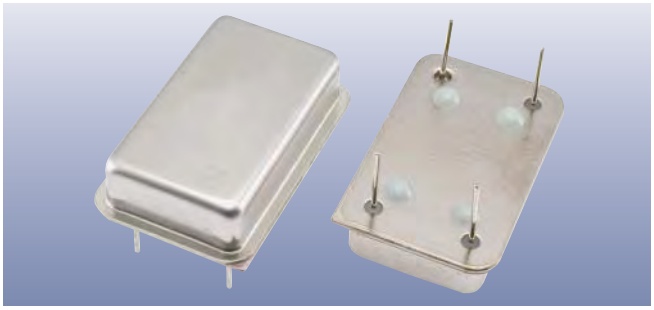
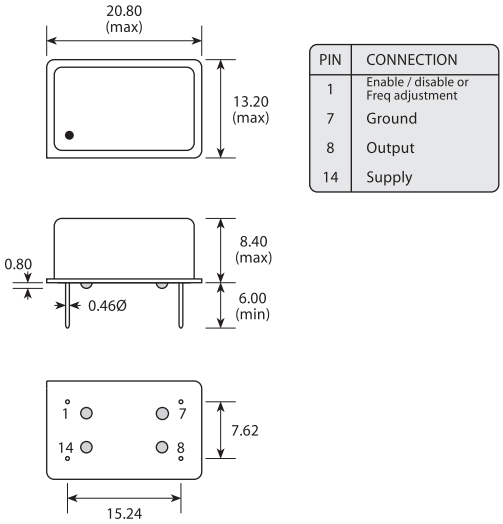
3.3V CMOS TCXO Stratum 3

HTFL & HTVL





PIN	CONNECTION
1	Enable / disable or Freq adjustment
7	Ground
8	Output
14	Supply

Features

- **3.3V Stratum 3 compliant (VC)TCXO**
- **CMOS output**
- **Suitable as SONET/SDH timing source**
- **Excellent frequency stability**
- **Low jitter**

Enable / Disable Function (HTFL)

Input (pin 1)	Output (pin 8)
Open	Enabled
'1' level	Enabled
'0' level	High Impedance

Specifications

Parameters	Product HTFL	Product HTVL	Option Codes
Frequency range: 6.40 ~ 56.0MHz	■	■	
Calibration tolerance: ±1.0ppm	■	■	
Frequency stability: ±4.6ppm (inclusive of calibration tolerance temperature, voltage, load, 20years ageing, shock & vibration)	■	■	
Temperature range: 0 to +70°C	■	■	5
-40 to +85°C	□	□	6
Storage temperature range: -55 to +125°C	■	■	
Temperature stability: ±0.5ppm	□	□	E
±1.0ppm	■	■	F
other	□	□	specify
Supply voltage (V_{DD}): +3.3V (±5%)	■	■	
Supply current (6.4~52.0MHz): 10mA max	■	■	
Driving ability: 15pF CMOS	■	■	
Logic levels: '0' level = 10%V_{DD} max	■	■	
'1' level = 90%V_{DD} min	■	■	
Output current: '0' level = 4.0mA	■	■	
'1' level = -4.0mA	■	■	
Waveform symmetry: 45:55 max at 50%V_{DD}	■	■	
Rise / fall time: 8ns max	■	■	
Frequency adjustment: None	■		
±10ppm min, +1.65V ±1.35V		■	
>100kΩ input impedance		■	
±5% linearity		■	
Enable / disable function: None		■	
Tristate (control via pin 1) (V_{IH}=70%V_{DD} min, V_{IL}=30%V_{DD} max)	■		
Phase noise: -50dBc/Hz typ @ 1Hz	■	■	
-80dBc/Hz typ @ 10Hz	■	■	
-110dBc/Hz typ @ 100Hz	■	■	
-135dBc/Hz typ @ 1kHz	■	■	
-150dBc/Hz typ @ 10kHz	■	■	
-150dBc/Hz typ @ 100kHz	■	■	
Period jitter RMS: 3ps max	■	■	
Phase jitter RMS: 1.0ps max, 12kHz~f_o/2	■	■	
3.0ps max, 10Hz~f_o/2	■	■	
TDEV: 1.0ns max over 1 sec	■	■	
2.0ns max over 4 sec	■	■	

■ Standard. □ Optional - Please specify required code(s) when ordering

Ordering Information

Product name + option codes + frequency

eg: **HTFL/5F 19.440MHz** ±1.0ppm, 0+70°C, TCXO no VC

HTVL/6E 44.7360MHz ±0.5ppm, -40+85°C, TCXO with VC

Option code X (eg HTVL/X) denotes a custom spec.

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