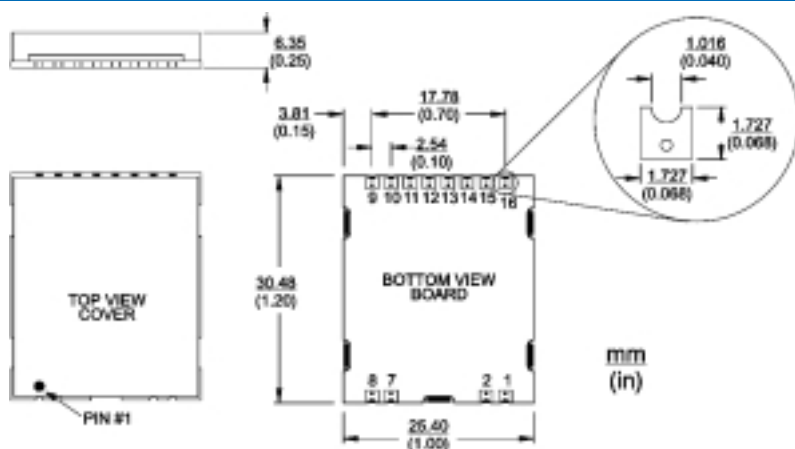


Temperature Compensated Crystal Oscillators (TCXO's)

TC-200

Outline Drawing



Pin Out Information

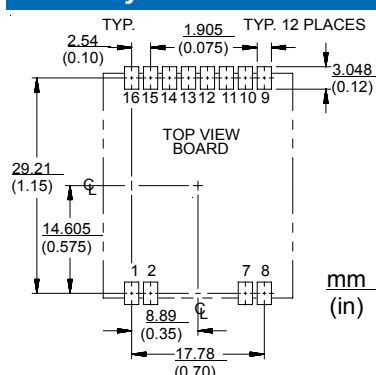
Pin	Function
1	Electrical Frequency Adjust; 0 to Vcc. or No Connect
2	Ground
3	Missing
4	Missing
5	Missing
6	Missing
7	Ground
8	Vcc - Supply Voltage
9	Vcc - Supply Voltage
10	Lock Detect
11	Ground
12	Output Signal - Q
13	Ground
14	Comp Output Signal - $\bar{Q}$
15	Ground
16	Enable / Disable Floating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

TCXO

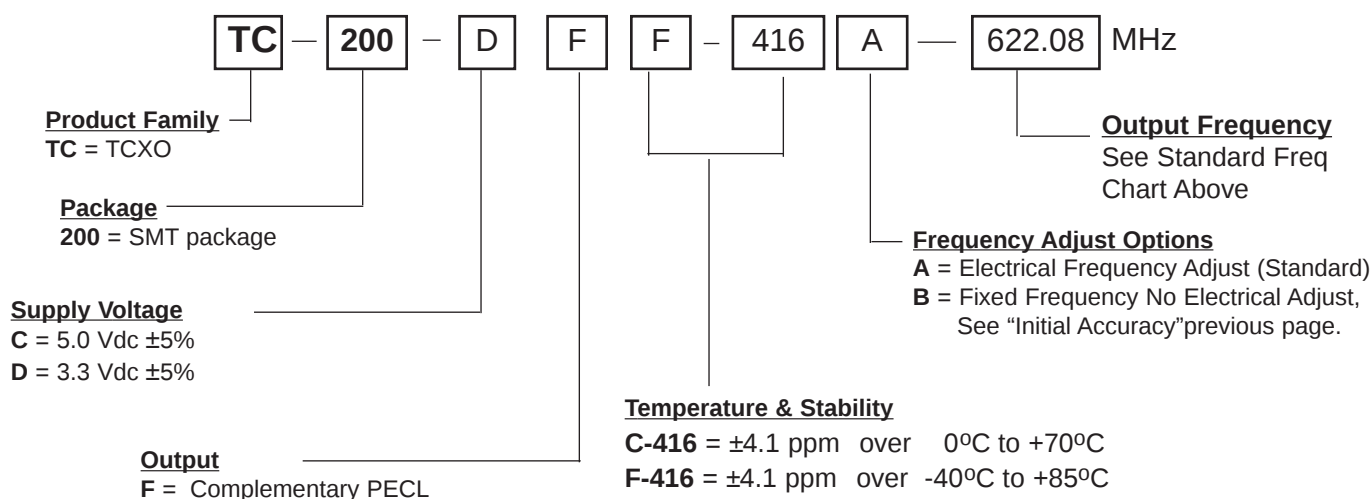
Standard Frequencies

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

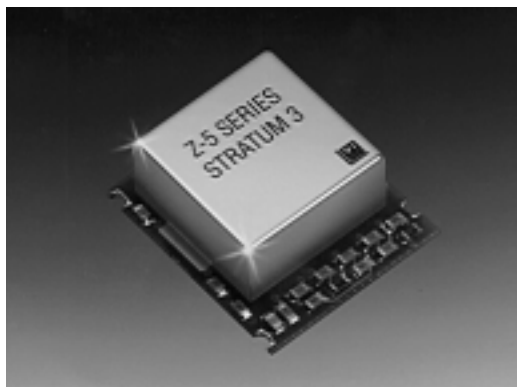


Ordering Information



Temperature Compensated Crystal Oscillators (TCXO's)

TC-210 (Z5 Series)



Description:

Vectron International has introduced a series of surface mount, Temperature Compensated Crystal Oscillators (TCXO's) available in frequencies from 0.5 to 160 MHz.

Features:

- Stratum 3 option
- Frequency from 0.5 to 160 MHz
- Aging to <3.5 ppm for ten years
- 3.3 Vdc or 5 Vdc operation
- All outputs available (TTL, HCMOS, PECL, Sine)

Performance Characteristics

Performance	Characteristics	
Standard Frequencies:	10, 12.8, 16.384, 19.44, 20, 38.88, 40, 77.76, 155.52 MHz	
Package Size:	29.21 x 25.40 x 10.03 mm (1.15" x 1.00" x 0.395")	
Supply Voltage:	3.3 Vdc $\pm 5\%$ or 5 Vdc $\pm 5\%$ (other options are available upon request)	
Current:	Current draw will vary greatly depending on frequency and output type. Typical current draw will be about 15 mA and depending on output type may be less than 2 mA. Please consult the factory about your exact current requirements.	
Output Type:	HCMOS/ACMOS	0.5 to 160 MHz
	10 TTL	0.5 to 160 MHz
	Complementary PECL	10 to 160 MHz
	0 dBm / 50 ohm	5.0 to 100 MHz
Temperature Stability:	B-307 - $\pm 0.3 \times 10^{-7}$ over 0°C to +50°C B-ST3* - Stratum 3 over 0°C to +50°C C-ST3* - Stratum 3 over 0°C to +70°C C-507 - $\pm 5.0 \times 10^{-7}$ over 0°C to +70°C F-106 - $\pm 1.0 \times 10^{-6}$ over -40°C to +85°C NOTE: Tighter stabilities and wider temperature ranges are available, please consult the factory. *STRATUM 3 per GR-1244-CORE Table 3-1 Total Stability: $< \pm 4.6 \times 10^{-6}$ for all causes and 10 years Vs Holdover: $< \pm 3.7 \times 10^{-7}$ for all causes and 24 hours	
Aging (typical):	<3.5 ppm for ten years @ +70°C	
Phase Noise (Typical): 10 MHz, + 3.3 Vdc, A-output	Offset 100 Hz 1 kHz 10 kHz 100 kHz For HCMOS/ACMOS/TTL & PECL outputs with frequencies above 35 MHz a low phase noise PLL multiplier may be used. Please inform the factory of your phase noise requirements.	Phase Noise -115 dBc/Hz -145 dBc/Hz -150 dBc/Hz -155 dBc/Hz
Frequency vs. Supply:	< ± 0.1 ppm for a $\pm 5\%$ change in supply voltage	
Electrical Frequency Adjust:	± 5 ppm minimum via external voltage, 0 to Vdd, positive slope	