

ProMark 500

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1. What is the BLADE technology?

BLADE is Ashtech's proprietary, state-of-the-art Global Navigation Satellite System (GNSS) Real-Time Kinematic (RTK) and Differential GNSS (DGNSS) engine that is the core GNSS data processing technology implemented in Ashtech products. BLADE contains patented techniques for the optimal combination of different GNSS signals. More info at: <http://www.ashtech.com/en/products/technology.asp>

2. What is the exact number and allocation of channels in ProMark 500?

ProMark 500 has 75 channels available. Among these:

- 5 are dedicated to low-sensitivity acquisition and tracking for better signal detection in difficult environment
- 70 are dedicated to standard satellite tracking

3. Is ProMark 500 Galileo and L5 compatible?

ProMark 500 is Galileo and L5 upgradeable. Its current antenna is already Galileo / L5 capable, and when sufficient Galileo / L5 signals are available to provide clear benefit to end-users, Ashtech will offer an upgrade kit to its current ProMark 500 customers.

4. Is ProMark 500 system shipped in a hard case?

The hard case is available as an accessory and can be ordered separately. This hard case can accommodate a complete system of two ProMark 500 receivers with typical accessories. As standard, the ProMark 500 receiver is delivered in the Ashtech soft bag.

5. What data controller / field terminal is proposed for ProMark 500?

There are two field terminals proposed: ProMark 100 and Ashtech FT-1:

- ProMark 100 is a GPS field terminal that can also be used as a handheld for additional work in pre-surveying and GIS data collection
- Ashtech FT-1 is an ultra-rugged field terminal with full alphanumeric keyboard, for use in tough outdoor environment

6. Which Ashtech field software should be used with the ProMark 500?

Ashtech FAST Survey field software should be used together with Ashtech field terminal in order to control ProMark 500. FAST Survey is advanced field software which includes topographic features, and provides extensive data formats and local coordinate system support.

7. Which Ashtech office software should be used with the ProMark 500?

Ashtech GNSS Solutions office software should be used together to process data collected with ProMark 500. GNSS Solutions is a comprehensive software package that provides all the tools necessary to successfully process GNSS survey data.

8. What are the Bluetooth characteristics of ProMark 500?

Bluetooth implemented in ProMark 500 is Class II with a transmitting power of 2.5 mW (4 dBm) and a range of 15-20 meters.

9. What are the data formats supported by a ProMark 500 rover?

The following formats are supported by ProMark 500 as a rover:

- RTCM 2.3, RTCM 3.1 (including 1021-1023 messages)
- CMR, CMR+
- Ashtech proprietary format ATOM™
- DBEN
- NTRIP protocol

10. What are the data formats output by ProMark 500 base?

ProMark 500 as a base can output data in the following formats:

- RTCM 2.3, RTCM 3.1
- CMR, CMR+
- Ashtech proprietary format ATOM™
- DBEN
- NTRIP protocol

- NMEA 0183

11. Can ATOM be converted to RINEX?

Yes. A new RINEX Converter tool is available, which supports the ATOM format and new versions of RINEX.

12. Is ATOM directly compatible with OPUS or will we need to convert ATOM to RINEX first?

ATOM files have to be converted to RINEX first.

13. Is ProMark 500 backward compatible with the previous proprietary DBEN data format?

Yes, but without GLONASS corrections.

14. How can I charge the ProMark 500 battery?

There are two ways of charging the ProMark 500 battery:

- High-speed charging through the external battery charger requiring less than 1 hour
- Low-speed charging when the battery is inside the receiver: 9 to 10 hours are needed to reach full charge status

An optional cable is available to connect the power adapter to the Fisher connector of the receiver.

15. What is the internal memory capacity for raw data recording?

ProMark 500 is fitted with a 128 MB internal memory. More than 80 MB are dedicated to data recording. This represents more than 400 hours of recording with a time interval of 15 seconds.

16. Can an external memory be connected to ProMark 500?

In order to increase the storage capacity it is possible to connect a USB memory key to the ProMark 500 receiver and expand the capacity to the size of the USB key.

17. How can I upgrade the ProMark 500 firmware and related software?

New ProMark 500 firmware versions or related software such as FAST Survey or GNSS Solutions are periodically made available, free of charge, on the Ashtech FTP server: <ftp.ashtech.com>. Release notes including upgrade instructions can be found there as well.