

GSG-RP GPS Record and Playback Option

Simply Create and Enhance GPS Simulation Scenarios

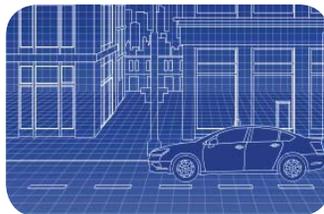
- True life constellation replication
- Automatic scenario generation
- Modify signal parameters during test
- Add a wide variety of “what ifs” to the scenario
 - Events such as satellite drop out
 - Multipath conditions
 - Add noise to test sensitivity
 - Leap second occurrence



Of the several options available to testers of GPS receivers, simulation allows for the most powerful and comprehensive testing. One alternative, record and replay devices, characterizes a particular environment for coverage or interference at one point of time, but it does not allow for modification of the scenario, has limited performance based on the quality of the recording receiver and requires significant memory storage and a high performance PC for playback. The GSG-RP record and playback feature offers the best of both when used with a Spectracom GSG-5 or -6 series GPS simulator.

The GSG-RP record and playback option is supplied with a GPS recording receiver and an interface to Spectracom’s GSG StudioView™ software. Any receiver that records NMEA can be used. The data needs to contain the \$GPRMC, \$GPGGA, and \$GPGSV sentences.

Here’s How it Works



1. Connect the recording receiver to a laptop running the software and record



2. Connect the laptop to the simulator, edit the scenario as desired, and run the playback generator



3. Connect the simulator to the receiver under test and run the scenario

Comparison of GPS Test Methods

	GSG Simulator	Record/Replay	Live Sky
True real life constellation replication	X*	X	X
Repeatable tests	X	X	
Replay fixed scenarios "that have already happened"	X	X	
Modify parameters during test	X		
Scenarios that have "not yet happened"	X		
Simulate events (satellite drop out, change received signal strength, etc.)	X		
Simulate multipath	X		
Simulate noise and test sensitivity	X		
Simulate leap second	X		

*with GSG-RP record and playback option