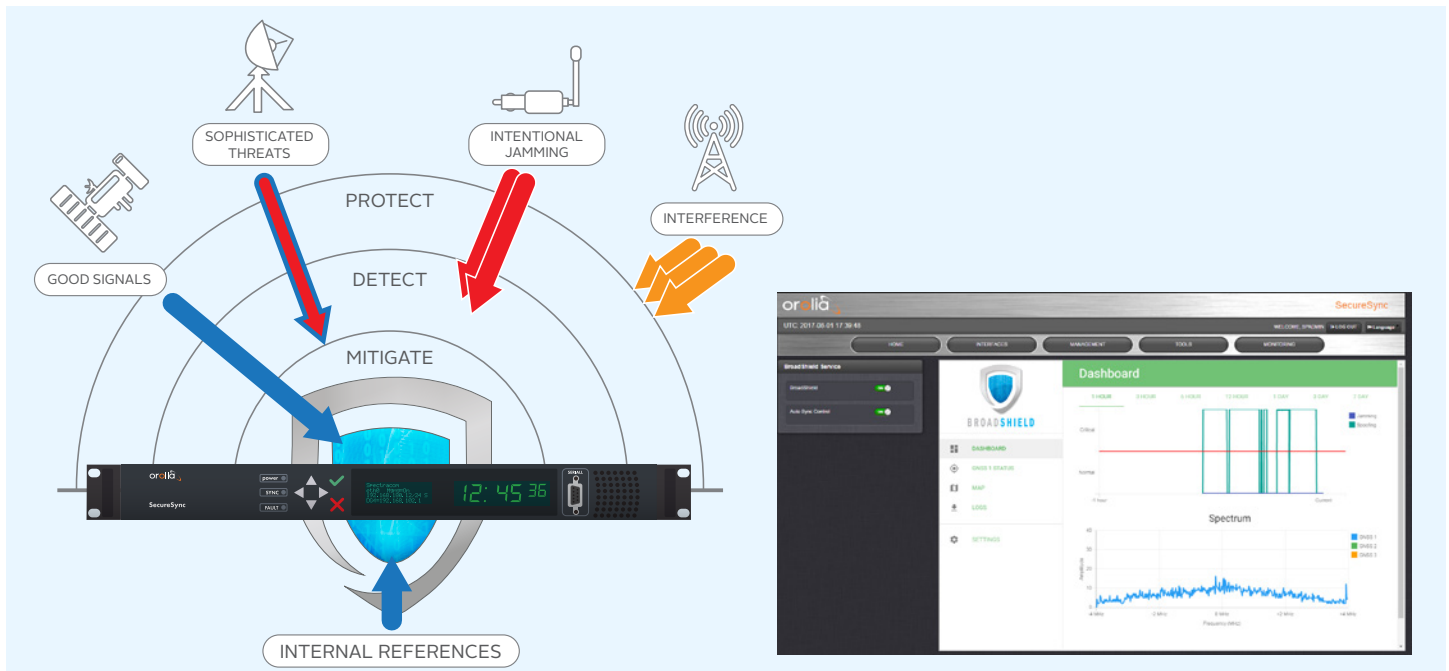


SecureSync BroadShield Option

GPS Jamming and Spoofing Detection



- Over 75 jamming and spoofing detection algorithms
- Works with standard SecureSync GPS/GNSS receivers
- No additional hardware required
- Automatic switch to backup synchronization or holdover on detection of GPS/GNSS interference

Detection

Jamming

- CW Tone
- Swept CW
- Pulsed CW
- AWGN
- BPSK
- And more...

Spoofing

- GNSS Simulators
- Data Anomalies
- Position Jumps
- Time Jumps
- Inconsistencies
- And more...

Ordering Information

SS-OPT-BSH: SecureSync BroadShield Option

BroadShield, developed by Talen-X, and integrated into Orolia's SecureSync Time and Frequency Synchronization Platform, is a package of over 75 jamming and spoofing detection algorithms. Working with standard SecureSync GPS/GNSS receivers, BroadShield utilizes its unique software algorithms to detect anomalies in the GPS signal, including unintentional interference and malicious attacks. The integrated solution provides notification, alarming and automatic disabling of GPS/GNSS synchronization.

Many mission-critical defense, government and commercial operations require highly accurate and reliable PNT data, but often rely on signals from GPS/GNSS satellites that are increasingly susceptible to interference or jamming. The combination of low-cost hardware, open source software, and online videos have fostered the proliferation of these malicious devices. Defense markets have been able to utilize SAASM receivers capable of utilizing encrypted signals to defeat spoofing, but nothing has been commercially available to protect systems with standard GPS/GNSS receivers until now.

Armed with feedback from BroadShield detected anomalies, SecureSync can be protected from potential performance degrading effects by automatically disabling GPS/GNSS synchronization, and switching to other available input references or transitioning into holdover utilizing the precise internal oscillator. Integration into the notification system means that detected events are logged, alarms are generated, and notifications are sent providing real-time situational awareness.