



**HIPER PRO**

***GPS+  
RECEIVERS***

## HiPer Pro, completely cable-free, GPS+ RTK system with integrated UHF radio!

*Topcon HiPer Pro offers a high performance GPS+ receiver incorporating the very latest technological developments and unique Topcon features. Everything you need to perform GPS+ work is fully integrated in the new HiPer Pro.*

*Receiver, antenna, power supply and the RTK modem link are all neatly packaged inside the rugged, compact housing of the HiPer Pro. For RTK rover, base station, static survey or stop-and-go, this is the model to suit your needs.*

# HiPer Pro



Topcon's HiPer Pro is available with integrated radio modem for base and rover. The HiPer Pro Set comprises a base unit with an integrated transmit/receive radio and a Rover unit with a receive only radio. The base unit can be used as base or rover. This reduces the number of external devices, batteries and cables needed to connect them. Everything you need for RTK surveying integrated in one compact unit and mounted on top of the tripod and rover pole. With HiPer Pro, even the cable to the controller unit is eliminated by the integration of Bluetooth technology, providing a completely cable-free solution.

### RTK system with integrated UHF radio

The HiPer Pro will provide up to 6 kilometer of coverage with the internal radio, a 1-Watt transceiver available with all European frequencies. HiPer Pro incorporates advanced radio technology called 'Free Channel Scan', which automatically detects disruptive radio interference and changes channels to compensate.

### HiPer Pro

- Simple setup and operation
- Compact, lightweight design
- Base and Rover both HiPer Pro
- Totally cable-free solution
- Integrated Bluetooth communication
- Fully integrated UHF radio
- 'Free Channel Scan'
- Upgradeable to GPS+GLONASS tracking

### Convenience

HiPer Pro is the complete GPS+ RTK solution with ultimate convenience. No more hassle of an RTK base station with external batteries, antennas and RTK radios that are all connected with fragile cables.

HiPer Pro has a design of complete, integrated RTK base and rover system, completely cable-free. No more cables to break! No more wasted time of a complicated base station setup! Less equipment to carry into the field. Less to forget back at the office!



# SPECIFICATIONS

<b>HIPER PRO</b>	
<b>DESCRIPTION</b>	40 channel integrated GPS+ receiver/antenna with MINTER interface
<b>TRACKING SPECIFICATIONS</b>	
Tracking channels, standard	40 L1 GPS (20GPS L1+L2 on Cinderella days) *
Tracking channels, optional	20 GPS L1+L2 (GD), GPS L1 + GLONASS (GG) 20 GPS L1+L2+GLONASS (GGD)
Signals Tracked	GPS L1/L2, C/A and P Code & Carrier and GLONASS L1/L2 and L2C
<b>PERFORMANCE SPECIFICATIONS</b>	
Static, Rapid Static	H: 3 mm + 0.5 ppm V: 5 mm + 0.5 ppm
RTK	H: 10 mm + 1.0 ppm V: 15 mm + 1.0 ppm
Cold Start	<60 seconds
Warm Start	<10 seconds
Reacquisition	<1 second
<b>POWER SPECIFICATIONS</b>	
Battery	Internal Lithium-Ion batteries for up to 14+ hours of operation (10 hours Tx)
External power input	6 to 28 volts DC
Power consumption	Less than 4.2 watts
<b>GPS+ ANTENNA SPECIFICATIONS</b>	
GPS / GLONASS Antenna	Integrated
Ground Plane	Integrated flat ground plane
<b>RADIO SPECIFICATIONS</b>	
Radio Type	Internal Tx/Rx (selectable frequency range)
Power Output	1.0 Watt / 0.25 Watt (selectable)
Radio Antenna	Center-mount UHF Antenna
<b>WIRELESS COMMUNICATION</b>	
Communication	Bluetooth® version 1.1 comp. **†
<b>I/O</b>	
Communication Ports	2x serial (RS232)
Other I/O Signals	1pps, Event Marker
Status Indicator	4x3-color LEDs (Green, Red, Yellow), two-function keys (MINTER)
Control & Display Unit	External Field Controller
<b>MEMORY &amp; RECORDING</b>	
Internal Memory	Up to 1 GB
Update Rate	Up to 20 times per second (20Hz)
Data Type	Code and Carrier from L1 and L2, GPS and GLONASS and L2C GLONASS
<b>DATA OUTPUT</b>	
Real time data outputs	RTCM SC104 version 2.1, 2.2, 2.3, CMR, CMR+
ASCII Output	NMEA 0183 version 3.0
Other Outputs	TPS format
Output Rate	Up to 20 times per second (20Hz)
<b>ENVIRONMENTAL SPECIFICATIONS</b>	
Enclosure	Aluminum extrusion, waterproof
Operating	Temperature -30°C to 55°C
Dimensions	W:159 x H:172 x D:88 mm
Weight	1.65 kg

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.

\* Cinderella feature activates full receiver reception at GPS midnight every other Tuesday for 24 hours.

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

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## Other Topcon GPS+ Products



### GPS+ receiver GB-500

Suitable for a wide range of GPS surveying tasks, the GB-500 is ideal as a base station receiver for static measurements or RTK and as a backpack rover solution with local base station or used in a GPS network.



### GPS+ receiver GB-1000

New GPS+ receiver with full GPS and GLONASS capability, internal batteries, LCD display, Ethernet and USB ports, and removable Compact Flash.



### PG-A1

The PG-A1 is a precision dual-frequency, dual-constellation antenna featuring precision micro center technology and an integrated ground plane to help eliminate errors caused by multipath. The PG-A1 was designed to accompany the Topcon modular receivers such as the Legacy-E, Legacy-H Odyssey-RS, GB-500 and GB-1000.

## More than 70 years of experience

For 70 years, Topcon has been a leading manufacturer in industrial, medical and positioning enhancement tools. This broad experience has created a basis for Topcon's wide product line for basically every positioning need, whether it's for construction or surveying applications.

For the construction industry, Topcon offers a complete range of innovative laser and sonic solutions, including industry leading products for interior, utility, general construction and machine control applications. For surveying applications, Topcon manufactures and supplies a complete range of optical measuring products, from digital and optical levels to theodolites and robotic total stations, and a full line of GPS+ satellite positioning solutions.

### Product & Service support

To assure that your Topcon product maintains peak performance, your local Topcon dealer offers factory trained certified service technicians. And just in case service assistance isn't available in your area, our Europe wide network of Topcon offices, offer repair and return service policies second to none.

### Innovation, not imitation

During the last decades, Topcon has brought many innovative solutions to the industry, that offer the contractor significant productivity increase and greater ease of use. That's the key to leadership, and the reason Topcon is the world's leading supplier of laser and surveying instruments. Some examples of unique Topcon technologies:

- Waterproof auto level
- The integrated total station, "The Guppy"
- The compact coaxial total station (GTS-1)
- World's First laser with beam scanning technology
- The first waterproof total station
- GreenBeam® visible construction lasers
- Automatic excavator control system
- World's First 3-D machine control (3D-MC™ LPS)
- 5" Grade laser with automatic alignment & remote control
- Horizontal self leveling laser with liquid compensator
- First robotic total station with instant beam lock system (GTS-800A and RC-2)
- First satellite-directed automatic 3D machine control system (3D-MC™ GPS)
- mmGPS: GPS flexibility with total station accuracy



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