

# The “All-in-One” RTK GPS Pair

## A Complete RTK GPS Receiver Pair: All-in-One Box and Ready-to-Survey!


Two identical RTK Receivers, with internal 1-watt Satel Transmit/Receive 400 MHz UHF radios, GSM Cellular Modems, batteries, chargers, antennas and download cables. A complete RTK survey pair in a heavy-duty field case.

- Use your own data collector or purchase one of our data collector kits, complete with field software.
- Trimble BD-970 220-Channel, 4-constellation GPS+GLO+GAL+BDU, fully enabled GNSS engine provides best-in-class tracking and RTK performance: GPS: L1C/A, L1C, L2C, L2E, L5; GLONASS: L1 C/A, L1P, L2 C/A, L3 CDMA6; Galileo: E1, E5A, E5B, E5AltBOC; BeiDou: B1, B2; QZSS: L1 C/A, L1 SAIF, L2C, L5; SBAS: L1 C/A, L5; WAAS, EGNOS, MSAS
- Fully provisioned: both the Base and the Rover are fully optioned for all constellations and all operation modes (UHF, Network and DCI.) There are no ‘after-sale’ options.
- Internal Satel 1-watt UHF Transmit / Receive Radio (403 MHz - 473 MHz.)
- Network Ready: Internal GSM Modem or Internet via Data Collector (DCI.)
- Large ground-plane geodetic antenna offers low angle tracking with near choke-ring performance.
- 4-GB Internal Memory: stores 250+ days of 5-second interval observation data, emulates a USB External Drive for easy file downloads, simple 1-button data record or program for automatic collection.
- Direct submission to OPUS Static, RS and Projects with the included iGage X9x Download tool.
- Cable free field operation.
- Rugged, Submersible, IP67. 2-year warranty on GPS receivers.
- Eligible for iGage 10-24 same as cash financing.

[www.x9gps.com/aio](http://www.x9gps.com/aio)



# All-in-One GNSS RTK GPS Specifications

All-in-One Model	<b>X91+</b>
Price (MSRP) <sup>5</sup>	<b>Visit <a href="http://www.x9gps.com">www.x9gps.com</a> for current pricing</b>
GNSS Engine	Trimble BD-970
	
Measurements	220 Channels, 4 constellations GPS: L1C/A, L1C, L2C, L2E, L5 GLONASS: L1C/A, L1P, L2C/A, L2P, L3 SBAS: WAAS, EGNOS, MSAS Galileo: E1, E5A, E5B (test) BeiDou: B1, B2 5-hz rate
RTK Performance <sup>1</sup>	Horz 8 mm + 1 ppm RMS Vert 15 mm + 1 ppm RMS
Post-Processing Static Performance <sup>1</sup>	Horz 3 mm + 0.5 ppm RMS Vert 5 mm + 0.5 ppm RMS
Initialization <sup>4</sup>	< 10 seconds, 99.9% reliability
Protocols	RTCM 2.3, RTCM 3.0, CMR, CMR+, sCMR, NMEA 0183 HCN output for GNSS raw data
Network	Base and Rover All-in-One receivers are identical and can be used as two Network Rovers. Data Collector Internet, Wi-Fi via Data Collector Internet and Internal GSM modems allow for NTRIP and DIP connections.
Communication	1x RS232 serial port; 1x USB Integrated Bluetooth® Class 2 Integrated GSM/GPRS modem Internal Satel Transmit / Receive UHF: 403-473 MHz; Trimtalk, EOTT, SATEL
Physical	Size (LxWxH): 7.5 x 7.9 x 3.3 in (190 x 200 x 84 mm) Weight: 3 lbs. 1 oz. (1.4 kg) with battery Operating temperature: -40°F to 149°F (-40°C to +65 °C) Storage temperature: -40°F to 167°F (-40°C to +75°C) Humidity: 100% condensation Waterproof and dust proof: IP67 protected from temporary, immersion to depth of 1-meter, floats Shock: survives a 2-meter drop to concrete
Electrical	Power consumption: 2.6 watts as a rover Lithium-Ion battery capacity: 2.2 Ah, 7.4 V, accepts 2.6 Ah extended Battery Life <sup>2</sup> : Up to 6-hours typical, 1,000 charge cycles External power input accepts 9 to 18 VDC Communication: 10-pin Lemo USB: GPS Device mounts as an external drive Serial: RS232 Communications and Configuration Port
Internal Storage	4-GB Flash. Over 50-days storage at 1 Hz, 2-years with 5-second epochs <sup>3</sup>
Data Collection Software	Carlson SurvCE, SurvPC; MicroSurvey FieldGenius
Warranty	2-year iGage warranty; 2-year CHC factory warranty; accessories 1-year; batteries 90-days

Some of the Standard Data Collector Kits offered by iGage					
Model	LT30TN	Nautix X8 NX8-BW	Mini2 GEO	Surveyor2 GEO	Ranger 3 3XC
Includes SurvCE & Brackets	<b>\$1,748</b>	<b>\$2,096</b>	<b>\$3,406</b>	<b>\$4,350</b>	<b>\$4,341</b>

<sup>1</sup> Precision and performance values assume a minimum of 9-satellites in multipath clear, EMI free, obstruction free environment with reasonable atmospheric conditions and satellite geometry. Network based solutions based on shortest actual baseline. Post-processed accuracy is dependent on baseline length and time-on-point, 24-hour observations may be required. Stable mounts and generally accepted survey practices are required for the highest order survey results.

<sup>2</sup> Battery life varies with temperature and battery age. An external power source is recommended for static occupations lasting longer than 4-hours and base operation longer than 2 hours. Elevated and extreme cold working or storage temperatures (> 85°F, <-20°F) hasten capacity loss.

<sup>3</sup> Assuming 14-tracked satellites.

<sup>4</sup> Initialization times assume reasonable baseline, constellation and number of SV's in a multipath and obstruction clear environment.

<sup>5</sup> Price includes 3-day Shipping to most USA address.

Prices, specifications and descriptions are subject to change without notice. Please call us for the latest information and a custom quotation.

A FCC license is required for base operation.

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#### Included Accessories:

- Download Cable
- Heavy-Duty External Power Cable
- Extension Pole for Base-on-Tripod
- Tuned UHF Antennas
- UHF Antenna Extension Cable
- 3-Batteries
- Dual-Charger with Power Supply



#### iGage Mapping Corporation

1545 S 1100 E STE 1  
Salt Lake City Utah 84105 USA  
**+1-801-412-0011** [www.igage.com](http://www.igage.com)