



PRECISION GPS+

**TOPCON**®



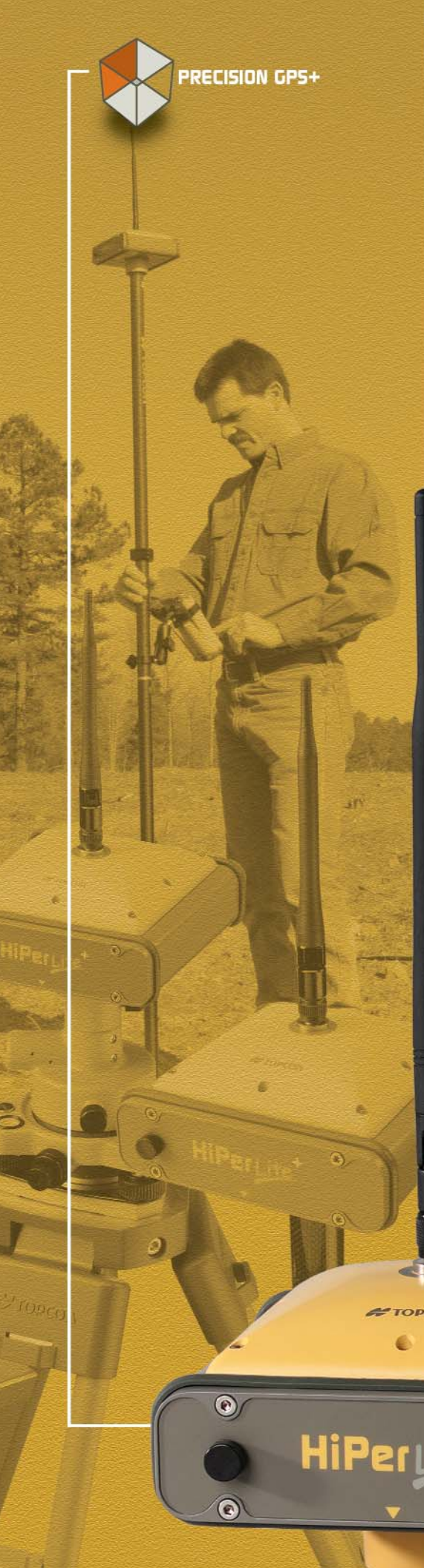
# HiPer<sup>®</sup> Lite+

Completely cable-free, integrated GPS+ RTK system

**New Improved  
Radio for  
Extended Range**



ISO 9001:2000  
FM 68448





## Welcome to the future of modern RTK GPS+ Systems! The new Topcon HiPer® Lite+!

**NOW Dual-Constellation! GPS + GLONASS!** Finally, a complete RTK GPS+ system that leaves behind the mess of complicated, tangled cables we have come to expect at the typical RTK base station. While our competitors choose to only focus on one half of the system, Topcon is once again leading the industry by providing the **WORLD'S FIRST** completely cable-free system!

That's right, no more hassles of an RTK Base Station with it's convoluted mess of external batteries, antennas, and RTK radios that were all connected with fragile cables. Topcon has designed a complete, integrated RTK Base & Rover system that is completely cable free. No more cables to break, and no more wasted time of a difficult base receiver setup. That's why we call this system HiPer Lite+. Less equipment to carry into the field, and less to forget back at the office!

The secret to HiPer Lite+ is the advanced internal radio technology that has allowed Topcon to create an integrated system where others still offer a complicated mess of cables. The new design incorporates a high performance 915 MHz Spread Spectrum radio that provides superior interference-free communications up to 1.5 miles on your job site.

But don't let the name HiPer Lite+ fool you. This compact little system still packs a powerful punch. HiPer Lite+ incorporates Topcon's advanced 40 channel dual-frequency GPS+ technology, the Paradigm™ Chip, and offers all the Topcon advances in tracking technology such as Co-Op™ tracking, Advanced Multipath Reduction (AMR).



HiPer Lite+ is not only free from cable hassles, it's also Lite on your wallet as well. Starting at a price well below a typical RTK GPS+ system the Topcon HiPer Lite has finally broken the long time price barrier that separated many customers from the benefits of RTK GPS+ technology. Now advanced technology precision GPS+ is available at a price tag that won't break the bank.

A lot is changing in the World of precision GPS+ technology, and Topcon is proud to be leading the way with the most advanced, innovative systems available. With over 70 years of experience and leadership in the precision measuring industry, it should come as no surprise. So when considering your precision GPS+ options, take a good look at the new HiPer Lite+. We're confident you'll see for yourself what everyone's talking about!

**Superior Technology. Superior Design.  
Only from Topcon, the World leader in  
precision positioning technology!**

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Specifications subject to change without notice  
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 for  
up to 14+ hours of operation (10 hrs TX)  
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 Spread Spectrum Antenna  
Ground Plane Antenna on a flat ground plane

### Radio Specifications

915 MHz SpSp Modem Internal Tx/Rx  
Power Output 1.0W/0.25W (selectable)

### Wireless communication\*

Communication Bluetooth™ version 1.1 comp.

### I/O

Communication Ports 2x serial (RS232), USB  
Other I/O Signals 1pps, Event Marker (optional)  
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 and Carrier from L1 and L2, GPS and 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](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.