

StellaNGC® Gold

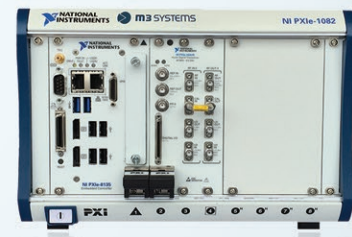
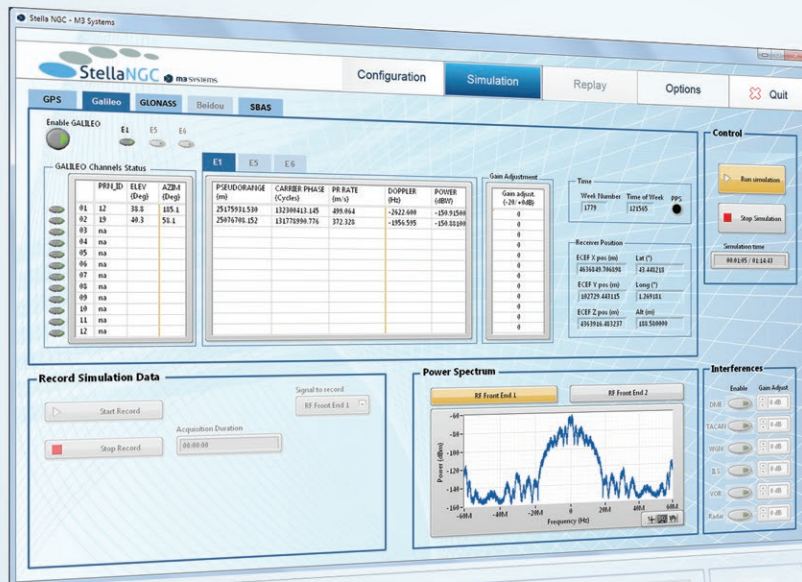
GET THE BEST OUT OF YOUR NATIONAL INSTRUMENTS EQUIPMENT!



MULTI-CONSTELLATION GNSS SIMULATION for professional testing

StellaNGC® GNSS Simulator offers a **complete panel of functions** for legacy and future GNSS testing needs.

Versatile, scalable, simple: the right GNSS instrument choice **from R&D to Production.**



SCALABLE SUSTAINABLE	Functions and hardware capacities are easily updated for compatibility with evolving test needs.	HIGH QUALITY I/Q RECORDER	Precise control of simulated signals & ability to record generated I/Q data.
CUSTOMER SERVICES	A full service solution that includes customization, training and GNSS expertise.	TOTAL COST OF OWNERSHIP	Pricing structure that optimizes acquisition & maintenance costs.

KEY FEATURES

- Multi-Constellation simulation (Basic **GPS L1**, **GALILEO E1**, **GLONASS G1** & optional **BEIDOU B1**)
- Satellite Based Augmentation System supported (EGNOS, WAAS)
- Real-Time generation of up to 36 configurable satellites with 1 RF channel
- Fully customizable & highly realistic scenario
- Simulated I/Q recording (for replay or post analysis)
- Powered by CNES constellator software
- Easy to use Graphical User Interface (Operator oriented)
- Self-contained portable unit
- Customer services for Maintenance & Support

GENERIC FEATURES

Flexible Real-Time Scenario Simulation (1Hz)

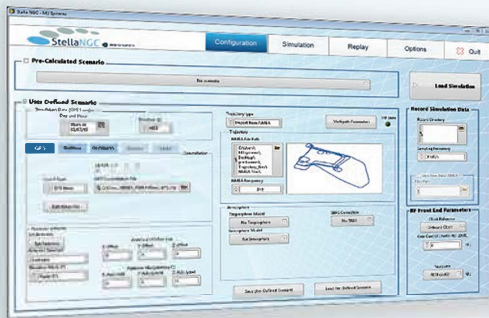
- Precalculated scenario library (quick test)
- Custom scenario editor (Simple static or dynamic trajectory)
- KML or NMEA file import

Mobile Dynamic

- Compatible from terrestrial (automotive, railway, maritime) to aerial (aircraft, rocket) dynamics
- High dynamic: Relative Doppler 60KHz (max)

Rx Antenna Management

- Receiver antenna 3D pattern generation or import
- Configurable elevation mask, antenna off-axis & mispointing handled



Constellation Management

- Date and Time Management
- Constellation, frequency & SBAS modes selection
- Multi-format file management (Yuma, AGL, RINEX, SP3)

Satellite Parameters

- Tunable parameters via Rinex File: SV clock, data message & orbit
- Real-time satellite power level & on/off control

Atmosphere Modeling

- Ionosphere & troposphere influences
- Multiple models available (IONEX Grid, MOPS, Klobuchar)



SPECIFIC FEATURES

- Upgrade of Constellation or Frequency regarding simulator version
- RF channel/satellite upgrade (up to 72 channels per RF front-end)
- Data generation add-on for comparison (trajectory & satellite data at 1Hz, 10Hz or 100Hz)
- Space dynamic scenarios add-on (specific reference & trajectory)
- Leap second testing add-on
- Static multipath generation add-on (for automotive)
- 3D Multipath effect-Deterministic Method (for transportation with reflexion & shadowing)
- In-band jamming & interference emulation
- Specific start trigger add-on (I.E. with CAN for automotive)
- API version for automatic test bench (TCP/IP interface)
- Remote control add-on with tablet for perfect portability
- Real GNSS Signal Record & Playback software (on same HW platform)

SPECIFICATIONS

RF Outputs

- RF output power +6 dBm on SMA 50 Ohms connector
- Frequency range: 65MHz to 6GHz
- Average Output Noise Floor: -155dBm/Hz (Ref level -50dBm)

Connectivity & Clock

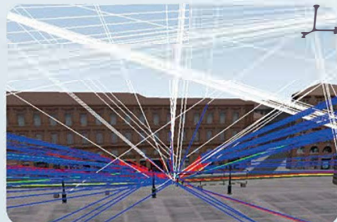
- Input clock 10MHz and Output signal 10MHz/1PPS
- 2 Ethernet ports; 6 USB Ports
- GPIB (IEEE 488 Controller) & HDMI

Physical

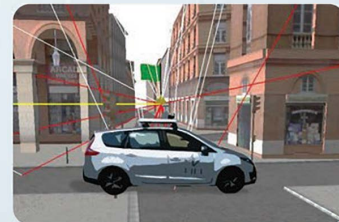
- Size (HxWxD) 177.1 x 271.4 x 396.5 mm Weight 11kgs

Environmental

- Operating temperature range (max): 0° to +55°C
- Storage temperature range (max): -40°C to +65°C
- Input voltage range: 100 to 240 VAC - 50Hz/60Hz



3D Deterministic Multipath



3D Deterministic Multipath

