



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](http://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 Performance<sup>1</sup>

#### 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: 1.81 lb
- Battery: 0.96 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)
- Operating temperature: -30° to +55°C
- Storage temperature: -40° to +60°C

## 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

<sup>1</sup> 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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Ashtech P-code GPS technology has been FCC tested and is capable of performing first order surveys (report available upon request).  
Rev 12/00

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