



Q-Tech's MCXO Crystal Oscillators Push SWaP Advances Over OCXOs

QT2020 Series of Radiation-Tolerant, Microcomputer-Compensated Crystal Oscillators (MCXOs) deliver superior size, weight, and power (SWaP) over comparable oven-controlled devices

Munich, Germany—November 15, 2022 —[Q-Tech Corporation](#), a US-based leading supplier of space-



qualified crystal oscillators, announces the introduction of its QT2020 Series of microcomputer compensated crystal oscillators. These new devices provide exceptional temperature stability (up to ± 20 ppb at -40°C to $+85^{\circ}\text{C}$) while consuming a maximum of 90mW. The QT2020 small form-factor package weighs just 50g, compared to comparable oven-controlled (OCXO) units weighing 100g or more. This significant improvement in size, weight, and power (SWaP) offers a highly preferable option for a wide array of advanced, and demanding, New Space applications.

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Q-Tech's microcomputer compensated crystal oscillator (MCXO) uses a high-stability overtone SC-cut crystal with microprocessor-controlled compensation. The self-temperature sensing resonator, using a dual-mode oscillator, virtually eliminates thermometry-related errors. As a result, all basic TCXO and OCXO limitations are overcome or significantly reduced.

Key features of the [QT2020 Series](#) are radiation tolerant to 50kRad and high shock and vibration tolerance with G-sensitivity of 1ppb/g. The series is offered from 5MHz to 80MHz with standard frequencies of 10, 20, 30, 40, 50, 60 and 80MHz, with either CMOS or Sine Wave logic outputs with low phase noise and jitter.

"The growing demand for smaller, lighter and lower power devices to support the burgeoning New Space satellite market is the driving force behind the development of the QT2020 Series," said Scott Sentz, Q-Tech's Director of Marketing and Sales. "Moreover, its technology has a thirty-year heritage of high reliability, making it attractive for both commercial and military applications."

About Q-Tech

[Q-Tech Corporation](#) was founded in 1972 with the objective of providing state-of-the-art crystal clock oscillators and frequency control solutions for companies with demanding applications. As the leading U.S. manufacturer of qualified products to MIL-PRF-55310 as well as ultra-high reliability standards such as Aerospace Corporation TOR (GPS III) and NASA GSFC specifications, Q-Tech proudly services the military, aerospace, down-hole and deep space industries. Q-Tech is certified to the AS9100 and ISO 9001 Quality Management Systems. The Company maintains a global presence with sales capabilities throughout North America, Europe, and Asia.

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