

## Description

The Connor-Winfield 2.5x3.2mm Temperature Compensated Crystal Oscillators and Voltage Controlled Temperature Compensated Crystal Oscillators are designed for use in GPS applications requiring tight frequency stability over the -30 to 70°C, -30 to 85°C or -40 to 85°C temperature range. Through the use of Analog Temperature Compensation, this device is capable of holding sub 1-ppm stabilities over the wide temperature range.



## Features

- 1.8, 2.5, 2.8 or 3.3 Vdc Operation
- Clipped Sinewave Output Logic
- Ultra-Miniature 2.5x3.2mm SMT Package
- Frequency Stabilities Available:
  - ±0.50ppm, ±1.00ppm, ±1.50ppm or ±2.00ppm
- Temperature Ranges Available:
  - -20 to 70°C, -30 to 85°C or -40 to 85°C
- Low Power <2mA
- Low Jitter <1ps RMS
- Tape and Reel Packaging
- RoHS Compliant / Lead Free
- Recommended for new designs

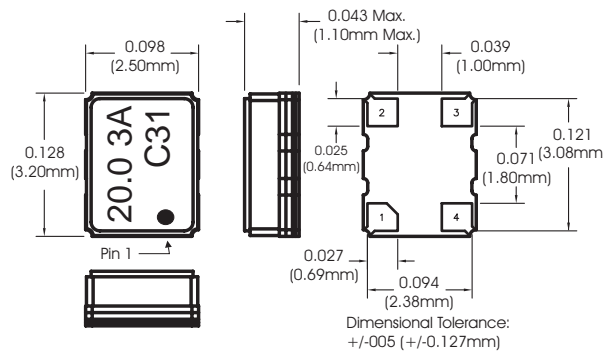
## Pad Connections

1. VCTCXO - Control Voltage (Vc)  
TCXO - N/C
2. Ground
3. Output
4. Supply Voltage (Vcc)

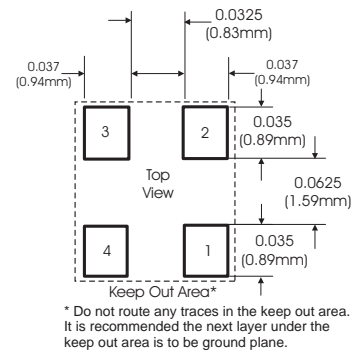
## Applications

GPS Receivers

## Package Layout



## Suggested Pad Layout



## Ordering Information

<b>C</b>	<b>3</b>	<b>1</b>	<b>-020.0M</b>
<b>Oscillator Type Precision</b> TCXO VCTCXO 2.5x3.2mm Package	<b>Features</b> 1 = TCXO, 2.5 Vdc, -30 to 85°C 2 = VCTCXO, 2.5 Vdc, -30 to 85°C 3 = TCXO, 3.3Vdc, -30 to 85°C 4 = VCTCXO, 3.3 Vdc, -30 to 85°C 9 = TCXO, 2.5 Vdc, -40 to 85°C 0 = VCTCXO, 2.5 Vdc, -40 to 85°C 7 = TCXO, 3.3Vdc, -40 to 85°C 8 = VCTCXO, 3.3 Vdc, -40 to 85°C A = TCXO, 2.8 Vdc, -30 to 85°C B = VCTCXO, 2.8 Vdc, -30 to 85°C C = TCXO, 2.8 Vdc, -40 to 85°C D = VCTCXO, 2.8 Vdc, -40 to 85°C E = TCXO, 1.8 Vdc, -30 to 85°C F = VCTCXO, 3.3Vdc, -30 to 85°C* G = VCTCXO, 2.8Vdc, -20 to 70°C *frequency stability relative to 25°C	<b>Frequency Stability</b> 1 = ±0.50 ppm 2 = ±1.00 ppm 3 = ±1.50 ppm 4 = ±2.00 ppm	<b>Output Frequency</b> Frequency Format -xxx.xM Min.* -xxx.xxxxxxM Max* *Min 1 and Max 6 digits after the decimal point. M = MHz