

GPS Production/Field Test Multi-Channel Simulator Spirent GSS4200

The Spirent GSS4200 provides full navigation test capability in a production/field test environment. Designed specifically for easy ATE integration via the IEEE488 GPIB, the Spirent GSS4200 represents an attractive choice for high volume test environments.

Key Features

- 6 channels GPS L1 C/A code
- Allows position fix with representative satellite dynamics and data
- Single channel mode
- Supplied with a range of selectable test scenarios designed to meet production test requirements
- Integrates easily with production line ATE via IEEE488 GPIB, USB or RS232
- Wide dynamic range with output power levels as low as -155dBm
- Calibrated high and low power RF output ports

As navigation-based GPS solutions proliferate and become more demanding, the need for a multi-channel GPS simulator in a production environment becomes increasingly important.

The Spirent GSS4200 provides easy integration with a customer's test environment via standard IEEE488 GPIB, USB or RS232 interfaces. The GSS4200 also supports synchronisation to other systems via its Trigger, Frequency Standard and 1PPS outputs/inputs.

For users needing the flexibility to switch between single channel and multi-channel test modes, the GSS4200 unit offers the functionality of Spirent's GSS6100/GSS4100 single channel signal generators. For assisted GPS applications, the assistance data for each scenario is provided as standard.

The Spirent GSS4200 retains Spirent's industry leading accuracy, fidelity and reliability. Run to run stability is within 0.1dB with low phase noise and high frequency stability. The GSS4200 can be calibrated in-situ, minimising down time and disruption.

For A-GPS wireless protocol conformance test applications, the GSS4200 provides an ideal GPS signal source.



Multi-Channel Production/Field Test Simulator:
Spirent GSS4200

SPECIFICATION

Output Frequency

- L1 @ 1575.42MHz

Channels

- Number 6
- Type GPS C/A code @ 50 bps

Signal Dynamics

- Max Velocity $\pm 1000\text{m/s}$

Signal Accuracy

(RMS max over 1 minute)

- Pseudorange $\pm 10\text{cm}$
- Pseudorange rate $\pm 1\text{cm/s}$
- Delta-Pseudorange $\pm 5\text{mm}$
- Interchannel bias Zero

Signal Quality

- Spurious (Max) $- 30\text{dBc}$
- Harmonics (Max) $- 35\text{dBc}$
- Phase Noise (Max) 0.02 rad RMS
(10Hz-10kHz offset)
- Frequency Stability $\pm 1 \times 10^{-9}$ per day

Signal Level

- Low power output $- 130\text{dBm}$ nominal,
front panel
- High power output $- 70\text{dBm}$ nominal,
front panel

Signal Level Control (both outputs simultaneously)

- Range $+ 10/-25\text{dB}$
- Resolution 0.1dB
- Calibration Accuracy $\pm 0.7\text{dB RSS}$
 $\pm 0.1\text{dB run-to-run}$
(-25dB to $+10\text{dB}$)

Signal Generator Unit

- Channel type GPS C/A with data @ 50bps
- Size (HxWxD) $89 \times 449 \times 386\text{mm}$
($3.5 \times 17.75 \times 15.25\text{inch}$)
480mm (19inch) desktop/rack
mount case
- Weight 5.5kg (12 lb.)
- Power $100 - 264\text{V}$, 48-62 Hz

Product Specification (MS3013) is available on request

Performance figures and data in this document are typical and must be specifically confirmed in writing by Spirent Communications (SW) Ltd. before they become applicable to any particular order or contract.

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For current product data, visit the Spirent websites at www.spirentcom.com or www.spirentfederal.com



SALES AND INFORMATION

Spirent Communications
Aspen Way, Paignton
Devon, TQ4 7QR, England
T: +44 1803 546325
sales-uk@spirentcom.com
www.spirentcom.com

SALES AND INFORMATION

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

