

Temperature Compensated Crystal Oscillators (TCXO's)

TC-200



Description:

Vectron International has introduced a series of low jitter complementary PECL TCXO's for use in SONET Minimum Clock (SMC) applications and is available in Output frequencies from 311.04 MHz to 777.6 MHz.

Features:

- True SONET Minimum performance
- Ultra low Jitter
- 3.3 Vdc or 5 Vdc operation
- Complementary PECL output

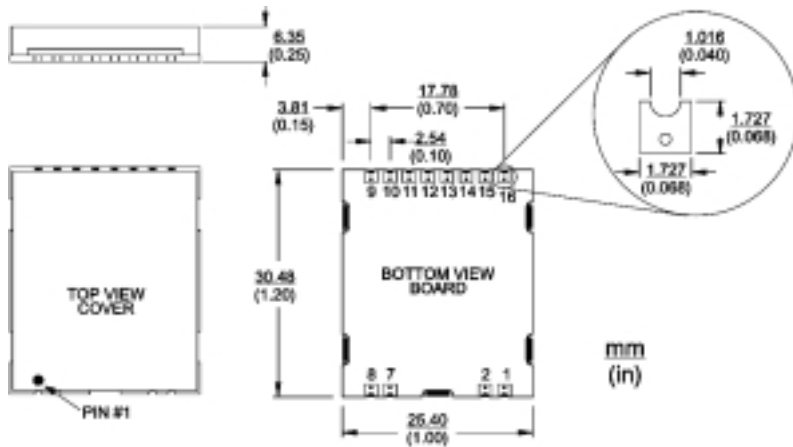
Performance Characteristics

| Parameter | Characteristics |
|---|--|
| Frequencies: | 311.04 MHz to 777.6 MHz |
| Package Size: | 30.48 x 25.4 x 6.35 mm (1.2" x 1.0" x 0.25") |
| Supply Voltage (Vcc): (other options are available upon request) | C = 5.0 Vdc $\pm 5\%$ D = 3.3 Vdc $\pm 5\%$ |
| Current: | <200 mA |
| Output: | Complementary PECL |
| Output Level (@ +25°C): | Voh ("1") = Vcc Vol ("0") = Vcc - 1.63 V max |
| Rise/Fall Time: | <400 ps (20% to 80%) |
| Symmetry (Duty Cycle): | 50/50 $\pm 5\%$ @ Vcc - 1.3 V |
| Temperature Stability: | C-416 - ± 4.1 ppm over 0°C to +70°C (per GR-253-CORE : R5-126) F-416 - ± 4.1 ppm over -40°C to +85°C (per GR-253-CORE : R5-126) NOTE: Tighter stabilities and wider temperature ranges are available, please consult the factory. |
| Initial Accuracy @ +25°C: | B ± 5 ppm max after reflow, Total Stability <20 ppm All Causes. |
| Aging: | <10 ppm for ten years |
| Jitter Generation: | <1 ps rms from 12 kHz to 80 MHz |
| Frequency vs. Supply: | < ± 0.2 ppm for a $\pm 5\%$ change in supply voltage |
| Electrical Frequency Adjust: | A ± 40 ppm min., 0 to Vcc, positive slope (per GR-253-CORE: R5-129) |

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Outline Drawing



Pin Out Information

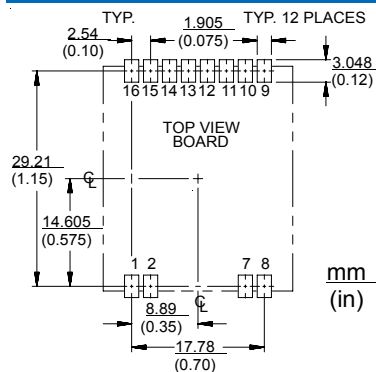
| Pin | Function |
|-----|--|
| 1 | Electrical Frequency Adjust; 0 to Vcc. or No Connect |
| 2 | Ground |
| 3 | Missing |
| 4 | Missing |
| 5 | Missing |
| 6 | Missing |
| 7 | Ground |
| 8 | Vcc - Supply Voltage |
| 9 | Vcc - Supply Voltage |
| 10 | Lock Detect |
| 11 | Ground |
| 12 | Output Signal - Q |
| 13 | Ground |
| 14 | Comp Output Signal - \bar{Q} |
| 15 | Ground |
| 16 | Enable / Disable Floating = Enabled Logic "0" = Disabled |

TCXO

Standard Frequencies

| | |
|--------------|----------------------|
| 311.04 MHz | SONET |
| 622.08 MHz | OC-12, STM4 |
| 625.00 MHz | 10 G / 16 |
| 644.5313 MHz | 10.3125 G / 16 |
| 666.5143 MHz | OC-12 FEC 15/14 |
| 669.3266 MHz | OC-12 FEC 255/237 |
| 777.60 MHz | SONET |

Pad Layout



Ordering Information

