

KEY FEATURES

220 channel GNSS receiver
Submeter real-time and 50 cm postprocessed accuracy

Floodlight satellite shadow reduction technology option
More positions and increased accuracy in tough environments

Sunlight readable display
4.2" polarized screen for unmatched clarity in bright sunlight

3.5G modem option
Integrated cellular for Internet connectivity in the field

5 megapixel autofocus camera
Capture high quality photographs and link directly to features

Field swappable battery
More than 8 hours operation on a single charge and swap-and-go battery replacement in the field



A NEW STANDARD FOR PRODUCTIVE GNSS DATA COLLECTION

The Trimble® GeoExplorer® 6000 series takes GNSS productivity to a whole new level. Combining submeter accuracy GNSS, high quality photo capture, wireless Internet, and connectivity options in a single product, the GeoXT™ handheld is the ideal field device for organizations mapping critical assets and infrastructure, or for anyone needing dependable submeter accuracy GNSS data, simple operation, and repeatable results.

Together with the latest field software enhancements and GNSS innovations—including Trimble Floodlight™ satellite shadow reduction technology—the GeoXT handheld is the ideal submeter field solution for any industry, including utility companies, local government organizations, and federal agencies.

Reliable submeter performance

Integrating the latest in Trimble GNSS receiver technology, with the optional ability to track both GPS and GLONASS satellites, the GeoXT handheld delivers consistent submeter accuracy in real time and 50 cm accuracy after postprocessing.

For submeter accuracy, the GeoXT handheld's integrated SBAS receiver can be used to obtain real time corrections such as WAAS, EGNOS, or MSAS, or the GeoXT handheld's built-in Bluetooth® wireless technology can be used to seamlessly connect to a Trimble GeoBeacon™ receiver.

For 50 cm accuracy, data collected with Trimble field software can be postprocessed using the Trimble GPS Pathfinder® Office software or GPS Analyst™ extension for Esri ArcGIS Desktop software. These office processing suites use Trimble DeltaPhase™ technology to achieve 50 cm accuracy for GNSS code measurements after postprocessing, and even higher levels of postprocessed accuracy are possible if GNSS carrier data is logged for extended periods.

Floodlight satellite shadow reduction

Trees and buildings create shadows, limiting the environments where reliable high-accuracy GNSS data collection can be performed. Using the innovative Trimble Floodlight satellite shadow reduction technology, the GeoXT handheld continues to deliver productive, usable positioning data in areas where legacy GNSS receiver systems cannot.

With the optional Floodlight technology option installed, the GeoXT receiver can compute positions even with very weak satellite signals. Floodlight technology increases the number of positions that are gathered in difficult locations, and boosts accuracy in those places where normally only low accuracy data is available. With the GeoXT handheld, field crew can now work with fewer disruptions, meaning better data, faster, at less cost.

Never-seen-before display performance

The GeoXT handheld includes a sunlight-optimized, display designed specifically for outdoor operation. It maintains exceptional clarity in all outdoor conditions, including direct sunlight. Text is crisp and easy to read. Background maps and photos are rich and vibrant. At 4.2" (10.7 cm), the display is also big, so the touch panel is spacious and easy to control.

Work online, anywhere

Internet access in the field gives workers live access to the information they need to make better decisions, faster. Once connected, field workers can collaborate with their office and with each other, even from remote locations.

The GeoXT handheld offers a choice of wireless technology to enable Internet connections directly on the device—including an optional 3.5G cellular modem built into the handheld itself, integrated Wi-Fi, or Bluetooth wireless technology.

Whether connecting to corporate networks, or accessing web-based services such as real-time map data or VRS™ corrections, accessing and updating live information in the field is simple and fast.

Bluetooth technology also enables wireless connection to other external devices such as Bluetooth-enabled laser range finders, barcode scanners or RFID readers.

High quality photo capture

A photograph is often the best way to capture information about an asset, event, or site. The GeoXT handheld includes a 5 megapixel autofocus camera with geo-tagging capability. The camera can be controlled by the TerraSync™ software and other third party applications, so photo capture and linking of images to GIS features is seamless and simple to integrate with existing data capture workflows.

Designed for work

The GeoExplorer 6000 series was designed with a single goal in mind—delivering a high-accuracy handheld GNSS system that works faster, longer, and in more places than any other.

The Lithium-Ion battery provides up to 8 hours of GNSS operation on a single charge, and can be swapped on-the-go without shutting down the device—enabling near-continuous operation and minimizing field worker downtime.

The GeoXT handheld is powered by a super-fast OMAP 3503 series processor and 256 MB RAM. With 2 GB of internal storage and the capacity to add an additional 32 GB via SDHC card, the GeoXT handheld has the capacity and power you need to work with high resolution maps and complex datasets.

The fully ruggedized IP65 construction is designed to withstand the harshest environments. Wherever field workers go, they can take the GeoXT handheld with the confidence that the equipment can handle the toughest conditions.

These smart design features combine with unprecedented accuracy and productivity to deliver the ultimate high performance handheld field solution.

The GeoXT handheld. Designed for work.

GEOEXPLORER 6000 SERIES GEOXT HANDHELD

SYSTEM SUMMARY

- Single-frequency GNSS receiver and antenna with Everest™ multipath rejection technology and optional Trimble Floodlight satellite shadow reduction technology
- Sunlight readable 4.2" polarized screen
- Optional integrated 3.5G cellular modem
- Integrated Wi-Fi and Bluetooth wireless technology
- 5 megapixel autofocus camera
- Windows Mobile® 6.5 (Professional edition)
- Rugged and water-resistant design

SIZE AND WEIGHT

Height 234 mm (9.2 in)
Width 99 mm (3.9 in)
Depth 56 mm (2.2 in)
Weight (inc. battery) 925 g (2.0 lb)

GNSS

Receiver Trimble Maxwell™ 6 GNSS chipset
Channels 220 channels
Systems GPS, GLONASS¹, SBAS
GPS L1C/A
GLONASS¹ L1C/A, L1P
SBAS² WAAS/EGNOS/MSAS
Update rate 1 Hz
Time to first fix 45 s (typical)
NMEA-0183 support Optional
RTCM support RTCM2.x/RTCM3.x
CMR support CMR/CMR+/CMR³

GNSS ACCURACY (HRMS) AFTER CORRECTION³

Real-time code corrected
VRS or local base 75 cm + 1 ppm
SBAS (WAAS/MSAS/EGNOS) < 1 m
Code postprocessed 50 cm + 1 ppm
Carrier postprocessed³
After 10 minutes 20 cm + 2 ppm
After 20 minutes 10 cm + 2 ppm
After 45 minutes 1 cm + 2 ppm

TEMPERATURE

Operation -20 °C to +50 °C (-4 °F to 122 °F)
Storage -30 °C to +70 °C (-22 °F to 158 °F)
Charging 0 °C to +45 °C (32 °F to 113 °F)

MECHANICAL SHOCK

Drop 1.2 m (4 ft) concrete under plywood
Vibration Method 514.5

ALTITUDE & HUMIDITY RATINGS

Relative humidity 95% non-condensing
Maximum operating altitude 3,658 m (12,000 ft)
Maximum storage altitude 5,000 m (16,400 ft)

INGRESS PROTECTION

Water/Dust IP65

BATTERY

Type Rechargeable, removable Li-Ion
Capacity 11.1V 2.5 AH
Charge time 4 hours (typical)

BATTERY RUN TIME⁴

GNSS only 11.5 hours
GNSS & VRS over BT 11 hours
GNSS & VRS over Wi-Fi 10 hours
GNSS & VRS over Cellular modem 8.5 hours
Standby time 50 days

BUTTONS & CONTROLS

- Power key
- Left & right application keys
- Camera key

CONNECTORS & INPUTS

- Internal microphone and speaker
- Mini USB connector
- DE-9 serial via optional USB to serial converter
- External power connector
- SIM socket
- SDHC socket

CAMERA

Still mode Autofocus 5 MP
Still image format JPG
Video mode Up to VGA resolution
Video file format WMV with audio

CELLULAR⁵ & WIRELESS⁶

UMTS/HSDPA 850/900/2100 MHz
GPRS/EDGE 850/900/1800/1900 MHz
Wi-Fi 802.11 b/g
Bluetooth Version 2.1 + EDR

DISPLAY

Type Transflective LED-backlit LCD
Size 4.2" (diagonal)
Resolution 480x640
Luminance 280 cd/m²

HARDWARE

Processor TI OMAP 3503
RAM 256 MB
Flash 480x640
External storage SD/SDHC up to 32 GB

LANGUAGES

- English (US), Spanish, French, German, Italian, Portuguese (Brazilian), Chinese (Simplified), Korean, Japanese, Russian

IN THE BOX

- GeoExplorer 6000 series handheld
- Pouch
- Hand strap
- USB data cable
- Rechargeable battery pack
- AC Power adaptor
- Screen protector kit
- Spare stylus & tether
- Documentation

OPTIONAL ACCESSORIES

- Tempest™ external GNSS antenna
- 1.5 m & 5 m external antenna cable
- Range pole kit for external antenna
- Backpack kit for external antenna
- Vehicle mount
- Hard carry case
- TDL 3G cellular modem
- GeoBeacon receiver
- Null modem cable
- USB to serial converter cable

SOFTWARE COMPATIBILITY

- TerraSync™ software
- Trimble GPSCorrect™ extension for Esri ArcPad software
- Trimble GPS Controller software
- GNSS Connector software
- GPS Pathfinder® Office software
- Trimble GPS Analyst™ extension for Esri ArcGIS Desktop software
- Third party NMEA-based applications⁷

¹ GLONASS tracking is available only if the Trimble Floodlight satellite shadow reduction option is activated.

² SBAS (Satellite Based Augmentation System). Includes WAAS available in North America only, EGNOS available in Europe only, and MSAS available in Japan only.

³ HRMS refers to Horizontal Root Mean Squared accuracy, 1-sigma (68%). Except in conditions where most GNSS signals are affected by trees, or buildings, or other objects. 45 minute carrier postprocessed accuracy is limited to data collected within 10 km of the base station. Except when using VRS corrections, accuracy varies with proximity to base station by +1 ppm for code postprocessing and real-time. Carrier postprocessed accuracy varies with proximity to base station by +2 ppm.

⁴ Tested by Trimble with default system settings at 21°C ambient. Actual run time will vary with conditions of use

⁵ 3.5G edition handhelds only. The GeoXT 3.5G edition handheld is PTCRB certified and can operate on supported networks that do not require carrier certification. Consult with your local reseller for more information.

⁶ Bluetooth and Wi-Fi type approvals are country specific. GeoExplorer 6000 series handhelds have Bluetooth and Wi-Fi approval in the U.S. and in most European countries. For further information please consult your local reseller.

⁷ NMEA output is an optional upgrade.

Specifications subject to change without notice.

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