# GeoExplorer CE Series

The new standard GPS platform for mobile GIS

# **Key features and benefits**

- High-performance GPS with integrated WAAS (for free real-time corrections)
- Rugged Windows CE handheld for all-day use in extreme conditions
- Streamlined data collection and maintenance with TerraSync software
- Perfect for mobile GIS field software such as ESRI's ArcPad
- Backlit high-resolution outdoor color touch screen for high visibility in a wide range of conditions

The GeoExplorer® CE series of GPS CE handhelds takes mobile GIS in an exciting new direction. Whether your task is collecting and maintaining data to keep your GIS up to date, or using your GIS data in the field, the GeoExplorer CE series is the solution.

A GPS CE handheld is a CE device with an integrated Trimble GPS receiver. A unique combination of GPS and the Windows CE operating system, it's light, portable, and incredibly powerful.



With Windows CE you have maximum flexibility. Choose popular GIS field software like Trimble's TerraSync<sup>™</sup> or ESRI's ArcPad<sup>™</sup>; or choose purposebuilt software that meets the needs of your field application.

Windows CE also gives you simple connectivity. Use the fast USB support module to connect to a desktop computer for data transfer. Or use the optional serial clip to connect to a cellphone for wireless access to Web map servers, e-mail, and the Internet.

# **High-accuracy GPS**

The GeoExplorer CE series gives you accurate, reliable GPS data. Differentially correct in real time or, for extra precision, postprocess data from TerraSync or GPScorrect™.

Because the GPS receiver and antenna are built into the field computer, it's never been easier to use GPS in your



The GeoExplorer CE handheld integrates GPS and Windows CE

application. The system is more than just cable-free: it's a totally integrated solution.

# Flexible options

Choose the model that suits your field requirements. The **GeoXM**™ integrates reliable, real-time corrected GPS into your mobile GIS application, so you can re-locate assets with confidence and fulfill work orders efficiently.

The **GeoXT™** offers all the features of the GeoXM, plus a submeter receiver and EVEREST™ multipath rejection technology. It's ideal for working under canopy, in urban canyons, or anywhere you need high-accuracy data collection and maintenance.

Both models have enough

storage space for all your GIS data. The fast processor and large memory mean even big graphics files load quickly, and they look great on the outdoor color screen.

# **Rugged and portable**

Everything you need for a long and productive day in the field is in the palm of your hand. You can leave the spare batteries behind too: the internal battery easily lasts for a whole day of GPS operation. All this is sealed into a reliable, rugged unit that works where and when you need it

Don't choose between ergonomics and flexibility, or precision and convenience. Choose GeoExplorer CE and have it all.



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# STANDARD FEATURES

- Embedded Windows CE 3.0 operating system (H/PC 2000)
- 206 MHz StrongARM processor
- 128 MB or 512 MB non-volatile Flash data storage
- Outdoor color display
- Ergonomic cable-free handheld
- Rugged and water-resistant design
- All-day internally rechargeable battery

- Submeter or 2-5 meter accuracy options
- Integrated WAAS
- RTCM real-time correction support
- NMEA and TSIP protocol support

# STANDARD SOFTWARE

- GPS Controller for control of integrated GPS and in-field mission
- GPS Connector for connecting integrated GPS to external ports
- Windows Explorer, Pocket Internet Explorer, Inbox, Text Editor, Calculator, Voice Recorder, ActiveSync, Connect to Desktop, Remote Networking

### **OPTIONAL SOFTWARE**

- TerraSvnc
- GPS Pathfinder® Tools Software Development Kit (SDK)
- GPS Pathfinder Office
- Subscription to GPS Pathfinder Express service
- · GPScorrect for ArcPad

# STANDARD ACCESSORIES

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

### **OPTIONAL ACCESSORIES**

- Serial clip for field data and power input
- Vehicle power adapter<sup>1</sup>
- Portable power kit<sup>1</sup>
- External antenna
- Pole-mountable ground plane
- Baseball cap with antenna sleeve
- Beacon-on-a-Belt (BoB™) differential correction receiver
- Hard carry case
- Null modem cable<sup>1</sup>
- Backpack kit
- Serial clip also required.
- Accuracy specification requires data to be collected with a minimum of 4 satellites, maximum PDOP of 6, minimum SNR of 4, minimum elevation of 15 degrees, and reasonable multipath conditions. Ionosperic conditions, multipath signals or obstruction of the sky by buildings or heavy tree canopy may degrade precision by interfering with signal
- Postprocessing with GPS Pathfinder Office software or GPS Pathfinder Express service.
- Requires collection of carrier data. (Only available with GPS Pathfinder Office).
- Accuracy varies with proximity to base station.

# **TECHNICAL SPECIFICATIONS**

# Handheld Specifications

Physical:

Size  $21.5 \text{ cm} \times 9.9 \text{ cm} \times 7.7 \text{ cm}$ 

 $(8.5" \times 3.9" \times 3.0")$ 

0.72 kg (1.59 lb) with battery Weight Processor: 206 MHz Intel StrongARM SA-1110

Memory: 32 MB RAM

128 MB or 512 MB internal Flash disk

Power:

Low (no GPS) 1.1 Watts Normal (with GPS) 1.9 Watts

High (with GPS

and backlight) 2.8 Watts

**Battery:** Internal lithium-ion, rapidly rechargeable

in unit, 21 Watt-hours

**Environmental:** 

 $-10^{\circ}$ C to  $+50^{\circ}$ C ( $14^{\circ}$ F to  $122^{\circ}$ F) Operating Temp.  $-20^{\circ}$ C to  $+70^{\circ}$ C ( $-4^{\circ}$ F to  $158^{\circ}$ F) Storage Temp.

Humidity 99% non-condensing

**Casing** Wind-driven rain and dust-resistant per IP 55

standard, slip-resistant grip, shock- and

vibration-resistant

Communications: USB connectivity via support module, serial

communications via optional DE9 serial clip

adapter

Display: 240 × 320 pixel full outdoor color display, with

backlight

Audio: Microphone and half duplex speaker

> Record and playback utilities Anti-glare coated touch screen

Interface: 2 hardware control keys

4 programmable permanent touch buttons

Soft Input Panel (SIP) virtual keyboard Audio system events, warnings, and notifications

# GPS Performance Specification

	GeoXT	GeoXM
Channels:	12	8
Integrated real-time:	WAAS	WAAS
Other:	EVEREST multipath	

rejection technology **Update Rate:** 1 Hz 1 Hz

Time to first fix: 30 sec (typical) 30 sec (typical)

Accuracy (RMS) after differential correction:

GeoXT GeoXM **GPS Pathfinder**  $2-5 \text{ m}^2$ postprocessing3 Submeter **GPS Pathfinder carrier** 

postprocessing4  $30 \text{ cm}^2$ N/A  $2-5 \text{ m}^{2,5}$ Realtime Submeter<sup>2,5</sup>

Protocols:

**NMEA** Industry standard protocol for the output of GPS

data. Supported messages are GGA, VTG, GLL,

GSA, ZDA, GSV, RMC.

**TSIP** Trimble Standard Interface Protocol for full

control of GPS receiver input and output.

Specifications subject to change without notice



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