VERSATILITY IN THE FIELD. FLEXIBILITY FOR YOUR WORKFLOW.

Work the way you want with the Trimble® R2 GNSS receiver. Using trusted Trimble technology the R2 receiver gives you the freedom to configure a solution by simply selecting the accuracy and GNSS performance to suit your application. Capable of achieving submeter to centimeter level positioning accuracy the Trimble R2 is the answer to keep you working productively in a wide range of geospatial applications, no matter what your workflow requirements are.

Whether you are performing pole-based stakeouts, surveying on roads, in mines or on construction sites, locating buried assets such as pipes and cables, capturing GIS field assets, or carrying out precision survey measurements, the versatile Trimble R2 is purpose-built for surveyors and mapping and GIS professionals alike.

Simple to setup and easy-to-use, the Trimble R2 pairs with any Trimble handheld, Trimble Access™ controller, or consumer-grade smart device across a variety of operating systems and platforms, to deliver reliable, high quality real-time data every time.

A Simple, Rugged System for Everyday Needs

Built to withstand the rigors in the field, the rugged IP65-rated Trimble R2 receiver will work as hard as you do in tough outdoor conditions. Its one-button start up and compact, streamlined form factor makes it fast to set up and can be operated either mounted on a pole, on a backpack or on a vehicle. The field-swappable battery means all day productivity with no interruptions, keeping you focused on the job at hand.

Technology to Keep you Productive

The Trimble R2 is capable of tracking the full range of GNSS satellite constellations and augmentation systems, and comes with an integrated Trimble Maxwell™ 6 chip and 220 channels to provide you with reliable accuracy and positioning performance. Achieve higher accuracy in real-time with the flexibility to choose correction sources from traditional RTK, VRS networks, to Trimble RTX™ correction services delivered by both satellite and Internet/cellular.

Trimble has evolved its Floodlight™ satellite shadow reduction technology to ensure the R2 receiver is able to provide reliable, accurate data even in difficult GNSS environments. Equipped with this advanced GNSS technology, you can achieve remarkable improvements to position availability and accuracy when heavy overhead cover, such as tree canopy and buildings, obstruct satellite signals, making even tough GIS workflows easier.

A Complete Solution

Connect the Trimble R2 receiver to your preferred controller or mobile device via a wireless Bluetooth™ connection and add proven Trimble field and office software workflows to complete the solution. Data can be collected with the customizable workflows of Trimble field software such as Trimble Access or Trimble TerraFlex™ software that allow your teams to easily collect and communicate information between the field and office in real-time. Collected data can then be processed with Trimble office software, including Trimble Business Center or TerraFlex, providing you with data rich, high-quality deliverables for your organization.

For a simple, configurable, field-to-office solution, the innovative and flexible Trimble R2 GNSS receiver enables you to work accurately and productively your way.

Key Features

- A professional solution for geospatial applications ranging from sub-meter to centimeter accuracies to support any GIS or survey-grade workflow
- Easily collect data by pairing with devices such as smartphones, tablets or Trimble handhelds using Trimble Survey and GIS software
- Fast to setup, easy to use, keeping you productive and focused at your task at hand
- Supports multiple satellite constellations and correction sources for accurate data at any location
- Compact, cable-free design with integrated antenna
Trimble R2 GNSS RECEIVER

**CONFIGURATION OPTION**

- Type .............................................. Smart antenna
- Base operation ................................... Yes, logging only.
- Rover operation ................................... Yes
- Rover position update rate ................. 1 Hz, 2 Hz, 5 Hz
- Rover operation within a VRS Now® network .................. Yes

**MEASUREMENTS**

- Advanced Trimble Maxwell 6 custom GNSS chip
- High-precision multiple correlator for L1/L2 pseudo-range measurements
- Unfiltered, unsmeared pseudo-range measurements data for low noise, low multipath error, low-time domain correlation, and high-dynamic response
- Very low noise carrier phase measurements with <1 mm precision in a 1 Hz bandwidth
- Signal-to-noise ratios reported in dB-Hz
- Trimble EVEREST® multipath signal rejection
- Trimble low elevation tracking technology
- Trimble RTX Positioning3, 4
- Static GNSS Positioning
- Vertical accuracy ........................................................ ±0.85 m
- Horizontal accuracy ............................................. 10 mm + 1 ppm RMS
- Code Differential GPS Positioning2
- Correction source .............................................. DGPS RTCM 2.x
- Horizontal accuracy ............................................. ±0.5 m + 1 ppm RMS
- Vertical accuracy ............................................. ±0.85 m
- Static and Fast Static
- Horizontal accuracy ............................................. 3 mm ± 0.5 ppm RMS
- Vertical accuracy ............................................. 5 mm ± 0.5 ppm RMS
- Post-Processed Kinematic (PPK)2
- Horizontal accuracy ............................................. 10 mm ± 1 ppm RMS
- Vertical accuracy ............................................. 20 mm ± 1 ppm RMS
- Trimble RTX Positioning2, 4
- CenterPoint® RTX
- Horizontal accuracy ............................................. 2 cm RMS
- Vertical accuracy ............................................. 5 cm RMS
- FieldPoint® RTX
- Horizontal accuracy ............................................. 10 cm Horizontal RMS
- RangePoint® RTX ............................................. 30 cm Horizontal RMS
- ViewPoint® RTX ............................................. 50 cm Horizontal RMS
- RTK Positioning2
- Horizontal accuracy ............................................. 10 mm ± 1 ppm RMS
- Vertical accuracy ............................................. 20 mm ± 0.5 ppm RMS
- Network RTK2
- Horizontal accuracy ............................................. 10 mm ± 0.5 ppm RMS
- Vertical accuracy ............................................. 20 mm ± 0.5 ppm RMS

**ENVIRONMENTAL**

- Temperature
  - Storage ............................................. –20 °C to +55 °C
  - Operating ............................................. –40 °C to +75 °C
- Humidity ............................................. 100% condensing
- Waterproof ................................................... IP68
- Pole drop ............................................. Designed to survive a 2 m drop onto all faces and corners onto concrete (250)
- Shock
  - Non-operating ............................................. To 75 g, 6 ms, saw-tooth
  - Operating ............................................. To 40 g, 10 ms, saw-tooth
  - 100 shock events at 2 Hz rate
- Vibration ............................................. MIL-STD-810G (Operating), Method SI4.6, Procedure 1, Category 4, Figure S14.6C-1 (Common Carrier, US Highway Truck
  Vibration Exposure) Total Gms levels applied are 1.95 g

**COMMUNICATIONS**

- Wi-Fi ............................................... 1 USB 2.0 (Type B) device
- Bluetooth wireless technology ................................ Full-integrated, fully-sealed 2.4 GHz Bluetooth module
- Network protocols .................................. HTTP (web browser GUI); NTP Server, TCP/IP or UDP; NTRIP v1 and v2. Client mode; rNMS/iPSP service discovery; dynamic DNS; email alerts; network link to Google Earth; PPP and PPPoE
- Data formats ........................................ CMR, CMR+*, CMRx, RTCM 2.x, RTCM 3.0, RTCM 3.1, RTCM 3.2
- Correction outputs ...................................... None
- Data outputs ......................................... NMEA, GSOF
- External GSM/GPRS modem, cell phone support
- Integrated receiving radio (optional). Integrated 450 MHz UHF Radio Channel spacing (450 MHz) 12.5 and 25 kHz
- Sensitivity (450 MHz) ................................ –103 dBm, GMSK 9600 baud 25kHz channel spacing

**CERTIFICATIONS**

- IEC 60950-1 (Electrical Safety); FCC OET Bulletin 65 (RF Exposure Safety); FCC Part 15,105 (Class B). Part 15,247, Part 90; Bluetooth SIG, IEC ES-003 (Class B);
- Radio Equipment Directive 2014/53/EU, RoHS, WEEE; Australia & New Zealand, CE
- Japan Radio and Telecom MIC

**BATTERY AND POWER**

- Power on the Mini-B USB connector, non-charging per the USB standard 10 W USB adapter
- Power consumption ........................................ 4.95 W (VFD 100%), 3.7 W (VFD 12.5%)
- Power input at 18 V in rover mode
- Operation time on internal battery ............ 5 hours; varies with temperature
- Internal ............................................... Replaceable internal battery 74 V, 2800 mAh; Lithium-ion
- External ................................................. Power input to the Mini-B USB connector
- 5 hours; varies with temperature
- User interface ............................................. LED indicators for receiver status
- Dimensions .............................................. 14.0 cm diameter x 13.4 cm height
- Weight .................................................. 1.08 kg receiver only

**CONTACT**

Contact your local Trimble Authorized Distribution Partner for more information.

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