



## 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
- 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 system for reliable two-way RTK communications. As with current cellular technology, digital radios have replaced outdated analog systems because of their superior signal quality, robust performance, and advanced interference suppression.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

### HiPer Gb

The HiPer Gb provides similar 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, or can be used as a two rover system working from a fixed base station. 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!



Base and Rover RTK

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Specifications subject to change without notice

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## Specifications

### SATELLITE TRACKING

Signals Tracked	GPS and GLONASS L1/L2 C/A, P-Code, Full Code & Carrier
Hiper GA	GPS Only L1/L2 C/A, P-Code, Full Cycle
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 multi-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 <sup>1</sup>
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

### ENVIRONMENT

Output power	12W
ENVIRONMENT	IPX6
Operating Temp.	-30°C ~ +60°C
Storage Temp.	-40°C ~ +75°C
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 to 128MB, GB - not upgradeable
Type	Onboard
Logging Time	1080 hours (128MB, 15sec, L1/L2 and 6 satellites)
File system	Non-FAT (prop.)

### 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
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)

<sup>1</sup>=depends on WAAS/EGNOS system performance

Your local Authorized Topcon dealer is: