Trimble GPS Pathfinder
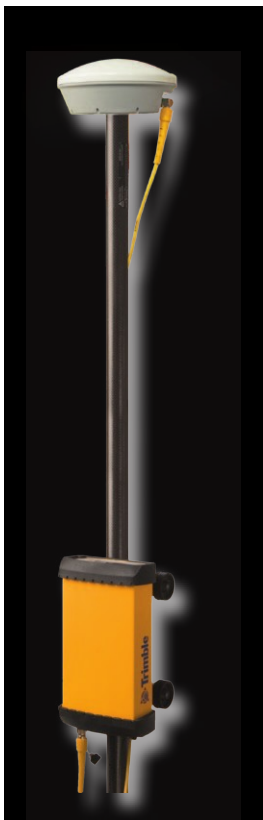## Proxrt Receiver

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 GNSS, 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 Trimble VRS™ network or a local base station 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 Trimble GPS Pathfinder ProXRT receiver is also capable of using 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. G2, an optional service to OmniSTAR HP that provides GLONASS corrections, can also be used with the GPS Pathfinder ProXRT receiver with GLONASS option.

Galileo Support

The latest generation of Trimble 360 ™ receiver technology enables tracking of the Galileo GIOVE-A and GIOVE-B test satellites for signal evaluation and test purposes, through the Web Browser interface available with the NMEA optional upgrade.

Built for the field

The Trimble 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 Trimble GPS Pathfinder ProXRT receiver is ready to use with a variety of field computers, including laptops, Tablet PCs and PDAs, and of course with any Trimble rugged field computer: a Trimble Nomad ® G or Juno® series handheld, a Trimble Recon® handheld, or a Trimble Yuma ® rugged tablet computer.

Choosing mapping software? The Trimble TerraSync™ software or the Trimble GPScorrect ™ extension for Esri ArcPad software provides a complete solution from field to office and back. Or use an application built using the GPS Pathfinder Field Toolkit 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 Trimble 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.

®**Trimble**

STAnDARD FeATuReS

GnSS
- Trimble H-Star technology for decimeter (10 cm) accuracy in either real time or postprocessed [1]
- "Worldwide" support for OmniSTAR HP (decimeter), VBS (submeter) services [2]
- DGPS corrections by radio link, NTRIP, or Integrated SBAS [3]
- Trimble Everest™ multipath rejection technology

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

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

OPTiOnAl FeATuReS

Receiver options
- GLONASS support
- NMEA output

Optional software
- Trimble TerraSync software
- Trimble GPScorrect extension for Esri ArcPad software
- Custom applications built with the Trimble GPS Pathfinder Office software
- Trimble GPS Analyst™ extension for Esri ArcGIS

Optional field computers
- Field computers powered by the Windows Mobile® version 6.x operating system, or Windows Embedded Handheld version 6.x operating system such as:
  - Trimble Juno® series handheld
  - Trimble Nomad G series handheld
  - Trimble Yuma rugged tablet computer
  - Trimble Recon handheld
- Field computer running Windows desktop operating system

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

TeCHniCAl SPeCiFiCATiOnS

Physical
GNSS receiver and integrated battery
Size . . . . . . 24 cm x 12 cm x 5 cm (including connectors) (9.4 in x 4.7 in x 2 in)
Weight . . . . 1.55 kg (3.4 lbs)
Battery . . . . 13 hours internal Li-Ion battery, rechargeable in unit

Antenna
Size . . . . 16.1 cm diameter x 7.4 cm height (6.1 in x 3 in)
Weight . . . . 0.82 kg (1.8 lbs)

environmental—GnSS receiver
Temperature . . . . –40 °C to +65 °C (–40 °F to +149 °F)
Humidity . . . . MIL-STD 810F, Method 5 0 4
Waterproof . . . . IP67 for submersion to depth of 1 m (3.28 ft) pole drop onto a hard surface
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 ºC to +85 ºC
Humidity . . . . 100% humidity proof, fully sealed
Shock . . . . MIL-STD-810-F (< survive 30 a 4 inch subfoot 2
Vibration . . . . MIL-STD-810-F on each axis XP (20 cm), and

input/output
Serial . . . . 2 Serial ports (DB9)
Bluetooth . . . . Fully-integrated, fully-sealed 2.4 GHz, 3 channel Bluetooth [4] 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
Channels 220
Satellite systems . . . . GPS, GLONASS, Galileo [6], SBAS
GPS . . . . .L1C/A, L2C, L2E (Trimble method for tracking L2P)
GLONASS L1C/A, L1P, L2C/A, L2P
Galileo . . . . GIOVE-A, GIOVE-B
OmniSTAR . . . . .VBS, HP (G2), XP
SBAS . . . . L1C/A supporting WAAS,MSAS & EGNOS

Accuracy (HRMS) after correction [8]
Real-time positioning
  H-Star [1]
    Short baseline (within a VRS network or <30 km) . . . . 10 cm
    Long baseline (30–80 km) . . . . Subfoot (<30 cm)
  OmniSTAR [2]
    HP (+G2) [7] 10.cm
    XP 20.cm
  VBS . . . . Submeter
  Code corrections (SBAS or external correction source) . . . . Submeter [3]
Postprocessed positioning
  H-Star postprocessed . . . . 10 cm + 1 ppm [9]
  Carrier postprocessed or with 45 minutes tracking satellites [10]
  Code postprocessed . . . . 50 cm

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 up to 60 minutes initialization time to achieve the specified accuracy. Refer to www.OmniSTAR.com for additional information on accuracy specifications and initialization times.
3. SBAS (Satellite Based Augmentation System). Includes WAAS (Wide Area Augmentation System) available in North America, 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. The ProXRT receiver can be purchased with GLONASS pre-installed or the ProXRT can be purchased without GLONASS and subsequently upgraded to GLONASS capability if required.
6. Model 2 of the GPS Pathfinder ProXRT receiver (shipping from October 2010) includes the latest generation of Trimble 360 receiver technology and is capable of tracking the Galileo GIOVE-A and GIOVE-B test satellites for signal evaluation and test purposes, through the Web Browser interface available including NMEA sector upgrade. This powerful receiver technology conforms to the current Open Service Signals-in-Space Interface Control Document (OS SIS ICD), Issue 1, Revision 1, September 2010. Sale of receivers based on information in the Galileo ICD is subject to the licensing terms for manufactures promulgated by the European Commission (EC).
7. An optional service to OmniSTAR HP that provides GLONASS corrections, can also be used with the GPS Pathfinder ProXRT receiver (with GLONASS option).
8. 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.
9. 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.
10. 45 minute carrier capability applies only to the GPS Pathfinder Office software and is limited to 10 km from the base station.

Specifications apply to Model 2 of the ProXRT receiver and are subject to change without notice.

Bluetooth®

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