

# BROADSHIELD

GPS Jamming and Spoofing Detection  
Embedded into Your System



## Assure Your PNT System

We want to integrate our patented GPS jamming and spoofing detection software into your hardware platform to assure the Position, Navigation and Timing (PNT) of your product. BroadShield's algorithms are carefully designed to detect interference and anomalies within the GPS signal and GPS spectrum. Safran Federal Systems will work with product manufacturers to provide a software solution that can conform to the needs of your hardware.

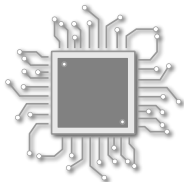
## Work With Us

We will work with your team to integrate BroadShield into your product without requiring any additional hardware.

## Detect and Defend

PNT systems are designed to provide accurate position and time while in uninterrupted or uncontested environments. However, while in these interrupted or contested environments, most PNT systems are unable to reliably provide position and time data because they are unable to recognize what is causing the disruption. BroadShield is a software library consisting of many patented algorithms designed to detect jamming and spoofing then immediately report the disruption to the PNT system. Leveraging this information enables the PNT system to take action to mitigate and protect from the jamming or spoofing.

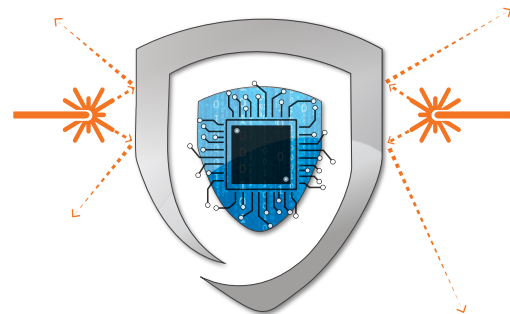
**Safran Federal Systems is the trusted Resilient PNT mission partner to U.S. government and defense organizations, from the lab to the field.**



*Your Hardware*



*BroadShield*



*Assured PNT*

## Attacks On the Rise

An increased number of GPS jamming and spoofing attacks have been reported and documented in recent years. With high quality software-defined radios (SDRs) becoming more affordable, hardware capable of GPS jamming and spoofing are more available than ever. Open source projects have been found to turn these low cost SDRs into GPS jammers and spoofers. It is more critical now than ever to ensure the necessary precautions are taken to protect your PNT systems.

## Trust in Safran Federal Systems

Have trust in your products PNT solutions knowing that Safrans's BroadShield algorithms have been rigorously tested and field proven for over a decade. Our detection capabilities are regularly updated to conform to new and emerging threats. Our software works with many commercially available GPS receivers and runs on nearly any operating system. With the flexibility of converting our BroadShield algorithms into most major programming languages, no product is out of the question.

## Jamming Signals

- L1: 1575.42 MHz
- L2: 1227.6 MHz

## Spoofing

- GNSS Simulators
- Anomalies in GPS Data
- Data inconsistencies
- Jumps in position and time

## Integration - What is Needed

- GPS receiver that can provide raw GPS NAV data to our software
- Processing unit to run the BroadShield algorithms
- Integration support - work with our team to make it successful

**POWERED  
BY TRUST**

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