The development of products, services and applications that are robust against possible satellite navigation malfunctions is a key factor for the success in the future navigation market.

GATE as a unique outdoor test- and development environment provides the possibilities for extended robustness tests against satellite system malfunctions during the Galileo Initial Service Phase.

With the additional simulation of up to three virtual ‘Galileo satellites’, usable by any COTS receiver, GATE is bridging the gap from laboratory based robustness tests to real environment robustness testing.

The Galileo signals transmitted in GATE are fully compliant to the Galileo OS SIS ICD specification. With the GATE ‘Virtual Satellite Mode’, realistic moving Galileo satellites can be simulated in addition to the Galileo Initial Service Phase satellites in orbit, supporting commercial Galileo receivers without any modifications.

Furthermore the integration of additional sensors like odometer or inertial sensors allows testing of sophisticated integrated navigation systems and applications under realistic environmental and dynamic conditions.

With full control over the additional GATE ‘Galileo satellites’, the navigation data content of single satellites visible to the receiver can be manipulated, satellite clock errors (feared events) simulated and even the signal waveforms can be deformed (Evil Waveforms). Further extensions of the test bed regarding interference and jamming are planned to come in near future.

Test your products and applications today with GATE to be ready for Galileo!
NCS test equipment product line

The NCS TITAN GNSS Simulator is a high-end, powerful but easy to use satellite navigation testing and R&D device. It is fully capable of multi-constellation, multi-frequency simulations for a wide range of GNSS applications. The NCS TITAN GNSS Simulator is the leading solution on the market providing all relevant frequencies for GPS, GLONASS, Galileo, BeiDou, IRNSS, QZSS, SBAS and beyond in one box. The NCS TITAN is designed to meet your testing demands in any way that is imaginable today - or in future. Make use of this powerful tool for all your GNSS simulation needs.

With up to 42 channels the NavX-NCS Essential is prepared for the next generation of R&D, system integration and production testing of consumer GNSS applications. This means saving extra effort, time and lifetime-cost but also a superior price-performance ratio - factors that are often crucial in today's industrial purchase decisions. The NavX-NCS Essential is designed to meet the demands of your everyday GNSS work. No matter if it deals with research and development, system integration, testings in the chain of production or various other tasks. Flexible and adaptable: Today as good as in the future.

SX3 product line

The SX3 multi-GNSS software receiver tracks all known GNSS signals in view, in real-time and on a standard laptop now. The included RF front-end offers four RF frequency paths with 50 MHz bandwidth each, covering the entire GNSS L-band spectrum. S-band is also supported. The USB 3.0 interface enables high-speed data transfer with up to 8 bit quantization. Among other options a dual-RF input front-end (Black Edition) is available as well. This can for example be used for attitude determination, reflectometry and other applications requiring the synchronized input from two antennas. With this GNSS software receiver, a flexible and customizable tool is available for sophisticated scientific and signal analysis applications.