ashtech

ProMark™ 100

BLADE™ TECHNOLOGY INSIDE

Versatile GNSS Solution
with Exceptional Post-Processing

ProMark 100

ProMark 100 is the most versatile post-processing solution designed for easy and efficient land survey. Embedded Ashtech BLADE technology delivers the best possible measurements from the GPS and GLONASS signals, even in very demanding environments, outperforming other competitive products.

Ashtech ProMark 100 provides a rugged and powerful handheld platform running Windows Mobile® 6.5 operating system. Together with extended wireless communications, large memory, and all-day-long autonomy, it is extremely well suited for any demanding field use.

ProMark 100's extended scalability allows simple firmware upgrade to GLONASS, RTK, L2, and GSM/GPRS capabilities. Combined with the very intuitive ProMark Field software, ProMark 100 is an extremely attractive solution for any surveyor.

Outstanding GPS & GLONASS Performance

- Ashtech BLADE technology for high precision
- Short occupation time
- Extended productivity in obstructed conditions

Unpaired Ease-Of-Use

- Intuitive ProMark Field software
- Lightweight and rugged handheld design
- All-day-long operations with extended memory and battery

Versatile Solution

- Extended survey scalability: RTK, GLONASS, GIS
- State-of-the-art Windows Mobile 6.5 open platform
- Complete wireless communications: Bluetooth, WLAN, GSM/GPRS

ProMark Field Software

Easy-to-use and very intuitive, ProMark Field software is designed for simple and trouble-free use of the ProMark 100. It provides all necessary tools for efficient post-processing survey as well as simple RTK jobs, including raw data recording, rover and base configurations, static or kinematic surveys, network connection settings, or stake out. ProMark Field software brings to ProMark 100 users a simple but powerful tool, without any unnecessary or complicated features.

GNSS Solutions Office Software

GNSS Solutions™ is a comprehensive software package with all the tools required 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.
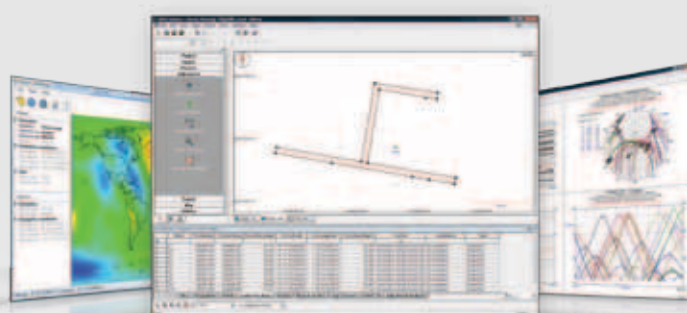
ProMark 100 Technical Specifications*

GNSS Characteristics

- 45 parallel all-in-view channels
  - GPS
  - GLONASS
  - L1 C/A, L1 P(Y)-code, L1 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]

- Static post-processing: 5 mm + 1 ppm typical
- Kinematic post-processing: 12 mm + 2 ppm typical
- RTK: 10 mm + 1 ppm typical
- DGPS: < 30 cm + 1 ppm typical
- SBAS: < 50 cm

RTK Initialization (on-the-fly)

Initialization time
- < 3 min typical (GPS + GLONASS)
- < 5 min typical (GPS only)

Range
- Up to 10 km typical, GPS + GLONASS
- Up to 7 km typical, GPS only

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 Chinese[4]
- 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: 2 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
- RTK
- GSM/GPRS Modem
- GNSS L2 [6]
- Fast Output

Software options
- FAST Survey 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-660, L1 GPS/GLONASS 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
- ASH-661, L1/L2 GNSS antenna [6]

PHM Survey Equipment
Lv1, 71 Victoria Road
Rozelle
NSW
2039
Tel: 02 9555 9175
Email: Nic.Adams@PHMSurvey.com.au
www.PHMSURVEY.com.au

www.ashtech.com

ashtech