

The VC-TXO-30SM is a TCXO (Temperature Compensated Crystal Oscillator) featuring very tight stability over a wide temperature range. The miniature SMD ceramic package measures 5 x 7 x 2.0 mm. The voltage control feature has a frequency control range of  $\pm 5$  ppm. The low profile package is ideal for wireless communications applications.

## FEATURES

- Highly stable output
- Voltage Control function
- 5 x 7 mm Footprint
- RoHS Compliant

## PART NUMBERING GUIDE "EXAMPLE"

SERIES	FREQUENCY	STABILITY/TEMPERATURE OPTION
VC-TXO-30SM	- 128	- B

Sample Part Number: VC-TXO-30SM-128-B, 128=12.8 MHz, B=  $\pm 2.0$  PPM -20 +75°C

STANDARD FREQUENCIES
12.60, 12.80, 13.00, 14.40, 14.85, 16.80
19.20, 19.44, 19.68 & 19.80 MHz

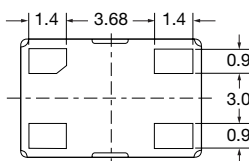
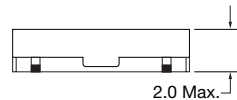
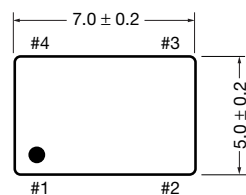
## OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	VC-TXO-30SM		UNITS
		MIN	MAX	
FREQUENCY RANGE		12.600	19.800	MHz
FREQUENCY TOLERANCE	TYPICAL @+25° $\pm 2^\circ\text{C}$	-0.5	+0.5	PPM
FREQ. STABILITY/TEMP.	(OPTION A) OPER. TEMP. -10 ~ +60°C	-2.0	+2.0	PPM
	(OPTION B) OPER. TEMP. -20 ~ +75°C	-2.0	+2.0	PPM
	(OPTION C) OPER. TEMP. -20 ~ +75°C	-2.5	+2.5	PPM
	(OPTION D) OPER. TEMP. -30 ~ +80°C	-2.5	+2.5	PPM
SUPPLY VOLTAGE CHANGE	+3V $\pm 5\%$	-0.2	+0.2	PPM
LOAD CHANGE	10K $\Omega$ $\pm 10\%$ /10 pF $\pm 10\%$	-0.3	+0.3	PPM
AGING	First Year @ +25°C	-1.0	+1.0	PPM
STORAGE TEMPERATURE		-40	+85	°C
SUPPLY VOLTAGE	+3.0V DC Nominal	+2.85	+3.15	V DC
CURRENT CONSUMPTION	10K $\Omega$ $\pm 10\%$ /10 pF $\pm 10\%$		2.0	mA
OUTPUT VOLTAGE	Clipped Sine Wave (DC-Cut)	0.8		Vp-p
OUTPUT LOAD	10K $\Omega$ $\pm 10\%$ /10 pF $\pm 10\%$			
FREQUENCY CONTROL		$\pm 5.0$		PPM
CONTROL VOLTAGE	+1.5 VDC $\pm 1$ V Positive Slope	0.5	2.5	V
SSB PHASE NOISE	-120 dBc/Hz @ 1 KHz offset			
HARMONIC DISTORTION			-3.0	dBc

Ultrasonic or Dip cleaning not to be used

Preliminary outline drawing. Consult factory for latest revision. (Rev. 1/03).

## PACKAGE DIMENSIONS (mm)



VC-TXO-30SM PIN CONNECTIONS	
#1	V CONTROL
#2	GND
#3	OUTPUT
#4	Vcc

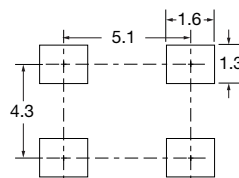


Figure 1) VC-TXO-30SM – Top, Side and Bottom views

Figure 2) Land Pattern