



PRECISION GPS+

**TOPCON**<sup>®</sup>



# HiPer<sup>®</sup>

Wireless, integrated GPS+ receiver system



ISO 9001:2000  
FM 68448

**If you are looking to add the most advanced GPS technology to your business, look no further than the new Topcon HiPer®+.**



From the extremely successful HiPer series of compact, integrated GPS receivers, the new HiPer+ continues to offer the advantages of a small, lightweight design, and the power of dual-constellation satellite tracking with the added features of wireless communication and an advanced center-mount UHF antenna design that boosts RTK performance and distance, without any degradation of GPS signals.

That's why at Topcon, we are proud to boast that we are the new leader in precision GPS systems and technology! A pretty big boast, but one that we back up with the broadest, most advanced product lineup in the industry. The HiPer+ takes its place along side 8 other precision dual-frequency receiver designs. We feel that in order to best serve our customer's needs, just one or two receiver options is not enough. Topcon prides itself on being able to customize a GPS solution that best fits your needs, instead of forcing you to conform to only one or two systems.

A member of Topcon's award winning line of GPS technology, the HiPer+ already boasts some impressive technology firsts:

- World's First wireless dual-constellation GPS System
- World's First advanced performance center-mount RTK UHF antenna
- World's First GPS system capable of 1Gb internal data storage
- World's First integrated 40 channel dual frequency receiver with integrated Bluetooth™ Technology
- World's First GPS System with advanced Co-Op tracking for unsurpassed under-canopy performance

Only from Topcon, the World leader in precision positioning technology!

Just as with the other models in the HiPer family of receivers, the HiPer+ offers an integrated design that includes a GPS receiver, antenna, power supply, and RTK radio link; all in a compact, waterproof, durable housing that is designed to take the bumps and bruises of the field.



The HiPer+ also has the option of dual-constellation (GPS + Glonass) tracking which provides 40% more satellite coverage than GPS alone. This added advantage virtually eliminates downtime due to poor satellite coverage, or in those difficult environments where satellite obstructions knock out GPS only systems.

So when considering your precision GPS options, take a good look at the new HiPer+. We're confident you'll see for yourself what everyone's talking about.



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Patents Pending

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**FC-100**  
Rugged Window CE™  
Field Computer



**GB-1000**  
Modular GPS+  
Base Receiver



**Description**

40 channel integrated GPS+ receiver/antenna with MINTER interface.

**Tracking Specifications**

Tracking Channels, standard 40 L1 GPS (20 GPS L1+L2 on Cinderella<sup>2</sup> days)  
Tracking Channels, optional 20 GPS L1+L2 (GD), GPS L1 + GLONASS (GG), 20 GPS L1+L2+GLONASS (GGD)  
Signals Tracked L1/L2 C/A and P Code & Carrier and GLONASS

**Performance Specifications**

Static, Rapid Static H: 3mm + 0.5ppm  
V: 5mm + 0.5ppm  
RTK H: 10mm + 1ppm  
V: 15mm + 1ppm

**Power Specifications**

Battery Internal Lithium-Ion batteries plus 1 external power port for 14+ hours of operation  
External power input 6 to 28 volts DC  
Power consumption Less than 4.2 watts

**GPS+ Antenna Specifications**

GPS / GLONASS Antenna Integrated  
Antenna Type Center-mount UHF Antenna  
Ground Plane Antenna on a flat ground plane

**Radio Specifications**

UHF Radio Modem Internal Rx or External Tx/Rx  
Base Power Output 0.5W/2.0W/35W  
CDPD & GSM Modem Optional Accessory

**Wireless communication\***

Communication Bluetooth™ version 1.1 comp.

**I/O**

Communication Ports 4x serial (RS232)  
Other I/O Signals 1pps, Event Marker  
Status Indicator 4x3-color LED's, two-function keys (MINTER)  
Control & Display Unit External: FC-1000, Ranger, or 3rd Party

**Memory & Recording**

Internal Memory Up to 128 MB  
Data Update Rate Up to 20 times per second (20Hz)  
Data Type Code & Carrier from L1 and L2, GPS & GLONASS

**Data Input/Output**

Real time data outputs RTCM SC104 ver. 2.1, 2.2, 2.3, 3.0, CMR, CMR+  
ASCII Output NMEA 0183 version 3.0  
Other Outputs TPS format  
Output Rate Up to 20 times per second (20Hz)

**Environmental Specifications**

Enclosure Aluminum extrusion, waterproof  
Operating Temperature -30°C to 60°C  
Dimensions W:159 x H:172 x D:88 mm / 6.25 x 6.75 x 3.5 in  
Weight 1.65 kg / 3.64 lbs

\*Bluetooth™ type approvals are country specific. Please contact your Topcon representative for more information.

Topcon sells GPS products into the precision markets only.

Go to [www.topcongps.com](http://www.topcongps.com) for details.

1 Specifications are subject to change without notice. Performance specifications assume a minimum of 6 GPS or 7 GPS/GLONASS satellites above 15 degrees in elevation and adherence to procedures recommended by TPS in the appropriate manuals. In areas of high multipath, during periods of high PDOP and during periods of high ionospheric activity performance may be degraded. Robust checking procedures are highly recommended in areas of extreme multipath or under dense foliage.

2 Cinderella feature activates GGD reception at GPS midnight every other Tuesday for 24 hours.