



Q-Tech Paper Describes Expanding Spacecraft Impact of Crystal Oscillator Selection Criteria

White paper explores trade-offs in selection criteria for devices deployed in the rapidly expanding low-earth orbit satellite clusters; life expectancy of systems enables selection of lower-cost, high-reliability crystal oscillators; answers question of suitability of COTS devices in orbital applications



Cypress, CA—June 8, 2021—[Q-Tech Corporation](#), a major supplier of crystal oscillators for space, military, avionics and high-temperature applications, announces the publication of an informative white paper addressing the impact of the planned deployment of tens of thousands of communications satellites into low-earth orbit over the coming decade. This dramatic expansion of the orbital space with satellites costing orders of magnitude less and with life expectancies numbered in years rather than decades is driving the availability of lower-cost albeit highly reliable electronic devices. Ultra-high-reliability quartz crystal oscillators remain a vital component in these cluster-based LEO satellites, providing essential timing functions. The challenge for crystal oscillator manufacturers is to build these devices and perform sufficient qualification testing to assure performance over the expected lifetime of the systems.

[\[Click on image to download PDF of the paper\]](#)

“The dramatic increase in space satellites, particularly in low-earth orbit communications clusters, is providing both exceptional opportunities – and challenges – for space-qualified component suppliers,” said Scott Sentz, Q-Tech’s, Director of Sales and Marketing. “Q-Tech remains at the very forefront of quartz crystal oscillator design. We are happy to offer a white paper that informs designers about the stringent performance and reliability requirements of these new space LEO applications.”

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About Q-Tech Corporation

[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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