MobileMapper 120

MobileMapper® 120 is the newest generation of handheld mapping devices from Spectra Precision. Designed for GIS data collection and mapping, the MobileMapper 120 integrates an open operating system, built-in communications and Ashtech's powerful Z-Blade technology. Z-Blade allows the MobileMapper 120 to operate in extreme GNSS environments while maintaining the high accuracies desired by GIS professionals.

The MobileMapper 120 delivers state-of-the-art features in a smart, compact, and lightweight handheld, giving users the ultimate field experience. Combined with MobileMapper Field proprietary software or our Business partners' offerings, MobileMapper 120 brings the openness, flexibility and scalability needed to answer any mobile GIS requirements.

High-Accuracy Handheld
- True handheld operation
- Powerful Z-Blade processing technology
- Sub-meter or decimeter real time accuracy
- Extended position availability in urban canyons and under canopy

Designed for the Field
- Compact & lightweight design for optimal mobility, use and comfort
- Integrated communications for easy data transfer and differential GNSS
- Powerful electronics for fast data collection and seamless processing
- Ruggedized for outdoor use in extreme conditions

Flexible
- Extended connectivity and multimedia features
- Windows Embedded Handheld for full 3rd party software compatibility
- Ancillary sensor interfacing
- GNSS scalability: GPS or GPS/GLONASS configurations
- Compatible with 3rd party networks (VRS, FKP, MAC)

MobileMapper Field and Office Software

Complete solution:

The MobileMapper software suite includes all GIS features that professionals really need without the burden of complicated and rarely used functions. It also provides a direct interface to external sensors such as laser range-finders.

Versatile application:

MobileMapper Field is the perfect solution for GIS data collection, asset management, area measurements, map creation and update.

Easy to learn, Easy to use:

Spectra Precision software is very intuitive, requiring a minimum of user training. It enables rapid deployment across the workforce for large scale GIS data collection or maintenance.

Tune MobileMapper 120 to your Applications

Open Software Platform:

With Windows Embedded Handheld you may upload any necessary utility or software on your MobileMapper 120, whatever suits your next job. You can collect GIS/GPS points and maps via the GIS application of your choice, either a third party software such as ESRI® ArcPad® or the proprietary Spectra Precision application.

Software Choice:

Take advantage of the solutions that Spectra Precision Business Partners are offering. Either in Forestry, Agriculture, Utility asset management, Underground cable location, etc… the application choice is large. Combine GIS software or hardware accessories with your MobileMapper 120 to create an accurate, all-in-one mobile GIS solution.

MobileMapper 120 Technical Specifications:

GNSS Characteristics

- 45 parallel all-in-view channels GPS
- L1 C/A
- GLONASS
- SBAS: AAS/EGNOS/MSAS/GAGAN
- Z-Blade technology powered by Ashtech for optimal performance.
- DGPS and post processing with MobileMapper Office software
- Up to 20 Hz GPS, GLONASS, SBAS position output and raw data (code and carrier)
- NMEA 183 messages output
- RTCM2.3, RTCM3.1, CMR and CMR+, ATOM (Ashtech Optimized Messaging)
- Real time Network: VRS, FKP, MAC

Accuracy Specifications (Horizontal RMS)1

- Real-time SBAS: < 50 cm typical
- Real-time DGPS: < 30 cm typical
- Post-processing: < 30 cm down to sub dm

Processor

- Marvell® PXA 320
- Frequency clock 806 MHz

Operating System

Microsoft Windows Embedded Handheld 6.5

Languages available: English, French, Spanish, German, Portuguese, Italian, Simplified Chinese, Japanese, Korean2

Software package includes:GNSS Toolbox to control GNSS

Internet Explorer

Microsoft Office Mobile

ActiveSync

Transcriber (handwriting recognition)

Communications

Cellular

Built in GPRS, EDGE class 12modem Cinterion MC 75i

Quad band 850/900 MHz, 1800/1900 MHz

Bluetooth

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

Other

- RS232, USB through docking station
- 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 ways navigation, Ok, menu, escape, zoom in/out, contextual keys
- Illuminated keyboard

Display

Colour TFT High resolution display sunlight readable with touch screen, LED backlight.

Size: 3.5" portrait

Memory

256 MB SDRAM

User data storage: 2 GB Nand Flash (non volatile)

SDHC memory card

Environmental Characteristics

Operating temperature: -20° to +60°C (-4 to 140°F)

Storage temperature: -25° to +70°C (-13 to 158°F)

Humidity: 10 to 90% non condensing

IP54

Vibration and Shock: ETS300 019, vibration MIL-STD-810 method 514.5

Free drop: 1.2 m on concrete

Power Characteristics

- Removable battery: Li-Ion, 6600mAh
- Battery life: > 8 hrs @ 20 ⁰C with GNSS
- Charging time: 3 hours
- External power: 9-28 VDC

Multimedia & Sensors

- Camera 3MPixels with auto focus
- E-Compass
- G-Sensor
- Speaker
- Microphone

Software Options

MobileMapper Field and Office Software
Post-processing feature available for MobileMapper Field software
ESRI® ArcPad® software bundle (USA only)

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

Optional Accessories

ASH-660, L1 GPS/GLONASS external antenna with cable
ASH-661, L1/L2 GNSS external antenna with cable
Pole bracket
Automotive external antenna
Carrying case

* Including all available options.
1 Handheld accuracy performance achieved in good conditions with PDOP <4 and more than 5 satellites in view. Accuracy specifications may be affected by atmospheric conditions, signal multipath, satellite geometry and corrections availability and quality.
2 Selected at first switch on– no further OS language modification is possible.
3 No BT or WLAN. Backlight as default settings.