SPIRENT GSS6300
GNSS SIGNAL GENERATOR

The GSS6300 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
- IEEE-488, USB or RS-232 control interfaces
- Equivalent GPS/SBAS 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 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, GLONASS only, Galileo 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.

GNSS Signal Generator:
Spirent GSS6300

SPIRENT GSS6300
MULTI-GNSS SIGNAL GENERATOR

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

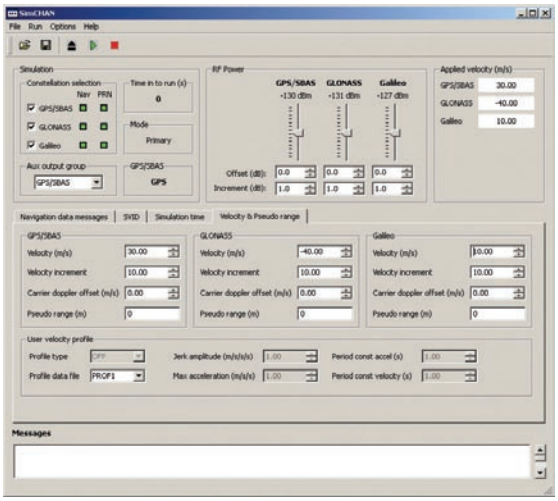
Relative Velocity (Max)	±15,000m/s
Velocity Resolution	0.01m/s

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



SimCHAN™ User Interface

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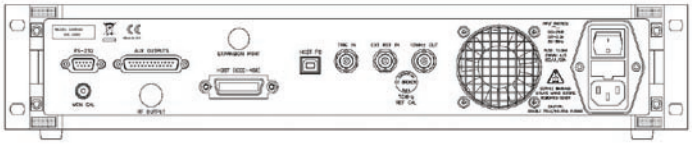
For current product data, visit the Spirent websites at www.spirent.com/positioning or www.spirentfederal.com



Typical Rear Panel Layout

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INVESTORS IN PEOPLE

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