

GNSS Reference Receiver



- 452-Channel Vanguard Technology with Universal Tracking Channels
- Superior signal tracking across the entire GNSS spectrum
- High-precision code and carrier phase measurements up to 100 Hz
- Built-in *Bluetooth*® and Wi-Fi connectivity
- Integrated web interface with advanced receiver management features
- 32GB SDHC storage support

Leading Reference Station Receiver

Using the Topcon premium Vanguard and Universal Tracking Channel technologies, the NET-G5 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 integrated Vanguard Technology has also demonstrated successful tracking and demodulation of advanced QZSS signal structures such as the LEX signal in E6.

The NET-G5 receiver offers a complete system connectivity solution by



allowing the receiver to be accessed via Ethernet, Wi-Fi, or Bluetooth® as well as by using standard serial or USB connections. The NET-G5 can also serve as a USB Host and provides 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 NET-G5 receiver. The UMS provides a simple solution for transferring raw data files from the receiver's SD card, or extending the NET-G5 with a semi-permanent high-capacity storage option. The NET-G5 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 put the NET-G5 receiver a step ahead of the competition. When paired with one of the industry-leading Topcon geodetic antennas (CR-G5 and PN-A5), the NET-G5 receiver provides the ultimate GNSS networking and infrastructure solution available in the market today.

SPECIFICATIONS

GNSS

Number of Channels	452-Channel Vanguard Technology with Universal Tracking Channels
Signals Tracked	GPS, GLONASS, QZSS, SBAS, Galileo, L-Band and BeiDou (BDS)
Antenna Type	External – Geodetic full wave CR-G5 or PN-A5 antenna

Accuracy

RTK	H: 10 mm+1 ppm; V: 15 mm+1 ppm
Post processed Static	H: 3.0 mm+0.1 ppm; V: 3.5 mm+0.4 ppm

Data and Memory

Memory	Removable SD/SDHC memory card up to 32 GB and USB Host support for external USB mass storage devices
Data Update/Output Rate	1Hz - 100 Hz selectable
Data Output Format	TPS, RTCM SC104 v2.x and 3.x, CMR, CMR+, BINEX, RINEX
ASCII Output	NMEA 0183 version 2.1, 2.2, 2.3, 3.0 and 3.01

Communications

Cellular Communications	Integrated GSM; GSM Quad-band, CDMA2000, UMTS/HSPA+
I/O Communications	Class 2 Bluetooth® v2.0 + EDR WiFi 3 x RS-232 serial ports USB Host and Device supporting OTG functionality Ethernet (PoE Class 3)
NETRIP	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 Characteristics

Status Indicators	8 LEDs Topcon MINTER
User Interface	Multi-function power button supporting data logging and factory reset operations
Dimensions (w x d x h)	5.9 x 7.9 x 2.4 in. (150 x 200 x 60 mm)
Weight	Less than 2 kg

Power

External Power Input	Nominal 12 VDC (external power input range 9V - 28VDC)
Power Consumption	Less than 5.0 W (typical)
Power Ports	2 x 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)

For more specification information: topconpositioning.com/net-g5



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