

## Adding Resilience & Trust to GPS

- 1000x stronger signal works indoors
- Delivers timing even with no GPS signal
- Encrypted signal resists spoofing
- Global coverage with 66 satellites

## A New Source for Precision Time

### The Challenge

GPS and other GNSS signals play a key role in the operation of critical infrastructure such as communications networks, financial systems, power grids, and more. As these applications push the envelope in their use of GNSS systems, the result of not being designed for all current applications generate deficiencies which leave them vulnerable.

GNSS signals originate 20,000 km above the earth and are very weak at ground level. They have difficulty working indoors and can be affected by interference ranging from ionospheric conditions to more serious intentional jamming. With the increasing availability of software defined radios, the ability to spoof GNSS systems is easier than ever, potentially causing serious problems for critical systems that rely upon these signals.

### The Solution

The answer is a resilient timing solution available using the Spectracom SecureSync configured with the new STL option card, providing access to the Satelles Satellite Time and Location (STL) signal. By leveraging this alternative signal from the Iridium constellation, Spectracom time & frequency servers offer a unique solution for augmenting GPS and other GNSS signals for critical applications.

The Iridium constellation orbits the earth at a lower altitude than other GNSS constellations, resulting in signal strengths approximately 1000 times stronger. This makes STL signals much more powerful with the ability to penetrate walls and operate in indoor environments where GNSS signals typically can't reach. By making GNSS reliant systems more resilient for critical applications, the Iridium constellation is reemerging as a powerful backup to vulnerable GPS/GNSS signals. The STL signal is also encrypted and uses a license key specific to each receiver, making it almost impossible to spoof. Used in tandem with GPS and other GNSS signals, STL provides a powerful, accurate, secure, and resilient solution for critical applications.

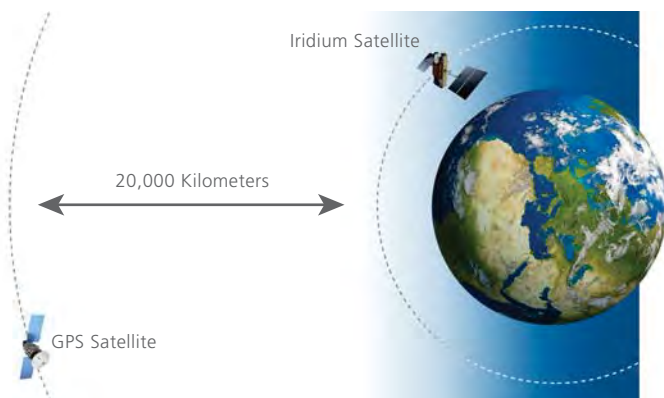
### 1204-3E: STL Input Module - Ordering Details

The STL option card enables the SecureSync to use encrypted STL satellite signals as an input reference. STL satellite signals have sufficient strength to be suitable for indoor use, often with no need for an outdoor antenna.

1 Input • SMA Connector • 1626 MHz Freq. • UTC±500 ns

RJ45 Maintenance Port

STL card supplied with an Iridium indoor antenna (96" cable)





# Satelles STL

Satellite based alternative PNT signal with global coverage

Signal is 1000 times stronger than GPS

Augments GPS for critical applications



Secure encrypted signal

Indoor signal reception