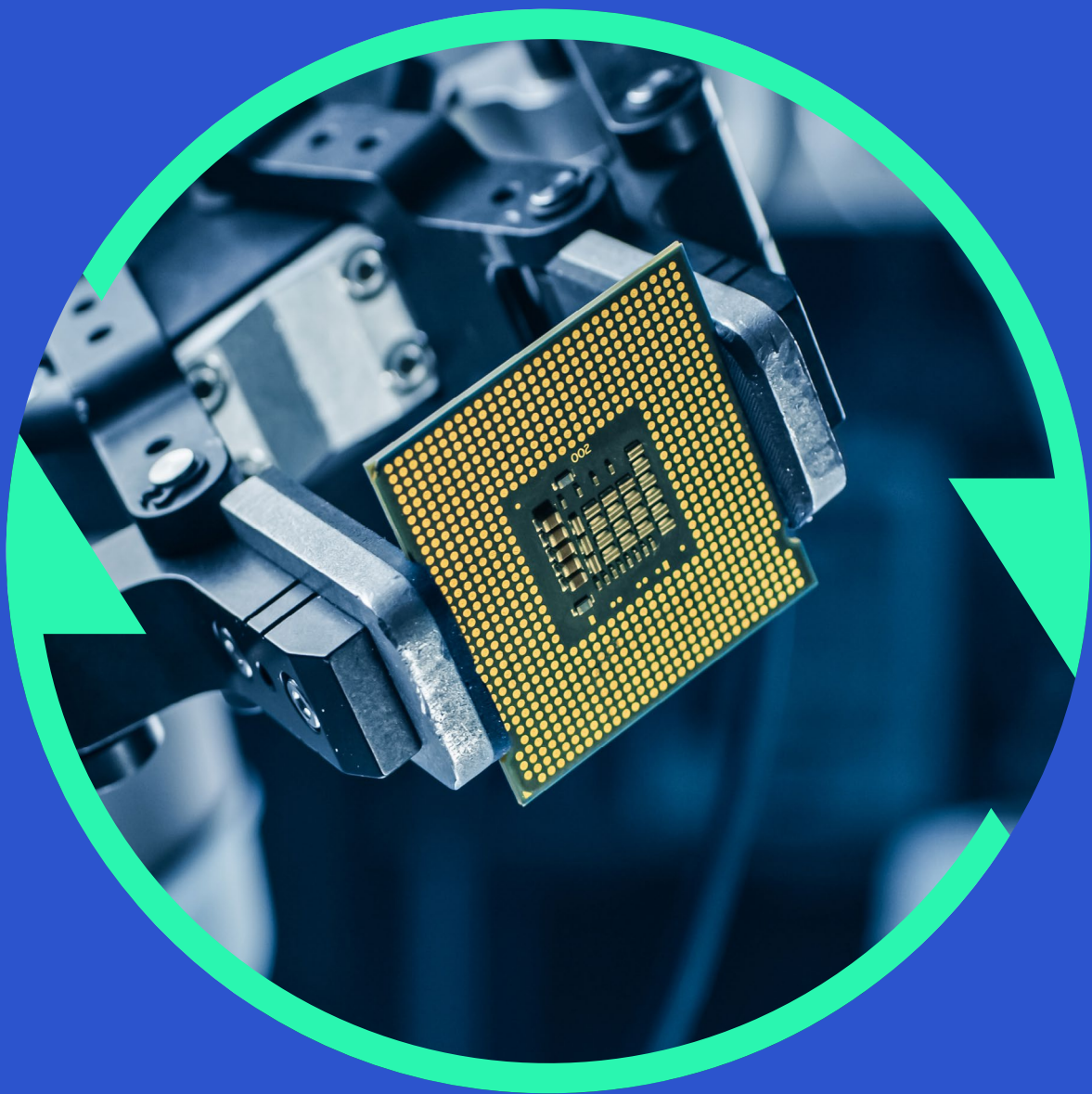


BROCHURE

# SimIQ

I/Q Capture & Replay

Positioning you for success.  
Your trusted PNT partner.



## GNSS simulation with I/Q data files

Getting successful products to market demands precise, reliable, and flexible test capabilities. SimIQ enables greater efficiency and consistency throughout the development cycle, delivering the exceptional performance expected from our world-leading signal generation architecture.



Create I/Q data files with configurable sample rates up to 120 Ms/s, and bit-depths up to 16



Generate high fidelity and accuracy RF signals from I/Q data files using Spirent GSS7000 and GSS9000 Series GNSS simulators



Promote collaboration and consistency across businesses with multiple sites, enabled by sharing common I/Q files for testing

### Same hardware, greater capability

SimIQ is a software solution that enables Spirent's GSS7000 and GSS9000 Series simulators to capture, replay and share I/Q data files without the need for additional hardware. This capability opens up opportunities for testing receiver algorithms earlier in the development cycle, saving time and money while delivering greater collaborative processes to global teams through simple sharing and consistent playback.

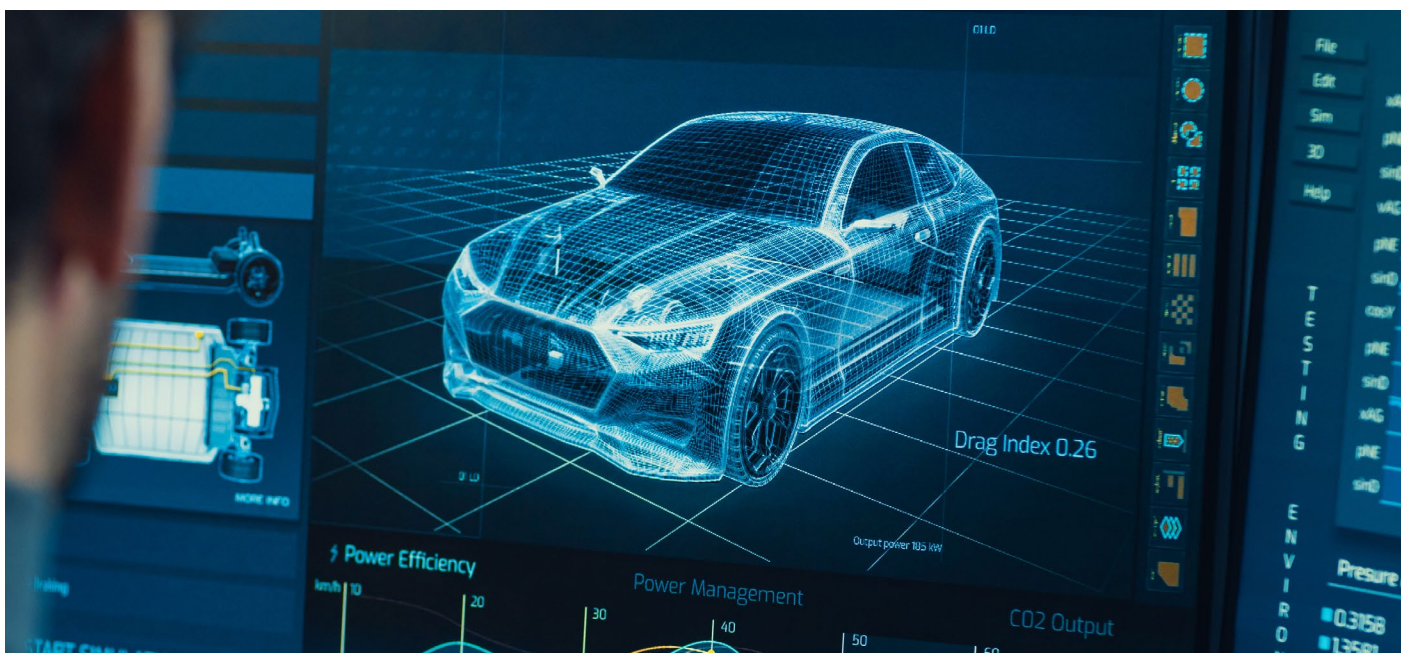
### Key applications

**Testing GNSS software receivers**—To cope with the demands of short product development timelines, developers are including virtual testing in roadmaps. SimIQ enables validation of GNSS software receivers by injecting the generated I/Q data, removing RF real-time constraints and allowing massive parallel simulation.

**Validation of receiver algorithms**—SimIQ enables developers and testers to validate models before the real hardware is introduced. The efficient sharing of I/Q files means the same realistic scenarios can later be used to validate the hardware front end.

**Injection of external signals**—SimIQ Replay generates RF including GNSS signals, custom waveforms, custom noise, and even interference and jamming events, helping users to navigate through growing GNSS vulnerabilities.

**Generation of classified signals and codes from I/Q data**—Approved users can now alleviate any potential security concerns by replaying confidential I/Q data files with the same hardware used to test civilian signals.

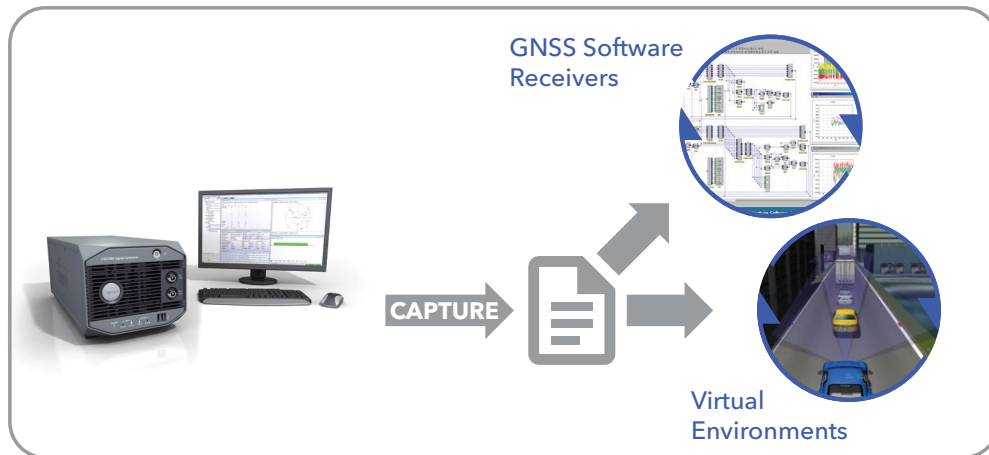


## SimIQ Capture

Available via subscription, SimIQ Capture is a non-RF mode of operation where I/Q data files are generated and stored by the GNSS simulator. Features include:

- Configurable sample rates up to 120 Ms/s
- Bit-depths up to 16 bits
- Simultaneous recording of up to three files
- Compatible with both GSS7000 and GSS9000 Series GNSS simulators
- Compatible with SimGEN, SimREPLAYplus and SimTEST

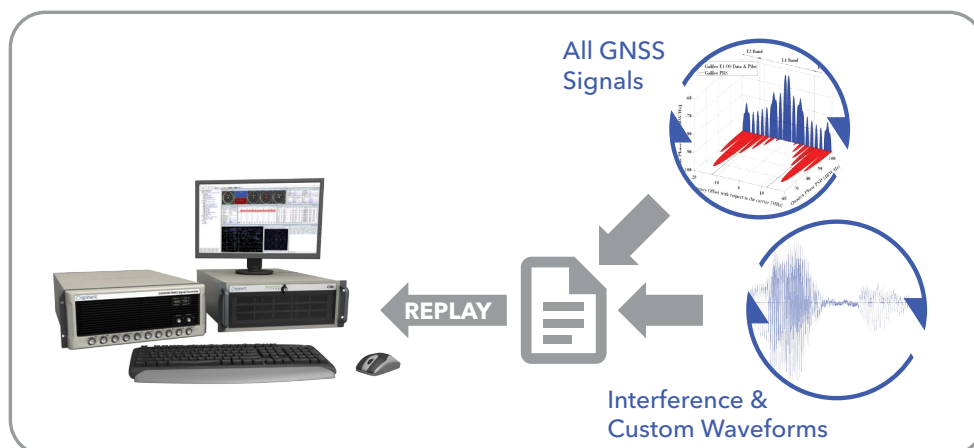
Constellation	Signals
GPS	L1 / L2 / L5
GLONASS	L1 / L2
Galileo	E1 / E5
BeiDou	B1I / B1C / B2I / B2a / B3I
QZSS	L1 / L2 / L5 / L6
SBAS	L1 / L5



## SimIQ Replay

Also available via subscription, SimIQ Replay reads I/Q data from files and generates the corresponding RF signals using Spirent's GSS7000 and GSS9000 Series simulators, enabling receiver testing at RF. Features include:

- Configurable sample rates up to 120 Ms/s
- Bit-depths up to 16 bits
- Simultaneous generation of RF signals from up to 3 I/Q files
- Compatible with both GSS7000 and GSS9000 Series GNSS simulators
- Compatible with SimGEN







## Americas

## Europe

## Asia

### About Spirent

#### Positioning Technology

Spirent enables innovation and development in the GNSS (global navigation satellite system) and additional PNT (positioning, navigation and timing) technologies that are increasingly influencing our lives.

Our clients promise superior performance to their customers. By providing comprehensive and tailored test solutions, Spirent assures that our clients fulfil that promise.

### Why Spirent?

Over five decades Spirent has brought unrivalled power, control and precision to positioning, navigation and timing technology. Spirent is trusted by the leading developers across all segments to consult and deliver on innovative solutions, using the highest quality dedicated hardware and the most flexible and intuitive software on the market.

Spirent delivers

- Ground-breaking features proven to perform
- Flexible and customisable systems for future-proofed test capabilities
- World-leading innovation, redefining industry expectations
- First-to-market with new signals and ICDs
- Signals built from first principles – giving the reliable and precise truth data you need
- Unrivalled investment in customer-focused R&D
- A global customer support network with established experts



INVESTORS  
IN PEOPLE | Platinum  
Until 2021

### About Spirent Communications

Spirent Communications (LSE: SPT) is a global leader with deep expertise and decades of experience in testing, assurance, analytics and security, serving developers, service providers, and enterprise networks. We help bring clarity to increasingly complex technological and business challenges. Spirent's customers have made a promise to their customers to deliver superior performance. Spirent assures that those promises are fulfilled. For more information visit: [www.spirent.com](http://www.spirent.com)

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