

Trimble Water R1

Accuracy for everyone

Professional-level GNSS positioning information for almost any device

The Trimble R1 is a rugged, pocket-sized GNSS receiver that provides sub-meter precision to users of any Bluetooth connected mobile device, including smart phones, tablets, or more traditional integrated data collection tools such as a Trimble handheld computer.

Multiple Constellation Support Provides Global Reach

The R1 supports multiple GNSS constellations, including GPS, GLONASS, Galileo, QZSS and BeiDou, to provide a truly global solution. The R1 receiver includes the ability to utilize Satellite Based Augmentation Services (SBAS), Trimble ViewPoint™ RTX or, Virtual Reference Station (VRS) correction sources to suit the location and business requirements - providing accurate GNSS information almost anywhere on earth.

The Trimble ViewPoint RTX* service provides global sub-meter precision. Corrections are broadcast over a mobile Internet connection for users in coverage areas, or optionally over L-band satellite signals for users in remote locations.

Small and Easy to Use

The small size and light weight of the R1 make it easy for the mobile worker to carry without worrying about bulky equipment. The palm-sized device can easily be carried in a pocket or hung on a belt, using the included belt pouch.

The free GNSS Status app allows configuration of real time corrections and provides status information, conforming to device platform standards (iOS, Microsoft, or Android).

IP65 rated environmental protection, military-spec 810G certified ruggedness, and 10+ hour battery life make the R1 ideal for professional outdoor use.

The Trimble R1 GNSS receiver is easy to use. Simply:

- Install the GNSS Status application on the smart phone, tablet, or Trimble device
- Turn on the R1 receiver and establish a Bluetooth pair with your device
- Configure the receiver with a correction source (e.g. SBAS, RTX)
- Collect data now with high precision!



Compatible with

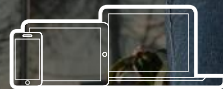


KEY FEATURES



High-sensitivity GNSS Receiver
with on-board processing of all
positioning data

Sub-meter real-time accuracy
Integrated antenna



**Compatible with multiple
devices**

iOS (Apple Certified), Android,
Windows & Windows Mobile
(WEHH)



Rugged

IP65 Environmental Protection
and MIL-STD-810G ruggedness



Connectivity

ViewPoint™ RTX support over
L-band and mobile internet
connection via Bluetooth



GNSS

Sensor type:.....L1/G1 GNSS receiver and antenna
Systems:.....GPS, GLONASS, Galileo, Beidou, QZSS
Channels:.....44-channel, parallel tracking
Correction sources:.....SBAS, ViewPoint RTX, QZSS, VRS SBAS:4-channel,
parallel tracking WAAS, EGNOS, MSAS GAGAN, SBAS ranging
Receiver Protocols:.....NMEA 0183 v4.00, Binary
Update rate:.....1 Hz
Time to first fix:.....45s typically
Reacquisition:.....< 2s
Real time correction protocols:.....CMR,CMR+,CMRx RTCM 2.1, 2.2, 2.3, 3.0,
3.1
SBAS accuracy¹:.....<100 cm
Code DGNSS accuracy (VRS / RTK)¹:.....75cm + 1 ppm HRMS
ViewPoint RTX¹:.....50 cm HRMS
Maximum speed:.....1,850 kph / 1,150 mph / 999 knots
Maximum altitude:.....9,000 m (29,520 ft)

INTERFACES

Port:.....Bluetooth 2.1 + EDR, USB 2.0 (charge/firmware update)
Bluetooth transmission:.....Class 2 (10m), iAP2 and 2.1 EDR
Bluetooth frequency:.....2.400 - 2.485 GHz
Raw measurement data:.....Trimble GSOF, Binary
Communication status LED:.....Bluetooth status, GNSS, Corrected GNSS
Power status LED:.....Charging, charging (full), 3 stage battery status (>50%,
15 - 50%, <15%)

BATTERY AND POWER

Battery Type:.....Integrated Lithium-Ion
Battery Capacity:.....3.7v 15Wh
Battery Life:.....10+ hours
Charging Time:.....5 hours (typical, with supplied charger)
External Antenna Voltage Output:.....3 VDC
External Antenna Input Impedance:.....50 Ohms

ENVIRONMENTAL

Water/Dust Ingress:.....IP65
Operation temperature:.....-20 °C to +60 °C (-4 oF to +140 oF)
Storage temperature:.....30 oC to +70 oC (-22 oF to +158 oF)
Relative humidity:.....95% non-condensing
Shock (non-operating):.....1.2 m (4 ft) to plywood over concrete
Vibration:.....MIL-STD-810G Method 514.5 Procedure I Category 24
Maximum storage altitude:.....12,192m(40,000ft)
Maximum operational altitude:.....9,000 m (29,520 ft)

PHYSICAL

Enclosure Dimensions:.....11.2 x 6.8 x 2.6 cm 4.4x2.7x1 in
Weight:.....187g (0.4 lb)
Power Connector:.....Micro-B USB Female
External Antenna Connector:.....SMB Female

INTERNAL ANTENNA

Frequency Range:.....L1, G1, L-Band (1535 MHz - 1610 MHz)

SUPPORTED PLATFORMS

iOS 7, iOS 8, Android (4.1 or greater),
Windows (7 or greater), WEHH (6.5x)

COMPLIANCE

FCC Part 15 (Class B device), CE Mark, RoHS

ACCESSORIES INCLUDED

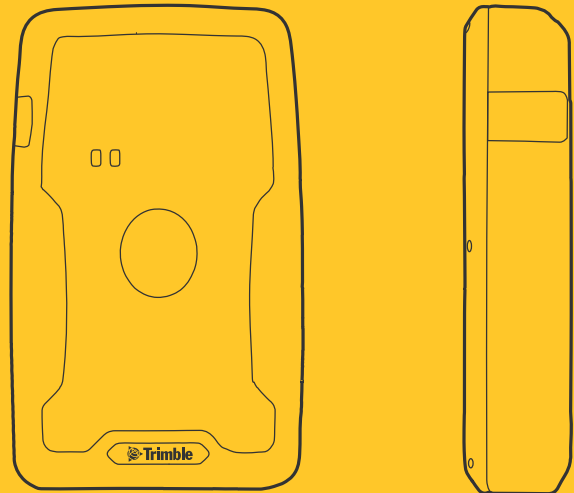
Belt pouch/clip

PURCHASED SEPARATELY

Pole pouch

External antenna Soft Hat for antenna

"Made for iPhone," and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPhone or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPhone or iPad may affect wireless performance. iPad, iPhone and Retina are trademarks of Apple Inc., registered in the U.S. and other countries. iPad mini is a trademark of Apple Inc. Accuracy and reliability may be subject to anomalies due to multipath, obstructions, satellite geometry, and atmospheric conditions. Always follow recommended GNSS data collection practices. Specified ViewPoint RTX accuracy is typically achieved within 10 minutes.



REPRESENTED BY:

CCLYNCH
& ASSOCIATES
The Water Monitoring People

Phone: 1-800-333-2252

Fax: 228-452-2563

info@cclynch.com

www.cclynch.com

 **Trimble** water