



PRECISION GPS+

TOPCON®



HiPer^{XT}

Wireless, integrated GPS+ receiver system with
internal cellular modem and TX/RX UHF radio



ISO 9001:2000
FM 68448



HiPer XT – eXtended Technology GPS Plus Technology for the Modern Job Site

Topcon continues to lead the satellite positioning industry with the most advanced, innovative receiver designs available. The extremely successful HiPer series of compact, integrated GPS receivers, set the new design standard for mobile receivers. Now Topcon has once again designed a receiver that outperforms all the rest – the new HiPer XT.

At the heart of this new system is Topcon's new XT (eXtended Technology) system design. This new receiver design provides a user with two forms of RTK communication all inside one compact, lightweight housing. The HiPer XT incorporates both a transmit and receive 2-watt UHF radio & an optional cellular modem.



The new Topcon HiPer XT system gives you two systems in one. Use two HiPer XT receivers as a base and rover system for areas outside reliable digital cellular coverage. When operating in an area of reliable cellular coverage or within an RTK network system, use both HiPer XT receivers as rover units to double your productivity and efficiency!

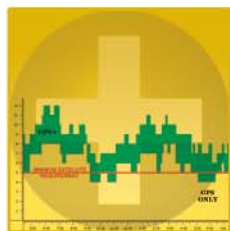
As with many Topcon receivers before it, the new HiPer XT receiver boasts several design advantages that separate it from any other receiver. Many of these features are World's Firsts:

- Completely cable free base & rover or rover & rover RTK GPS System
- World's First UHF Transmit & Receive system with built-in cellular modem
- Dual constellation (GPS+GLONASS) satellite positioning technology
- 40 channel all-in-view signal tracking ability
- Industry leading 20Hz fast update rate
- Upgradeable receiver options through simple computer codes

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

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

The HiPer XT also incorporates Topcon's leading dual-constellation (GPS+GLONASS) tracking technology which provides 40% more satellite coverage than GPS alone. This added advantage virtually eliminates downtime due to poor satellite coverage or in 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 XT. 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 ² 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 Tx/Rx
Base Power Output	0.1W/2.0W/optional ext. 35W
CDMA & GSM Cellular Modem	Optional, Internal

Wireless communication*

Communication	Bluetooth™ version 1.1 comp.
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I/O

Communication Ports	4x serial (RS232), USB
Status Indicator	4x3-color LED's, two-function keys (MINTER)
Control & Display Unit	External Field Controller

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 55°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 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.