



Powered by
Instant-RTK™ Technology!

Sub-Centimeter Accuracy • Compact, Lightweight Design • Integrated & Flexible System Solutions

Z-Xtreme™ is a rugged, weather-proof, dual-frequency GPS receiver designed to provide Surveyors with cost-effective, centimeter-accurate positions in a variety of system configurations.

The Receiver

The Z-Xtreme receiver begins with state-of-the-art satellite electronics coupled with Ashtech's patented Z-Tracking to deliver the highest level of GPS signal commercially available. A removable battery and flash memory card provides enough capacity to last all day for maximum utility. Components are completely integrated inside a weather-proof, high impact plastic housing, ensuring your investment is safe, rain or shine. Use the easy-to-operate interface on the front panel for important functions such as site information entry, checking survey status, and set-up of RTK base stations without the additional cost of a handheld controller. The result: Z-Xtreme with Instant-RTK outperforms all other receivers in its class!

ZX Solutions

The Z-Xtreme survey system provides a range of solutions designed for the vast array of positioning needs – from entry level static or kinematic post-processed surveys, all the way up to real-time functions such as stake out. The entry level ZX Solutions™ system dramatically increases your productivity for control surveys and other post-processed applications. Add an optional kinematic kit to make topographic feature collection more cost effective. Use Ashtech Solutions™ software to easily process the field data, export results and generate reports. Purchase only what you need for the job at hand because ZX Solutions are fully upgradeable.

ZX SuperStation

Eclipse the productivity of optical instrument stake out with a ZX SuperStation™. The ZX SuperStation is a field-to-finish turnkey GPS surveying system that combines the Z-Xtreme receiver with a powerful data collector and wireless modems for centimeter accuracy in real-time. Instant-RTK gives you the ability to initialize the centimeter solution in a fraction of the time of conventional RTK systems. Powerful data collection software gives you the ability to efficiently perform GPS surveying techniques and to interface seamlessly with optical total stations.



Z-Xtreme – increased flexibility
and productivity available only from
Ashtech Precision Products.

Call your dealer today to set up a demo,
or visit our website at www.magellangps.com.





Ashtech Technology

- 12 channel all-in-view operation
- Full-wavelength carrier on L1 and L2
- Z-Tracking
- Multipath mitigation
- Dual-frequency smoothing for improved code differential

Standard Features

- 16 MB PCMCIA removable memory card
- NMEA 0183 output
- Selectable update rate from 999 sec to 10 Hz
- Event marker
- Point positioning
- 1 PPS timing signal
- Session programming
- Wide array of coordinate transformations
- Removable internal battery
- 8-character alphanumeric LED display with 4-button interface
- 3 function LED display – Radio, Memory, Satellites/Power
- Multi-function audible alarm
- Quick reference card holder
- External mount capabilities
- External power input
- 4 RS-232 ports (115,200 baud max, 3 external, 1 internal)
- 1-year warranty
- Free factory technical support

Standard Accessories

- Communications software
- Padded system bag and hard case
- RS-232 data cable
- Receiver operating manual
- Quick reference field card

Optional Features

- Instant-RTK firmware
- Real-time kinematic (base and rover modes) for cm-accuracy
- RTCM 2.2 (Types 1, 2, 3, 9, 16, 18, 19, 20, 21, 22)
- Internal UHF or spread spectrum radio for RTK rover operations
- External UHF or spread spectrum radio for RTK base and rover operations
- Geodetic 4 antenna ground plane kit
- Kinematic antenna kit
- Aircraft antenna kit
- AC power cable
- Choke ring antenna
- Long haul backpack kit
- All-on-a-pole kit

Technical Specifications

Typical Survey Performance¹

- Static, Rapid Static
- Horizontal: 5 mm + 1 ppm
 - Vertical: 10 mm + 1 ppm

Post-Processed Kinematic

- Horizontal: 1 cm + 1 ppm
- Vertical: 2 cm + 1 ppm

Real-Time Code Differential Position

- <1 m

Real-Time Z Kinematic Position (Fine Mode)

- Horizontal: 1 cm + 2 ppm
- Vertical: 2 cm + 2 ppm
- Azimuth (arc sec): 0.4 + 2.0/baseline (km)

RTK Occupation Time

- 2 seconds (typical – sub-centimeter accuracy with longer occupation time)

Instant-RTK Initialization

- 99.9% reliability
- Typically <2 seconds with 6 or more satellites, PDOP <5, baseline length <7 km, open sky and low multipath conditions

RTK Operating Range

- Recommended: ≤10 km
- Maximum: 40 km

Environmental

Z-Xtreme Receiver (with Internal Battery)

- Meets MIL-STD 810E for wind driven rain and dust
- Operating temperature: -30° to +55°C
- Storage temperature: -40° to +85°C

Geodetic 4 Antenna

- Meets IPX7 specifications for submersion
- Operating temperature: -40° to +65°C
- Storage temperature: -55° to +75°C

Physical

Weight

- Receiver: 3.5 lb
- Antenna: 1.95 lb

Dimensions

- 3" h x 7.75" w x 8.75" d

Power

- 10 – 28 VDC, 6.0 W

Internal Battery

- Capacity: 5400 mAh
- 10 hours (typical)

PC Card

- ATA Type II PCMCIA memory card
- Temperature range: -40° to +85°C
- Data capacity: 4500 epochs per 2 MB*

*Based on one session, 8 satellites' data and full measurements. This number can vary significantly depending on the conditions of the session.

Optional Software

- Ashtech Solutions Software Package
- Ashtech Office Suite for Survey
- TDS Survey Pro GPS
- GPS Field Mate
- Seismark II
- Mine Surveyor II

¹ Specifications assume operation follows all the procedures recommended in the product manual utilizing Instant-RTK, post processing with Ashtech Solutions or Ashtech Office Suite for Survey. High-multipath areas, high PDOP values, low satellite visibility, and periods of adverse atmospheric conditions and/or other adverse circumstances will degrade system performance. All accuracy specifications are RMS values.

Specifications are subject to change without notice. Please contact Magellan Corporation for the latest product information.

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