.16	3419.1	3406.4	3398.4	5.20	5.23	5.10	34.87	-19.2	-34.9	-47.8	1.49	0.37	-73.8	-97.5	-118.5	-138.9	167.3	-124.23
7.00	32.77	3435.6	3422.9	3415.3	5.24	5.23	5.12	34.88	-19.7	-35.6	-47.5	1.47	2.12	-73.0	-98.7	-117.8	-137.8	199.2	-124.46
7.50	33.88	3451.3	3439.3	3431.5	5.31	5.22	5.15	34.88	-20.0	-35.0	-47.6	1.51	2.86	-73.4	-98.2	-119.2	-139.2	284.8	-126.19
8.00	30.89	3467.3	3456.3	3447.2	5.36	5.26	5.21	34.88	-20.6	-35.4	-47.3	1.66	2.60	-74.2	-99.1	-119.0	-140.3	342.1	-128.91
8.50	29.83	3483.4	3471.7	3462.5	5.33	5.44	5.28	35.00	-20.4	-34.5	-46.8	1.32	1.08	-74.9	-98.2	-118.9	-139.0	489.1	-132.45
9.00	30.31	3499.2	3486.6	3478.3	5.30	5.43	5.32	35.02	-20.2	-35.6	-47.7	1.34	1.18	-73.5	-98.3	-119.7	-138.8	582.3	-134.53
9.50	30.01	3514.4	3501.8	3494.1	5.30	5.40	5.28	35.04	-20.3	-34.7	-48.3	1.33	2.72	-74.4	-98.6	-119.2	-139.4	832.6	-136.38
10.00	30.04	3529.6	3516.8	3509.2	5.43	5.38	5.28	35.05	-20.8	-35.3	-50.0	1.28	3.05	-73.1	-98.1	-118.7	-139.1	1000.0	-138.46

\*at 25°C unless mentioned otherwise



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