

Technology Brief: GSG Series GPS/GNSS Simulators

Programming Interfaces for Automation and Remote Control

What does it mean to you?

- Easy integration of simulated GPS RF into automated testing
- Leverage standards-based interfaces

Orolia GSG Automation Interfaces

- Choice of Ethernet, GPIB, USB
- SCPI command set using VISA or via a network socket (SCPI-RAW)

Glossary

- VISA: Virtual Instrument Software Architecture
- SCPI: Standard Commands for Programmable Instruments

Drive Testing – with Record and Playback (RP) Option

One of the benefits of Orolia GSG Series GPS/GNSS simulators is that it does not require any external controller and can operate for 31 days continuously (longer if the unit is connected to the internet). However, there are many situations where remote control from an external program is helpful and required when integrating GPS signals with other test parameters.

Orolia simulators can be connected to a PC using Ethernet, GPIB or USB. Leveraging VISA, an I/O API used throughout the test and measurement industry, SCPI commands remotely control the operation of the simulator. Since the simulators utilize National Instruments hardware, our users are entitled to a free Runtime license for NI-VISA1. Other VISA distributions or VXI-11 applications should work equally well.

When VISA is not available for your particular operating system or development architecture, then, starting in firmware 6.0.3, Orolia simulators can receive SCPI commands via a network socket (port 5025). Known as SCPI-RAW, this interface allows applications such as Telnet to command and control the instrument.

