GeoXH handheld

KEY FEATURES
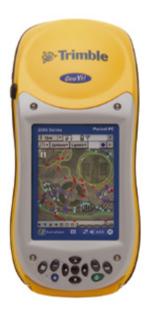
H-Star technology for subfoot postprocessed accuracy

Microsoft Windows Mobile version 5.0 software, allowing maximum flexibility in software choice

512 MB onboard memory plus removable SD memory

Bluetooth and wireless LAN connectivity options

Rugged handheld with all-day battery

TrimPix technology for wireless camera support

THE ULTIMATE SOLUTION FOR HIGH ACCURACY GIS DATA COLLECTION

The GeoXH™ handheld is Trimble's top-of-the-line solution for high accuracy GIS data collection. Engineered with H-Star™ technology, the GeoXH handheld delivers the subfoot (30 cm) accuracy required by electric and gas utilities, water and wastewater services, land reform projects, and other applications where on-the-spot positioning is crucial.

The unique GeoExplorer® series combines a Trimble® GPS receiver with a rugged handheld computer, built for all-day use and packed with connectivity options. Technology this clever has never been more convenient.

H-Star technology for best accuracy
Bringing together advanced GPS receiver design and a powerful new postprocessing engine, H-Star technology is in a class of its own. There's no need to initialize—in the time taken to record your attribute information, the GeoXH handheld logs the data you need to achieve subfoot accuracy.

If you need the very best accuracy, add a Zephyr™ antenna to your GeoXH handheld to get 8 inch (20 cm) accuracy. Whatever your requirements, you can collect data with confidence, because Trimble field software shows you the accuracy you can expect after postprocessing, while you're in the field.

Back in the office, Trimble postprocessing software guides you through the H-Star correction process and shows you exactly the accuracy you've achieved.

Software to fit your workflow
The GeoXH handheld comes with a powerful 416 MHz processor running the most advanced operating system available—Microsoft® Windows Mobile® version 5.0 software. Windows Mobile is the industry standard open platform for mobile devices, so you can choose a software solution to match your workflow, whether off-the-shelf or purpose built.

Windows Mobile version 5.0 features familiar Microsoft software, including Word Mobile, Excel Mobile, and Outlook® Mobile, giving you all the tools you need for a seamless exchange of data between the field and the office. And you get increased security features and

persistent memory storage, so you can be sure your data is safe.

Convenient connectivity
With the GeoXH handheld you have the flexibility to work exactly the way you want to. Do you need to access the Internet or your organization's secure network to get the most up-to-date data? No problem—with the GeoXH handheld you have built-in wireless LAN and Bluetooth® technology to ensure you stay connected.

Using the built-in wireless LAN and TrimPix™ technology, the GeoXH handheld can connect to a range of WiFi-capable Nikon digital cameras for automated capture of digital images. Download the TrimPix software and you have an ideal solution for easily collecting high resolution digital photos to link to your GPS positions.

When connection to your enterprise database isn't an option, the GeoXH handheld offers plenty of secure on-board memory for storing your data. And there's a Secure Digital (SD) memory card slot, allowing you to add gigabytes of memory for all your map data.

Built for the field
The GeoXH handheld has an integrated battery, good for a full day's work; simply charge the battery overnight and you're ready to go again. The GeoXH handheld will last the distance, and its rugged design can take a lot of punishment. Rain, hail or shine, it's built to keep working, whatever the weather throws at you.

When accuracy is critical
Rugged design and powerful functionality are the hallmarks of the GeoExplorer family. The GeoXH handheld takes it to a new level with revolutionary H-Star technology. When accuracy is critical, the GeoXH handheld delivers—with unprecedented efficiency and reliability, when and where you need it.

With the GeoXH handheld, high accuracy GIS data collection is no longer just a goal—it's a reality.

⊕Trimble.

STANDARD FEATURES

System
- Microsoft Windows Mobile version 5.0 software
- 416 MHz Intel X-Scale processor
- 512 MB non-volatile Flash data storage
- Sealed SD card slot
- Outdoor color display
- Ergonomic cable-free handheld
- Rugged and water-resistant design
- All-day internally rechargeable battery
- Bluetooth wireless
- 802.11b wireless LAN

GPS
- H-Star technology for subfoot (30 cm) postprocessed accuracy
- Submeter accuracy in real-time
- Integrated SBAS[1]
- RTCM real-time correction support
- NMEA and TSIP protocol support
- EVEREST™ multipath rejection technology

Software
- GPS Controller for control of integrated GPS and in-field mission planning
- GPS Connector for connecting integrated GPS to external ports
- Microsoft ActiveSync®, Calculator, File Explorer, Internet Explorer, Pictures, Excel Mobile, Outlook® Mobile (Inbox, Calendar, Contacts, Notes, Tasks), Word Mobile, Windows® Media Player
- Transcriber (handwriting recognition)
- Microsoft Streets & Trips/AutoRoute™ software
- Trimble Navigator Sample Application software
- TrimPix software for wireless camera support. Download from www.trimble.com/trimpix.asp

Accessories
- Support module with power supply and USB data cable
- Getting Started Guide
- Getting Started Disc
- Hand strap
- Pouch
- Stylus kit

OPTIONAL FEATURES

Software
- TerraSync software
- Trimble GPScorrect™ extension for ESRI ArcPad software
- GPS Pathfinder® Tools Software Development Kit (SDK)
- GPS Pathfinder Office software
- Trimble GPS Analyst™ extension for ESRI ArcGIS software

Accessories
- Serial clip for field data and power input
- Vehicle power adaptor[2]
- Portable power kit[2]
- Zephyr antenna kit
- Hurricane antenna kit
- GeoBeacon™ receiver
- Hard carry case
- Null modem cable[2]
- Backpack kit
- 2 meter range pole
- Range pole bracket

TECHNICAL SPECIFICATIONS

Physical
Size . . . . .21.5 cm × 9.9 cm × 7.7 cm (8.5 in × 3.9 in × 3.0 in)
Weight . . . . 0.78 kg (1.76 lb) with battery
Processor. . . . . 416 MHz Intel PXA-270 X-Scale processor
Memory. . . . . 64 MB RAM and 512 MB internal Flash disk
Power
    Low (no GPS or backlight). . . . . 1.5 Watts
    Normal (with GPS and backlight). . . . . 2.7 Watts
    High (with GPS, backlight, Bluetooth, and wireless LAN). . . . . . 3.2 Watts
Battery . . . . .Internal 6800 mAh lithium-ion, rechargeable in unit
25 Watt-hours

Environmental
Temperature
    Operating . . . . –10 °C to +50 °C (14 °F to 122 °F)
    Storage. . . . . –20 °C to +70 °C (–4 °F to 158 °F)
Casing . . . . .Wind-driven rain and dust-resistant per IP 54 standard
Slip-resistant grip, shock and vibration resistant

Input/output
Communications. . . . . .Bluetooth[3], 802.11b wireless LAN
USB client v1.1 compliant[4] via support module
Serial via optional DE9 serial clip adaptor
Ethernet 10/100 BaseT compatible via support module
Bluetooth Profiles
    Client and host support. . . . . Serial Port, Object Push
    Client support only. . . . . .Dial-Up Networking
    Host support only. . . . . File Transfer (using OBEX)
Display. . . . . .Advanced outdoor TFT, 240 × 320 pixel
65,536 colors, with backlight
Audio . . . . .Microphone and speaker, record and playback utilities
Interface . . . . Touch screen, Soft Input Panel (SIP) virtual keyboard
11 hardware control keys, handwriting recognition software
Audio system events, warnings, and notifications

GPS
Channels . . . . 12 (L1 code and carrier/L2 carrier)
Integrated real-time . . . . .SBAS[1]
Update rate . . . . .1 Hz
Time to first fix. . . . . 30 seconds (typical)
Protocols . . . . TSIP, NMEA (GGA, VTG, GLL, GSA, ZDA, GSV, RMC)

Accuracy (HRMS)[5] after differential correction
H-Star postprocessed[6]
    With internal antenna. . . . . 30 cm
    With optional Zephyr antenna . . . . 20 cm
Code postprocessed . . . . Submeter
Carrier postprocessed[7]
    With 20 minutes tracking satellites . . . . 10 cm
    With 45 minutes tracking satellites . . . . 1 cm
Real-time (SBAS[1] or external RTCM source) . . . . Submeter

1 SBAS (Satellite Based Augmentation System). Includes WAAS (Wide Area Augmentation System) available in North America only. And EGNOS (European Geostationary Navigation Overlay System) available in Europe only.
2 Serial clip also required.
3 Bluetooth and wireless LAN type approvals are country specific. GeoExplorer 2005 series handhelds have Bluetooth and wireless LAN approval in the U.S. and EU. For other countries please consult your local Reseller.
4 Fully compatible with USB v2.0 computers.
5 Horizontal Root Mean Squared accuracy. Requires data to be collected with minimum of 4 satellites, maximum PDOP of 6, minimum SNR of 39 dBHz, minimum elevation of 15 degrees, and reasonable multipath conditions. Ionospheric conditions, multipath signals or obstruction of the sky by buildings or heavy tree canopy may degrade precision by interfering with signal reception. Accuracy varies with proximity to base station by +1 ppm for postprocessing and real-time.
6 Requires H-Star data to be collected for up to 2 minutes. Requires a minimum of three good quality dual frequency reference stations within 200 km, or one good quality dual frequency reference station within 80 km. With one reference station accuracy degrades at +1 ppm beyond 80 km.
7 Accuracy varies with proximity to base station by +5 ppm.

Specifications subject to change without notice.

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