

Helping Customers Innovate, Improve & Grow



### Description

The TX-080 series offers performance for short-term stability, phase noise, aging and temperature stability normally only associated with Oven Controlled Crystal Oscillators, while consuming typically <20 mA.

### Features

- Stratum 3 option
- "1 ppm Forever" option (0° to 50°C and 0° to 70°C)
- Frequency Range: 0.5 MHz to 160 MHz
- Previous Model: TC-140

### Applications

- Severe Environmental Conditions

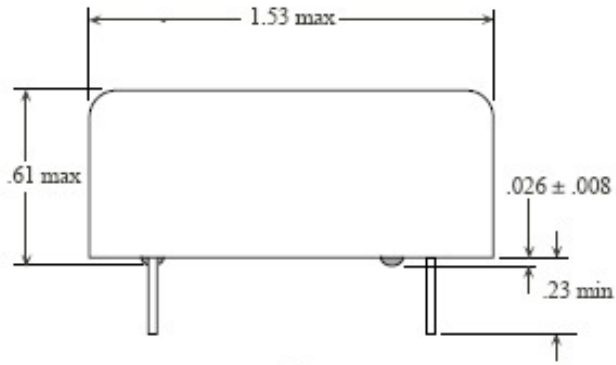
### Performance Specifications

Parameter	Min	Typ	Max	Units	Condition
<b>Frequency Stabilities<sup>1</sup></b>					
vs. operating temperature range (referenced to +25°C)	-4.6		+4.6	ppm	-40... +85°C
	-1.0		+1.0	ppm	-40... +85°C
	-4.6		+4.6	ppm	0... +70°C
	-1.0		+1.0	ppm	0... +70°C
	-0.5		+0.5	ppm	0... +70°C
	STS3		STS3	ppm	0... +70°C
	-4.6		+4.6	ppm	0... +50°C
	-1.0		+1.0	ppm	0... +50°C
	-0.2		+0.2	ppm	0... +50°C
	STS3		STS3	ppm	0... +50°C
vs. supply voltage change	-0.05		+0.05	ppm	Vs ± 5%
<b>Supply Voltage (Vs)</b>					
Supply voltage (Standard)	11.25	12.0	12.75	VDC	
Supply voltage (Option)	4.75	5.0	5.25	VDC	

## Performance Specifications

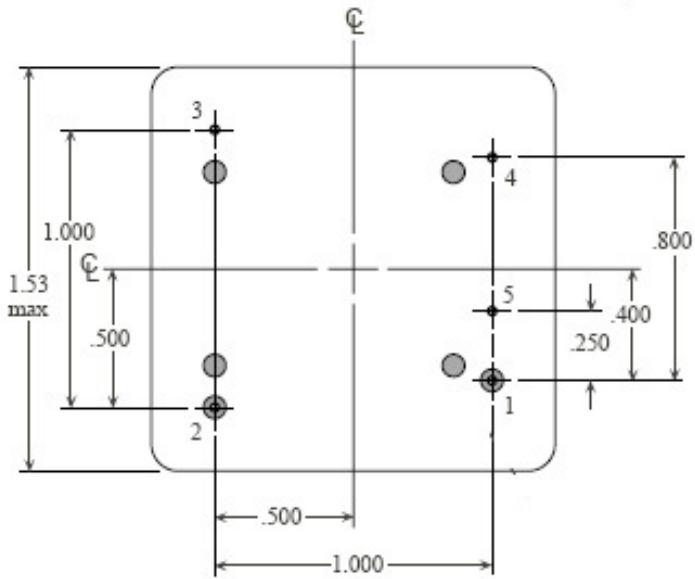
Parameter	Min	Typ	Max	Units	Condition
<b>RF Output</b>					
Signal	HCMOS				0.5 to 160 MHz
Load		100 10		kohm pF	
Signal Level (Vol)			+0.5	VDC	
Signal Level (Voh)	+0.8 (Vdd)			VDC	
Rise/Fall Time			5	ns	
Duty cycle	40		60	%	
Signal	TTL				0.5 to 160 MHz
Load		10		TTL	
Signal Level (Vol)			+0.5	VDC	
Signal Level (Voh)	+2.4			VDC	
Rise/Fall Time			10	ns	
Duty cycle	40		60	%	
Signal	Sinewave				3.0 to 100 MHz
Load		50		ohm	
Output Power (Standard)	0.0	+3.0	+6.0	dBm	50 ohm load
Harmonics			-20	dBc	
Spurious			-60	dBc	
Signal (custom number required)	Sinewave				3.0 to 100 MHz (+12 Vdc only)
Load		50		ohm	
Output Power (Option)	+7		+13.0	dBm	50 ohm load
Harmonics			-20	dBc	
Spurious			-80	dBc	
<b>Frequency Tuning (EFC)</b>					
Tuning Range	Fixed; No adjust				
Tuning Range	±3.0			ppm	via internal mechanical adjust positive slope
Tuning Range	±3.0			ppm	via external voltage, 0 to +5 Vdc
<b>Additional Parameters<sup>1</sup></b>					
Phase Noise <sup>3</sup> (10 MHz, +12 Vdc, J - Output)			-110 -135 -150 -155	dBc/Hz dBc/Hz dBc/Hz dBc/Hz	10 Hz 100 Hz 1 kHz 10 kHz

# Outline Drawing / Enclosure



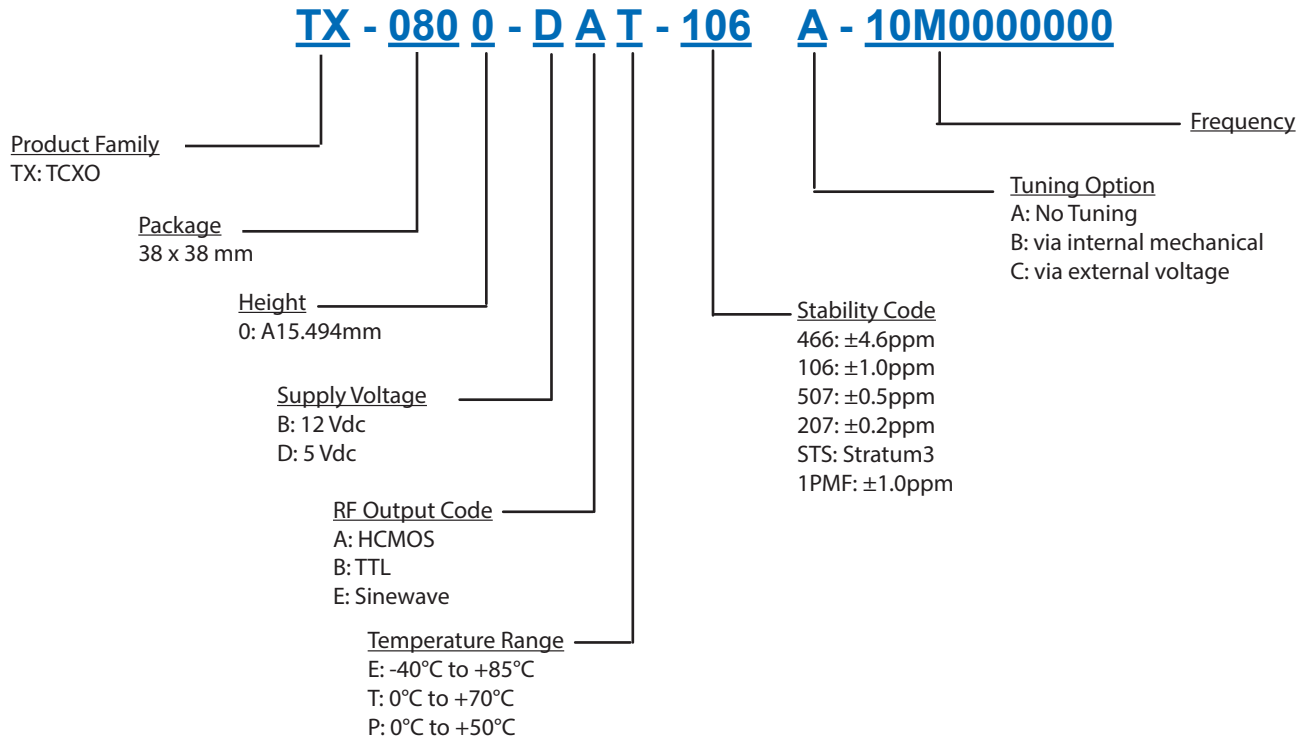
Dimensions in inches

Type A		
Code	Height "H"	Pin Length "L"
0	15.494	5.842



Pin Connections	
1	Output
2	Supply
3	Ground (Case)
4	Freq. Adjust
5	Ground

## 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

### USA:

Vectron International  
267 Lowell Road, Suite 102  
Hudson, NH 03051  
Tel: 1.888.328.7661  
Fax: 1.888.329.8328

### Europe:

Vectron International  
Landstrasse, D-74924  
Neckarbischofsheim, Germany  
Tel: +49 (0) 3328.4784.17  
Fax: +49 (0) 3328.4784.30

### Asia:

Vectron International  
68 Yin Cheng Road(C), 22nd Floor  
One LuJiaZui  
Pudong, Shanghai 200120, China  
Tel: +86 21 6194 6886  
Fax: +86 21 6194 6699

### Disclaimer

Vectron International reserves the right to make changes to the product(s) and or information contained herein without notice. No liability is assumed as a result of their use or application. No rights under any patent accompany the sale of any such product(s) or information.

Rev: 2-18-2014 jar