# Trimble R10 GNSS System

# Trimble R10

*Productivity Beyond GNSS*

- Trimble HD-GNSS

- Trimble SurePoint™

- Trimble xFill™

- Ergonomic Design

*"Pair with Trimble Access and Trimble Business Center for the most powerful total solution on the market"*

# Integrated GNSS Portfolio

**Trimble R10**

Productivity Beyond GNSS

**Trimble R8**

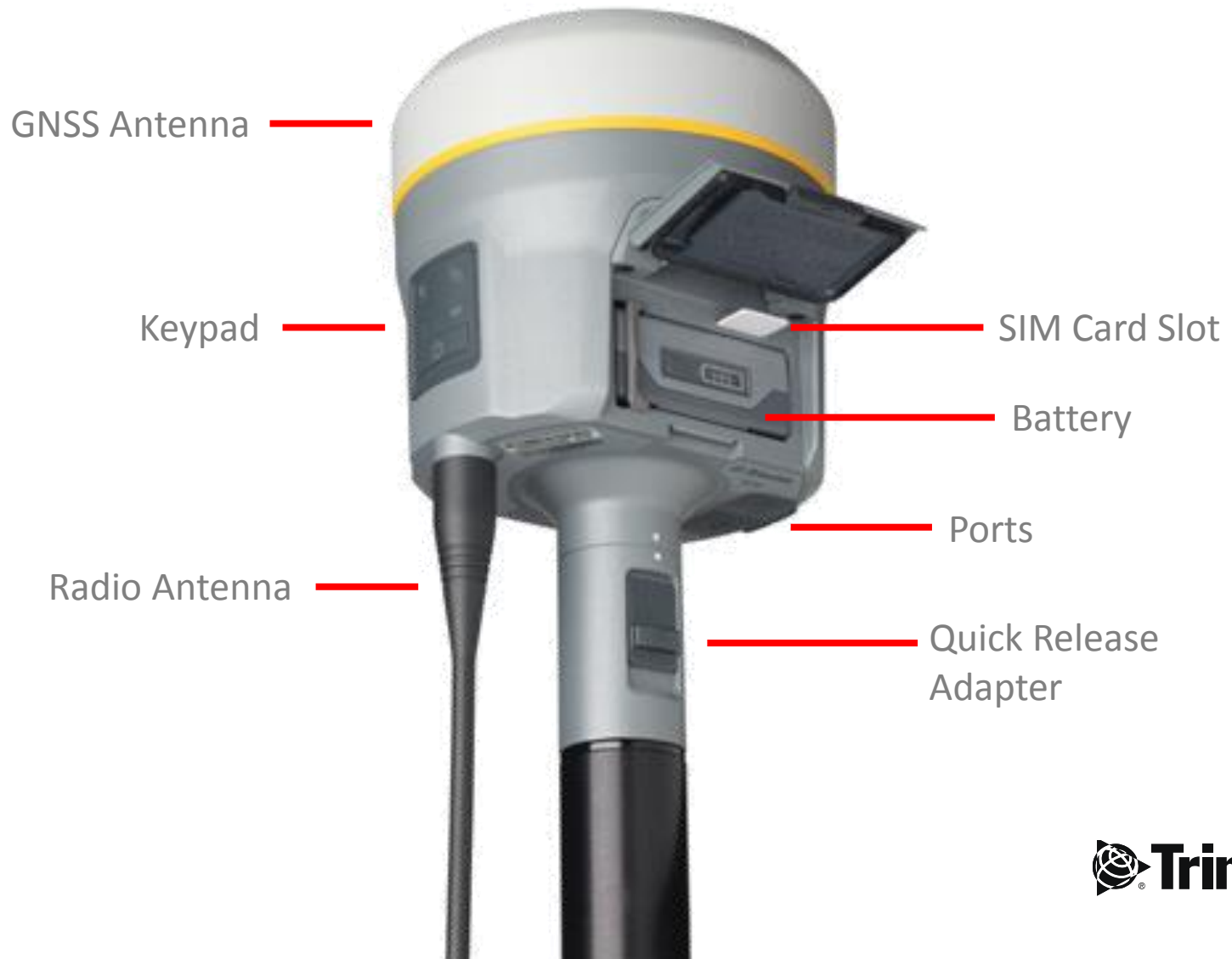Industry Leading Total GNSS Solution

**Trimble R6**

Scalable, Flexible, Ready for Anything

**Trimble R4**

Dependable When Every Point Counts

**⊗Trimble.**

# Trimble R10 Overview



GNSS Antenna

Keypad

SIM Card Slot

Battery

Ports

Radio Antenna

Quick Release Adapter

Trimble®

# Trimble R10 Overview



Lemo (RS-232)

Radio Antenna

Lemo (USB)

Quick Release

# Trimble R10

*Productivity Beyond GNSS*

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- Trimble xFill™

- Trimble 360

- Ergonomic Design

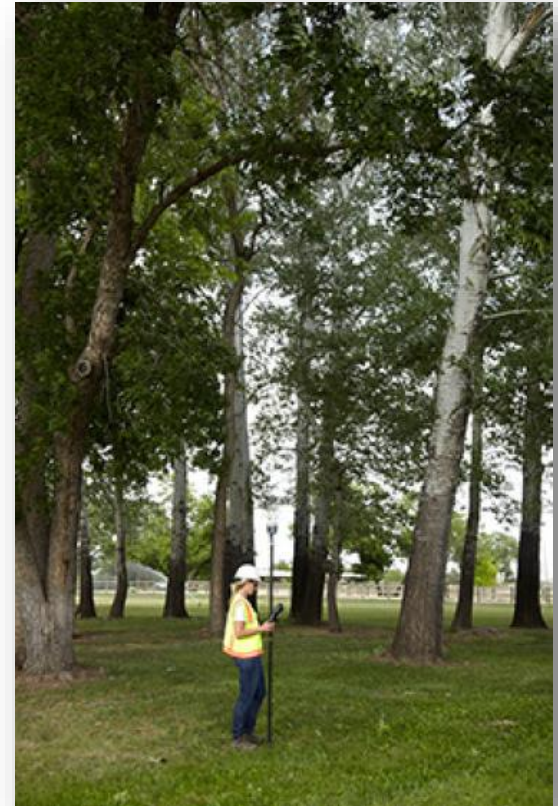*"Pair with Trimble Access and Trimble Business Center for the most powerful total solution on the market"*

**Trimble.**

# Trimble HD-GNSS

*The next-generation processing technology for precise GNSS positioning that surpasses the older fixed/float technique*

- Precision-based measurements

- Start measuring sooner

- Shorter occupation times

- Measure with confidence in more challenging environments



**Trimble.**

# Precision Based Measurements

- Weighted ambiguity resolution technique that surpasses the older fixed/float technique

- More accurate precision/error estimates than older GNSS technology

- Reduced convergence times

- Reduced occupation times

- Increased position and precision reliability especially in more challenging environments

RTK:Fixed H:0.010m V:0.014m RMS:015   (Trimble R8/R7/R6/R5/R4)

RTK H:0.008m V:0.010m ✔   (Trimble R10)

Trimble

# Trimble Access Status Line

Horizontal Precision Estimate

Are the precision estimates within the user-definable tolerance? (default H: 15 mm / V: 20 mm)
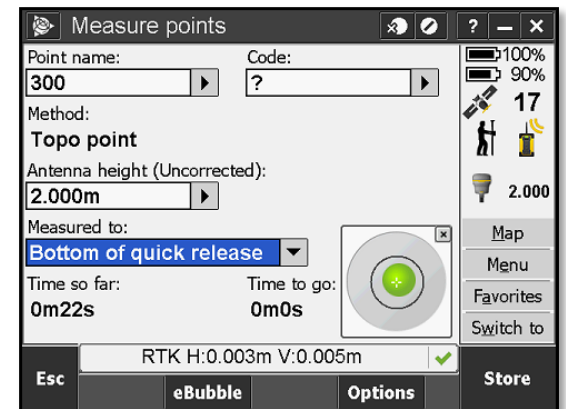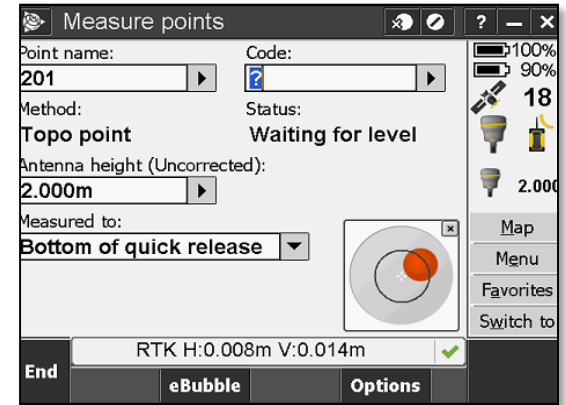
**RTK H:0.008m V:0.010m** ✓

Vertical Precision Estimate

# Trimble SurePoint™

*An integrated tilt sensor enables faster measurements, increased accuracy and greater quality control*

- eBubble means all measurement information is in the same place
- Guards against erroneous measurements due to pole tilt
- Measure faster with automatic point measurement/storage
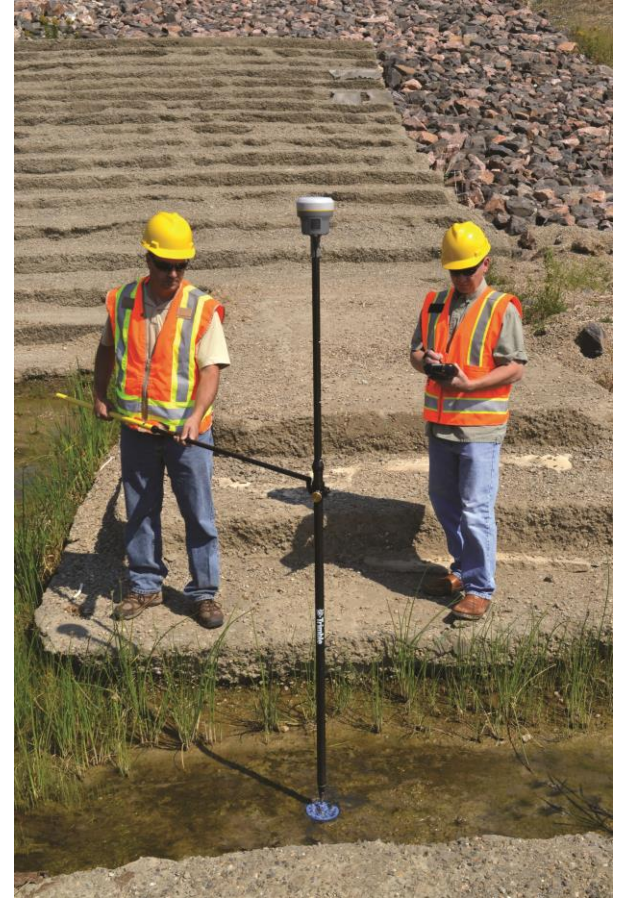- A new level of traceability in your survey data

# eBubble

- The electronic bubble can be used instead of the traditional pole bubble

- Press CTRL + L to show or hide the eBubble from any screen

- The eBubble is aligned to the front side (LED panel) of the Trimble R10

- Calibration

  - This is done within Trimble Access (under Receiver Settings)

  - Set the Trimble R10 up on a tripod with a recently calibrated tribrach
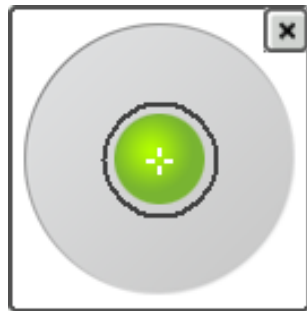
# Guards Against Pole Tilt

- Guards against erroneous measurements due to pole tilt

- A tilt warning appears if the pole is ever outside the user defined tilt tolerance during a measurement or at start/storage

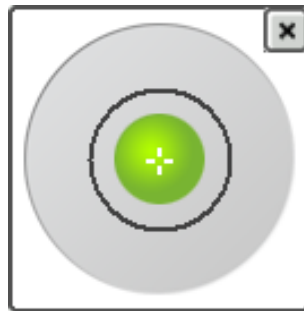- This can be disabled



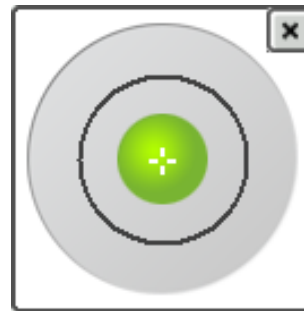®**Trimble**®

# Auto Measure/Store

- Hundreds of points can be stored with only one tap on the Start button

- Measurement begins when tilt is within a pre-defined tolerance (default: 0.020m)

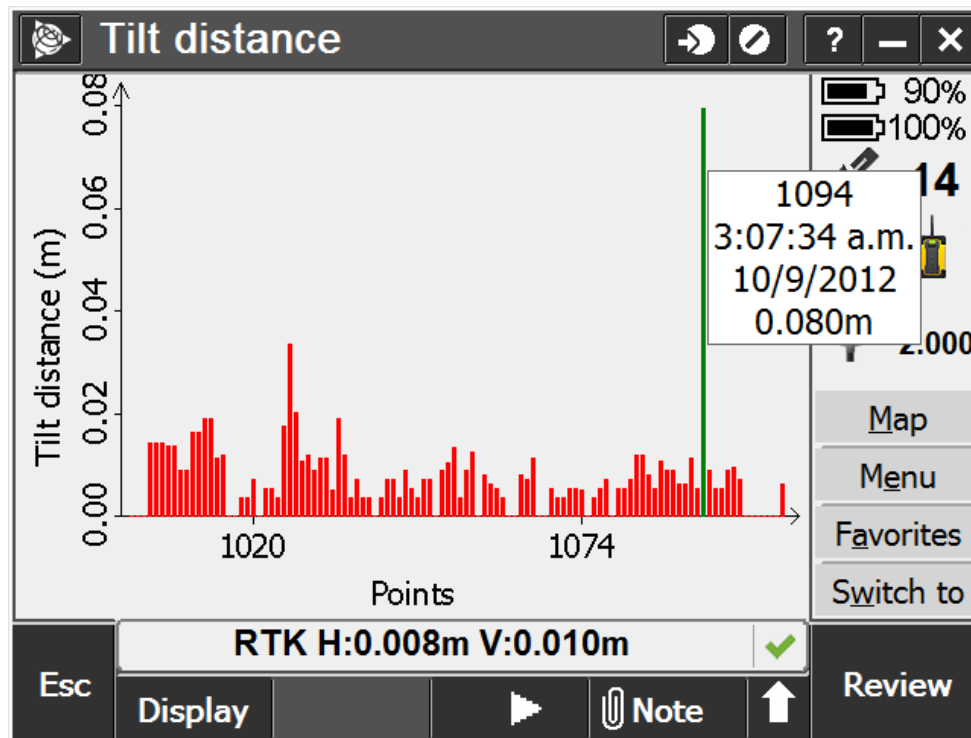- Auto-stored after two epochs – go to the next point…

| 0.010m | 0.020m | 0.030m |
|:------:|:------:|:------:|

# A New Level of Traceability

- Surveyors want raw data

- Tilt sensor values are stored with every point and can be reviewed in Trimble Business Center
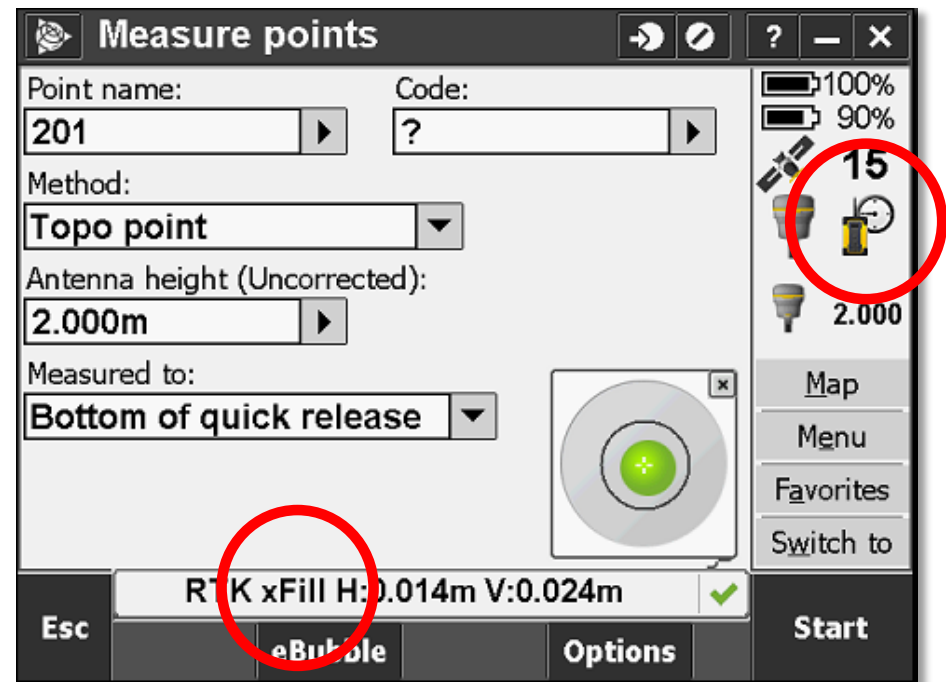
# Trimble xFill™

**Powered by Trimble RTX™ Technology**

*Continue surveying without interruption when you temporarily lose connection with your base station or VRS network*

- More continuous surveying
- Less downtime

# Built for the Surveyor

*A new level of precision engineering, the smallest and lightest GNSS receiver in its class*

- Packed with new features

- 40% smaller and 30% lighter

- Rugged IP67 / MIL-STD-810F

- Improved weight distribution

- Improved handling means less fatigue after a day in the field
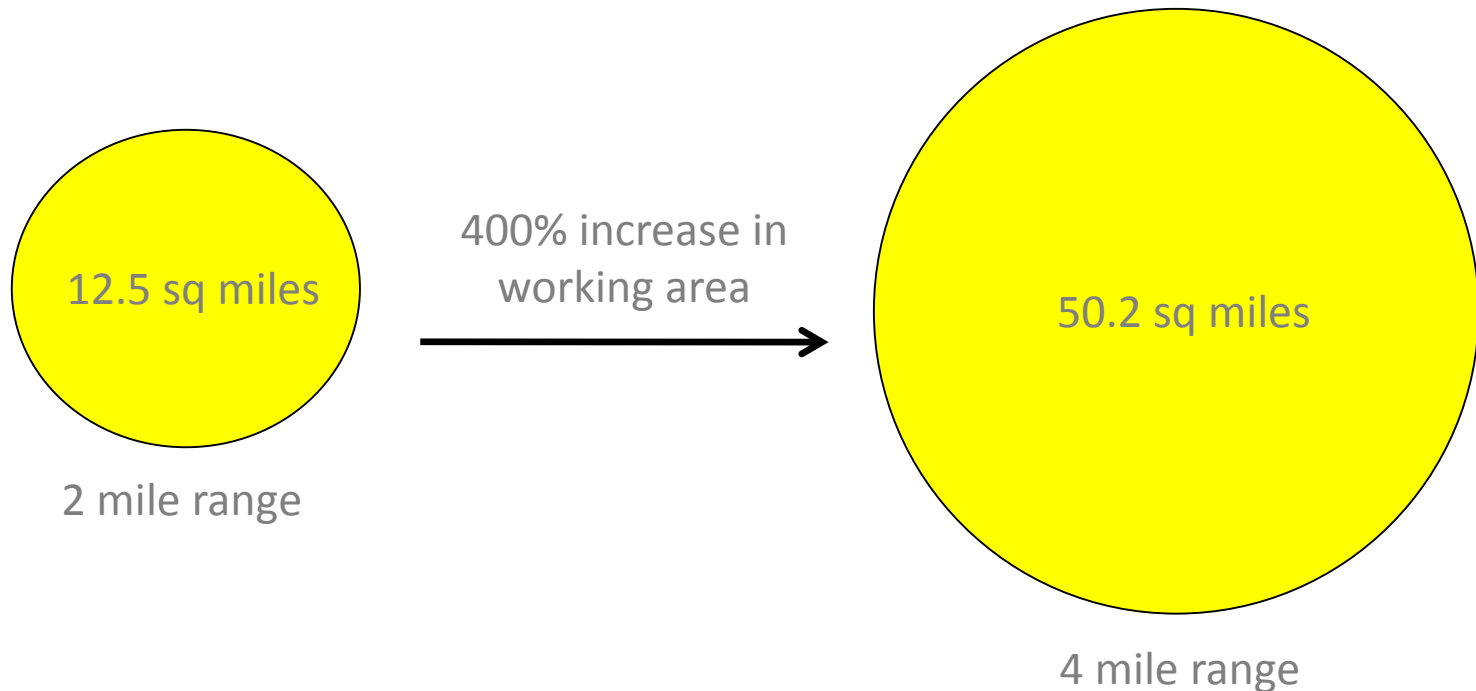
# Trimble R10

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# Internal UHF Radio

- Internal wideband radio can broadcast at a powerful 2W

- Approximately double the radio range of the Trimble R8

- Increases the working area by ~400%

12.5 sq miles

2 mile range

400% increase in working area

50.2 sq miles

4 mile range

**Trimble**

# All Packed Into One Box

# Notable Accessories

Passive Prism
(89847-00)

Base Adapter
(89846-00)

Quick Release Adapter
(89845-00)

Trimble R10 Battery
(89840-00)

**⊗ Trimble.**