

SOKKIA

MADE TO FIT YOUR WORLD.

GRX2

GNSS Receiver



Positioning made easy

This fully integrated dual-constellation RTK GNSS receiver brings a new level of versatility and flexibility into your precision applications. The GRX2 provides unmatched usability and versatility that's sure to improve your performance.

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

- Fully Scalable
- 226 Channels (GPS+Glonass+SBAS)
- Integrated UHF+Cellular+ Bluetooth®
- Voice Navigation
- Compact, Watertight, and Rugged
- RTK and Static survey operations



Fully Scalable Architecture

The GRX2 is affordable and scalable. You can start with it as a single frequency GPS only receiver and at any time add a radio or cellular modem for additional signal capability for GLONASS.

Multi-channel Support

Featuring 226 tracking channels with Universal Tracking Technology, the GRX2 has you covered. With programmable channels for tracking available signals, the GRX2 supports SBAS, QZSS, and QLL.

Triple Wireless Technologies

The three most commonly-used wireless technologies can be integrated into the GRX2 receiver. Digital UHF or FH915 SS modem (receiver/transmitter) for RTK base and rover, GSM/HSPA modem for network RTK, and MAGNET® Relay Bluetooth® modem for controller and other PCs.

Maximum Versatility

Utilizing full wireless connectivity and voice feedback, the GRX2 enables the use of both RTK and network RTK technologies. It can be operated as both a private RTK base and RTK rover using an internal digital UHF or FH915 spread spectrum without any extra devices.

Stay in Control

The GRX2 has built-in internal Bluetooth® capability that let 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 GRX2 is ready to connect.

User Friendly

The GRX2 has built-in internal Bluetooth® capability that allows using voice messages to let you know when RTK is fixed or lost, or if any problems occur.

Ready for the field

The GRX2's magnesium alloy body can handle even the toughest jobsite conditions. It's compact, watertight, and rugged with IP67 rated dust and water protection.



Software

MAGNET software is tailored for use with Sokkia GNSS receivers in both field and office functions.

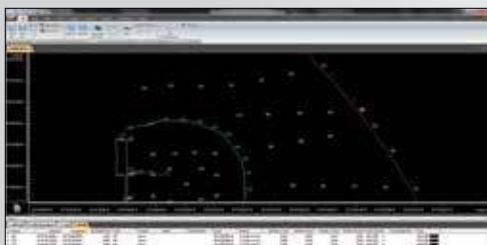
MAGNET Enterprise

A managers dream of tracking all field and office data in one simple to access web interface. Store and exchange your field data in the Enterprise cloud. Save time by sending your field and office updates to the cloud rather than driving back to the office.



MAGNET Office

Get full CAD functionality with MAGNET Office Site and Topo, or process field data with MAGNET Office Tools inside AutoCAD® products, like Civil3D®. Choose the MAGNET Office solution module that best fits your needs.



Tracking Capability	
Number of Channels ¹	226 channels with optimized satellite tracking technology
Tracked Signals	
GPS	L1, L2, L2C
GLONASS	L1, L2
SBAS	L1 C/A WAAS/MSAS/EGNOS/GAGAN
QZSS	L1 C/A
Antenna	Integrated
Positioning Accuracy ²	
Static/Fast Static	H: 3.0 mm + 0.4 ppm, V: 5.0 mm + 0.5 ppm
Precision Static ^{**}	H: 3.0 mm + 0.1 ppm, V: 3.5 mm + 0.4 ppm
RTK (L1 + L2)	H: 5 mm + 0.5 ppm, V: 10 mm + 0.8 ppm
DGPS	< 0.5 m
User Interface	
Operation	Single-button operation for power, receiver reset, memory initialization
Display panel	22 LED status indicators
Voice navigation	Multi-lingual voice messages for receiver status information
Data Management	
Update/output rate ³	1 Hz, 5 Hz, 10 Hz, 20 Hz (10 Hz RTK Standard)
Communication Ports	RS-232C (4,800 to 115,200 bps)
Real Time Data Output	TPS, RTCM SC104 v2.x, 3.x and MSM, CMR/CMR+
ASCII Output	NMEA 0183 version 2.x, 3.x and 4.x
Wireless Communication	
Bluetooth® modem	V2.1 + EDR, Class 2, 115,200 bps ⁴
Digital UHF II modem ⁴	Internal, receiver (RX) and transmitter (TX), 410 to 470 MHz
Cellular	Integrated HSPA+/CDMA
FH915 spread spectrum radio	Internal, receiver (RX) and transmitter (TX), 902 to 928 MHz
Environmental	
Dust/Water Protection	IP67 (IEC 60529:2001) at closing all connector caps. Protected against temporary immersion up to 1 m (3.3 ft.) depth.
Shock	2 m (6.56 ft.) pole drop
Operating Temperature	GRX2 receiver: -40 to 65°C (-40 to 149°F) BDC70 battery: -20 to 65°C (-4 to 149°F) Radio/GSM modems: -20 to 55°C (-4 to 131°F)
Storage Temperature	-45 to 70°C (-49 to 158°F)
Humidity	100%, condensing
Physical	
Enclosure	Magnesium alloy housing
Size (w x h)	184 x 95 mm (7.24 x 3.74 in.)
Weight (GRX2 receiver / BDC70 battery)	1.0 kg (2.20 lb.) / 195 g (6.9 oz.)
Power supply	
Standard battery BDC70	Detachable, Li-ion battery, 7.2V, 5240 mAh
Operating time at 20°C (68°F)	>7.5 hours in static mode with Bluetooth® connection
Charger CDC68	Recharging time: Approx. 4 hours at 25°C (77°F) Input voltage: 100 to 240V AC (50/60 Hz) ⁵
External power	6.7 to 18V DC

^{**} 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).

¹ Number of channels and tracked signals vary according to receiver configurations. ² Accuracy depends on the number of satellites used, obstructions, satellite geometry (DOP), occupation time, multipath effects, atmospheric conditions, baseline length, survey procedures and data quality. ³ 1 Hz standard. Higher rates available as options. ⁴ Internal "FH915 modem" or "FH915+Cellular modem" available as factory options. Bluetooth® Class 1 when used with a Class 1 field controller. ⁵ Use with an appropriate AC power cable. ⁶ 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).

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SOK-1016 Rev F 8/18