

Coaxial

# Voltage Controlled Oscillator

## ZX95-2450C+

Linear Tuning 2120 to 2450 MHz

### Features

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

### Applications

- r & d
- lab
- instrumentation
- wireless communications
- military communications
- SAP/SAB



CASE STYLE: GB956

Connectors	Model
SMA	ZX95-2450C-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 dBc (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.	Typ.	Vcc	Current
ZX95-2450C+	2120	2450	+7	-80	-107	-128	-148	0	15	28-35	20	150	-90	-23	-12	3	0.3	6	34			

### Maximum Ratings

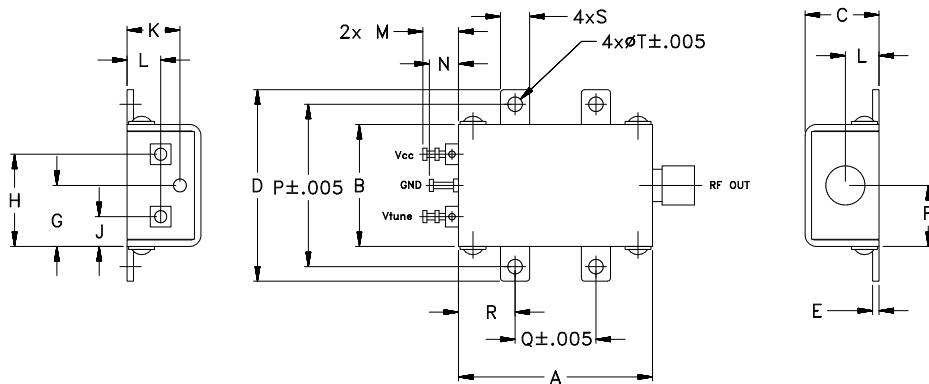
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	7V
Absolute Max. Tuning Voltage (Vtune)	17V
All specifications	50 ohm system

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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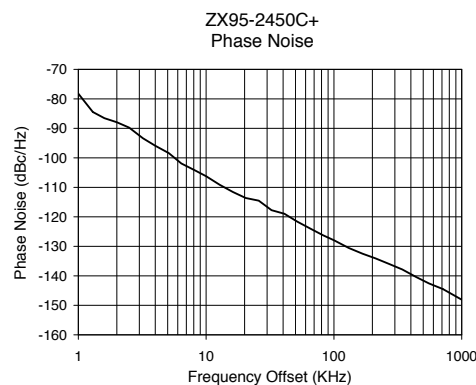
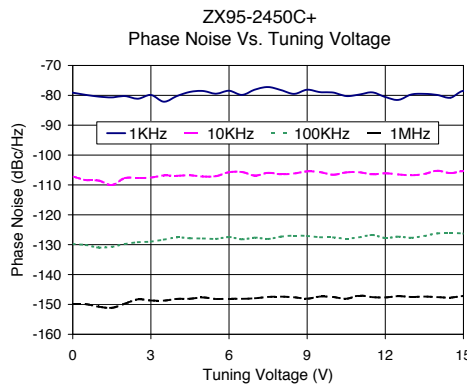
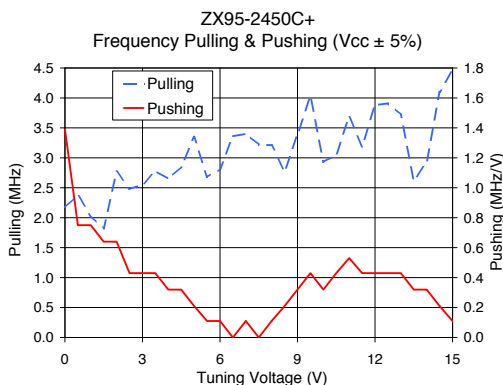
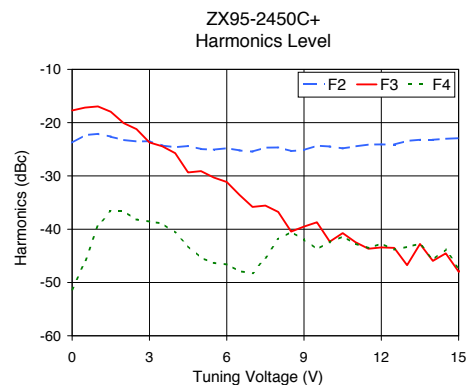
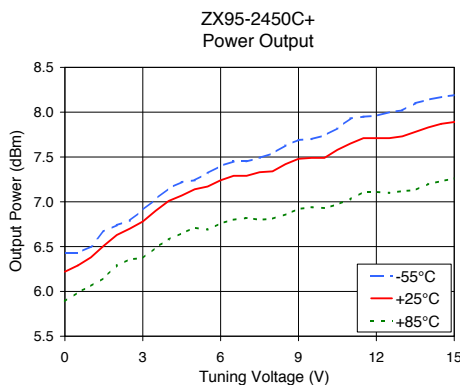
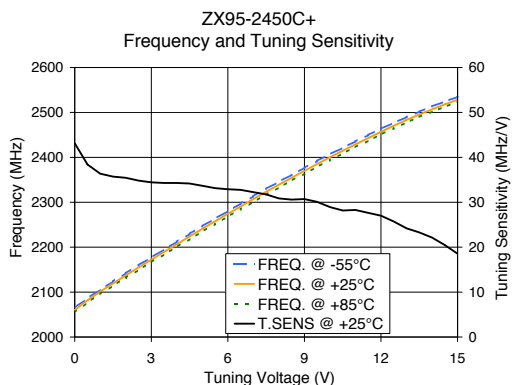
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# Performance Data & Curves\*

# ZX95-2450C+

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 2300 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	43.14	2065.4	2060.4	2054.8	6.43	6.22	5.89	28.49	-23.8	-17.7	-51.3	1.39	2.17	-79.1	-107.2	-129.8	-149.8	1.0	-78.24
0.50	38.40	2086.4	2082.0	2076.9	6.43	6.29	5.99	28.45	-22.3	-17.2	-46.1	0.75	2.38	-79.9	-108.4	-130.1	-149.9	2.0	-87.93
1.00	36.35	2105.5	2101.2	2096.1	6.50	6.38	6.06	28.43	-22.1	-17.0	-39.4	0.75	2.03	-80.4	-108.6	-131.0	-150.7	4.0	-95.89
2.00	35.46	2142.0	2137.2	2131.8	6.74	6.63	6.29	28.35	-23.3	-20.1	-36.7	0.64	2.77	-80.3	-107.7	-129.8	-149.8	6.4	-101.91
3.00	34.43	2177.4	2172.4	2166.8	6.91	6.78	6.37	28.28	-23.5	-23.7	-38.6	0.43	2.55	-79.9	-107.5	-129.0	-148.7	8.1	-104.16
4.00	34.30	2212.3	2206.7	2200.9	7.15	7.01	6.58	28.18	-24.6	-25.7	-40.7	0.32	2.65	-80.3	-106.9	-127.6	-148.2	10.0	-106.21
5.00	33.66	2246.8	2241.0	2234.8	7.24	7.14	6.71	28.08	-25.0	-29.1	-45.4	0.21	3.35	-78.6	-107.2	-127.9	-147.7	20.4	-113.60
6.00	32.90	2280.5	2274.4	2268.2	7.40	7.24	6.76	28.02	-24.8	-31.1	-46.6	0.11	2.81	-78.5	-105.7	-127.4	-148.1	41.0	-118.95
6.50	32.77	2297.2	2290.8	2284.5	7.45	7.29	6.80	27.98	-25.2	-33.6	-47.9	0.00	3.36	-79.9	-105.7	-128.2	-148.1	65.2	-123.96
7.00	32.26	2313.7	2307.2	2300.8	7.45	7.29	6.82	27.94	-25.4	-35.8	-48.2	0.11	3.40	-78.1	-106.9	-127.6	-148.0	82.2	-126.24
7.50	31.74	2329.9	2323.3	2317.0	7.49	7.33	6.80	27.92	-24.7	-35.6	-45.3	0.00	3.22	-77.2	-105.9	-128.1	-147.5	100.0	-127.94
8.00	30.85	2345.7	2339.2	2332.9	7.54	7.34	6.81	27.91	-24.7	-36.8	-41.9	0.11	3.21	-78.3	-106.4	-127.3	-147.4	130.7	-130.55
8.50	30.59	2361.3	2354.6	2348.4	7.63	7.42	6.86	27.88	-25.3	-40.4	-40.5	0.21	2.77	-79.5	-106.2	-127.0	-147.6	167.8	-132.51
9.00	30.72	2376.8	2369.9	2363.6	7.69	7.48	6.92	27.84	-25.1	-39.5	-41.9	0.32	3.39	-78.1	-105.5	-127.1	-148.1	211.6	-134.09
10.00	28.93	2407.0	2400.3	2394.0	7.74	7.49	6.93	27.81	-24.5	-42.3	-42.4	0.32	2.93	-79.1	-106.6	-127.6	-147.5	271.7	-136.02
11.00	28.29	2435.6	2428.9	2422.9	7.93	7.65	7.03	27.76	-24.5	-42.4	-42.7	0.53	3.69	-79.8	-105.8	-127.5	-147.1	342.7	-137.83
12.00	27.01	2463.6	2456.8	2450.9	7.96	7.71	7.11	27.72	-24.1	-43.4	-42.7	0.43	3.88	-80.6	-106.1	-127.8	-147.7	440.0	-140.41
13.00	24.19	2489.5	2483.2	2477.6	8.02	7.73	7.12	27.70	-23.4	-46.8	-43.3	0.43	3.72	-79.7	-106.8	-127.7	-147.5	554.9	-142.59
14.00	22.14	2513.3	2506.9	2501.6	8.14	7.83	7.20	27.64	-23.2	-45.9	-45.7	0.32	2.93	-79.9	-105.2	-126.2	-147.5	712.4	-144.49
15.00	18.56	2534.6	2528.3	2523.0	8.19	7.89	7.26	27.59	-22.9	-48.0	-47.3	0.11	4.46	-78.5	-105.4	-126.3	-147.2	1000.0	-148.09

\*at 25°C unless mentioned otherwise



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