



GEOSPATIAL  
SOLUTIONS

# TRIMBLE GNSS SURVEYING SYSTEMS

A surveyor in a light blue shirt is silhouetted against a vibrant sunset sky, operating a GNSS receiver mounted on a tripod. The background shows a coastal landscape with hills and the ocean under a sky transitioning from orange to blue. A large, semi-transparent circular graphic with a yellow and white border frames the central text.

# INDUSTRY-LEADING GNSS SOLUTIONS

Backed by a legacy of GNSS technology leadership and surveying expertise, Trimble provides surveyors with reliable, innovative GNSS survey solutions that meet their distinct requirements. For more than 30 years, Trimble has been setting the standard when it comes to positioning technology—and that tradition continues today and into the future.

# TRIMBLE GNSS SYSTEMS: SOLVING YOUR CHALLENGES IN THE FIELD

## INDUSTRY-LEADING GNSS SOLUTIONS DESIGNED WITH THE SURVEYOR IN MIND

### Powerful Technology you can Depend on...No Matter What the Challenge

Whether you are climbing over rough terrain to collect topographic data, racing to finish an as-built before nightfall, or staking out a



road under the relentless summer sun, Trimble offers a complete portfolio of GNSS solutions to help you conquer your survey challenges.

Trimble offers survey professionals the GNSS options they require. Whether you need the cable-free convenience provided by Trimble integrated systems, the flexibility of Trimble modular systems, or the simplicity of handheld point measurement, Trimble has a solution for you.

Simply choose the system configuration and level of GNSS support that best fits your application and business needs.

### Enabling You to Be the Best

Through every stage of your surveying project, Trimble solutions ensure you are working at optimal efficiency with the utmost confidence in your work:

- Experience productivity that goes beyond having the best GNSS technology on the market
- Collect more data in less time via comprehensive GNSS support and an abundance of powerful features, including Trimble HD-GNSS and Trimble 360 technologies
- Reduce rework with quality control features, such as Trimble® SurePoint™ technology
- Easy-to-use field solutions allow you to get the most out of your GNSS system

### Integrated Surveying Solutions

Combine Trimble surveying technologies to accomplish more in the field. Trimble GNSS receivers integrate seamlessly with the full suite of Trimble survey systems. Whether you are staking out with your optical total station or documenting the job site with the Trimble V10 imaging rover, all Trimble survey solutions integrate seamlessly both in the field and back in the office through Trimble Business Center office software.



### GNSS Systems for All Your Application Needs

Built on a foundation of established and durable hardware, customizable software, and services, Trimble surveying systems are designed to support a range of surveying applications including:

- Architecture
- Cadastral & Boundary Surveying
- Geodetic & Control Surveying
- Land Seismic, Exploration, and Natural Resources
- Land Surveying
- Mining
- Utilities & Transportation

## Advanced Survey Technologies

For more than 30 years, Trimble has developed GNSS technologies that advance the capabilities of the surveyor, enabling efficient and accurate data capture in the field.

The Trimble HD-GNSS processing engine provides a more accurate assessment of error estimates than traditional GNSS processing engines, especially in challenging environments. Markedly reduced convergence times as well as high position and precision reliability enable surveyors to collect measurements with confidence.

Integrated into the R10 receiver, Trimble SurePoint technology means you'll get faster measurements, increased accuracy, and greater quality control. The Trimble controller displays an electronic bubble so all the measurement information is in one convenient place. The system can also compensate for up to 15° of pole tilt so you can easily measure points that were previously inaccessible.

Never be interrupted again by connection outages. Leveraging a worldwide network of Trimble GNSS reference stations and satellite data links, Trimble xFill in the R10 and NetR9 seamlessly fills in for gaps in your RTK or VRS correction stream for connection outages of up to five minutes at a time. In combination with a CenterPoint RTX subscription, survey level precisions are maintained for an infinite duration.

## INTEGRATED GNSS SYSTEMS

The Trimble R10, Trimble R8s and Trimble R2 integrated GNSS systems combine the GNSS receiver, antenna, radio-modem, and battery into a single integrated, compact unit. This popular configuration gives surveyors the latest in GNSS technology in a user-friendly system that is lightweight, rugged, and cable free.



### Trimble R10

#### Productivity Beyond GNSS

Designed to help surveying professionals work more effectively, the Trimble R10 represents the next generation of GNSS surveying. With powerful technologies that go beyond comprehensive GNSS support, the Trimble R10 enables the surveyor to collect more reliable data—no matter what the job.

- Cutting edge Trimble HD-GNSS processing engine enables surveyors to measure points more quickly.
- SurePoint technology fully compensates for pole tilt. Conveniently measure points that were otherwise inaccessible with complete quality assurance.
- Trimble xFill™ technology provides less downtime in the field, with continuous RTK coverage during connection outages from an RTK base station or VRS™ network.
- Powerful 440-channel solution with Trimble 360 technology delivers the most advanced satellite tracking.
- Trimble CenterPoint® RTX delivers GNSS corrections via satellite or internet connection for unprecedented speed and accuracy for a PPP solution.
- Ergonomic design for easier and more comfortable handling.
- Integrates seamlessly with V10 imaging rover and S-Series total station positioning sensors.
- Pair with Trimble Access™ software and the TSC3 controller, Tablet, Slate or Trimble CU for the most powerful solution on the market.

## Powerful Processing Software

### Trimble Business Center Office Software

Back in the office, seamlessly transfer your field data to Trimble Business Center. Edit, process, adjust, and quality check collected data with confidence. Select a Trimble Business software edition based on what level of data processing is needed. Add on valuable modules like Advanced Drafting or Photogrammetry if you are integrating with the Trimble V10. No matter what Trimble solution you use in the field, you can trust that Trimble Business Center office software will help you generate industry leading deliverables.

# Trimble R8s

Configured for Today. Scalable for Tomorrow.



The Trimble R8s GNSS receiver is a flexible, scalable system that offers all of the features and benefits you expect, in one customizable system.

Simply select a configuration based on how the receiver will be used in the field, whether it is for static GNSS surveys with postprocessing of GNSS raw data in the office, or the receiver being used as a base station or rover receiver, or a combination of both base and rover. After you've selected a configuration level, additional individual features can be added to further extend the receiver functionality.

Each Trimble R8s receiver comes with:

- Powerful 440 channel solution with Trimble 360 technology that delivers the most advanced satellite tracking
- Comprehensive support for all existing and planned GNSS constellations and augmentation systems
- Flexible wireless communication options for connecting to the controller
- Simple integration with Trimble total stations and the Trimble V10 imaging rover
- Compatibility with Trimble Access field software on the Trimble TSC3, Trimble Tablet, Trimble CU or Slate for an industry-leading field solution
- Easy to use Trimble DL data logging Android app for a convenient way to start a postprocessing workflow

# Trimble R2

The Versatile Receiver that Works as Hard as You Do.

With its trusted Trimble technology and compact, durable design, the Trimble R2 GNSS receiver lets you work the way you want. It gives you the flexibility to configure a solution based on the accuracy and performance level that suits your application. It's the smart, easy-to-use solution for geospatial applications, ranging from pole-based stakeouts to surveying on roads, in mines or on construction sites, and much more.

The Trimble R2 GNSS receiver:

- Enables you to select submeter to centimeter level positioning accuracy
- Delivers maximum data quality via its Trimble Maxwell™ 6 chip with 220 channels and leading GNSS technology
- Supports multiple satellite constellations and correction sources either via network connection or satellite (L-Band) for accurate data at any location
- Includes Trimble RTX correction services providing highly accurate positions anywhere without the need for a base station or VRS network
- One-button start up and compact, streamlined design enable quick setup, whether it's mounted on a pole, in a backpack or on a vehicle



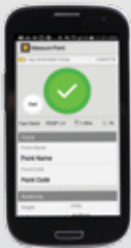
## TRIMBLE FIELD SOLUTIONS

### Unlock the Potential of Your Trimble GNSS System

Trimble provides surveyors with a complete approach to managing fieldwork. Trimble Field Solutions achieve faster time-to-deliverable and improve your competitive edge with increased productivity and easy access into new, specialized applications.

### Trimble Controllers

Trimble controllers—including the Tablet, TSC3, Trimble CU and Slate—support the unique ways you need to work. Setup and data delivery is fast and streamlined thanks to an intuitive Windows based interface and a range of connectivity and communication options. Perform calculations, generate reports on your Trimble controller, and easily send and receive files via the Internet—all while still in the field. If you are collecting static GNSS raw data for postprocessing purposes, the Trimble DL app provides a simple and easy to use mobile interface for Android smartphones and tablets.



### Trimble Access Field Software

Trimble Access software offers numerous features and capabilities to greatly improve your efficiency. Streamlined workflows—such as Roads, Monitoring, Mines, and Tunnels—guide crews through common project types and allows crews to get the job done faster with less distractions. Trimble Access workflows can also be customized to fit your needs.

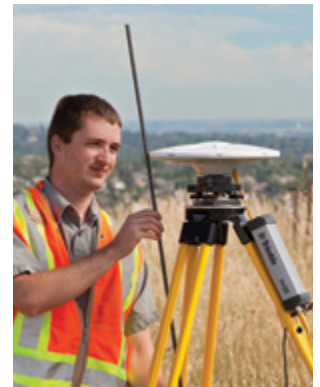


## MODULAR TRIMBLE GNSS SYSTEM

### Trimble NetR9 Geospatial Comprehensive GNSS Modularity

The Trimble NetR9® Geospatial is a GNSS receiver designed to provide surveyors with maximum functionality and flexibility. The Trimble technologies provided in the NetR9 Geospatial are a unique and comprehensive combination.

- Trimble HD-GNSS technology, Trimble CenterPoint RTX, Trimble xFill and Trimble 360 are all integrated into this modular receiver system.
- The Trimble NetR9 Geospatial supports a wide range of high-accuracy positioning modes, including mobile field base station or an RTK and RTX rover with markedly reduced convergence times.



### Trimble R7

#### The Total Modular Solution

The Trimble R7 receiver offers advanced GNSS support in a modular design that employs an external GNSS antenna for greater freedom to adapt depending on the application.

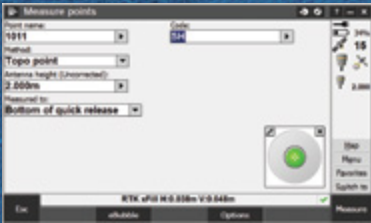
- Advanced 72-channel system with Trimble R-Track™ satellite tracking technology.
- Provides the flexibility to be used on the pole or as a base station with external high power UHF radio.
- Partner with Trimble Access and the TSC3 controller or Trimble Tablet for the optimal field solution.

### Trimble R5

#### Scalable, Rugged, Reliable

The Trimble R5 receiver enables you to take the best of Trimble GNSS technology anywhere you want to go.

- Modular 72-channel configuration with Trimble R-Track technology and your choice of the GNSS antenna puts you in total control.
- Rugged housing build to manage the most extreme environments
- Partner with Trimble Access and the TSC3 controller or Trimble Tablet for the ideal field solution.



## Trimble CenterPoint RTX

Trimble CenterPoint RTX delivers RTK level precision anywhere in the world without the use of a local base station or Trimble VRS network. Surveying using satellite or internet delivered corrections in areas where terrestrial based corrections are not available. When surveying over a great distance in a remote area, such as a pipeline or utility right of way, CenterPoint RTX eliminates the need to continuously move a base station or maintain connection to cell coverage.

## HANDHELD SYSTEM: HIGH-ACCURACY SURVEY + HANDHELD POINT MEASUREMENT

Trimble GNSS handheld systems offer high-accuracy roving on the pole plus the convenience of handheld data collection with an RTK position.

### Trimble Geo 7X with Trimble Access

#### Providing Options for Your Choice of Workflow

The rugged Trimble Geo 7X with Trimble Access is a complete solution for surveyors and engineers, designed to make both high-accuracy surveying and handheld point measurement easier, more efficient, and more flexible.

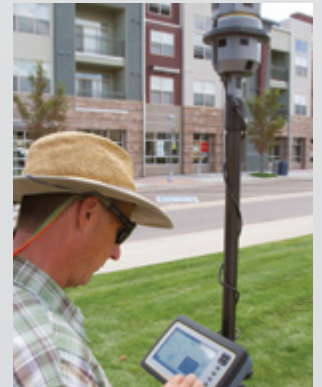
- Dedicated network rover solution suitable for all your surveying needs.
- Detachable rangefinder accessory—simply point and shoot to get a position.
- Can be mounted on a survey rod with an external antenna for survey-grade accuracy. Off the rod, seamlessly switch to its integrated antenna for handheld point measurement with easy access to features such as the integrated camera.
- Trimble Access field software provides a familiar, easy-to-use interface that will ensure instant real-time productivity or will help you collect GNSS data for postprocessing in the Trimble Business Center software.



## TRIMBLE V10 IMAGING ROVER

The Trimble V10 Imaging Rover with Trimble VISION™ technology is an integrated camera system that precisely captures a 60 MP, 360-degree digital panoramas for efficient visual documentation and measurement of the surrounding environment. The Trimble V10 enables you to capture more critical information that can be transformed into enhanced, rich geospatial deliverables.

- A total of 12 calibrated cameras—seven panorama and five downward-looking—provide complete site documentation that can be used to make photogrammetric measurements.
- Capture panoramas, review images and store observations using Trimble Access field software.
- In the field, use the Trimble V10 to visually observe and capture the entire job site. In the office, Trimble Business Center offers close-range photogrammetry tools to perform survey-grade measurement of imaged features and prepare rich deliverables.
- Export collected images into SketchUp® Pro to create robust 3D models of buildings, bridges and a variety of other objects.
- Integrates seamlessly with the Trimble R10 and R8s GNSS receivers or Trimble S-Series total station, or it can be used without a positioning receiver.



	INTEGRATED SYSTEMS			MODULAR SYSTEM			HANDHELD SYSTEM
	Trimble R10	Trimble R8s	Trimble R2	NetR9 Geospatial	Trimble R7	Trimble R5	Geo7X
<b>GNSS Surveying</b>	Real-Time (RTK/VRS/RTX) and Postprocessed	Real-Time (RTK/VRS) and Postprocessed	Real-Time (RTK/VRS) and Postprocessed	Real-Time (RTK/VRS/RTX) and Postprocessed	Real-time (RTK/VRS) and Postprocessed	Real-time (RTK/VRS) and Postprocessed	Real-time (RTK/VRS) and Postprocessed
<b>Tracking Technology</b>	Trimble 360	Trimble 360	R-Track	Trimble 360	R-Track	R-Track	R-Track
<b>Channels</b>	440	440	220	440	72	72	220
<b>Solution Type</b>	HD-GNSS	Fixed/Float	Fixed/Float	HD-GNSS	Fixed/Float	Fixed/Float	Fixed/Float
<b>xFill</b>	Yes	No	No	Yes	No	No	No
<b>RTX</b>	Yes	No	Yes	Yes	No***	No	No
<b>Surepoint</b>	Yes	No	No	No	No	No	No
<b>UHF Radio</b>	Receive & Transmit*	Receive & Transmit*	Receive	External	Receive Only (external for transmit)	Receive Only (external for transmit)	No
<b>Cellular</b>	Yes	Yes*	External	External	External	External	Yes
<b>WiFi</b>	Yes	No	Yes	No**	No	No	Yes
<b>Bluetooth</b>	Yes	Yes	Yes	Yes	Yes	No	Yes
<b>Memory</b>	4 GB	56 MB	48 MB	8 GB	Removable****	Removable****	4 GB
<b>Antenna</b>	Integrated	Integrated	Integrated	External	External	External	Integrated & External
<b>Camera</b>	No	No	No	No	No	No	5 MP
<b>Web Interface</b>	Yes	Yes	Yes	Yes	Yes	No	No
<b>Integrated Surveying</b>	Yes	Yes	Yes	Yes	Yes	Yes	No
<b>GPS</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>GLONASS</b>	Yes	Yes*	Yes	Yes	Yes	No	Yes
<b>Galileo</b>	Yes	Yes*	Yes	Yes	No	No	No
<b>BeiDou</b>	Yes	Yes*	Yes	Yes	No	No	No
<b>BeiDou-only RTK/PP</b>	Yes	Yes	Yes	No	No	No	No
<b>SBAS</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Battery</b>	Single, removable	Single, removable	Single, removable	Single, Internal	Dual; removable	Dual; removable	Single, removable
<b>Field Solution</b>	Trimble Access (Tablet, TSC3, Slate*, or Trimble CU), Trimble DL App (Android Devices)	Trimble Access (Tablet, TSC3, Slate, or Trimble CU), Trimble DL App (Android Devices)	Trimble Access (Tablet, TSC3, Slate, or Trimble CU), Trimble DL App (Android Devices), TerraSync, TerraFlex	Trimble Access (Tablet, TSC3, Slate, or Trimble CU), Trimble DL App (Android Devices), Front Panel	Trimble Access (Tablet, TSC3, Slate, or Trimble CU), Trimble DL App (Android Devices)	Trimble Access (Tablet, TSC3, or Trimble CU), Trimble DL App (Android Devices)	Trimble Access (on board)

\* BASED ON CONFIGURATION  
\*\* ETHERNET PORT

\*\*\* OMNISTAR CAPABLE  
\*\*\*\* COMPACT FLASH

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