

SPIRENT GSS6700 WITH SimGEN

FULLY FLEXIBLE MULTI-GNSS SIMULATION SYSTEM

The GSS6700 Multi-GNSS Simulator from Spirent has been developed for R&D, integration and verification testing of devices that use commercial GPS, GLONASS and/or Galileo signals.

Key Features

- GPS/SBAS L1 C/A, GLONASS L1 C/A and Galileo E1 OS supported in a single chassis
- 12 channels of one, two or three GNSS constellations
- Complete scenario generation capability using Spirent's SimGEN for Windows® software
- Industry leading accuracy, fidelity and reliability
- Easily field upgradeable to add constellations
- Full user control of GPS constellation, signal errors and atmospheric effects
- Control of vehicle motion, antenna modeling, multipath and terrain obscuration modeling
- Interactive run time control
- Up to 4 GSS6700 chassis may be combined for supporting differential or attitude testing
- A GSS6700 configured with GPS supports SBAS signals (WAAS/EGNOS/MSAS) as standard
- Optional upgrades include:
 - GSS7765 Interference Simulation System
 - SimAUTO In-Vehicle Navigation System (IVNS) Solution
 - SimREMOTE for Hardware-in-the-Loop Testing
 - GSS4150 LAAS VDB Signal Simulator

The GSS6700 Multi-GNSS Constellation Simulator provides an easy-to-use but powerful solution for GNSS testing which can grow with your evolving needs. The Simulator provides 12 channels of one, two or three GNSS constellations in a single chassis and is easily upgradeable in the field to add constellations.

The GSS6700 is supplied pre-installed with Spirent's SimGEN for Windows® software suite. SimGEN offers comprehensive scenario generation capability including full user control of vehicle motion, satellite constellations, terrain obscuration, antenna patterns, multipath, atmospheric effects and error models.

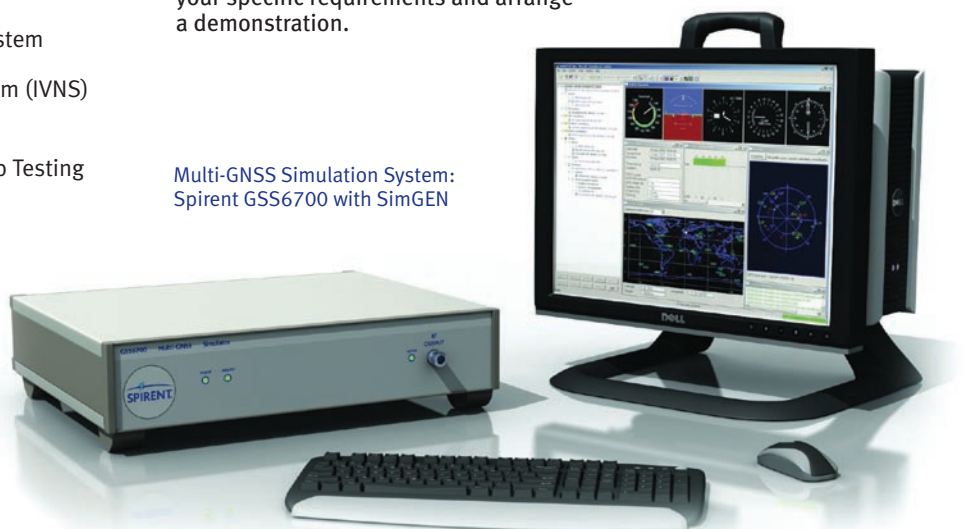
A full range of hardware integration signals are provided for enhanced testing flexibility including: 1PPS input and output, external reference clock input, 10 MHz output and hardware trigger.

A single SimGEN computer may control multiple GSS6700 chassis for generating up to four independent RF outputs to support applications with multiple vehicles or multiple antennas.

All of our equipment is manufactured in an ISO 9001 certified facility and is provided with a 12 month warranty that may be extended with a support contract to maximize your investment. Our customer support facility offers comprehensive support and includes 25 years of experience in satellite navigation testing.

Please contact us for further information. We will be pleased to discuss your specific requirements and arrange a demonstration.

Multi-GNSS Simulation System:
Spirent GSS6700 with SimGEN



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SPECIFICATION

Output Frequency

- GPS L1 1575.42MHz
- GLONASS L1 (Ch0) 1602MHz
- Galileo E1 1575.42MHz

Signal Dynamics

- Max Velocity* $\pm 600\text{m/s}$
- Max Acceleration* $\pm 45\text{m/s}^2$
- Max Jerk* $\pm 50\text{m/s}^3$

Signal Accuracy

- Pseudorange $\pm 0.002\text{m RMS}$
- Pseudorange rate $\pm 0.001\text{m/s RMS}$
- Interchannel bias zero

Signal Quality

- Spurious (Max) -30dBc
- Harmonics (Max) -40dBc
- Phase Noise (Max) 0.02 rad RMS
- Frequency Stability $\pm 1 \times 10^{-8}$ over temp range

* Higher dynamics can be achieved at a slight reduction in accuracy. Please contact Spirent for more information.

Signal Level

- GPS/SBAS L1 C/A -130dBm nominal
- GLONASS L1 C/A -131dBm nominal
- Galileo E1 OS -128.5dBm nominal

Signal Level Control

- Range +15/-20dB
- Resolution 0.1dB
- Accuracy $\pm 1.0\text{dB RSS}$

Signal Generator Unit

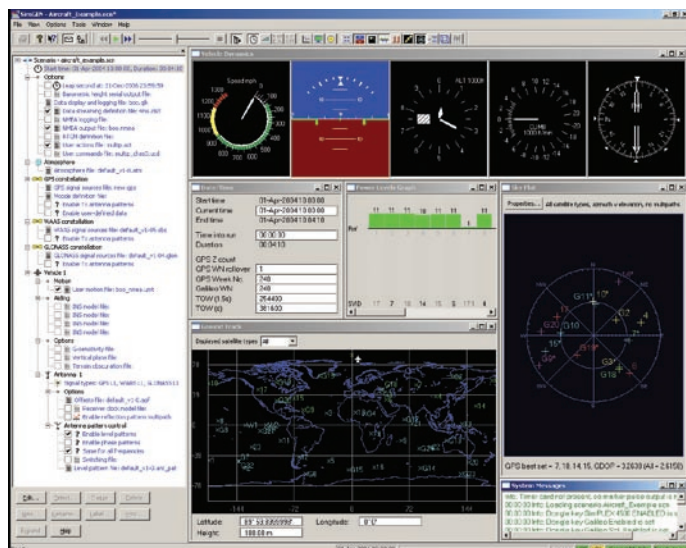
- Channel type 12 GPS L1 C/A with SBAS and/or 12 GLONASS L1 C/A and/or 12 Galileo E1 OS
- Size (W x D x H) 449 x 386 x 89mm (17.75 x 15.25 x 3.5in)
- Weight 6.5kg (14.5 lbs)
- Power 100 – 240 V AC 50 – 60 Hz

Product Specification (MS3067) is available on request.

Performance figures and data in this document are provisional and must be specifically confirmed in writing by Spirent Communications plc before they become applicable to any particular order or contract.

The publication of information in this document does not imply freedom from patent or other rights of Spirent Communications plc. or others.

For current product data, visit the Spirent websites at www.spirent.com/positioning or www.spirentfederal.com



SimGEN for Windows® User Interface

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