

Quantum Self-Authenticating Timing Signals

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Technology Summary

Quantum Self-Authenticating Timing Signals is a method that employs the methods of quantum key distribution (QKD) to generate encrypted timing signals from two or more timing beacons. The beacons broadcast timing signals that are nonsensical when taken individually, but that result in valid timing signals when combined appropriately at the receiver. The timing signals can be used for clock synchronization or geolocation applications. Because of the element of randomness in the signals, spoofing attacks are difficult. The method is therefore recommended for situations in which GPS spoofing is a concern.

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