

## Quantum-Authenticated Clock Signal

### Disclosure Number

201303150

### Technology Summary

The invention relates to secure and synchronized timing and more specifically to a quantum authenticated clock signal. The Quantum-Authenticated Clock Signal (QACS) is a method of distributing a tamper-resistant timing signal to geographically remote locations. The technique combines the data integrity advantages of quantum key distribution with the high timing resolution afforded by optical techniques, thereby providing secure timing signals that cannot be spoofed. The security of QACS is grounded in quantum physics and does not rely on classical encryption schemes. QACS is intended for government, industrial, and military systems that require devices to be synchronized at different locations.

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