

SPIRENT GSS6300M

MULTI-CHANNEL GNSS SIMULATOR

The GSS6300M is the ideal entry-level multi-channel GNSS simulator for busy production testing environments and receiver integrators. Its 24 channels of operation can simulate L1/E1 signals from GPS/SBAS, GLONASS and Galileo to test the fundamental positioning capabilities of any GNSS device.

Key Features

- Multi-channel GPS/SBAS L1 C/A and/or GLONASS L1 C/A and/or Galileo E1 signals
- Simulate 3D position from GPS/SBAS, GLONASS or Galileo constellations
- IEEE-488, USB or RS-232 control interfaces
- Supplied with Spirent SimCHAN™ software
- Industry leading accuracy, fidelity and reliability
- Comprehensive remote command set for easy ATE integration
- Rack mount 2U chassis
- In-rack annual calibration
- Interactive run time control over power level, user position, date, time, atmospheric condition, Doppler, PRN and data message
- May be synchronized to external systems via 1PPS/Trigger, reference frequency input/output and 1PPS output
- Fully supports GSS6300 single channel operation

The GSS6300M GNSS Signal Generator can be configured with 8 channels per constellation, or 24 channels with multiple constellations. It is easily upgradable in the field to add GLONASS and/or Galileo test capabilities to an existing GSS6300M. Typical configurations include:

- GPS only, GLONASS only, Galileo only
- GPS and GLONASS
- GPS and Galileo
- GPS, GLONASS and Galileo

For automated operation, the GSS6300M can be synchronised with other equipment and controlled remotely over Ethernet, IEEE-488(GPIB) or RS232 ports on the controller PC running SimCHAN software. SimCHAN software, supplied with the GSS6300M, enables real-time user control, allowing you to create your own scenarios and modify parameters such as user position, date and time.

The GSS6300M when running in GSS6300 single channel mode provides the same mode of operation as the GSS6300 and shares the same remote command instruction set. Existing GSS6300's can be upgraded to GSS6300M's multi-channel capabilities using a field upgrade pack.

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

GNSS Signal Generator:
Spirent GSS6300M



SPIRENT GSS6300M

MULTI-CHANNEL GNSS SIMULATOR

SPECIFICATION

Output Frequency

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

Signal Codes

- GPS L1 C/A PRN 1 – 63
- SBAS L1 C/A PRN 120 – 138
- GLONASS L1 C/A Channels -7 to +6
- Galileo E1 CBOC PRN 1 - 50

Signal Dynamics

- Relative Velocity (Max) ±15,000m/s
- Velocity Resolution 0.01m/s

Signal Level

- GPS/SBAS L1 C/A -130dBm nominal
- GLONASS L1 C/A -131dBm nominal
- Galileo E1 -127dBm nominal

Signal Level Control

- Range +15/-20dB
- Resolution 0.1dB
- Linearity ±0.5dB
- Accuracy ±1.0dB RSS

Signal Quality

- Spurious < -30dBc
- Harmonics < -40dBc
- Phase Noise < 0.1 Rad RMS
- Master Clock Stability < ±1 x 10⁻⁹ over one day

Signal Generator Unit

- Channel Type 1 GPS L1 C/A or SBAS and/or 1 GLONASS L1 C/A and/or 1 Galileo E1
- Size (W x D x H) 449 x 386 x 89mm (17.75 x 15.25 x 3.5in)
- Weight 7.0kg (15.5 lbs)
- Power 100 – 240 V AC 50 – 60 Hz

Product Specification (MS3085) is available on request.

Performance figures and data in this document are typical 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



SimCHAN™ for Windows® User Interface



Typical Rear Panel Layout

SALES AND INFORMATION

Spirent Communications plc, Aspen Way, Paignton, Devon TQ4 7QR, UK
 T: +44 1803 546325 globalsales@spirent.com www.spirent.com/positioning

US Government & Defense: Spirent Federal Systems Inc. 22345 La Palma Avenue, Suite 105, Yorba Linda, CA 92887
 T: +1 714 692 6565 info@spirentfederal.com www.spirentfederal.com



9001:2008 - AJA99/1371



14001:2004 - AJA04/7994



API/UK04/HS/077



INVESTORS IN PEOPLE

© 2012 Spirent Communications plc. All of the company names and/or brand names and/or product names referred to in this document, in particular the name "Spirent" and its logo device, are either registered trademarks or trademarks pending registration in accordance with relevant national laws. All rights reserved. Specifications subject to change without notice.