

Advanced GNSS Receiver



- 226-Channel Vanguard Technology™ with Universal Tracking Channels
- Advanced Fence Antenna™ Technology
- High accuracy RTK with updates up to 100Hz
- Fully integrated radio and cellular configuration
- Dual hot-swappable batteries

GR-5 Advanced GNSS Receiver

The GR-5 with Vanguard Technology™ is the most advanced RTK GNSS system.

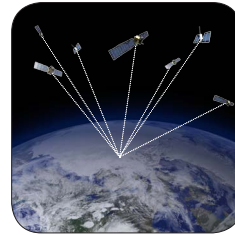
The GR-5 features the multi-constellation 226-channel Vanguard GNSS chip with Universal Tracking Channel Technology. This patented technology uses flexible and dynamic tracking methods to automatically select and track any available satellite signal enabling Topcon's users to receive the maximum number of signals and measurements at any given time.

The GR-5 is not only capable of receiving signals from the fully operational GPS and GLONASS constellations, but also has the ability to support all planned signals from developing systems such as Galileo, Beidou (BDS) and QZSS. With current and developing satellite constellations, Universal Tracking Channel Technology optimizes GNSS signal tracking to guarantee maximum satellite geometry and availability.

Topcon's patented Fence Antenna design brings to the GR-5 superior signal reception and advanced multipath rejection in difficult environments. This technology provides a more robust and cleaner signal tracking which means unparalleled results.

With Vanguard Technology, Universal Tracking Channel and the Fence Antenna, the GR-5 is designed to deliver ultimate field performance even in challenging environments while maintaining unmatched accuracy, speed of initialization and fix reliability for RTK solutions.

In addition to advanced technologies, the mechanical design of the GR-5 makes it incredibly reliable, ergonomic, and durable. Guaranteed rugged, the GR-5 is the best GNSS receiver available in the market.



226-Channel Vanguard Technology™ with Universal Tracking

Topcon's exclusive channel tracking technology provides unmatched GNSS signal flexibility and expandability.



Cellular and Radio

The GR-5 has both cellular and radio communication which allows the GR-5 to be used in radio based RTK and Network RTK solutions.



Long Range UHF Radio

Only Topcon receivers can top-mount the radio antenna. This extends the range of RTK radio performance.

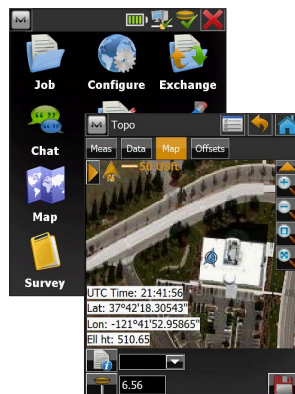


Operating Time

Get the most of your work day and maximize your time in the field with at least a full day of operation from the hot-swappable batteries.

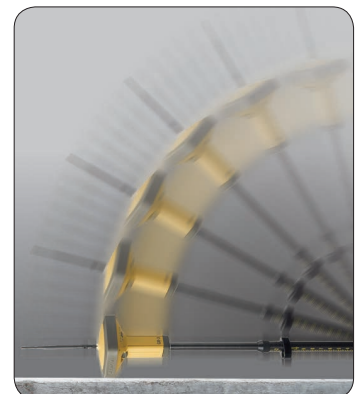
MAGNET® Field

Experience the advantage of MAGNET Field with the GR-5 RTK system. Whether connecting to a network or setting up a Base/Rover system, MAGNET Field makes you more productive. MAGNET Field provides the ability to share data to cloud storage and connect field crews to each other and the office.



Rugged Design

The GR-5 is guaranteed rugged by design. The frame of the GR-5 and the robust internal components are guaranteed to resist a 2m pole drop.

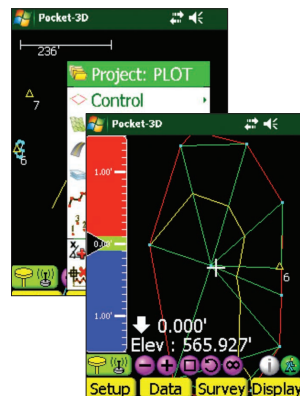


PRIMARY FEATURES



Pocket-3D

Pocket-3D puts the power of GNSS based site management in the hands of site foremen and grade checkers, making it easy for them to verify grades, reset stakes or topo any area on the site.



KIT COMPONENTS

- GR-5 Receiver with Case
- Batteries and Charger
- Communication Cables
- Antennas
- Manuals and Software
- Fixed Height Tripod



SPECIFICATIONS

GNSS

GPS	L1 C/A, L1C, L2P, L2C
GLONASS	L1 C/A, L1P, L2 C/A, L2P
Galileo*	E1, E5a, E5b, AltBOC
BeiDou*	B1, B2
SBAS	L1 C/A WAAS/MSAS/EGNOS
QZSS	L1 C/A, L1C, L2C
Number of Channels	226-Channel Vanguard Technology™ with Universal Tracking Channels
Antenna Type	Integrated Fence Antenna™

Accuracy (RMS) **

RTK	H: 10 mm + 1.0 ppm
	V: 15 mm + 1.0 ppm
Static †	H: 3.0 mm + 0.1 ppm
	V: 3.5 mm + 0.4 ppm

Communication

Optional Radio Type	Integrated UHF/FH915
Base Radio Output	1.0W, user selectable
Optional Cellular	Integrated HSPA/CDMA
I/O Communications	Bluetooth®, USB and Serial

Data and Memory

Memory	Removable SD/SDHC Card
Data Update/Output Rate	1Hz – 100 Hz Selectable
Real Time Data Output	TPS, RTCM SC104, CMR, CMR+
ASCII Output	NMEA 0183 version 2.x and 3.0

Environmental

Enclosure	Magnesium I-Beam Housing
Operating Temperature	-40°C to 70°C †
Protection	IP66, 2 m pole drop to concrete IEC 60068-2-29/-27
Vibration Rating	Compliance with MIL-STD 810F - 514.5 - Cat.24

* Support for Galileo and BeiDou (BDS) signals is incorporated and will be available through firmware and OAF upgrades.

† Under nominal observing conditions and strict processing methods, including 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).

†† -30°C to +60°C with integrated batteries.

For more specifications information:
www.topconpositioning.eu

TOPCON TECHNOLOGY

Vanguard Technology™ and Fence Antenna™

The next generation in GNSS receiver technology

Exclusive Tracking Technology

The GR-5 with Vanguard Technology™ provides the latest advancements and beats the competition in tracking behavior and overall GNSS RTK performance.

Fence Antenna™ Technology¹

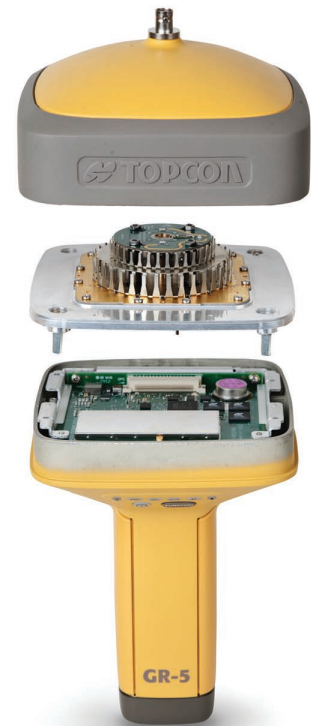
Topcon has set a new industry standard with the state-of-the-art patented Fence Antenna Technology. This revolutionary design provides signal tracking capabilities not found in any other RTK receiver.

Enhanced Sensitivity

The most significant advancement is the performance tracking low elevation satellites. This patented technology provides unsurpassed sensitivity while improving accuracy.

Advanced Multipath Suppression

Not only does the Fence Antenna outperform other RTK receivers with enhanced sensitivity, it also provides multipath rejection characteristics that gives the GR-5 a level of tracking performance in difficult environments beyond any other RTK GNSS receiver.



Your local Authorized Topcon dealer is:



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