



GSS6700

GNSS SIMULATOR

Flexible Multi-GNSS Constellation Simulator Systems

GSS6700 Series



The GSS6700 Multi-GNSS Simulator from Spirent offers simultaneous coherent GPS/SBAS, GLONASS, BeiDou and Galileo L1 signals from a single test scenario. 12 channels of each enabled constellation provide ample signals for a wide range of development and integration tasks.

Spirent's GSS6700 is supported by a selection of software applications to suit your needs.

The GSS6700 Multi-GNSS Constellation Simulator from Spirent provides an easy-to-use but powerful solution for GNSS testing which can grow with your evolving needs.

- GPS/SBAS, GLONASS, BeiDou and Galileo supported
- 12 independent channels of each constellation
- 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
 - 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

The GSS6700 supports GPS/SBAS, GLONASS, BeiDou and Galileo L1 signals. Users working in the development or integration of Multi-GNSS products are able to verify product performance under a range of real life conditions.



The GSS6700 offers exceptional repeatability, wide dynamic capability both in Doppler and power level, low phase noise and sufficient channels to support all-in-view and multipath environments.

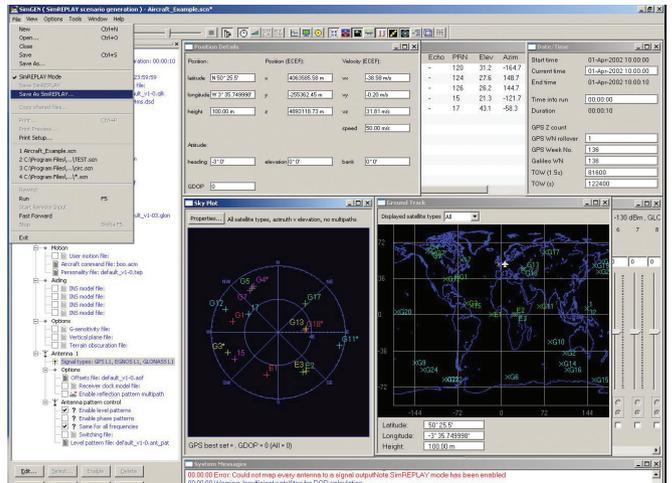
A full range of hardware integration signals are provided including 1PPS in / out, 10MHz in / out and hardware trigger.

The GSS6700 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 applications.

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.

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

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.



SimREPLAYplus screenshot

Output Frequency

- GPS L1 C/A 1575.42MHz
- GLONASS L1 C/A (Ch0) 1602MHz
- BeiDou-2 B1 1561.098MHz
- Galileo E1 OS CBOC 1575.42MHz

Signal Accuracy

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

Signal Quality

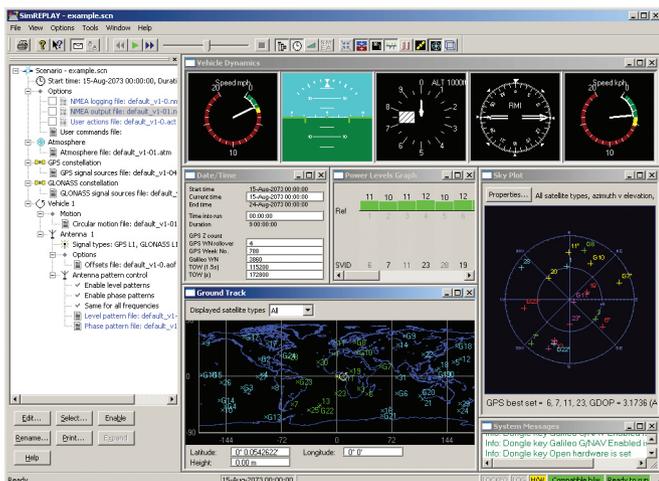
- Spurious (Max) -30dBc
- Harmonics (Max) -35dBc
- Phase Noise (Max) 0.02 rad RMS
- Frequency Stability ±5 x 10-10

Signal Level

- GPS/SBAS nominal -130dBm
- GLONASS nominal -131dBm
- BeiDou nominal -130dBm
- Galileo nominal -128.5dBm
- Level control range +15 / -20 dB
- Level control resolution 0.1dB
- Level control accuracy ±0.5dB

Physical and Electrical (Signal Generator)

- Size (mm) 449x383x89 (WxDxH)
- Weight 6.5Kg
- Power 110/240 V AC 50/60Hz

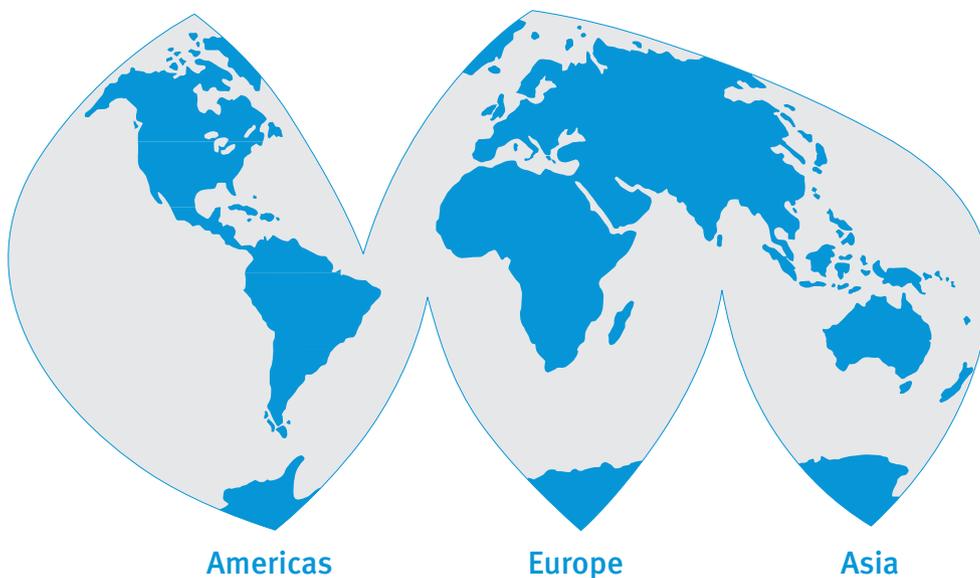


SimGEN™ allows scenario to be saved for use by SimREPLAY and SimREPLAYplus.

Documentation and Reference Table

Related Product, Option or System Extension	Brochure Title	Data-sheet / Specification Ref.
GSS6700 with SimGEN™	Datasheet	MS3067
GSS6700 with SimREPLAY	Datasheet	MS3066
GSS6700 with SimREPLAYplus	Datasheet	MS3068
SimAUTO	Brochure	MCD00114
	Datasheet	MS3023
GSS7765	Brochure	MCD00121
	Datasheet	MS3055
SimGEN™	Datasheet	MS3008

Global coverage



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