# **Trimble R780**

# **GNSS Smart Antenna**

# Rugged, reliable positioning

The ultra-rugged **Trimble® R780 GNSS Smart Antenna** offers unmatched reliability for construction site positioning. Ideal for use on small and large job sites, the R780 can serve as a GNSS rover or as a base station for other GNSS operations including machine control.

The R780 is scalable from entry-level to high-precision applications to fit your needs. Its integrated dual-band radio gives contractors the flexibility to work on any site, switching between 450 and 900 MHz as needed without requiring any additional equipment — ideal for working in mixed fleet operations.

The R780 has a longer battery life and incorporates the latest technology to make construction surveying easier, safer and more productive.

GNSS receiver, antenna, dual-band radio and battery in one unit

Connected-site enabled with integrated Wi-Fi®, Bluetooth® and dual-band (450 / 900 MHz) radio

Easily go from carrying case to range pole, tripod, t-bar or vehicle with a single click so you can get going faster

CenterPoint RTX activated and ready to use

#### All-in-one solution

- Tilt compensation functionality to measure accurate points without leveling the pole
- Dual-band radio (450 / 900 MHz) to connect to diverse base stations and job sites without the expense of additional external radios
- The dual Trimble Maxwell<sup>™</sup> 7 GNSS ASIC chip enables greater performance in challenging GNSS environments (blocked sky, multi-path, or degraded signal) and provides more channels for future constellation changes so your investment remains valuable over time
- Real-time kinematic (RTK) corrections for higher-accuracy site measurements
- VRS and IBSS compatible for a more economical solution
- Compact design with unprecedented strength and durability, easy to use and virtually indestructible, helping you eliminate downtime

## **Powered by Trimble technology**

- Trimble ProPoint® GNSS technology uses all available signals to provide positioning in challenging environments where other GNSS systems fail
- Included for the first 12 months, Trimble CenterPoint® RTX
  is a real-time GNSS corrections service available globally via
  satellite or the internet. It provides RTK-level accuracy at
  fast convergence times, without the need for a base station
  or real-time network (learn more at rtx.trimble.com)
- Trimble xFill® technology seamlessly fills in for gaps in RTK or VRS connection streams if the connection is lost, reducing downtime and expanding site productivity
- Trimble IonoGuard<sup>™</sup> technology reduces ionospheric interference for consistent and reliable positioning

Add a Trimble Protected protection plan for worry-free ownership over and above the standard Trimble product warranty. Added enhancements include coverage for wear & tear, environmental damage, and more. Accidental damage is covered with Premium plans, available only at point-of-sale in selected regions.

For details, visit trimbleprotected.com or contact a local Trimble distributor.



**DATASHEET** 

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### Tilt compensation

Using the R780 and Trimble Siteworks Software, capture accurate points while standing, walking or driving the site, without leveling the pole. With GNSS tilt compensation, Siteworks is easier to learn for beginners and saves significant time for more experienced surveyors.

- Easily and safely survey hard to reach areas (corners, traffic lanes, utility flowlines)
- · Faster measurements
- · More efficient stake-outs
- · No magnetic interference

In vehicle mode, capture higher accuracy measurements on steeper slopes from a moving vehicle, and more accurate volumes to save time and money on material planning. Built to withstand high vibration scenarios without interruption or damage, the R780 can perform site topos, road centerlines and check as-builts in even the roughest site conditions.

#### **Applications**

With the R780 and Siteworks, you can:

- Determine cut/fill on a range pole, utility vehicle or truck
- Record tilt data when taking measurements
- Stake out site or road features, utilities, daylight lines and side slopes
- · Measure progress and calculate material stockpile volumes
- · Carry out as-built measurements, grade checks and thickness checks

#### Reliable base station

The versatile R780 can also be used as an RTK base, transmitting corrections to rovers and machines via radio or Wi-Fi. Trimble AutoBase<sup>™</sup> simplifies the daily setup, just put the R780 on the tripod, switch it on and go.



**Trimble Civil Construction** 

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