



frequency control solutions

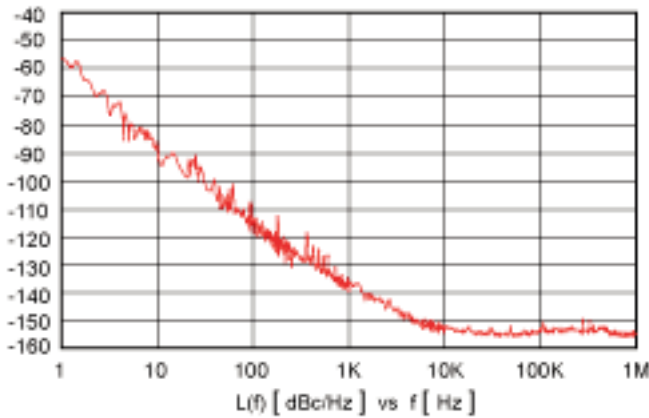
Temperature Compensated Crystal Oscillators

Greenray TCXOs are designed for communications, instrumentation and military applications. Our TCXOs feature temperature stabilities of 1ppm or less and are available in a variety of packages, including SMT, and are available from 20KHz to 1GHz.

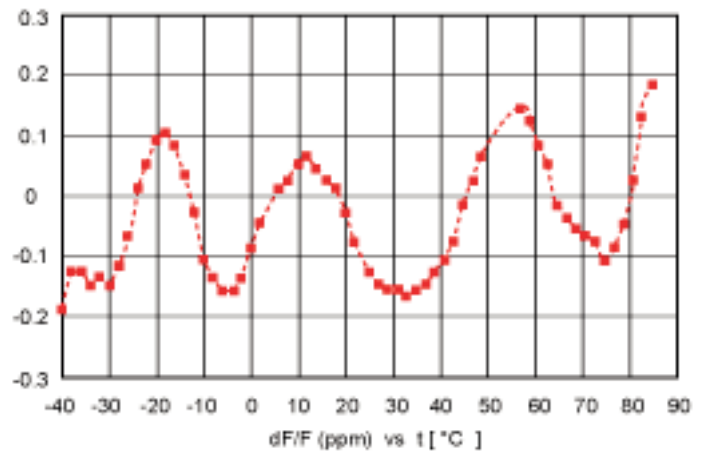
We incorporate leading-edge design and innovative manufacturing techniques to produce extremely rugged oscillators that are ideal for mobile and airborne applications, including smart munitions.

Key examples of our TCXO product line follow. For detailed information, product Data Sheets (pdf file format) are provided. You can also link to our Interactive Product Selector at the bottom of this page. To inquire about custom specifications, call 717-766-0223 and talk to a Greenray engineer.

PHASE NOISE
20MHz TCXO T75 Series



FREQUENCY vs. TEMPERATURE
20MHz TCXO T75 Series



T1220

Ultra tight Stability & Compact Package
Frequency Range: 10 - 50 MHz
Output Signal: CMOS/Clipped Sine
20.32 x 12.70 x 8.38 mm (0.8 x 0.5 x 0.33 in.)



T1215

Excellent Performance Under Shock & Vibration
Frequency Range: 750kHz - 800 MHz
Output Signal: CMOS, LVPECL or LVDS
9.14 x 7.49 x 2.80 mm (0.360 x 0.295 x 0.110 in.)



Greenray Industries, Inc.

Telephone: 717-766-0223 Fax: 717-790-9509 E-mail: sales@greenrayindustries.com



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Temperature Compensated Crystal Oscillators (p.2 of 4)

ZT620

Good Phase Noise over MIL temperature range
Frequency Range: 10 - 100MHz
Output Signal: HCMOS
22.10 x 12.70 x 5.08 mm (0.87 x 0.50 x 0.20 in.)



T53

Low g-Sensitivity, Tight Stability
Frequency Range: 10 - 50 MHz
Output Signal: CMOS/Clipped Sine
5.0 x 3.2 x 2.0 mm (0.197 x 0.126 x 0.079 in.)



ZT560

Good Phase Noise over MIL temperature range
Frequency Range: 20KHz - 30MHz
Output Signal: HCMOS
20.32 x 12.70 x 9.40 mm (0.80 x 0.50 x 0.37 in.)



T124

Ultra-low Frequency, rugged SMT package
Frequency Range: 650 Hz - 1.25MHz
Output Signal: CMOS Squarewave
17.27 x 17.27 x 5.08 mm (0.680 x 0.680 x 0.200 in.)



ZT600 & ZT601

Tight Stability; Low profile SMT package
Frequency Range: 10 - 300MHz
Output Signal: CMOS (ZT600) Sine (ZT601)
25.40 x 29.21 x 5.08 mm (1.00 x 1.15 x 0.20 in.)



T1300

Ultra-low Acceleration Sensitivity
Frequency Range: 10 - 50 MHz
Output Signal: CMOS
20.32 x 12.70 x 8.13 mm (0.800 x 0.500 x 0.320 in.)



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Temperature Compensated Crystal Oscillators (p.3 of 4)

T75

Low g-sensitivity with tight Stability:
(± 0.5 ppm over -40 to $+85^{\circ}\text{C}$);
Very small package, RoHS compliant
Frequency Range: 10 - 50MHz
Output Signal: HCMOS/Sine
7.00 x 5.00 x 3.00 mm (0.275 x 0.197 x 0.118 in.)



ZT5050

Ultra tight Stability (± 0.07 ppm -40 to $+85^{\circ}\text{C}$);
Frequency Range: 10 - 50MHz
Output Signal: HCMOS
35.05 x 26.90 x 12.70 mm (1.38 x 1.06 x 0.50 in.)



T96 & T98

Excellent long-term Stability; 9x14mm package
Frequency Range: 10 - 100MHz
Output Signal: CMOS (T96) Sine (T98)
14.22 x 9.14 x 3.68 mm (0.56 x 0.36 x 0.145 in.)



ZT5060

Low Phase Noise, hermetic DIP package
Frequency Range: 10 - 50MHz
Output Signal: HCMOS
20.32 x 12.70 x 9.40 mm (0.80 x 0.50 x 0.37 in.)



T1170

Tight Stability (± 0.5 ppm over -40 to $+85^{\circ}\text{C}$);
Compact, hermetically sealed package
Frequency Range: 10 - 125MHz
Output Signal: LVDS
14.22 x 9.14 x 3.68 mm (0.56 x 0.36 x 0.145 in.)



T1185

High Frequency, tight Stability;
Low Jitter & PECL Output
Frequency Range: 100 - 320MHz
Output Signal: LVDS/CMOS/PECL
14.22 x 9.14 x 3.68 mm (0.56 x 0.36 x 0.145 in.)



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Temperature Compensated Crystal Oscillators (p.4 of 4)

T1177

High Frequency, tight Stability;
Low Jitter & LVDS Output
Frequency Range: 100 - 800MHz
Output Signal: LVDS/PECL
14.22 x 9.14 x 3.68 mm (0.56 x 0.36 x 0.145 in.)



T1178

High Frequency, tight Stability & low Phase Noise
Frequency Range: 100 - 500MHz
Output Signal: Sine
25.40 x 29.21 x 5.08 mm (1.00 x 1.150 x 0.200 in.)



T121

High Frequency, Super Stability
Frequency Range: 50 - 100 MHz
Output Signal: Sine
17.27 x 17.27 x 5.08 mm (0.680 x 0.680 x 0.200 in.)



T90 & T94

Tight Stability, low g-sensitivity & small package
Frequency Range: 10 - 50MHz
Output Signal: HCMOS (T90) Sine (T94)
14.22 x 7.57 x 3.70 mm (0.56 x 0.30 x 0.145 in.)



T120

Low Noise, tight Stability & rugged package
Frequency Range: 10 - 100 MHz
Output Signal: Squarewave, CMOS
17.78 x 17.78 x 3.81 mm (0.700 x 0.700 x 0.15 in.)

