XHT
xinhai science and technology
昕海科技

Elaborations

- **Small**
- **Low power consumption**
- **Instant available**
- **High stability**

Applications

- **Emergency Beacon**
- **IP timing**
- **Stratum 3**
- **Communications**
- **Other**

●Electrical Characteristics

Description	Parameter
Oscillator Output	
Nominal Frequency	1.2~200MHz
Output Waveform	Sinewave、HCMOS、Clipped Sinewave
Signal(Option)	**Sinewave**
Level	+0dBm min
Harmonics Suppression	-30dBc max
Spurious Suppression	-60dBc max
Load	50Ω
Signal (Option)	**HCMOS**
Output High Voltage	V_{OH}：2.4V min
Output Low Voltage	V_{OL}：0.4V max
Rise / Fall Time (10%~90%)	6ns max
Duty Cycle	45% ~55%@50%
Load	15pF
Signal (Option)	**Clipped Sinewave**
Peak to peak	0.8V min
Load	10kΩ//10pF
Supply Voltage	
Operation Voltage	3.3V±5%、5.0V±5%
Current consumption	15mA max@25℃
Frequency Characteristics	
Frequency Tolerance	±1.0ppm max @25℃±3℃
Frequency Stability over Operating Temperature Range	±0.28ppm max @-20℃~+70℃
	±0.5ppm max @-40℃~+85℃

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		±1.0ppm max @-40℃~+85℃
		±2.0ppm max @-40℃~+85℃
Frequency Stability / Supply Voltage		±0.2ppm max @Vs±5%
Frequency Stability/ Load		±0.2ppm max @Load±5%
Aging Tolerance Per Day		±0.02ppm max
Aging Tolerance 1 Year		±1.0ppm max
Phase Noise		
Phase Noise（Typical）10MHz@25℃	10Hz	-95dBc/Hz
	100Hz	-120dBc/Hz
	1KHz	-138dBc/Hz
	10KHz	-145dBc/Hz
	100KHz	-150dBc/Hz
Frequency Tuning		
Voltage Control Characteristics	Control voltage Range	0Vdc ~5.0Vdc (Center voltage=2.5Vdc)@Vs=5.0Vdc
		0Vdc ~3.3Vdc (Center voltage=1.65Vdc)@Vs=3.3Vdc
	Slope	Positive
	Linearity	10% max
	Adjustment Range	±8.0ppm min
	Input Impedance	100KΩ min
Environmental Information		
Vibration		IEC 68-2-06 test Fc,10g acceleration,10 - 2000Hz, 0.75mm displacement./severity 500 / 10
Shock		IEC 68-2-27 test Ea, Half sine 100g 6ms / 3 per direction. / severity 100A
Storage Temperature range		-55℃~+105℃

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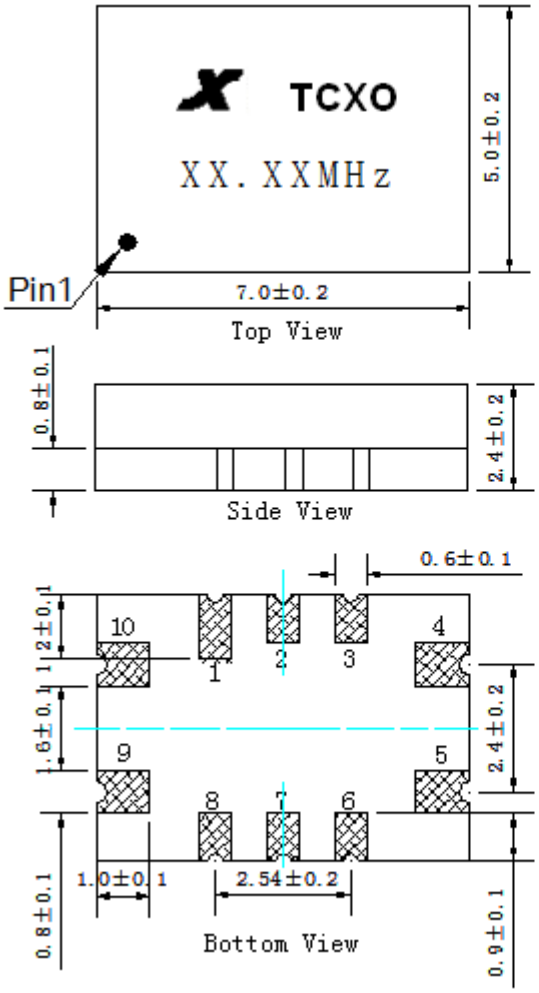
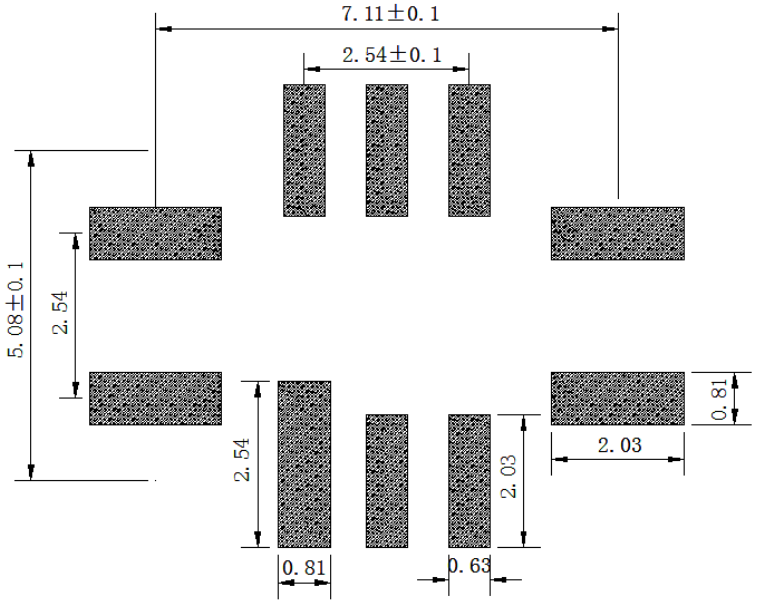
●Mechanical Structure(mm)

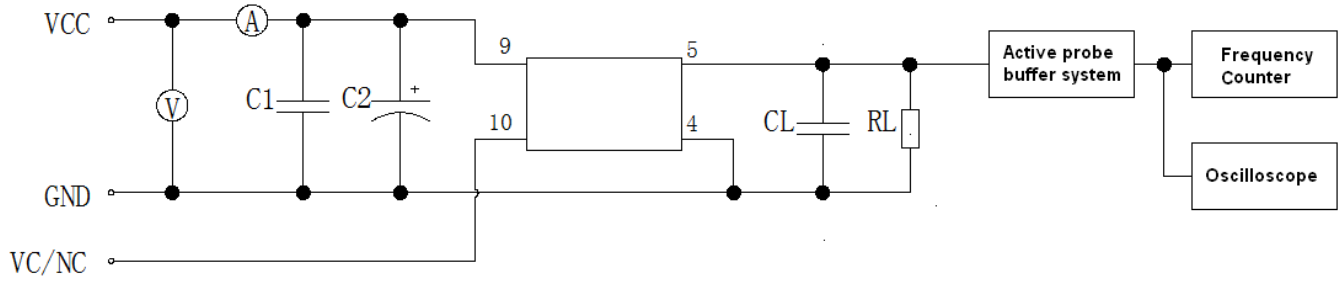


Pin Connections	
1, 2, 3, 6, 7	NC
4	Ground
5	Output
8	NC
9	Supply Voltage Input
10	VC/NC

●Recommended Pad(mm)

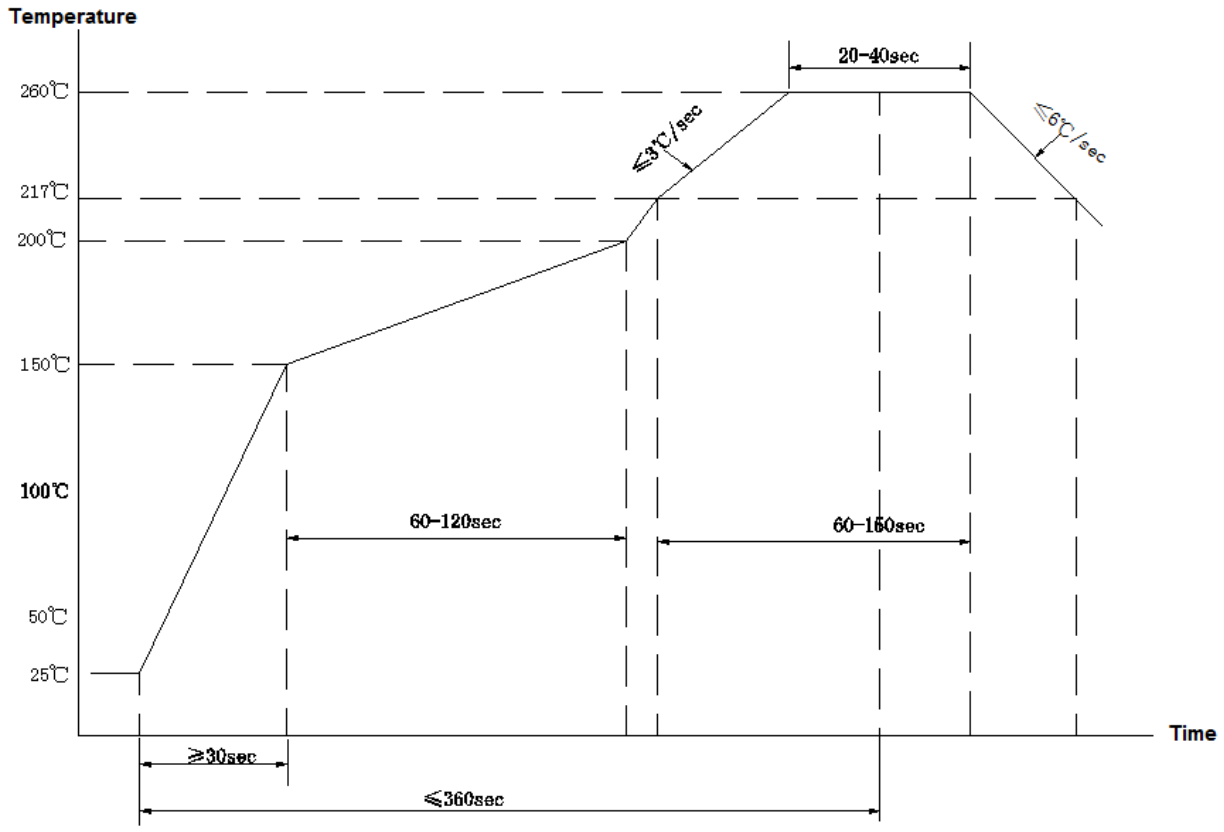


●Testing circuit diagram



Note：C1=0.1μF；C2=10μF；
Clipped Sinewave: CL=10pF，RL=10KΩ；
Sinewave: CL=NC，RL=50Ω；
HCMOS: CL=15pF，RL =NC；

●Reflow Soldering Curve (RoHS)



●Type Designation Information

T K X X X X – 10.00MHz

Product Family

T	TCXO

Package

K	7.0×5.0×2.4mm

Temperature Stabillity

S	±0.28ppm	-20℃~+70℃
Y	±0.5ppm	-40℃~+85℃
C	±1ppm	-40℃~+85℃
B	±2ppm	-40℃~+85℃

Output Waveform

C	HCMOS
S	Sinewave
A	Clipped Sinewave

Supply Voltage

A	3.3Vdc
B	5.0Vdc

Frequency Control

D	2.5Vdc
B	1.65Vdc
N	NC

Frequency

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