

Testing and Simulation Overview

The world's most GPS/GNSS reliant systems trust Orolia for mission assurance when failure is not an option.

Testing and Simulation Overview

Test and Validate Critical Systems

From harsh environmental conditions to GNSS and PNT challenged environments, Orolia offers comprehensive solutions to test and validate your critical systems.

The worst time to find out that you have a GNSS signal or Positioning, Navigation and Timing (PNT) data problem is when your critical system has already been deployed in the field, in space or in a signal compromised environment.

Ultra-precise industries that rely on very accurate, continuous data can't afford to risk failure.



Financial trading companies shouldn't spend years refining and perfecting their networks, only to be brought down with simple denial of service attacks.



Today's automotive industry shouldn't sell vehicles with the latest technology features, only to have them fail and put lives at risk due to GNSS and PNT data issues.

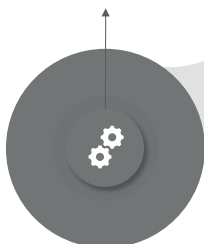


Defense programs can't risk sabotage, the loss of classified technology, casualties and mission failure due to rogue actors using low cost jammers and spoofing technology.

When it comes to critical systems, regular testing and simulation are essential to identify weaknesses, prevent system failure and ensure continuous operations.

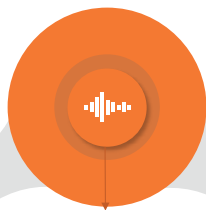
Test Configuration

Set up and design of the tests to run. Automation of test environment including receivers.



Signal Generation

Generation of the signals needed to carry out the test plan. Includes navigation and impairment signals.



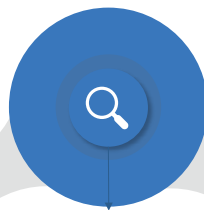
Data Collection

Collection of data from one or more receivers in a format that can be easily analyzed.



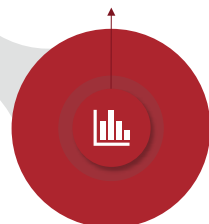
Data Analysis

The capability to visualize the output of multiple receivers and compare the results in a standardized way.



Report Generation

Generation of reports that are easy to understand to document the test environment, test plan, and the test results.





GSG 5/6

Easy-to-use, essential scenario-based simulator for testing drones, IoT, connected cars, cellular tests, and other smart applications.



GSG-8

The GSG-8 is an advanced GNSS/GPS simulator supporting multi-constellation, multi-frequency and hundreds of signals with a 1000 Hz iteration rate. Ideal for complex scenarios including interference, spoofing, high dynamics, space trajectories, custom PNT signals, hardware-in-the-loop, and more. GSG-8 is scalable from 1 to 4 RF outputs and 1 or 2 GPUs. Multiple GSG-8 can be tightly synchronized for even more complex scenarios.



GSG Wavefront/Anechoic

Software-Defined CRPA Simulation System that supports 4-16 antenna elements, with over 1,000 signals per element. Can simulate multiple spoofers, jammers and repeaters simultaneously. Enables easier and more cost-effective CRPA receiver testing. Using Skydel innovative algorithms, GSG Wavefront automatically calibrates itself in a few seconds. Creating scenarios with multiple spoofers and repeaters is easy with a powerful user interface. Simply create virtual transmitters, put them on their own trajectories and configure them to transmit arbitrary signals, such as interference or GNSS signals.

POWERED BY



skydel

Skydel Simulation Engine

The Skydel simulation engine is the software that powers Orolia's high-end GNSS simulator products such as **GSG-8** and **GSG Wavefront/Anechoic**. All products running Skydel share the same software-defined benefits and interoperability. Skydel can run on Orolia's turnkey systems or on your own COTS hardware.

A World Leader in Testing & Simulation



Software-Defined Flexibility

Opt for a turnkey solution or reuse your own SDR



Leading-Edge Capabilities

Fully-featured GNSS simulators & unique software-defined characteristics



High-End Performance

1,000 Hz simulation iteration rate, high dynamics & real time, best in class accuracy

The Confidence of Knowing

Orolia's Testing and Simulation Solutions deliver the confidence of knowing how your critical system will perform across a wide variety of GPS/GNSS signal and PNT data limitations, outages, interference and environmental factors. The more you know, the better you can plan for continuous operations.

The Assurance of Continuous Operations

Orolia is the world leader in Resilient PNT, and we apply testing and simulation results to calibrate highly resilient systems. From anti-jam antennas and resilient PNT products, to alternative signals and interference mitigation, Orolia delivers the assurance of continuous operations for your critical systems.

About Orolia

Orolia is the world leader in Resilient Positioning, Navigation and Timing (PNT) solutions, even in GPS denied environments. With locations in more than 100 countries, Orolia provides virtually failsafe GPS/GNSS and PNT solutions to support military and commercial applications worldwide. Orolia is proud to be a trusted partner to NATO and allied forces.

The world's most PNT-reliant systems trust Orolia.

