



PRECISION GPS+

TOPCON®



GB-1000 GB-500

Advanced Design Modular GPS+ Receivers



ISO 9001:2000
FM 68448



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!



Phone: (800) 443-4567

Specifications subject to change without notice

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Specifications

Tracking Specifications

Tracking Channels, standard
Tracking Channels, optional
Signals Tracked, standard
Measurement Modes

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

Performance Specifications* Static, Rapid Static

RTK

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

Physical Specifications:

Dimensions

Size
Weight

150 x 257 x 63 (mm)
1.0 kg (without batteries)
1.2 kg (with 2 internal batteries)

Antenna
Tripod Clip
Modem

External
Standard Attachment
Optional External

Power Specifications:

Power Supply

Removable Li-Ion Internal (hot swappable)
Optional External

Operating time
Battery Charger

7 hours (2x Internal Batteries)
Integrated and External

Environmental Specifications:

Operating Temperature
Waterproof Rating
Humidity

-20C° ~ +55C° / -30F° ~ +60F°
IP66
95%

I/O - Panel Specifications:

Ports

GB-1000	GB-500
3 Serial Ports	3 Serial Ports
1 USB	1 USB
1 Ethernet (10BASE-T)	1 Ext. Power
1 Ext Power	1 Antenna
1 Antenna	

Serial Speed
Optional I/O signals/ports

Max 460,800	Max 460,800
1-PPS, 1-Event	1-PPS, 1-Event

Control Panel:

User Interface

GB-1000	GB-500
160x64 dot LCD	5 LED (Satellite Status,
20 Char x 4 Line	2 Battery Status, Key
	Lock Status and
	Recording Status)

Buttons

9 Buttons (Power, 4-Direction Cursor ESC, ENTER, MENU, 4-Function keys)	3 Buttons (Power, Record, Lock)
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Memory & Recording:

Raw Data Memory

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

Additional Memory
Logging Intervals

RTK:

Ambiguity Initialization
Communication Formats
Multi Base RTK

OTF
CMR+, CMR, RTCM 2.3, TPS
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

