



GPS Pathfinder ProXRT receiver

KEY FEATURES

Real-time H-Star technology for decimeter or subfoot accuracy in the field

OmniSTAR HP, XP, or VBS technology for worldwide decimeter to submeter accuracy in the field

Optional support for GLONASS

Rugged receiver able to work in extreme temperatures with an internal all day battery

Choice of field device, field software, and setup style to suit your requirements



FLEXIBLE GNSS RECEIVER WITH REAL-TIME DECIMETER ACCURACY

Whether you need to relocate buried pipes and cables, or accurately map underground assets and critical infrastructure, the Trimble® GPS Pathfinder® ProXRT receiver has it all. This real-time decimeter receiver adds another dimension to your field kit, giving you the confidence to know the job was done right while you're still on site. Combining H-Star™ technology, OmniSTAR support, and with the option of GLONASS support on top of dual-frequency GPS, the GPS Pathfinder ProXRT receiver is a truly versatile solution offering you the accuracy you need, worldwide.

Decimeter accuracy with real-time H-Star

You need accuracy and you want it now. The GPS Pathfinder ProXRT receiver brings Trimble H-Star technology to the field in real time; just connect to a real-time correction source and you can collect decimeter (10 cm / 4 inch) or subfoot (<30 cm) positions in the field. Simply use a wireless link to your local VRS™ network, or set up your own base station for the flexibility to work wherever you need to.

Decimeter accuracy in real time with OmniSTAR HP

If a VRS network or a local base station is not available in your area, then real-time decimeter accuracy with OmniSTAR HP couldn't be easier. The OmniSTAR antenna is integrated so there's no need to carry any extra equipment—just purchase a subscription and wait for the over the air corrections. The GPS Pathfinder ProXRT receiver is also capable of using the OmniSTAR XP service (for 20 cm accuracy) and OmniSTAR VBS service (for instantaneous submeter accuracy).

Optional GLONASS support

Installing the GLONASS option on your GPS Pathfinder ProXRT receiver increases the number of GNSS satellites that you observe when working in the field. GLONASS improves your ability to maintain lock on enough satellites to keep working when sky visibility becomes limited, letting you work for longer in tough environments. Tracking GLONASS satellites as well as GPS satellites can also improve productivity by reducing the time

required to achieve real-time or postprocessed decimeter accuracy.

Built for the field

The GPS Pathfinder ProXRT receiver is built for the tough field conditions where you work, and can operate even in extreme temperatures. The integrated lithium-ion battery is designed for all day use, so you can continue working for as long as you need.

The choice is yours

You can choose the field computer and software to suit your workflow. The GPS Pathfinder ProXRT receiver is ready to use with a variety of field computers, including laptops, Tablet PCs and PDAs, and of course Trimble's own rugged field computers: the Trimble Nomad™ G series, Trimble Recon®, or the Trimble Ranger™ handheld.

Choosing mapping software? Trimble TerraSync™ software or the Trimble GPScorrect™ extension for ESRI ArcPad software provides a complete solution from field to office and back. Or use the GPS Pathfinder Tools Software Development Kit (SDK) to build your own application that's totally customized to your needs.

And the GPS Pathfinder ProXRT receiver gives you the flexibility to choose the style of setup to suit your requirements. Choose a pole for added precision or a backpack for your convenience and added comfort.

Real time. Real accurate. Real choice.

The GPS Pathfinder ProXRT receiver delivers a winning combination of decimeter accuracy with real-time positioning, truly taking GIS data collection to a new level. No matter where in the world you work, the GPS Pathfinder ProXRT receiver gives you a complete real-time decimeter solution.

GPS Pathfinder ProXRT receiver

STANDARD FEATURES

GPS

- H-Star technology for decimeter (10 cm / 4 inch) and subfoot (< 30 cm) accuracy in either real time or postprocessed¹
- "Worldwide" support for OmniSTAR HP (decimeter), XP (20 cm), and VBS (submeter) services²
- DGPS corrections by radio link, NTRIP, or VRS network through cell phone
- Integrated SBAS³
- Everest™ multipath rejection technology

System

- Integrated all day battery
- Integrated Bluetooth® wireless technology for operation on a pole
- Rugged housing

Standard accessories

- Tornado™ antenna
- Antenna cable
- Power supply with international adaptor kit
- Null modem cable, DB9-Lemo cable, and multiport adaptor
- Hard carry case
- User Guide on CD

OPTIONAL FEATURES

Receiver options

- GLONASS support
- NMEA output

Optional software

- TerraSync software
- Trimble GPSCorrect extension for ESRI ArcPad software
- Custom applications built with the GPS Pathfinder Tools (SDK)
- GPS Pathfinder Office software
- Trimble GPS Analyst™ extension for ESRI ArcGIS Software

Optional field computers

- Field computers running Windows Mobile® version 5.0 software, version 6 operating system, or Windows Mobile 2003 software for Pocket PCs such as:
 - Trimble Nomad G series
 - Trimble Ranger handheld
 - Trimble Recon handheld
- Field computer running Windows® desktop operating system

Optional accessories

- Backpack kit (backpack, 1 foot pole segment, quick release adapters)
- Pole kit (2 m carbon fibre range pole, pole mount kit, quick release adapters)
- Magnetic vehicle mount
- GeoBeacon™ receiver

TECHNICAL SPECIFICATIONS

Physical

GPS receiver and integrated battery

Size 24 cm x 12 cm x 5 cm including connectors (9.4 in x 4.7 in x 1.9 in)
 Weight 1.55 kg (3.42 lbs)
 Battery 13 hours internal Li-Ion battery, rechargeable in unit

Antenna

Size 16.5 cm diameter x 7.6 cm height (6.5 in x 3 in)
 Weight 0.64 kg (1.4 lbs)

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Environmental—GPS receiver

Temperature -20 °C to +60 °C (-4 °F to +140 °F)
 Humidity MIL-STD 810F, Method 507.4
 Waterproof IP67 for submersion to depth of 1 m (3.28 ft)
 Shock and Vibration Designed to survive a 1 m (3.28 ft) pole drop onto a hard surface
 Shock, operating To 40 g, 10 ms, saw-tooth
 Shock, non-operating To 75 g, 6 ms
 Vibration Tested to Trimble ATV profile (4.5 gRMS)

Environmental—antenna

Temperature -40 °C to +70 °C (-4 °F to +158 °F)
 Humidity 100% humidity proof, fully sealed
 Shock MIL-STD-810-F to survive a 2 m (6.56 ft) drop onto concrete
 Vibration MIL-STD-810-F on each axis

Input/output

Serial 2 Serial ports (DB9 and Lemo)
 Bluetooth Fully-integrated, fully-sealed 2.4 GHz, 3 channel Bluetooth® module
 Interface Power button and front panel display
 Protocols
 Data Output Internal Trimble only (Note: NMEA output optional)
 Real-time corrections RTCM 2.X, CMR, CMR+

GNSS

Satellite systems GPS, GLONASS (optional), OmniSTAR, SBAS
 Channels 72-Channel L1/L2 GPS plus L1/L2 GLONASS (optional)
 Integrated real-time methods H-Star, OmniSTAR, SBAS
 Update rate 1 Hz

Accuracy (HRMS) after correction⁵

Real-time positioning

H-Star¹
 Short baseline (within a VRS network or <30 km) 10 cm
 Long baseline (30–80 km) Subfoot (<30 cm)
 OmniSTAR²

HP 10 cm
 XP 20 cm
 VBS Submeter
 Code corrections (SBAS or external correction source) Submeter³

Postprocessed positioning

H-Star postprocessed 10 cm + 1 ppm⁶
 Carrier postprocessed with 45 minutes tracking satellites 1 cm + 2 ppm⁷
 Code postprocessed 50 cm + 1 ppm

1 Real-time decimeter accuracy can be achieved with H-Star data when the baseline length is less than 30 km. Both the base and the rover must be dual frequency and observing at least five common satellites (six during dual-satellite constellation operation). In less optimal conditions or at ranges between 30 km and 80 km, real-time subfoot accuracy can be achieved. H-Star specified accuracy is typically achieved within 2 minutes.

2 OmniSTAR HP/XP typically require 20–40, and up to 60 minutes initialization time to achieve the specified accuracy.

3 SBAS (Satellite Based Augmentation System). Includes WAAS (Wide Area Augmentation System) available in North America only, EGNOS (European Geostationary Navigation Overlay System) available in Europe only, and MSAS, available in Japan.

4 Bluetooth type approvals are country specific. The GPS Pathfinder ProXRT receiver has Bluetooth approval in the U.S. and EU. For other countries consult your local Distributor.

5 Horizontal Root Mean Squared accuracy. Except in conditions where most GPS signals are affected by trees, or buildings, or other objects. Except when using VRS or OmniSTAR corrections, accuracy varies with proximity to base station by +1 ppm for code postprocessing and real-time.

6 The following factors increase the availability of 10 cm accuracy after H-Star postprocessing: longer elapsed time tracking uninterrupted L1/L2 carrier phase data, tracking of more GPS or GLONASS satellites with L2 measurements, shorter distance to the base station(s), and use of more (than one) base stations for postprocessing.

7 45 minute carrier capability applies only to the GPS Pathfinder Office software and is limited to 10 km from the base station.

Specifications subject to change without notice.



NORTH & SOUTH AMERICA

Trimble Navigation Limited
 10355 Westmoor Drive
 Suite #100
 Westminster, CO 80021
 USA
 +1-720-587-4574 Phone
 +1-720-587-4878 Fax

EUROPE & AFRICA

Trimble Germany GmbH
 Am Prime Parc 11
 65479 Raunheim
 GERMANY
 +49-6142-2100-0 Phone
 +49-6142-2100-550 Fax

ASIA-PACIFIC & MIDDLE EAST

Trimble Navigation
 Singapore PTE Limited
 80 Marine Parade Road
 #22-06 Parkway Parade
 Singapore, 449269
 SINGAPORE
 +65-6348-2212 Phone
 +65-6348-2232 Fax

YOUR LOCAL TRIMBLE OFFICE OR REPRESENTATIVE



www.trimble.com
 store.trimble.com