

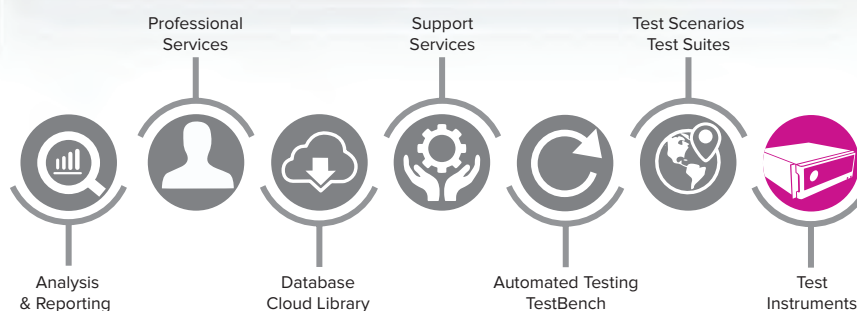


# GSS7000 SERIES

## MULTI-GNSS CONSTELLATION SIMULATOR SYSTEMS



True Performance at Every Test Stage



# GSS7000 SERIES

The GSS7000 Series of Multi-GNSS, Multi-frequency Simulators from Spirent offers simultaneous coherent GPS, GLONASS, BeiDou, Galileo, QZSS and SBAS signals from a single test scenario. Up to 256 channels provides ample signals for a wide range of development, integration and verification tasks. Spirent's GSS7000 series is supported by a selection of software applications to provide true performance at every test stage and every level of test need.



The GSS7000 series of multi-GNSS, multi-frequency simulators from Spirent for GNSS testing which can grow with your evolving needs.

## Key Features

- GPS, GLONASS, BeiDou, Galileo, QZSS and SBAS supported
- Up to 256 channels in a system, flexibly allocated across constellations
- Field upgrade minimises downtime as your needs grow
- Portable scenarios facilitate collaboration
- Class leading accuracy, fidelity and reliability
- Save and compare DUT data
- Receiver antenna pattern modelling
- Import motion from logged NMEA
- Selection of scenario generation and simulation control software available
  - SimTEST™: Test control with route-matched trajectory data from Google Maps®
  - SimREPLAY™: Interactive run time control with assistance data extract
  - SimREPLAYplus™: Import remote trajectory, edit time, date and position
  - SimGEN™: Comprehensive constellation, propagation and vehicle modelling with flexible data capture

GSS7000 supports GPS, GLONASS, BeiDou, Galileo, QZSS and SBAS L1/E1/B1, L2/B2 and L5/E5 signals



Users working in the development, integration or verification of multi-GNSS products for consumer device and precision civil PNT applications are able to verify product performance under a range of controlled, repeatable conditions.

The GSS7000 offers exceptional accuracy, fidelity and authentic GNSS signal emulation across the entire series ensuring true performance at every test stage.

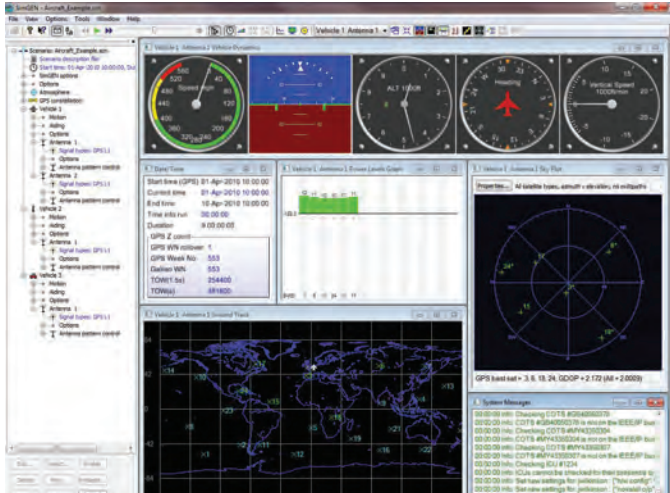
A full range of hardware integration signals are provided including 1PPS in / out, 10MHz in / out and hardware trigger.

The GSS7000 Multi-GNSS Simulator is supported by a range of scenario generation and simulator control software packages including Spirent's feature-rich SimGEN™. Each software package has a range of capabilities from the all-inclusive SimGEN™ to packages more suited to production or integration / verification test processes.

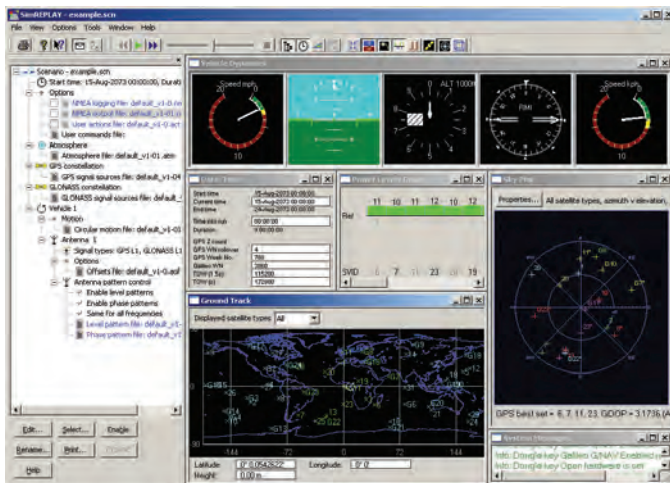
SimGEN™ offers a complete and flexible scenario generation capability including control of the constellations, propagation, terrain obscuration, antenna patterns, multipath, vehicle trajectory and a range of error models.

**SimREPLAYplus™** enables the user to define vehicle motion remotely as well as adding the ability to edit the time, date and position. *SimREPLAYplus™* allows users to generate scenarios locally with features comparable to the online tool available to supported SimREPLAY™ users.

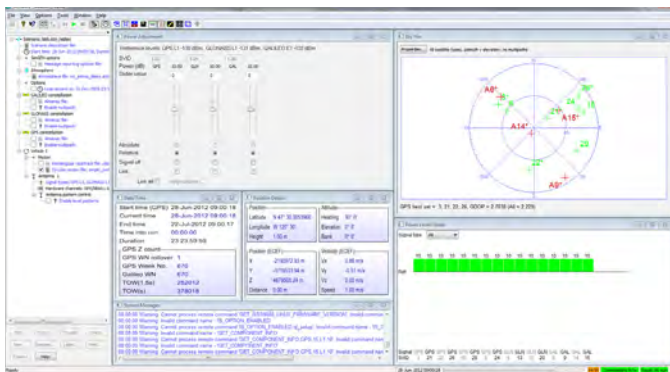
**SimREPLAY™** supports operation of the simulator replaying pre-defined scenario and is ideal for repetitive comparative measurements. Scenarios for use with SimREPLAY™ can be obtained from a number of sources including an online scenario



*SimGEN™ allows scenario to be saved for use by SimREPLAY™ and SimREPLAYplus™*



*SimREPLAYplus™*



*SimTEST™*

generation tool available at no additional charge to customers with a warranty or support contract.

**SimTEST™** offers easy to use yet precise capabilities for general testing, including generation of route-matched trajectory data from Google Maps®

**SPECIFICATION (Provisional)**

**Output Frequency**

- GPS L1 C/A 1575.42 MHz
- GPS L2 C/A 1227.6 MHz
- GPS L5 I/Q 1176.45 MHz
- GLONASS L1 C/A 1602 MHz
- GLONASS L2 C/A 1245.781 MHz
- GALILEO E1 OS 1575.42 MHz
- GALILEO E5 a/b 1191.795 MHz
- BeiDou-2 B1I 1561.098 MHz
- BeiDou-2 B2I 1207.14 MHz

**Signal Accuracy**

- Pseudorange ±0.002m
- Pseudorange rate ±0.001m/s
- Interchannel bias zero

**Signal Quality**

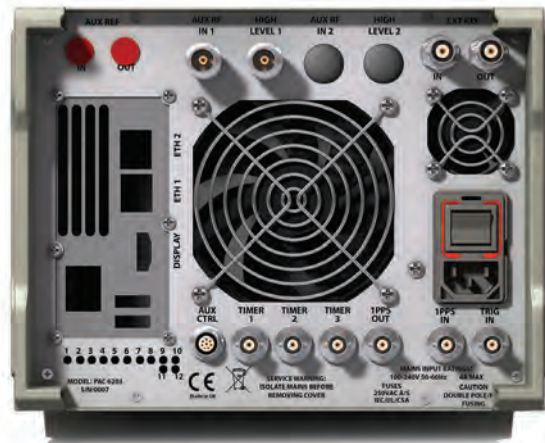
- Spurious (Max) -30dBc
- Harmonics (Max) -35dBc
- Phase Noise (Max) 0.02 rad RMS
- Frequency Stability ±5 x 10-10

**Signal Level**

- GPS/SBAS nominal -130dBm
- GLONASS nominal -131dBm
- BeiDou nominal -130dBm
- Galileo nominal -128.5dBm
- Level control range +15 / -40 dB
- Level control resolution 0.1dB
- Level control accuracy ±0.5dB

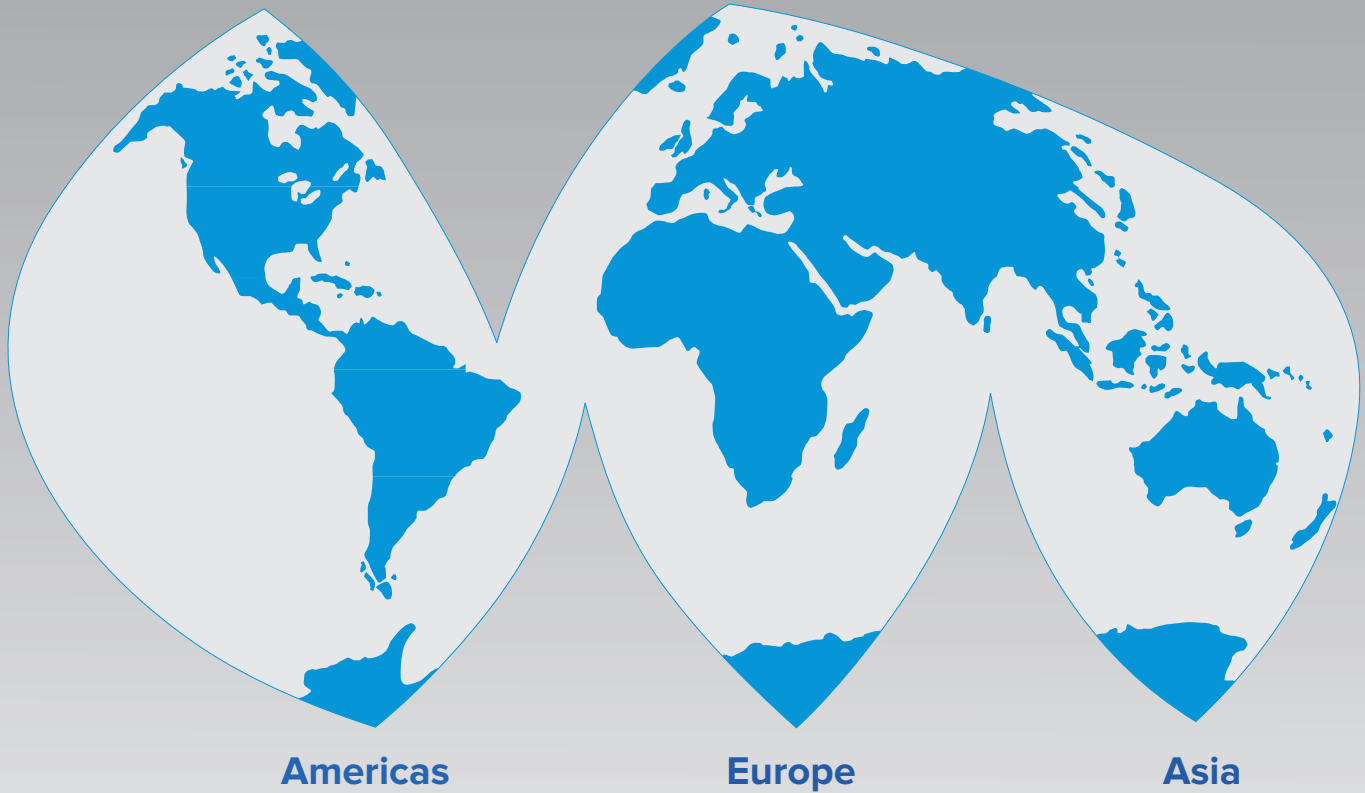
**Physical and Electrical (Signal Generator)**

- Size (mm) 238x572x177 (WxDxH)
- Weight 12 Kg
- Power 110/240 V AC 50/60Hz



\* Specification subject to change.

# Global coverage



## Documentation and Reference Table

Related Product, Option or System Extension	Brochure Title	Data-sheet / Specification Ref.
GSS7000 series	Datasheet	MS7000
SimAUTO	Brochure	MCD00114
GSS7765	Datasheet	MS3023
	Brochure	MCD00121
SimGEN™	Datasheet	MS3055
	Datasheet	MS3008

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