

A satellite with two large solar panel arrays is shown in orbit against the backdrop of Earth's blue and white horizon. The satellite has a central body with various instruments and antennas.

**Acceleration, Vibration, Radiation...
It's A Jungle Up There.**



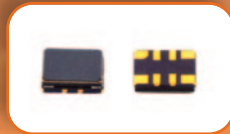
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Greenray Industries, Inc.
Frequency Control Solutions
2023

tcxo

Greenray TCXOs feature temperature stabilities of 1 ppm or less and are offered in a variety of packages. Available from 20 KHz to 1 GHz, they are designed for communications, instrumentation and defense applications and deliver precision and reliability in demanding environments on land, in the air – and beyond.

T56 Series



Frequency: 10 - 52 MHz
 5 x 3.2 mm package
 +3.0 Vdc to +3.6 Vdc Vdc Supply
 CMOS or Clipped Sine output
 Acceleration Sensitivity to 0.2 ppb/g
 Frequency Stability vs Temperature to +/-0.1 ppm
 Available over -55°C to +125°C operational to < +/- 1 ppm

T1308 Series



Frequency: 10 - 50 MHz
 9 x 7 mm ceramic package
 +3.3 Vdc Supply
 Acceleration Sensitivity to 0.07 ppb/g
 CMOS or Clipped Sine output

space

Our growing family of radiation-tolerant, space-qualified oscillators are designed, manufactured and tested in the USA. With ultra-low g-sensitivity to <0.07 ppb/g they offer guaranteed, long-term performance under the most extreme operating conditions. Talk to an engineer about your unique requirements.

T1254



30 kRad (Si) TID

T1283



50 kRad (Si) TID

T1276



200 kRad (Si) TID

xo

Greenray clock oscillators (XOs) serve as reliable signal reference sources for a variety of industrial and defense-related applications. They offer low phase noise and exceptional acceleration sensitivity performance to 0.08 ppb/g.

Y1631



Frequency: 50 - 130 MHz
 17.3 x 17.3 mm package
 +3.3 Vdc Supply
 Ultra-low Phase Noise under vibration
 Acceleration Sensitivity to 0.08 ppb/g

Y52



Frequency: 80 - 170 MHz
 3 x 5 mm package
 +3.14 Vdc to +3.46 Vdc supply
 CMOS output
 Acceleration Sensitivity to 0.7 ppb/g

vexo

Greenray VCXOs and clock oscillators (XOs) are designed for communications, instrumentation and test equipment applications. They are available in a variety of packages including SMT and low profile DIP.

N623 Series



9.1 x 14.2 mm, SMD package
 +5.0 Vdc supply
 Frequency: 100 MHz
 (other options available)
 Pullability: ±30 ppm
 +10 dBm Sinewave output
 -175 dBc/Hz @ 1 MHz

N630 Series



17.3 x 17.3 mm package
 +5.0 Vdc supply
 Frequency: 50 - 130 MHz
 Pullability: ±40 ppm
 Sinewave output: +10 dBm
 -112 dBc/Hz @ 100 Hz offset
 (frequency: 100 MHz)
 Acceleration Sensitivity to 0.08 ppb/g

ocxo

Our OCXOs feature low phase noise and tight stability over temperature. Available from 1 MHz to 200 MHz, they offer excellent long-term characteristics for use in a variety of defense and industrial applications.

YH1400



Frequency Range: 10 - 125 MHz
 Acceleration Sensitivity as low as 7×10^{-11} per g
 25.4 mm sq., low profile, hermetic package
 CMOS or +5 dBm Sinewave output
 EFC for precise tuning or phase locking apps
 Stability: ±0.1 ppm -40°C to +85°C

YH1486



Frequency: 10 - 20 MHz
 +10.0 to +15.0 Vdc Supply
 Temperature Stability: ±5 ppb (-20°C to +60°C)
 +7 dBm Sinewave output
 Short Term Stability – ADEV: 8×10^{-12} at t=1 sec.
 Phase Noise at 10 Hz offset typically -130 dbc/Hz

Since 1961, Greenray Industries has been a preferred provider of precision quartz crystal oscillators to the world's leading military, defense and industrial manufacturers. Visit us online at www.greenrayindustries.com or call +1 717.766.0223 and speak with a frequency control expert today.

