

### Telecom Performance 5x7mm TCXO / VCTCXO T / TV Series



✓ STRATUM 3

#### **Description:**

Connor-Winfield's Txxx and TVxxx series are 5x7mm TCXO and VCTCXO products with exceptional frequency stability and low phase noise. Through the use of analog temperature



compensation, these products are capable of holding Stratum 3 level temperature stabilities of  $\pm 0.28$  ppm over the commercial and industrial temperature ranges. Available in 4-pad or 10-pad surface mount footprints.

These products are designed for such applications as IEEE 1588 PTP and Synchronous Ethernet.

All models will meet  $\pm 4.6$  ppm accuracies for twenty years

#### Features:

- Frequency Stabilities Available:
  - +/-0.28 ppm (6.4 to 50 MHz)

+/-0.50 ppm (6.4 to 50 MHz) +/-1.00 ppm or +/-2.00 ppm (6.4 to 54 MHz)

- Temperature Ranges Available: 0 to 85°C, 0 to 70°C, -40 to 85°C or -20 to 70°C Packages Available:
- T Series: 5 x 7mm 10 Pad
- TV Series: 5 x 7mm 4 Pad
- 3.3 Vdc Operation
- Output Logic: LVCMOS or Clipped Sinewave
- Fixed Frequency TCXO
- Voltage Controlled VCTCXO
- Low Jitter < 0.50 ps RMS</li>
- Low Phase Noise
- Tri-State Enable/Disable: (T Model Series Only)
- Tape and Reel Packaging
- RoHS Compliant / Lead Free 
   √RoHS

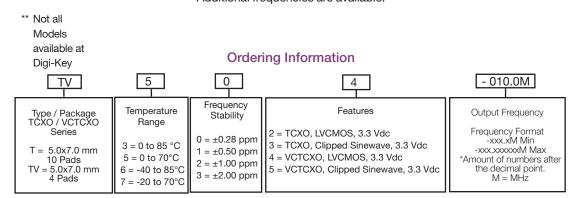
#### **Applications:**

- IEEE 1588 Applications
- Synchronous Ethernet slave clocks, ITU-T G.8262 EEC options 1 & 2
- Compliant to Stratum 3, GR-1244-CORE & GR-253-CORE
- Wireless Communications
- Small Cells
- Test and Measurement
- GPS

#### Standard Frequencies Available \*

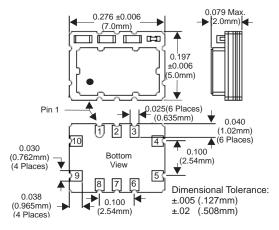
\* 6.4, 9.72, 10, 10.24, 12.5, 12.8, 13.5, 19.2, 19.44, 20, 20.48, 25, 27, 38.88, 40 MHz Available frequencies from the factory for small quantity orders or quick delivery.

Additional frequencies are available.

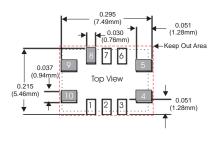




## T Series Package Outline



### T Series Suggested Pad Layout

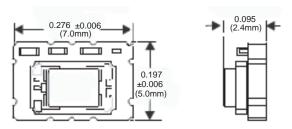


\* Do not route any traces in the keep out area. It is recommended the next layer under the keep out area is to be ground plane.

### T Series Pad Connections

- 1: Do Not Connect
  2: Do Not Connect
  3: Do Not Connect
  4: Ground
  5: Output
- 6: Do Not Connect
  7: Do Not Connect
- 8: Enable / Disable (OE)
- 9: Supply Voltage (Vcc
- 10: VCTCXO: Control Voltage (Vc)
  \_\_\_\_TCXO: N/C

T Series Alternate Package Outline



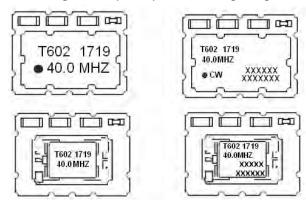
Alternate package applies to some frequencies where a smaller crystal size is used.

The differences are the top view crystal size, and the overall height.

Bottom view, suggested pad layout, and pad connections all remain the same as above.

### **Marking Information**

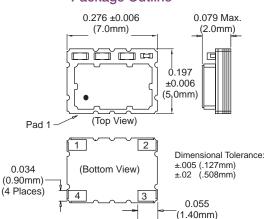
The following are examples of possible marking configurations



Note: The XXXXX represents crystal lot code information.

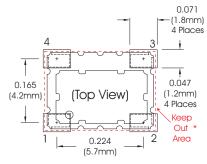
4:

# TV Series Package Outline



(4 Places)

### TV Series Suggested Pad Layout



\* Do not route any traces in the keep out area. It is recommended the next layer under the keep out area is to be ground plane.

# TV Series Pad Connections

1: VCTCXO: Voltage Control (Vc)
TCXO: N/C
2: Ground
3: Output

Supply (Vcc)