

ashtech

ProMark™ 200

BLADE™
TECHNOLOGY
INSIDE



All-in-one Rover Solution for Network RTK

DUAL-FREQUENCY



ProMark 200

ProMark 200 is the most cost-effective dual-frequency network RTK solution from Ashtech. Embedded BLADE technology provides outstanding, long-range RTK performance, fast initialization and centimeter-level accuracy. Together with the comprehensive Ashtech FAST Survey™ field software, the ProMark 200 meets the demanding expectations from professional land surveyors.

Ashtech ProMark 200 RTK rover includes extended wireless network communications, large memory, fast processor, Windows Mobile 6.5 operating system; all in a lightweight and very rugged handheld form factor for maximum mobility. The mix of exceptional RTK performance and compact design makes the ProMark 200 an extremely powerful and appealing network RTK rover solution.

Advanced GNSS Solution

- Ashtech BLADE technology for precise RTK
- All-in-view, dual-frequency rover
- Handheld real-time cm-level accuracy

Designed For Efficient Network RTK

- Fast fix with short initialization time
- Built-in GSM/GPRS, WLAN, and Bluetooth wireless connectivity
- Lightweight and rugged handheld design for comfortable use

Best Value For A High-End Survey Solution

- Minimal cost for maximum productivity
- Powerful and complete FAST Survey field software
- Versatile handheld for pre-surveys and GIS jobs

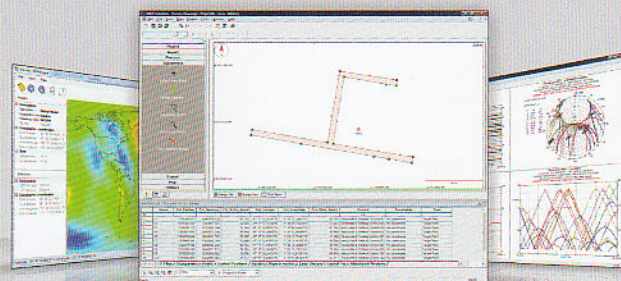


FAST Survey Field Software

Advanced FAST Survey field software meets the most demanding survey requirements. It includes topographic features typically associated with dual-frequency, and provides extensive data formats and local coordinate system support. Added options make it possible to interwork with a wide range of survey instruments and accessories to run complete survey jobs, including site calibration, stake out, and survey projects where total stations are used.

GNSS Solutions Office Software

GNSS Solutions is a comprehensive software package that provides all the tools necessary to successfully process GNSS survey data. It includes advanced error detection and quality analysis tools to ensure accurate and reliable results. Loop closures, automatic repeat, observation analysis, and least-squares adjustments are integral components of the software. Raster and vector map formats can be imported to enable background maps to be combined with land survey projects and to prepare stake out missions in the office.



ProMark 200 Technical Specifications*

GNSS Characteristics

- 45 parallel all-in-view channels
 - GPS
 - GLONASS
 - L1 C/A, P(Y)-code, full wavelength carrier
 - L2 P(Y)-code, L2C, L2 full wavelength carrier
 - SBAS: WAAS/EGNOS/MSAS
- Fully independent code and phase measurements
- Advanced multipath mitigation
- Ashtech BLADE technology for optimal performance
- Up to 20 Hz real-time GPS, GLONASS, SBAS raw data (code and carrier) and position output
- Supported data formats: ATOM (Ashtech Optimized Messaging), RTCM-2.3, RTCM-3.1, CMR, CMR+, DBEN, LRK
- NMEA 0183 messages output
- RTK Network: VRS, FKP, MAC

Accuracy Specifications (HRMS) ^{1 2 3}

- RTK: 10 mm + 1 ppm typical
- Static post-processing: 5 mm + 1 ppm typical
- Kinematic post-processing: 12 mm + 2 ppm typical
- DGPS: < 25 cm + 1 ppm typical
- SBAS: < 50 cm

RTK Initialization (on-the-fly)

Initialization time

- < 1 min typical

Range

- Up to 40 km typical

Reliability

- Up to 99.9% typical

Processor

- Marvell® PXA 320
- Frequency clock: 806 MHz

Operating System

- Microsoft Windows® Mobile 6.5
- Languages available: English, French, German, Greek, Italian, Japanese, Korean, Portuguese, Spanish, Simplified & Traditional Chinese⁴
- Software package includes:
 - GNSS Toolbox for GNSS control
 - Internet Explorer
 - E-mail client
 - Microsoft Office Mobile
 - Transcriber (handwriting recognition)
 - ActiveSync

Communication

Cellular

- Built-in GPRS, EDGE class 12 modem
- Quad-band 850/900MHz, 1800/1900 MHz

Bluetooth

- Bluetooth 2.1 (class 2) with DER
- Profiles: SPP, DUN, FTP, OPP, HSP, A2DP

Other

- Wireless LAN 802.11b/g (SDIO slot)

Physical Characteristics

Size

- Receiver: 190x90x43 mm (7.5x3.5x1.7 in)

Weight

- Receiver only: 0.48 kg (1.06 lb)
- Receiver with battery: 0.62 kg (1.43 lb)

User Interface

Keyboard

- Alphanumeric virtual keyboard
- 4-way navigation, OK, menu, escape, zoom in/out, contextual keys

Display

- Color TFT High resolution display sunlight readable with touch screen
- Size: 3.5" portrait

Memory

- SDRAM: 256 MB
- User data storage: 1 GB NAND Flash (non volatile)
- SDHC memory card slot

Environmental Characteristics

- Operating temperature: -20° to +60°C
 - (-4 to 140°F)
- Storage temperature: -25° to +70°C
 - (-13 to 158°F)
- Humidity: 90%
- Waterproof
- Vibration and Shock: ETS300 019, MIL-STD-810 method 514.5
- Free pole drop

Power Characteristics

- Removable battery: Li-Ion, 6600mAh
- Battery life: > 8 hrs @ 20 °C with GNSS on ⁵
- Charging time: 3 hours
- External power: 9-28 VDC

Multimedia & Sensors

- Camera 3M pixels
- E-Compass
- G-Sensor
- Microphone & Speaker

Software / Firmware Options

Firmware options

- GLONASS
- Fast Output

Software options

- ProMark Field software
- GNSS Solutions L1/L2 post-processing

Standard Accessories

- Integrated stylus
- Docking station
 - Unit charging
 - RS232 Interface
 - USB Host and Device
 - Additional battery charging slot
- Universal A/C adapter
- USB data cable
- ASH-661, L1/L2 GNSS antenna
- Field bracket
- Antenna vertical extension
- HI tape
- Field soft bag

Optional Accessories

- Kinematic initializer bar w/ quick release
- Automobile external GPS antenna
- Carrying case

⁽¹⁾ Including all available options

⁽²⁾ Accuracy and initialization specifications may be affected by atmospheric conditions, signal multipath, satellite geometry and corrections availability and quality. Position accuracy specifications are for horizontal positioning. Vertical error is typically < 2 times horizontal error.

⁽³⁾ Performance values assume a minimum of five satellites and following the procedures recommended in the product manual. High multipath areas, high PDOP values and periods of severe atmospheric conditions may degrade performance.

⁽⁴⁾ Steady state value for baselines < 50 km after sufficient convergence time.

⁽⁵⁾ Loaded at the time of purchase—no further OS language modification is possible.

⁽⁶⁾ No BT or WLAN are used, backlight at default setting (50% brightness), varies with temperature.

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