

GRX5



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 GRX5 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 up to 60 degrees
- Anti-jamming and anti-spoofing capabilities
- 448 channels covering all modernized signals (GPS, GLONASS, Galileo, BeiDou, IRNSS, QZSS, SBAS)
- Available with integrated UHF radio
- Universal USB-C connectivity and battery charging
- Fusion technology automated workflow
- Static, Standard RTK, Network RTK and PPPK
- IP67 rated

Specifications

GNSS Technologies (signal tracking)	
GPS	L1 C/A, L1P, L2P, L2C, L5
GLONASS	L1 C/A, L2P, L2C/A, L3
Galileo	E1, E5a, E5b, E5 AltBOC, E6
BeiDou	B1, B1C, B2, B2a, B2b, B3
IRNSS (NavIC)	L5
SBAS	L1, L5
QZSS	L1C/A, L1 C/B, L2C, L5
L-band	Yes
Channels	448 hardware channels
Tilt	Calibration-free and magnetically immune IMU
Signal integrity	GNSS interference monitoring and mitigation technology for anti-jamming and anti-spoofing
Positioning Performance	
Precision Static	H: 3 mm + 0.1 ppm V: 3.5 mm + 0.4 ppm
Static/Fast Static ¹	H: 3 mm + 0.5 ppm V: 5 mm + 0.8 ppm
PPP	H: 3 cm RMS ² V: 5 cm RMS ² Convergence time: < 5 mins ³
RTK ⁴	H: 5 mm + 0.5 ppm V: 10 mm + 0.8 ppm
RTK, TILT Compensated	RTK + 5 mm + 0.5 mm / ° tilt Compensation up to 60°
Communications	
Internal Radio (Optional)	403-473 MHz UHF Max Transmit Power: 1 W
Cellular	Integrated 4G/LTE cellular modem
Bluetooth®	v5.3 BR/EDR and low energy long range (up to 300 m)
Wi-Fi	802.11a/b/g/n/ax 2.400 to 2.500 GHz
Ports	USB type C for power and data
Data format and memory	
Output formats	RTCM 3.1, RTCM 3.2, NMEA
Input formats	RTCM 2.x, RTCM 3.x, CMR, CMR+
Internal Memory	20 GB
Update Rate	Up to 20 Hz

¹ Performance specifications assume optimal conditions, including dual-frequency GPS, precise ephemerides, low ionospheric activity, approved antenna calibration, unobstructed visibility above 10°, and ≥3-hour observation durations (dependent on baseline length).

² Specifications are derived from field and lab testing. Accuracy and convergence may vary with hardware, GNSS geometry (PDOP), and site conditions.

³ Performance may degrade under high ionospheric activity, severe multipath, or dense vegetation. Adherence to GNSS best practices is recommended for optimal results.

⁴ Applicable to baselines <40 km.

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Power	
Battery	Internal, non-removable, Lithium-Ion batteries
Operating time	15 h – STATIC (1 Hz data logging) 7 h – RTK BASE STATION (1 W UHF/FH) 10.5 to 13 h – RTK ROVER (UHF/FH, internal cell or long range Bluetooth) ⁵
Hardware	
Dimensions (L x W x H)	13.9 x 13.9 x 9.7 cm (5.47 x 5.47 x 3.82 in.)
Weight	995 g (2.19 lb.)
Ingress Protection	Dust and water IP67
Vibration	MIL-STD 810G
Drop	Survive 2m pole drop on concrete surface
Operating Temperature	-40°C to 65°C (-40°F to 149°F)

⁵ Operating time varies by communication method.