

# SOKKIA

MADE TO FIT YOUR WORLD.

# GNR5

GNSS Reference Receiver



## Leading Reference Station Receiver

Using Sokkia premium technologies the GNR5 GNSS receiver incorporates 452-channels capable of tracking multi-frequency signals from all GNSS constellations including GPS, GLONASS, SBAS, QZSS, Galileo and BeiDou. This comprehensive support includes current and modernized signals across the full GNSS spectrum, including multiple L-band signals. The optimized tracking has also demonstrated successful demodulation and tracking of advanced QZSS signal structures such as the LEX signal in E6.

The GNR5 receiver offers a complete connectivity solution by allowing the receiver to be accessed via Ethernet, Wi-Fi, or Bluetooth® as well as by using standard serial or USB ports. The GNR5 can also serve as a USB Host, providing a new web-based user interface that offers flexible configuration options and portability. The USB Host feature allows the user to connect a USB memory stick or USB Mass Storage Device (UMS) to the GNR5 receiver. The UMS provides a simple solution for transferring raw data files from the receiver's SD card, or extending the GNR5 with a semi-permanent high-capacity storage option. The GNR5 supports flash-based UMS devices as well as hard drive-based UMS devices.

Premium positioning technology, extended communication support, advanced web-server capability, longer operating time, and high-reliability make the Sokkia GNR5 the best selection for your reference network receiver.

## Specifications

Tracking Capability	
Number of Channels	452 channels with optimized satellite tracking technology
Signals Tracked	GPS, GLONASS, QZSS, SBAS, Galileo, L-Band and BeiDou (BDS)
Antenna Type	External
Positioning Accuracy	
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
Data Management	
Memory	Removable SD/SDHC memory card up to 32 GB and USB Host support for external USB mass storage devices
Data Update/Output Rate	1 Hz - 100 Hz selectable
Data Output Format	TPS, RTCM SC104 v2.x, 3.x and MSM, CMR/CMR+, BINEX, RINEX
ASCII Output	NMEA 0183 version 2.x, 3.x and 4.x
Communications	
Cellular Communications	Integrated HSPA+
I/O Communications	Class 2 Bluetooth® v2.0 + EDR Wi-Fi 3x RS-232 serial ports USB Host and Device supporting OTG functionality Ethernet (PoE Class 3)
NTRIP	Client, Caster, and Server functionality
TCP/IP and FTP	Multiple address ports
Web User Interface	Secure device access and configuration via Ethernet and Wi-Fi connectivity
Physical	
Status Indicators	8 LEDs Sokkia MINTER
User Interface	Multi-function power button supporting data logging and factory reset operations
Dimensions (w x d x h)	150 x 200 x 60 mm
Weight	Less than 2 kg
Power supply	
External Power Input	Nominal 12 VDC (external power input range 9V - 28VDC)
Power Consumption	Less than 5.0 W (typical)
Power Ports	2x Power ports (1 primary and 1 backup) plus Class 3 PoE
Environmental	
Operating Temperature	-40°C to 80°C with external power / -30°C to 65°C with integrated batteries
Dust and Water Protection	IP67
Humidity	100% condensing
Drop	2 meter drop to concrete surface, IEC 60068-2-29, IEC 60068-2-27
Vibration	Compliance with MIL-STD 810G, Method 514.6, Category 4
Shock	Method 516.6 (40 g RMS)

\*\* 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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