

# Spirent SimSAFE

## Signal Simulation Interference

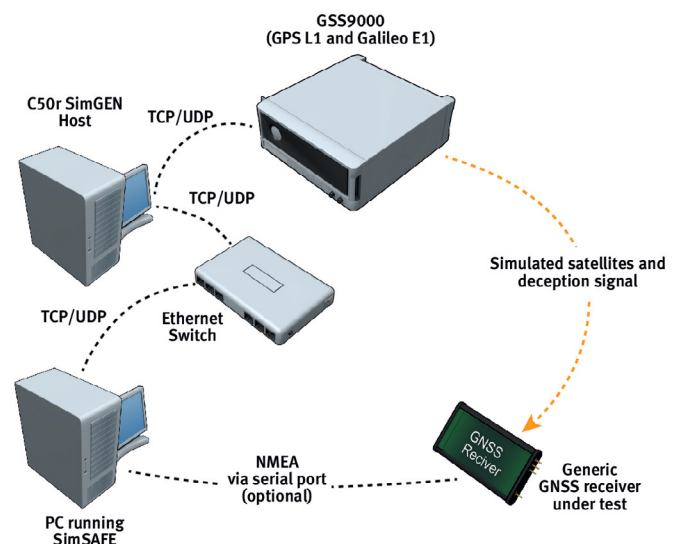
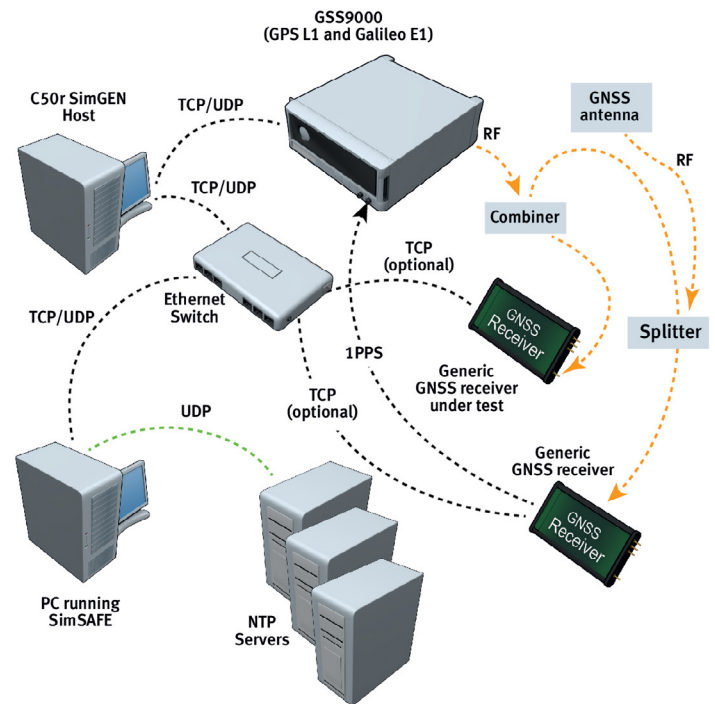
### Simulation Tool for GNSS Threat Analysis and Mitigation Techniques

The SimSAFE software tool controls Radio Frequency Constellation Simulator (RFCS) hardware in order to emulate signal simulation attacks and test receiver mitigation techniques. SimSAFE allows flexibility in the attack scenario definition and test of interference detection techniques. The tool can be integrated into existing radio navigation testing laboratories, in order to leverage existing hardware such as signal simulators, interference generators and hardware GNSS receivers.

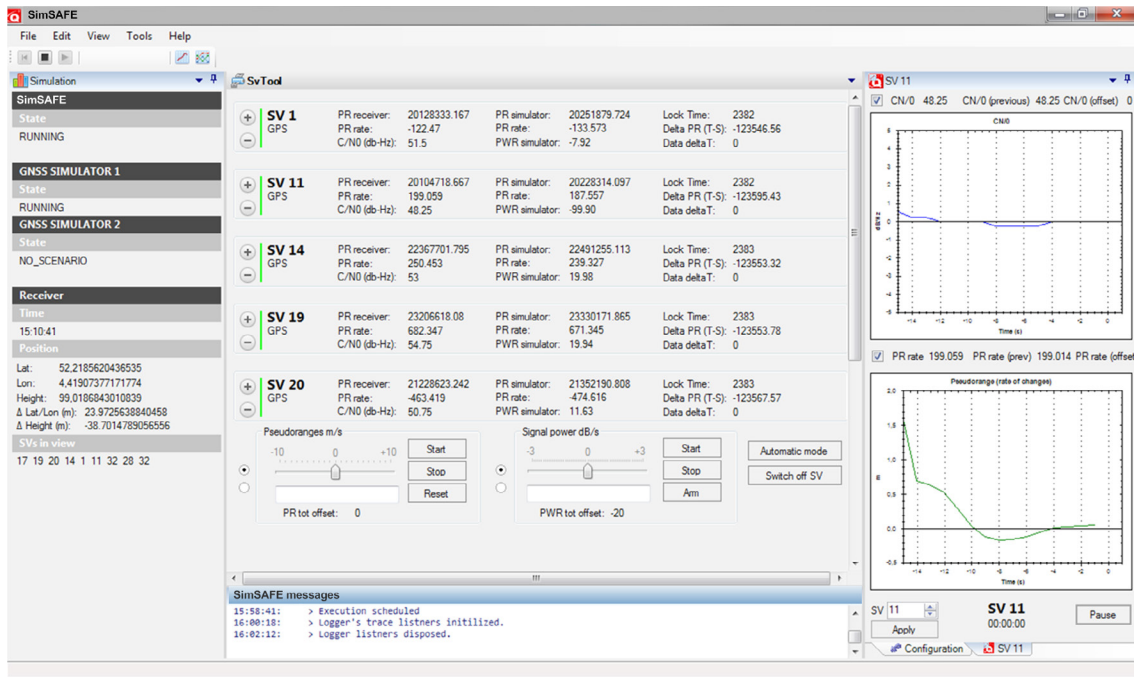
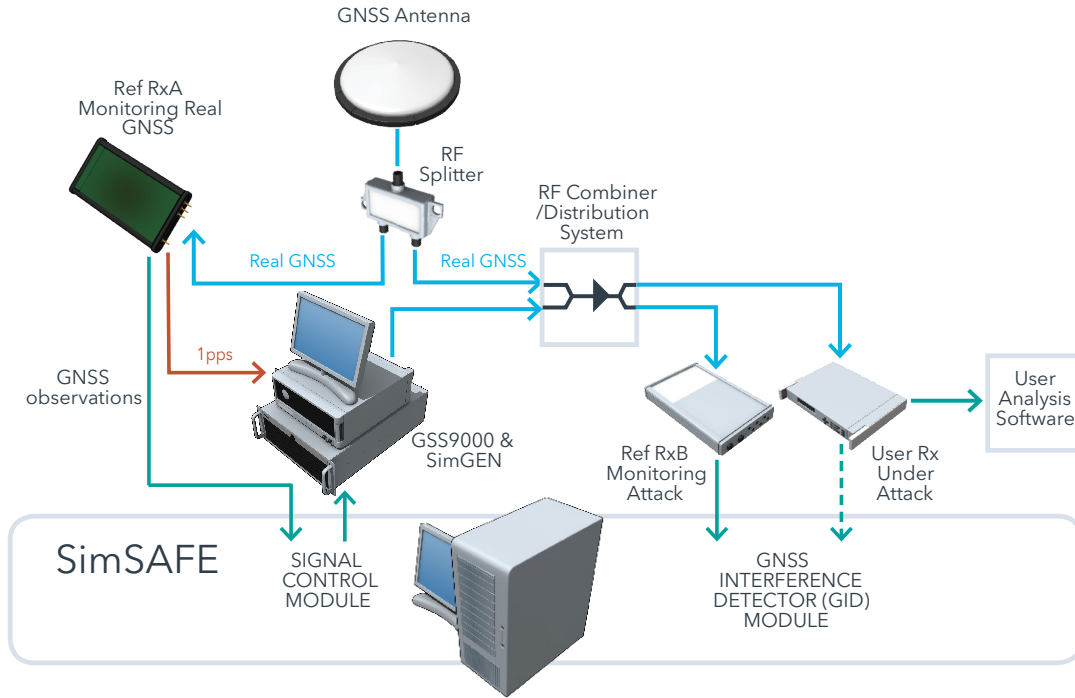
The Spirent RFCS(s) are controlled by SimSAFE, and generate all the desired signal simulation scenarios. SimSAFE also monitors the output of attacked receivers and implements detection algorithms. Post processing tools permit the evaluation of spoofing detection techniques based on observed signal parameters. The tool allows the full scalability and flexibility for testing techniques that for example could not be supported by existing hardware and software. SimSAFE represents an innovative approach to the simulation of attacks, the test of detection techniques and signal authentication schemes, permitting maximum flexibility, minimum cost and risk, and the opportunity to leverage existing Spirent RFCS equipment.

### Features:

- Accurate synchronization of RFCS time with GNSS time
- Generates single channel spoofer or multiple channels spoofer with desired dynamic
- Synchronization of falsified signal code, power and doppler
- Support replay attack via realtime replica of space navigation messages
- Supports analysis from different mass market and professional receivers
- Detection of false signals based on receiver observables



Architectures Supported



**Contact Us**

For more information, call your Spirent sales representative or visit us on the web at [www.spirent.com/ContactSpirent](http://www.spirent.com/ContactSpirent).

[www.spirent.com](http://www.spirent.com)

© 2018 Spirent Communications, Inc. All of the company names and/or brand names and/or product names and/or logos referred to in this document, in particular the name "Spirent" and its logo device, are either registered trademarks or trademarks pending registration in accordance with relevant national laws. All rights reserved. Specifications subject to change without notice.

Americas 1-800-SPIRENT  
+1-800-774-7368 | [sales@spirent.com](mailto:sales@spirent.com)

US Government & Defense  
[info@spirentfederal.com](mailto:info@spirentfederal.com) | [spirentfederal.com](http://spirentfederal.com)

Europe and the Middle East  
+44 (0) 1293 767979 | [emeainfo@spirent.com](mailto:emeainfo@spirent.com)

Asia and the Pacific  
+86-10-8518-2539 | [salesasia@spirent.com](mailto:salesasia@spirent.com)