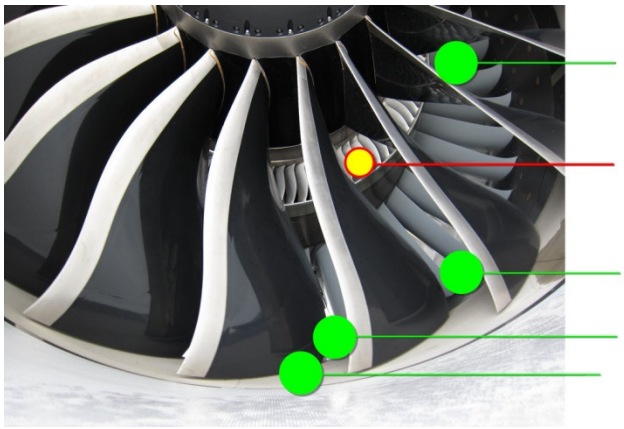
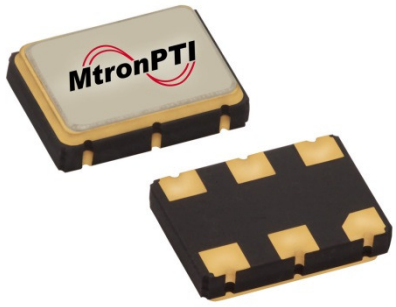
MtronPTI | 2525 Shader Road | Orlando, FL 32804 | 407.298.2000 | mtronpti.com

Know the answer before the question

Mil temperature range high stability oscillator for airframe applications





Lives and efficiency are at stake

Like your car's improving mileage and safety, jetliners are improving both as well. Dozens of sensors monitor turbofans to boost efficiency and detect wear before repairs are necessary. Wing, body and tail surface sensors report control status and environmental factors, checking on the plane as well as the engines. Smooth flying.

In flight applications, first priority is **reliability**. It simply must work. And the conditions are less than ideal. At Flight Level 390 (39,000') outside air temperature is about -55 °C and vibration is very high due to 600 mph cruising speed buffeting, engine operation and mechanical control noise. Any electronics mounted *on the wing* must not be affected by these extremes and also needs to have a very long trustworthy service life.

Until now, the combination of frequency range, temperature insensitivity, and long term drift guarantee were unattainable in something this small. But now the MtronPTI **HPO Series** for harsh environment applications offers designers the weight and size they need with the performance and reliability they want.

About MtronPTI

MtronPTI is an AS9100 rev C certified designer and manufacturer of custom precision frequency control and data timing including: RF and microwave filters – crystal, ceramic, cavity, lumped element, digitally tunable and low noise / harsh environment oscillators – crystal, TCXO, VCXO, OCXO, GPS and IEEE-1588 locked.

Vertically integrated with complete control of basic material science and manufacturing, MtronPTI designs and builds solutions for high reliability high performance Internet data timing, public safety and Mil/Aero communication and control, lab and field instrumentation and energy management applications.

One-on-one technical relationships, extensive characterization, and long term application support make MtronPTI the first choice to reduce risk and lower costs on your next avionics project.

HPO series

Flying today outside while you enjoy your next plane trip, MtronPTI's HPO series oscillator is clocking multichannel A/Ds and computer data links, relaying information to the autopilot, maintenance recorder and human pilots. HPO's working temperature range of -55 °C to +125 °C means accuracy on a desert runway or at 39,000' cruise. Twenty year guaranteed drift performance means peace of mind.

Custom frequencies from 25 MHz to 150 MHz are available with first article units on your control board in a few weeks and higher volumes shortly after. With twenty year overall stability (all causes) as tight as ± 25 ppm, the MtronPTI HPO series fits perfectly the increased efficiency and safety needs of modern air transport.

MtronPTI uses an AS9100 REV C and ISO 9001:2008 quality management system in the design and manufacture of the HPO.

Applications

Avionics:	flight controls, communication, radar
Internet:	small cell base stations
Commercial:	portable instruments
Defense:	manpack and vehicular SDR

Features

Operating frequency	25 MHz to 150 MHz
Overall twenty year stability	±25 ppm or ±50 ppm
Operating range	-55 °C to +125 °C
Output	HCMOS
Package	5 x 7 mm, 6 pad leadless or 4 gullwing leaded

Product page

http://www.mtronpti.com/products/Oscillator/XO/HPO-Series

Connect with MtronPTI

oscillatorsolutions@mtronpti.com
Bruce Mackie
Senior Applications Engineer
407-298-2000 x 2298
352-516-5031 cell

Orlando
2525 Shader Rd
Orlando, FL 32804 USA
Phone: 407-298-2000
Fax: 407-293-2979

Yankton
1703 E. Highway 50
Yankton, SD 57078-0630 USA
Phone: 605-665-9321
Toll Free: 800-762-8800
Fax: 605-665-1709

India
Noida
SDF-D3 Zone (NSEZ) Special Economic
Noida - 201305 (U.P.)
New Delhi, India
Phone 91-120-256-2014
Fax: 91-120-256-3242

Asia Pacific
Unit 1108, 11th Floor, APEC Plaza
49 Hoi Yuen Road
Kwon Tong, Hong Kong, China
Phone: 852-2866-8023
Fax: 852-2529-1822