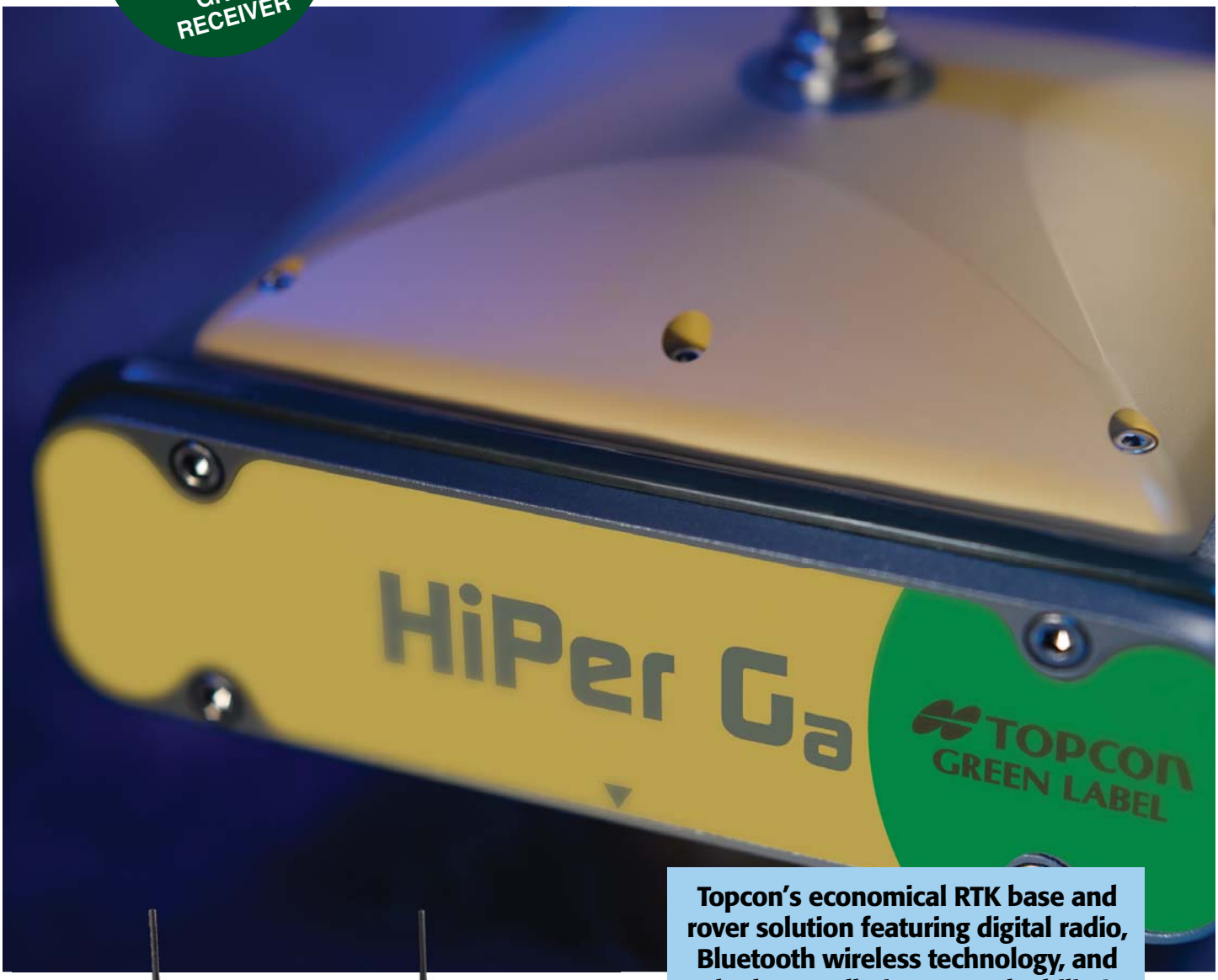
HiPer G-Series

TOPCON

TOPCON GREEN LABEL
HiPer Ga/Gb
GNSS RECEIVER

# ECONOMICAL RTK POSITIONING SOLUTION




**Topcon's economical RTK base and rover solution featuring digital radio, Bluetooth wireless technology, and dual constellation upgradeability!**


- Innovative, cable-free system design
- GPS and Glonass satellite system tracking (Ga model only)
- Advanced Digital Radio Communications System
- Integrated Bluetooth Wireless Technology
- Powerful 40 channel GNSS board operating at up to 20Hz
- User selectable and upgradeable internal memory (Ga only)
- Rugged, waterproof, field proven system design

Purchasing advanced positioning equipment on a limited budget doesn't have to mean sacrificing capability, functionality, or ease-of-use. Topcon's Green Label line of products offer advanced technology, providing maximum field performance for a price that won't break the bank.

Built on Topcon's field-proven, reliable HiPer series platform, HiPer Ga and HiPer Gb RTK receivers offer the latest in advanced technology and sophisticated design at an extremely affordable price. Like Topcon's other popular HiPer series receivers, the HiPer Ga and Gb feature an "all-in-one" design eliminating the hassles of hauling around multiple components and cables vulnerable to loss, breakage, and the everyday punishment of the job site.

Both of these receivers feature Topcon's new, state-of-the-art digital radio. As with current cellular technology, digital radios have replaced outdated analog systems because of their superior signal quality, robust performance, and advanced interference suppression. Another Topcon World's First, the leader in providing advanced technology to the positioning industry.

### HiPer Ga

The HiPer Ga features GPS satellite tracking capability standard, with the added bonus of optional GLONASS satellite tracking upgradeability via OAF activation code. Software-based OAF upgradeability means there's no hardware changes or modifications required. Your local Topcon dealer can upgrade your HiPer Ga while you wait in most cases.

The HiPer Ga can be configured as a cable-free base and rover system for traditional applications, or as two rover receivers from a fixed base station or a GNSS network system, via radio or cellular communication.

*Dual Rover RTK*

*Base and Rover RTK*

### HiPer Gb

The HiPer Gb provides similar hardware functionality to the Ga, but with GPS only tracking capabilities and fewer upgradeability choices. The HiPer Gb is a very economical cable-free RTK base and rover system. The HiPer Gb provides a fully functional GPS RTK system that can also be used for traditional static observations, at a price that fits any budget.

If you're looking for an economical RTK solution that provides advanced technology, wireless system design, and rugged, waterproof construction look no further. Topcon's Green Label HiPer Ga and HiPer Gb are the cost-effective answer you've been waiting for!

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It's time.


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## Specifications

| | |
|---|---|
| **SATELLITE TRACKING** | |
| Signals Tracked | |
| Hiper GA | GPS and GLONASS L1/L2 C/A,P-Code, Full Code & Carrier |
| Hiper GB | GPS Only L1/L2 C/A, P-Code, Full Cycle |
| Carrier | |
| Channels | 40 channels L1/L2 |
| WAAS/EGNOS | Available |
| Cold Start | < 60 sec |
| Warm Start | < 10 sec |
| Reacquisition | < 1 sec |
| Multi-path mitigation | Advanced muti-path mitigation |
| **ACCURACY** | |
| Static, Fast Static | |
| L1+L2 | H: 3mm+0.5ppm x D, V: 5mm+0.5ppm x D |
| L1 | H: 3mm+0.8ppm x D, V: 4mm+1.0ppm x D" |
| Kinematic, RTK | |
| L1+L2/L1 | H: 10mm+1ppm x D, V: 15mm+1ppm x D" |
| **WAAS/EGNOS** | |
| Differential Accuracy | <5m 3DRMS[1] |
| **DGPS** | |
| Post Processing | 0.3m |
| DGPS/RTCM | < 0.5m |
| Initialize ambiguity | OTF |
| RTK Fix Reliability | 99.9%, 99.5%, 95% Selectable |
| **PHYSICAL** | |
| Dimensions(mm) | W:159 x H:173 x D:113 |
| Weight | 1.65Kg |
| Enclosure | Aluminum Extrusion |
| Antenna | Internal |
| **POWER** | |
| Battery Type | Internal battery, Li-ion (4400mA/7.4V), |
| Battery size(mm) | 132 x 35 x 18 |
| Battery weight | 165g |
| Number of batteries | 2 batteries |
| Operating time | 10 hours with TX, 12 Hours with RX mode, 16 hours in static only mode |
| Output power | 12V |
| **ENVIRONMENT** | IPX6 |
| Operating Temp. | -30C° ~ +60C° |
| Storage Temp. | -40C° ~ +75C° |
| Waterproof | Yes |
| Humidity | 95% |
| **CONNECTOR AND I/O** | |
| Connector | 2-Serial Port, 1-USB, 1-Ext.Power, 1-Modem antenna |
| Serial speed | Maximum up to 460800 |
| Blue tooth | Standard (internal) |
| Control panel | MINTER, 4LED x 3 color |
| **MEMORY CAPACITY** | |
| Standard: | GA - 32MB, GB – 8MB |
| Maximum: | GA – upgradeable to128MB, GB – not upgradeable |
| Type | Onboard |
| Logging Time | 1080 hours (128MB, 15sec, L1/L2 and 6 satellites) |
| **RTK COMMUNICATIONS** | |
| Modem Type | Internal Digital TX/RX /DSP |
| Output Power | Selectable up to 1W (in 1dB steps) |
| Frequency Range | 410 – 470 MHz programmable |
| Maximum Range | 3.5 to 5 miles with optimal conditions[2] |
| Channel Spacing | 25kHz or 12.5 kHz selectable |
| RTK Update rate | GA: 5Hz, upgradeable to 20Hz GB: 5Hz |
| Latency | 25msec |
| Format | CMR2,CMR+,RTCM 2.1, 2.3, 3.0, TPS |
| Cellular Modem Support | External capable (GA receiver model only) |

[1]=Depends on WAAS/EGNOS system performance
[2]=Radio performance dependent on atmospheric conditions and terrain

Your local Authorized Topcon dealer is: