

# Avionics

## GPSG-1000

GPS/Galileo Portable Positional Simulator

**AEROFLEX**  
A passion for performance.



Versatile time-saving portable test set for GPS/GALILEO receivers

- GPS signals simulated: L1, L1C, L2C, L5
- Galileo signals simulated: E1, E5, E5a, E5b, E6
- Simultaneous GPS/Galileo simulation
- SBAS satellites simulated
  - WAAS/EGNOS L1, L5
  - MSAS (available 2011)
  - GAGAN (available 2011)
- Static or multi-leg dynamic positional simulation via waypoint entry system
- 1, 6\* or 12\* channel configurations available with upgrade path (\*RAIM supported)
- Programmable satellite vehicle (SV) parametrics and health
- User or UTC referenced time and date
- Direct-connect to receiver or to installed system via antenna coupler
- Large touch-screen display with simple user interface
- Remote control interface USB/LAN
- NMEA 0183 data input



### Channels

The single channel GPSG-1000 configuration replaces the Aeroflex GPS-101 Satellite Simulator as an installed system tester for verifying receiver signal strength, providing additional GPS and Galileo signals.

The six channel GPSG-1000 configuration provides 3D positional simulation with five channels for RAIM operation and one channel dedicated to SBAS, WAAS or EGNOS simulation.

The twelve channel GPSG-1000 configuration provides the same capability as the six channel unit, plus six additional channels. This allows any combination of visible SVs to be selected.

### System

Simulated 3D position may be user entered in latitude/longitude/height format or 3D position may be dynamically simulated utilizing a 50 leg waypoint entry scheme. Up to 20 navigation plans may be saved and recalled under a user assigned name.

For the very latest specifications visit [www.aeroflex.com](http://www.aeroflex.com)

P r e l i m i n a r y

A built-in GPS receiver allows positional simulation in the form of a range, heading and altitude offset from current test set position.

### Satellite Vehicle (SV) Selection

All GPSG-1000 configurations allow GPS and Galileo satellites to be mixed.

Note: The Galileo codes may be updated via a text file upload.

Each SV may have doppler, amplitude, step error and code carrier coherence parameters deviated from nominal and satellite health set. Signal fading and dynamic signal amplitude and simulator RF level may be applied to all satellites simultaneously.

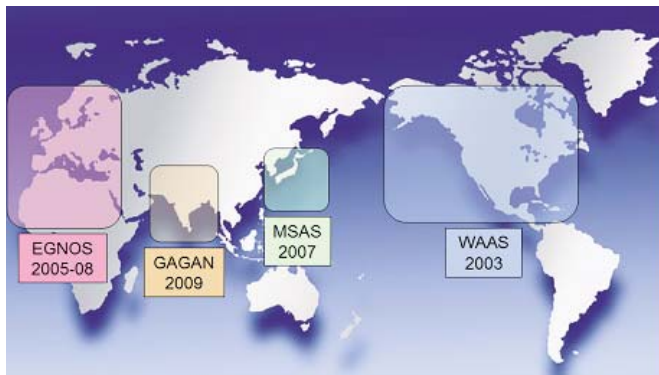
### Waypoints

Waypoint legs join up in 3D space with either range rate or altitude rate being auto calculated. Trajectory changes are calculated to simulate real world navigation, i.e. waypoint leg heading changes utilize realistic rates of turn; altitude changes utilize realistic rates of descent or climb. Waypoints may be entered in LAT/LONG form or automatically recalled from an airport or city database.

### SBAS

SBAS satellites WAAS/EGNOS/MSAS\*/GAGAN\* may be manually selected or automatically based on simulated position.

\* Available 2011



### Setup

The setup page allows system, user and RF connection parameters to be set by the user.

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Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.