QT2021 MCXOs are first to meet 50kRad (TID) radiation tolerance, very-low phase noise and parts-per-billion (ppb) stability while consuming a maximum power of 90mW; AXIOM 75Sx OCXOs offer state-of-the-art ultra-low noise performance, 50kRad (TID) and OCXO ppb stability.

Cypress, CA—June 17, 2024 — Q-Tech Corporation – a leading global supplier of space-qualified crystal oscillators and high-performance frequency control systems – announces its expanded offering of high-stability microprocessor compensated (MCXO) and oven-controlled (OCXO) crystal oscillators. Designed for reliable operation in New Space (low earth orbit) satellite timing and frequency generation applications, the QT2021 Series of MCXOs and the AXIOM75Sx Series of OCXOs meet the critical radiation tolerance specifications required for LEO deployment. The devices in both series offer a wide range of standard frequencies; the QT2021 MCXOs from 10MHz to 100MHz and the AXIOM 75Sx OCXOs from 10MHz to 400MHz. All are available with either Sine Wave or CMOS logic outputs.

Key features of the QT2021 Series of MCXOs are radiation tolerance to 50kRad(Si) TID, best-in-class frequency stability over temperature (±10 to ±30ppb), single event latch-up (SEL) of 75MeV-cm²/mg (min), high shock and vibration tolerance with G-sensitivity of 1ppb/g, and phase noise floor of -168dBc/Hz (at ≥100 kHz offset). The QT2021 devices’ small form-factor package weighs just 50g, versus comparable oven-controlled (OCXO) units weighing 100g or more. This significant improvement in size, weight and power (SWaP) results in a highly preferable MCXO option for a wide array of advanced satellite cluster designs. Key features of the AXIOM75Sx Series of OCXOs are radiation tolerance to 50kRad(Si) TID, single-event latch-up (SEL) immunity (by design), single-event transient (SET) insensitivity and excellent frequency stability over temperature (< ±50ppb). Their state-of-the-art ultra-low noise performance with a phase noise floor of -180dBc/Hz (at ≥100 kHz offset) enables high up- and down-link satellite bandwidths. Packaged in hermetically sealed enclosures to enhance reliability, the wide available frequency range of the OCXOs, from 10-400MHz, covers many potential New Space 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. In early 2023, Q-Tech completed the acquisition of Axtal GmbH & Co KG. The Axtal acquisition integrates the company’s products, European-based engineering development and ISO9001:2015 manufacturing facilities.