

Helping Customers Innovate, Improve &amp; Grow


**TX-190**

### 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
- Complementary PECL output
- Frequency Range: 311.04 MHz to 777.6 MHz
- Previous Model: TC-200

### Applications

- SONET Minimum Clock

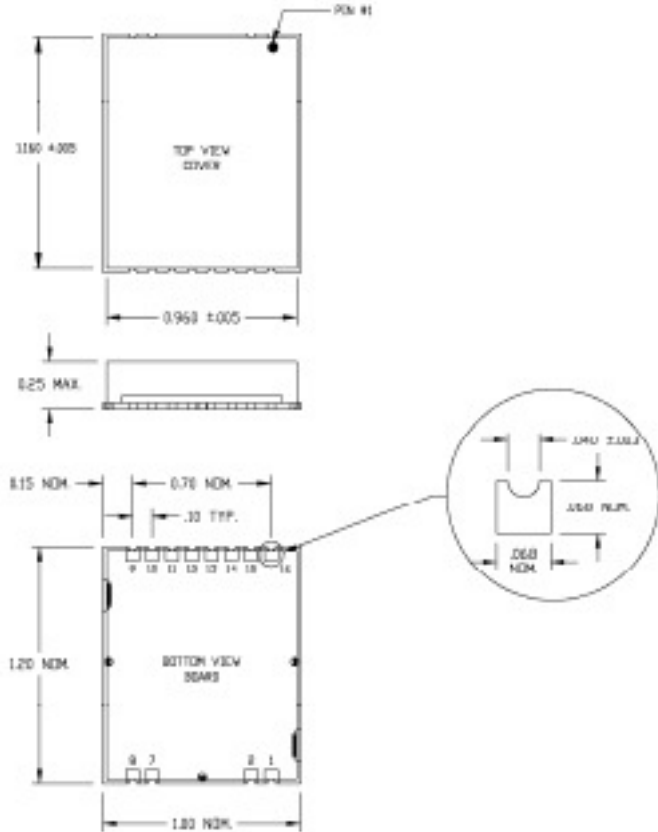
### Performance Specifications

Parameter	Min	Typ	Max	Units	Condition
<b>Frequency Stabilities<sup>1</sup></b>					
vs. operating temperature range (referenced to +25°C)	-4.1		+4.1	ppm	-40... +85°C
	-4.1		+4.1	ppm	
Initial Tolerance	-5.0		+5.0	ppm	@ +25°C
Total Stability			<20	ppm	All Causes
vs. supply voltage change	-0.2		+0.2	ppm	V <sub>s</sub> ± 5%
Jitter Generation			<1	ps	12 kHz to 80 MHz
Aging			<10	ppm	for 10 years
<b>Supply Voltage (Vs)</b>					
Supply voltage (Standard)	3.135	3.3	3.465	VDC	
Supply voltage (Option)	4.75	5.0	5.25	VDC	
Current			200	mA	

## Performance Specifications

Parameter	Min	Typ	Max	Units	Condition
<b>RF Output</b>					
Signal	Complementary PECL				
Load		15		pF	100 k ohm // 10 pF
Signal Level (Vol)			Vcc - 1.63 V	V	
Signal Level (Voh)	Vcc			V	
Rise/Fall Time			400	ps	(20% to 80%)
Duty cycle	45		55	%	@ Vcc - 1.3 V
<b>Frequency Tuning (EFC)</b>					
Tuning Range	±40			ppm	0 to Vcc
Tuning Slope	Positive				

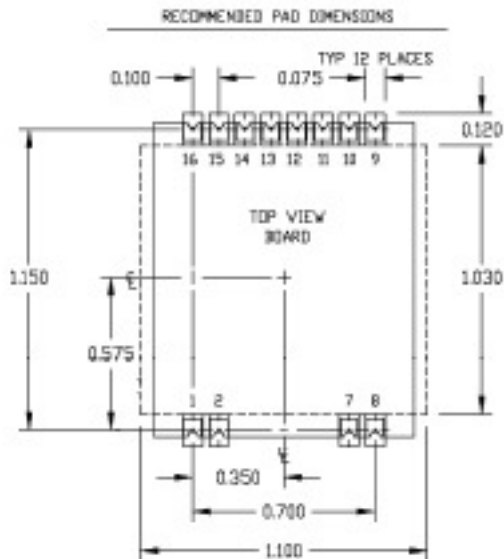
# Outline Drawing / Enclosure



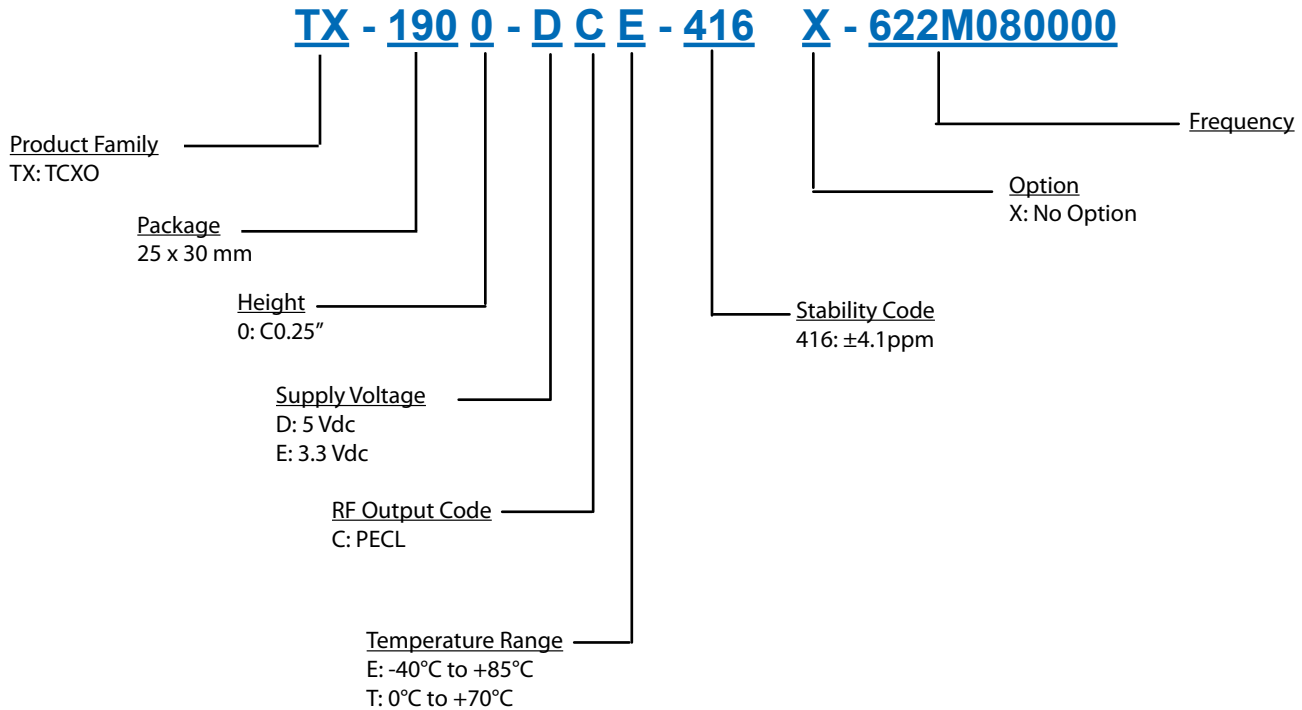
Dimensions in inches

Type C		
Code	Height "H"	Pin Length "L"
0	0.25 (6.35mm)	NA

Pin Connections	
1	Electrical Freq. Adjust / No Connect
2, 7, 11, 13, 15	Ground
3-6	Missing
8, 9	Supply
10	Lock Detect
12	Output Signal - Q
14	Comp Output Signal - Q
16	Enable / Disable Floating = Enabled Logic "0" = Disabled



## Ordering Information



### Notes:

1. Contact factory for improved stabilities or additional product options. Not all options and codes are available at all frequencies.
2. Unless other stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C).
3. Phase noise degrades with increasing output frequency.
4. Subject to technical modification.
5. Contact factory for availability.

## For Additional Information, Please Contact

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