

SPIRENT GSS6300

MULTI-GNSS SIGNAL GENERATOR

The GSS6300 Multi-GNSS Signal Generator from Spirent has been designed specifically for high volume production test applications for devices that use commercial GPS/SBAS, GLONASS and/or Galileo receivers.

Key Features

- Single channel GPS/SBAS L1 C/A and/or GLONASS L1 C/A and/or Galileo E1 signals
- Easily field upgradable to add GLONASS and/or Galileo to existing GSS6300
- GPIB (IEEE-488), USB or RS-232 control interfaces
- Equivalent GPS performance to Spirent's proven GSS6100
- Alternative "instant start" continuous run mode
- Supplied with Spirent SimCHAN software
- Industry leading accuracy, fidelity and reliability
- A GSS6300 configured with GPS supports L1 SBAS messages
- Comprehensive remote command set for easy ATE integration
- Rack mount 2U chassis
- In-rack annual calibration
- Interactive run time control over power level, Doppler, PRN, GPS time and data message for each GNSS signal
- May be synchronized to external systems via 1PPS/Trigger, reference frequency input/output and 1PPS output

The GSS6300 Multi-GNSS Signal Generator can be configured with one channel of GPS only, or with multiple constellations. It is easily upgradable in the field to add GLONASS and/or Galileo test capabilities to an existing GSS6300. Typical configurations include:

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

To support varying test requirements, the GSS6300 can be controlled remotely via standard interfaces including IEEE-488, USB or RS-232. Alternatively, Spirent SimCHAN software is provided to enable real-time user control of the GSS6300 as precision laboratory GPS/SBAS, GLONASS and/or Galileo test equipment.

The GSS6300 GPS/SBAS performance is equivalent to Spirent's proven GSS6100 Single Channel Production Test System. In addition, the GSS6300 offers GLONASS and Galileo test capabilities to support your evolving GNSS testing needs.

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



Multi-GNSS Signal Generator:
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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 -128.5dBm nominal

Signal Level Control

- Range +20/-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

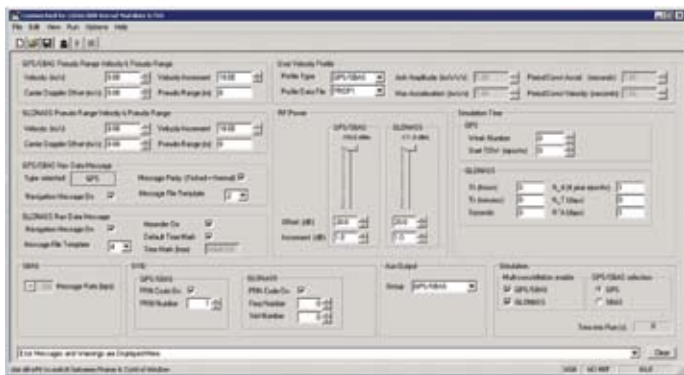
- Channel Type 1 GPS L1 C/A or SBAS and/or 1 GLONASS L1 C/A and/or 1 Galileo E1
- Size (W x D x H) 449 x 386 x 89mm (17.75 x 15.25 x 3.5in)
- Weight 6.5kg (14.5 lbs)
- Power 100 – 240 V AC 50 – 60 Hz

Product Specification (MS3063) 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.

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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

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