



HiPer Ga

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
- 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, the HiPer Ga RTK receiver offers the latest in advanced technology and sophisticated design at an extremely affordable price. Like Topcon's other popular HiPer series receivers, the HiPer Ga features 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.

The HiPer Ga features 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 As with current cellular technology, digital radios have replaced outdated analog systems because of their superior signal quality, robust performance, and advanced interference suppression.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.

In addition, 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.



Base and Rover RTK



Dual Rover RTK

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Specifications subject to change without notice

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P/N: 7010-0834 Rev. C Printed in U.S.A. 10/09

Specifications

SATELLITE TRACKING

Signals Tracked	GPS and GLONASS L1/L2 C/A,P-Code, Full Code & 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 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

ENVIRONMENT

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
Bluetooth	Standard (internal)
Control panel	MINTER, 4LED x 3 color

MEMORY CAPACITY

Standard	32MB
Maximum	upgradeable to 128MB
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	5Hz, upgradeable to 20Hz
Latency	25msec
Format	CMR2, CMR+, RTCM 2.1, 2.3, 3.0, TPS
Cellular Modem Support	External capable

¹=Depends on WAAS/EGNOS system performance

²=Radio performance dependent on atmospheric conditions and terrain

Your local Authorized Topcon dealer is: