



# CONNOR-WINFIELD CORPORATION

AURORA, IL. 60505  
PHONE (630) 851-4722  
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## HIGH FREQUENCY VCXO WITH TRI-STATE

| SPECIFICATIONS                                     |                           | HVT51-100                                      | HVT51-150       | HVT51-200       |
|----------------------------------------------------|---------------------------|------------------------------------------------|-----------------|-----------------|
| Frequency Range (Fo)                               |                           | 30MHz to 100MHz                                | 30MHz to 100MHz | 30MHz to 65MHz  |
| Frequency Stability<br>(Voltage Control= 2.50Vdc)  |                           |                                                |                 |                 |
| Vs Temperature                                     |                           | ±25ppm                                         |                 |                 |
| Vs Calibration @25°C                               |                           | ±20ppm                                         |                 |                 |
| Vs Aging (15yrs)                                   |                           | ±10ppm                                         |                 |                 |
| Total Frequency Tolerance                          |                           | ±55ppm Maximum (Referenced to Fo)              |                 |                 |
| Temperature Range                                  |                           | 0°C to +70°C                                   |                 |                 |
| Output                                             | Waveform                  | CMOS Squarewave, TTL Compatible                |                 |                 |
|                                                    | Load                      | 50pF Maximum                                   |                 |                 |
|                                                    | Voltage                   | Voh                                            |                 | 4.5V Minimum    |
|                                                    |                           | Vol                                            |                 | 0.5V Maximum    |
|                                                    | Current                   | Ioh                                            |                 | -16mA           |
|                                                    |                           | Iol                                            |                 | 16mA            |
|                                                    | Duty Cycle                | 40/60 Maximum                                  |                 |                 |
|                                                    | Rise/Fall Time            | 3nS Maximum                                    |                 |                 |
|                                                    | Jitter (RMS)              | 5pS Maximum                                    |                 |                 |
|                                                    | SSB Phase Noise (Typical) | -65dBc/Hz @ 10Hz , -130dBc/Hz @10KHz           |                 |                 |
| Frequency Control                                  |                           |                                                |                 |                 |
| Pullability @25°C<br>(Referenced to Fo)            |                           | ±50ppm Minimum                                 | ±75ppm Minimum  | ±100ppm Minimum |
| Absolute Pull Range                                |                           | ±15ppm Minimum                                 | ±40ppm Minimum  | ±65ppm Minimum  |
| Slope                                              |                           | Positive Transfer Characteristic               |                 |                 |
| Control Voltage                                    |                           | 0.5Vdc to 4.5Vdc                               |                 |                 |
| Monotonic Linearity                                |                           | < ±10%                                         |                 |                 |
| Input Impedance                                    |                           | ≥ 50K ohms                                     |                 |                 |
| Modulation Bandwidth                               |                           | ≥ 15KHz                                        |                 |                 |
| Input<br>(Tri-State<br>Enable/Disable<br>Function) | Output E/D Time           | 100nS Maximum                                  |                 |                 |
|                                                    | Enable Vih                | 2.0V Minimum - Output Active                   |                 |                 |
|                                                    | Disable Vil               | 0.8V Maximum - Output High Impedance           |                 |                 |
|                                                    | No connection             | Output is enabled with no connection on pin 3  |                 |                 |
| Supply Voltage (Vcc)                               |                           | +5Vdc ±5%                                      |                 |                 |
| Supply Current                                     |                           | 50mA Max <50MHz , 70mA Max <100MHz             |                 |                 |
| Package                                            |                           | All metal, hermetically sealed, welded package |                 |                 |

**WARNING!** Do not insert oscillator into a hot circuit. Failure to comply will result in damage to oscillator.

Specifications subject to change without notice

BULLETIN #: VX234  
PAGE 1 OF 2

REV: 00  
DATE: 6/12/98

ISSUED BY: \_\_\_\_\_

Dimensional Tolerance: ±.02"  
±.005"

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## 14 PIN VCXO OSCILLATOR

EXAMPLE MODEL NUMBER:

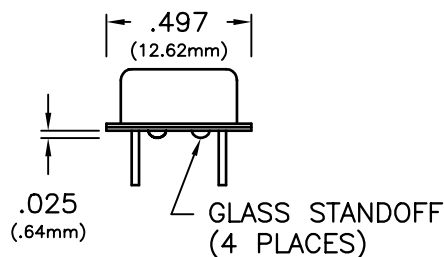
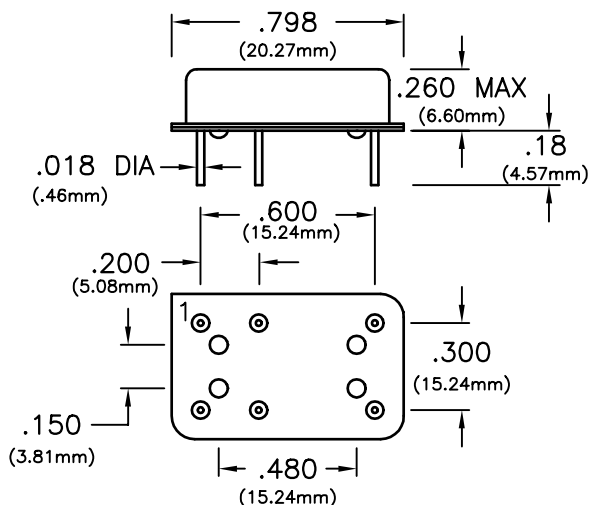
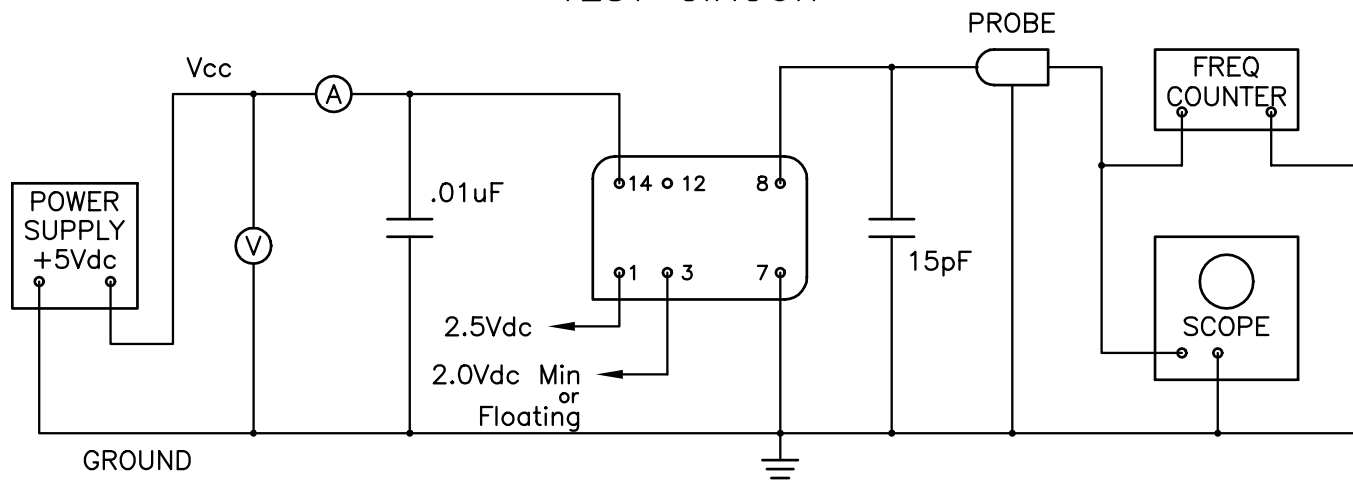
H V T 5 1 - 1 0 0 / 4 4 . 7 3 6 M H z

VCXO SERIES

MINIMUM DEVIATION OF  
 $\pm 50$ ppm FROM 0.5  
TO 4.5Vdc CONTROL  
VOLTAGE.

CENTER FREQUENCY

### TEST CIRCUIT



| PIN | CONNECTION        |
|-----|-------------------|
| 1   | CONTROL VOLTAGE   |
| 3   | TRI-STATE VOLTAGE |
| 7   | GROUND (CASE)     |
| 8   | OUTPUT            |
| 12  | NO CONNECTION     |
| 14  | Vcc               |

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