



PRECISION GPS+

TOPCON®



GB-1000 GB-500

Advanced Design Modular GPS+ Receivers



GB-500

GB-1000



Topcon is proud to announce the next generation of modular GPS+ receivers, the new GB-1000 and GB-500. Continuing to lead the precision GPS industry with the most extensive lineup of high end receivers, Topcon's new receivers bring advanced design to meet your positioning needs of today with built-in flexibility to meet the expanding needs of the future!

The GB-1000 and GB-500 provide advanced Topcon dual-frequency, dual-constellation, GPS+ receiver board design inside a rugged, compact housing.

Topcon Positioning Systems, through our advanced Paradigm™ chip technology, is the first manufacturer to offer complete customization of the receiver you purchase. Following the tradition of other Topcon GPS+ receivers, this new model also provides complete user customization and upgradeability.

Through the use of Options Authorization Files (OAF's), a customer can select from a wide variety of options to activate in the receiver to meet their exact needs. No cookie-cutter, one receiver fits all approach, like the other precision GPS manufacturers. Topcon believes that a GPS receiver system should fit the exact needs of the customer, and the customer need only pay for the receiver options and functionality they wish to use. Through computer code activation, you decide what receiver design options you need. Then, by simply activating new options as you need them with additional codes, the system can be upgraded right from your desk!

The GB-1000 offers a built in LCD display and operation panel. This display and interface is ideal for checking satellite and receiver status, initializing RTK base operation, or managing static surveying operations. The GB-1000 also provides a Compact-Flash memory card slot and advanced communication support. With USB, serial, and Ethernet connections, nearly all communication links are supported including LAN, WAN, and Internet connectivity.



The GB-500 provides a simple MINTER display with LEDs providing satellite tracking, battery, and recording status. Both receivers hold two removable Li-Ion handy-cam batteries that you can hot-swap for constant operation, or use optional external power.

In the fast-paced world of GPS+ receiver technology, you need to rely on equipment that can grow with your business. With over 70 years of expertise in the precision measuring industry, Topcon designs and builds technology to meet the changing demands of our customers. Contact your local Topcon Distributor for more information or to arrange a demo, or you can visit us at www.topcon.com.

See for yourself why more and more professionals are choosing Topcon GPS+ technology over all the rest!



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Specifications

Tracking Specifications

Tracking Channels, standard	40 L1 GPS (20 GPS L1+L2 on Cinderella Days)
Tracking Channels, optional	20 GPS L1+L2, GLONASS
Signals Tracked, standard	20 L1/L2, C/A, P-Code, Full Cycle Carrier
Measurement Modes	Static/Rapid Static, RTK Kinematic (Continuous mode and Stop & Go mode)

Performance Specifications*

Static, Rapid Static	H: 3mm + 0.5ppm (x base line length) V: 5mm + 0.5ppm (x base line length)
RTK	H: 10mm + 1ppm V: 15mm + 1ppm

Physical Specifications:

Dimensions	
Size	150 x 257 x 63 (mm)
Weight	1.0 kg (without batteries) 1.2 kg (with 2 internal batteries)
Antenna	External
Tripod Clip	Standard Attachment
Modem	Optional External

Power Specifications:

Power Supply	Removable Li-Ion Internal (hot swappable) Optional External
Operating time	7 hours (2x Internal Batteries)
Battery Charger	Integrated and External

Environmental Specifications:

Operating Temperature	-20C° ~ +55C° / -30F° ~ +60F°
Waterproof Rating	IP66
Humidity	95%

I/O - Panel Specifications:

	GB-1000	GB-500
Ports	3 Serial Ports 1 US 1 Ethernet (10BASE-T) 1 Ext Powe 1 Antenna	3 Serial Ports 1 USB 1 Ext. Power 1 Antenna
Serial Speed	Max 460,800	Max 460,800
Optional I/O signals/ports	1-PPS, 1-Even	1-PPS, 1-Event
Control Panel:	GB-1000	GB-500
User Interface	160x64 dot LC 20 Char x 4 Line	5 LED (Satellite Status, 2 Battery Status, Key Lock Status and Recording Status)
Buttons	9 Button (Power, 4-Direction Cursor ESC, ENTER, MENU, 4-Function keys)	3 Buttons (Power, Record, Lock)

Memory & Recording:

Raw Data Memory	Internal Memory Selectable: 4MB to 1GB
Additional Memory	Compact Flash Card Slot – Type 2
Logging Intervals	Up to 20 times per second (20 Hz)

RTK:

Ambiguity Initialization	OTF
Communication Formats	CMR+, CMR, RTCM 2.3, TPS
Multi Base RTK	Supported

*GPS+ Performance and accuracy specifications are dependent on conditions; assume a quality GPS/GLONASS constellation above 15° in elevation and operation of the receiver in adherence with procedures described in the TPS receiver operation manuals. In areas susceptible to high levels of multipath, during periods of high DOP, and during periods of ionospheric disturbance, performance may be degraded.



HiPer+
Wireless GPS+ Receiver

