



## 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		Option Codes	
	HTFL	HTVL		
Frequency range:	6.40 ~ 56.0MHz	■	■	
Calibration tolerance:	±1.0ppm	■	■	
Frequency stability: (inclusive of calibration tolerance temperature, voltage, load, 20years ageing, shock & vibration)	±4.6ppm	■	■	
Temperature range:	0 to +70°C -40 to +85°C	■ □	■ □	5 6
Storage temperature range:	-55 to +125°C	■	■	
Temperature stability:	±0.5ppm ±1.0ppm other	□ ■ □	□ ■ □	E F specify
Supply voltage (V <sub>DD</sub> ):	+3.3V (±5%)	■	■	
Supply current (6.4~52.0MHz):	10mA max	■	■	
Driving ability:	15pF CMOS	■	■	
Logic levels:	'0' level = 10%V <sub>DD</sub> max '1' level = 90%V <sub>DD</sub> min	■ ■	■ ■	
Output current:	'0' level = 4.0mA '1' level = -4.0mA	■ ■	■ ■	
Waveform symmetry:	45:55 max at 50%V <sub>DD</sub>	■	■	
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 <sub>IH</sub> =70%V <sub>DD</sub> min, V <sub>IL</sub> =30%V <sub>DD</sub> 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 <sub>o</sub> /2 3.0ps max, 10Hz~f <sub>o</sub> /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.