



TRIMBLE GNSS SURVEYING SYSTEMS





TRIMBLE GNSS SYSTEMS: SOLVING YOUR CHALLENGES IN THE FIELD

INDUSTRY-LEADING GNSS SOLUTIONS DESIGNED WITH THE SURVEYOR IN MIND

Backed by a legacy of GNSS technology and surveying expertise, Trimble provides surveyors with reliable 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.

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 survey 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, a Trimble GNSS system ensures you're 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
- Combine surveying technologies, including Trimble optical and GNSS solutions, to accomplish more in the field
- 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



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

By providing comprehensive GNSS signal support and more, Trimble enables you to decrease downtime in the field, improve job performance, and protect your investment in the future – no matter what the application.

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. With an intuitive Windows-based interface, these controllers allow you to unlock the full potential of your survey solution. A range of connectivity and communication options make setup and data delivery fast and streamlined. Perform calculations, generate reports on your Trimble controller, and easily send and receive files via the Internet—all while still in the field.

TRIMBLE ACCESS FIELD SOFTWARE

Modern surveyors need field software that is powerful, but intuitive. 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.





INTEGRATED GNSS SYSTEMS: ALL THE CAPABILITY YOU REQUIRE IN ONE DEVICE

TRIMBLE INTEGRATED 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 new Trimble R10 represents the next generation of GNSS Surveying. With powerful new technologies that go beyond comprehensive GNSS support, the premier 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 RTK coverage during connection outages for less downtime in the field.
- Powerful 440-channel solution with Trimble 360 technology delivers the most advanced satellite tracking.
- Trimble CenterPoint™ RTX™ delivers GNSS corrections via satellite anywhere in the world for unprecedented speed and accuracy for a PPP solution.
- Ergonomic design for easier and more comfortable handling
- Pair with Trimble Access and the TSC3 controller, Trimble Tablet, or Trimble CU for the most powerful solution on the market.

TRIMBLE HD-GNSS PROCESSING ENGINE

A NEW GENERATION OF CORE POSITIONING TECHNOLOGY

Integrated into the Trimble R10, the Trimble HD-GNSS processing engine transcends traditional fixed/float techniques to provide 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.

Whether you are working in real-time or in a post-processing application, Trimble HD-GNSS will let you work at optimal efficiency. For real-time applications, experience reduced GNSS survey startup times and improved reliability of reported RTK precisions. For postprocessed applications, experience faster processing with a simplified workflow that typically does not require raw GNSS data filtering before processing.

TRIMBLE R8

THE INDUSTRY LEADING TOTAL SOLUTION

The Trimble R8 has long set the bar for advanced GNSS surveying systems. For surveyors facing demanding RTK applications, the Trimble R8 is an invaluable GNSS partner.

- Powerful 440 channel solution with Trimble 360 technology delivers the most advanced satellite tracking.
- Comprehensive support for all existing and planned GNSS constellations and augmentation systems included as standard.
- Flexible wireless communication options for connecting to the controller, receiving RTK/network corrections and connecting to the internet.
- Web user interface and remote configuration
- Pair with Trimble Access and the Trimble TSC3, Trimble Tablet or Trimble CU for the industry leading field solution.



TRIMBLE R6

SCALABLE, FLEXIBLE, READY FOR ANYTHING

The Trimble R6 combines advanced GNSS technology with the scalability and freedom to adapt and grow as your business needs change.

- 220-channel system with Trimble R-Track satellite tracking technology.
- Industry-leading GNSS positioning with GPS L2C, L5, and QZSS
- Fully upgradable so you can choose the level of GNSS support that suits your needs today and upgrade as your requirements evolve.
- Choose the type of communications to best fit your needs.
- Pair with Trimble Access and the Trimble TSC3, Trimble Tablet, or Trimble CU for the most flexible field solution.



TRIMBLE R4

DEPENDABLE WHEN EVERY POINT COUNTS

The Trimble R4 is designed for surveyors looking for straightforward GNSS technology that performs under rigorous conditions:

- 220-channel system with Trimble R-Track satellite tracking technology.
- Scalable from postprocessing to VRS™ to multi-constellation RTK configurations
- The flexibility to choose the level of GNSS support that is perfect for your application.
- Everything you need to perform a basic survey campaign
- Pair with Trimble Access and the Trimble Slate Controller for a dedicated GNSS solution.



YEARS OF GNSS TECHNOLOGY EXPERIENCE, EXPERTISE,
AND LEADERSHIP BUILT INTO EVERY RECEIVER

MODULAR GNSS SYSTEMS: SUPPORTING THE UNIQUE WAYS YOU WORK

IN A MODULAR TRIMBLE GNSS SYSTEM, YOU CAN CHOOSE THE RADIO AND GNSS ANTENNA THAT MAKES THE MOST SENSE FOR YOUR APPLICATION.

- The Trimble Zephyr™ Geodetic 2 ground plane antenna minimizes signal multipath at the base station to achieve the “cleanest” data possible.
- As part of a rover, the Trimble Zephyr 2 antenna makes the Trimble system extremely flexible: Carry the receiver on the pole, wear it in the purpose-built Trimble backpack, or drive with the GNSS receiver inside a vehicle.

TRIMBLE R7

THE TOTAL MODULAR SOLUTION

The Trimble R7 offers comprehensive 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.
- Select from the Zephyr-2 GNSS antenna or the Zephyr-2 GNSS Geodetic antenna for reduced multipath when used as a base station.
- Partner with Trimble Access and the TSC3 controller or Trimble Tablet for the optimal field solution.



TRIMBLE R5

SCALABLE, RUGGED, RELIABLE

The Trimble R5 lets you 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.

SYNERGY AT WORK: THE COMPLETE SOLUTION

THE TRIMBLE SYSTEM OF HARDWARE AND SOFTWARE THAT'S KNOWN AND TRUSTED

TRIMBLE HAS DEVELOPED AN ENTIRE SYSTEM COMPOSED OF THE MOST ADVANCED HARDWARE, SOFTWARE, AND SERVICES AVAILABLE ON THE MARKET. WHETHER YOU ARE IN THE FIELD OR BACK IN THE OFFICE, THE TRIMBLE SUITE OF SOLUTIONS – WHICH INCLUDES HANDHELD CONTROLLERS, OPTICAL HARDWARE, GNSS HARDWARE, AND FIELD AND OFFICE SOFTWARE—SIMPLIFIES THE SURVEY WORKFLOW TO HELP YOU ACCOMPLISH YOUR OBJECTIVES QUICKLY AND EFFECTIVELY.



HANDHELD SYSTEMS: 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 GEOEXPLORER GEOXR NETWORK ROVER

TRIMBLE PRODUCTIVITY, HANDHELD CONVENIENCE

The advanced Trimble GeoExplorer® GeoXR™ network rover breaks new ground in the surveying industry with its extraordinary adaptability for use in applications such as topographic surveys, location surveys, archaeology, and asset surveying.

- As a high-accuracy 220-channel GNSS receiver mounted on a rover pole with an external antenna, the GeoXR is ideal in a Trimble VRS network.
- Snap the GeoXR off the pole to capture accurate attribute-based information via the integrated L1/L2 GNSS antenna providing easier access to other features such as the integrated camera.



- An integrated 5-megapixel autofocus camera complements collected data with geo-tagged digital images of a site.
- Trimble Access field software simplifies image capture and linking of images to survey data.
- The GeoExplorer GeoXR makes integrating GIS data capture with traditional surveying workflows seamless and simple.

TRIMBLE INTEGRATED SURVEYING

Trimble Integrated Surveying™, which combines GNSS and optical technologies, has become the industry standard for optimal workflow support. These technologies seamlessly work together to allow you to accomplish more in less time. Every feature in a Trimble Integrated Surveying system is designed to help you collect points faster and eliminate downtime.

TRIMBLE I.S. ROVER

The Trimble I.S. Rover takes Integrated Surveying a step further. It's a unique solution that integrates GNSS and optical data collection on one rover pole. All you need is a Trimble robotic total station, such as the Trimble S8 and a Trimble R10 or Trimble R8 to enhance data collection in virtually any application. Simply attach a prism to the GNSS rover and you're ready to go.

TRIMBLE FIELD SOLUTIONS

Trimble controllers and field software work in parallel with our GNSS systems to enable you to work the way you want to, and achieve your goals faster than ever before.

TRIMBLE BUSINESS CENTER

Trimble Business Center office software is the perfect desktop complement to Trimble's full range of survey solutions. Edit, process, and adjust data from all Trimble surveying instruments with confidence.

TRIMBLE'S CONNECTED SITE MODEL

Trimble's Connected Site solutions for surveyors create seamless working relationships among Trimble products, technologies and services. Through the Connected Site, Trimble is focused on providing solutions that address your full work processes.

| | INTEGRATED SYSTEMS | | | | MODULAR SYSTEMS | | HANDHELD SYSTEMS |
|----------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|-------------------------------------------|---------------------------------------------|---------------------------------------------|-----------------------------------|
| | Trimble R10 | Trimble R8 | Trimble R6 | Trimble R4 | Trimble R7 | Trimble R5 | GeoXR |
| GNSS Surveying | Real-time (RTK/VRS) and Postprocessed | Real-time (RTK/VRS) and Postprocessed | Real-time (RTK/VRS) and Postprocessed | Real-time (RTK/VRS) and Postprocessed | Real-time (RTK/VRS) and Postprocessed | Real-time (RTK/VRS) and Postprocessed | Real-time (VRS) and Postprocessed |
| Tracking Technology | Trimble 360 | Trimble 360 | R-Track | R-Track | R-Track | R-Track | R-Track |
| Channels | 440 | 440 | 220 | 220 | 72 | 72 | 220 |
| Solution Type | HD-GNSS | Fixed/Float | Fixed/Float | Fixed/Float | Fixed/Float | Fixed/Float | Fixed/Float |
| xFill | Yes | No | No | No | No | No | No |
| RTX | Yes | No | No | No | No | No | No |
| SurePoint | Yes | No | No | No | No | No | No |
| UHF Radio | Receive & Transmit | Receive & Transmit | Receive & Transmit | Receive & Transmit | Receive Only (external for transmit) | Receive Only (external for transmit) | No |
| Cellular | Yes | Yes | Yes | Yes | External | External | Yes |
| WiFi | Yes | No | No | No | No | No | Yes |
| Bluetooth | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Memory | 4 GB | 57 MB | 11 MB | 11 MB | Removable | Removable | 2 GB |
| Antenna | Integrated | Integrated | Integrated | Integrated | External | External | Integrated and External |
| Camera | No | No | No | No | No | No | 5 MP |
| Web Interface | Yes | Yes | No | No | Yes | No | No |
| Integrated Surveying | Yes | Yes | Yes | Yes | Yes | Yes | No |
| GPS | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Glomass | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Galileo | Yes | Yes | Yes | Yes | No | No | No |
| BeiDou (Compass) | Yes | Yes | Yes | Yes | No | No | No |
| SBAS | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Battery | Single; removable | Single; removable | Single; removable | Single; removable | Dual; removable | Dual; removable | Single; removable |
| Field Solution | Trimble Access (Tablet, TSC3 or Trimble CU) | Trimble Access (Tablet, TSC3 or Trimble CU) | Trimble Access (Tablet, TSC3 or Trimble CU) | Trimble Access (Trimble Slate Controller) | Trimble Access (Tablet, TSC3 or Trimble CU) | Trimble Access (Tablet, TSC3 or Trimble CU) | Trimble Access (on board) |

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