

# SOKKIA

MADE TO FIT YOUR WORLD.

## GRX3

GNSS Receiver



## Positioning made easy

This fully integrated all-in-view constellation RTK GNSS receiver brings a new level of versatility and flexibility into your precision positioning applications. The GRX3 provides unmatched usability and versatility that's sure to enhance your productivity.

And like all Sokkia products, you can customize it to meet your needs and create your own workflows.

- Sokkia Tilt Technology
- L Band Ready Technology
- 226 Universal Tracking Channels™ covering all modernized signals (GPS, GLONASS, Galileo, BeiDou, IRNSS, QZSS, SBAS)
- Integrated 400MHz UHF and SiteComm™ Radios
- RTK and static survey operations
- Fusion Positioning™ technology automated workflow
- Standard RTK and Network RTK
- IP67 rated



## Sokkia Tilt Technology

The Sokkia GRX3 incorporates a revolutionary 9-axis inertial measurement unit (IMU) and an ultra-compact 3-axis eCompass. This advanced technology compensates for mis-leveled field measurements out of plumb by as much as 15 degrees. Awkward shots on steep slopes or hard to reach spots are now a breeze with tilt technology.

## Open Architecture

The GRX3 architecture is designed so that third parties can write their own applications.

## All Constellation Support

Featuring 226 Universal Tracking Channels with Universal Tracking Technology, the GRX3 has you covered. With programmable channels for tracking available signals, the GRX3 supports all modernized signals.

## Multiple Wireless Technologies

The most commonly used wireless technologies can be integrated into the GRX3 receiver. Digital UHF, Network RTK and SiteComm™.

## Maximum Versatility

Utilizing full wireless connectivity and no voice feedback, the GRX3 enables the use of both RTK and network RTK technologies. It can be operated as both a private RTK base and RTK rover using the internal digital UHF.

## Stay in Control

The GRX3 includes built-in internal Bluetooth® capability that allows you to choose your field controller model and software. Whether it is a small palm-sized screen device, a larger screen handheld, or even a field laptop, the GRX3 is ready to connect.

## Ready for the field

The GRX3's magnesium alloy body can handle even the toughest job site conditions. It's compact, watertight, and rugged with IP67 rated dust and water protection.



## Specifications

| GNSS Tracking                    |   |
|----------------------------------|---|
| Channel Count                    | 226 with patented Universal Tracking Channels technology.   |
| Signal                           |   |
| GPS Signals                      | L1 C/A, L1C <sup>†</sup> L2C, L2P(Y), L5 <sup>‡</sup> L1C when signal available.  |
| GLONASS                          | L1 C/A, L1P, L2C/A, L2P, L3C <sup>†</sup> L3C when signal available.  |
| Galileo                          | E1/E5a/E5b/Alt-BOC  |
| BeiDou/BDS                       | B1, B2  |
| IRNSS                            | L5  |
| SBAS                             | WAAS, EGNOS, MSAS, GAGAN (L1/L5 <sup>‡</sup> )<br><sup>‡</sup> L5 when signal available.  |
| L-band                           | TopNET Global D & C Corrections services  |
| QZSS                             | L1 C/A, L1C, L1-SAIF, L2C, L5   |
| User Interface                   |   |
| Operation                        | Single-button operation for power, receiver reset, memory initialization  |
| Display panel                    | 22 LED status indicators  |
| Positioning Performance          |   |
| Static/<br>Fast Static           | H: 3 mm + 0.4 ppm<br>V: 5 mm + 0.5 ppm*   |
| RTK                              | H: 5 mm + 0.5 ppm<br>V: 10 mm + 0.8 ppm   |
| RTK, Tilt<br>Compensated         | H: 1.3 mm/°Tilt; Tilt ≤ 10°<br>V: 1.8 mm/°Tilt; Tilt > 10°<br>Maximum recommended angle for tilt compensation is 15°. **                      |
| DGPS                             | 0.25 m HRMS   |
| L-Band, D<br>Corrections Service | H: < 0.1 m (95%)<br>V: < 0.2 m (95%)  |
| Operational<br>Time              | RX mode - 10hr<br>TX mode 1W - 6hr<br><i>Use of external 12V battery is recommended when using GRX3 with internal radio in transmit mode.</i> |
| Internal Radios                  | 425-470 MHz UHF radio<br>Max Transmit Power: 1W<br>Range: 5-7 km typical; 15 km in optimal conditions. ***                                    |
| Memory                           | Internal Non-removable 8 GB SDHC  |
| Environmental                    |   |
| Dust/Water Rating                | IP67  |
| Operating<br>Temperature         | -40°C to 70°C   |
| Humidity                         | 100%, condensing  |
| Drop and Tumble                  | 1.0 m drop to concrete.<br>2.0 m pole drop to concrete.   |
| Physical                         |   |
| Dimensions                       | 150 x 100 x 150 mm (w x h x d)  |
| Weight                           | <1.15 kg  |

\* Under nominal observing conditions and strict processing methods, including use of dual frequency GPS, precise ephemerides, calm ionospheric conditions, approved antenna calibration, unobstructed visibility above 10 degrees and an observation duration of at least 3 hours (dependent on baseline length).

\*\* Subject to successful Tilt calibration and operating environment free of magnetic disturbances.

\*\*\*Varies with terrain and operating conditions.

## GeoPro Software

This is the simplest, most effective software suite for the geomatics and survey professional.

### GeoPro Field

Welcome to the quickest and easiest way to collect and layout points in the field. GeoPro Field's user friendly interface and simple but powerful controls help you work faster and more precisely.



- Graphical interface available on Windows® tablets
- Collect field measurements
- Control GNSS and robotic systems from Sokkia
- CAD in the field functionality
- Export point files to 3rd party software

### GeoPro Office

Process field measurement data from a variety of sensors in the same job file.

By combining data from multiple sensors, you get a more complete view of the project than you would with separate static files from each sensor.



- Process raw data from field measurements
- Work with total station, digital level, and GNSS receiver data
- GNSS post-processing
- 3D CAD view (optional module)
- Road design tools (optional module)

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