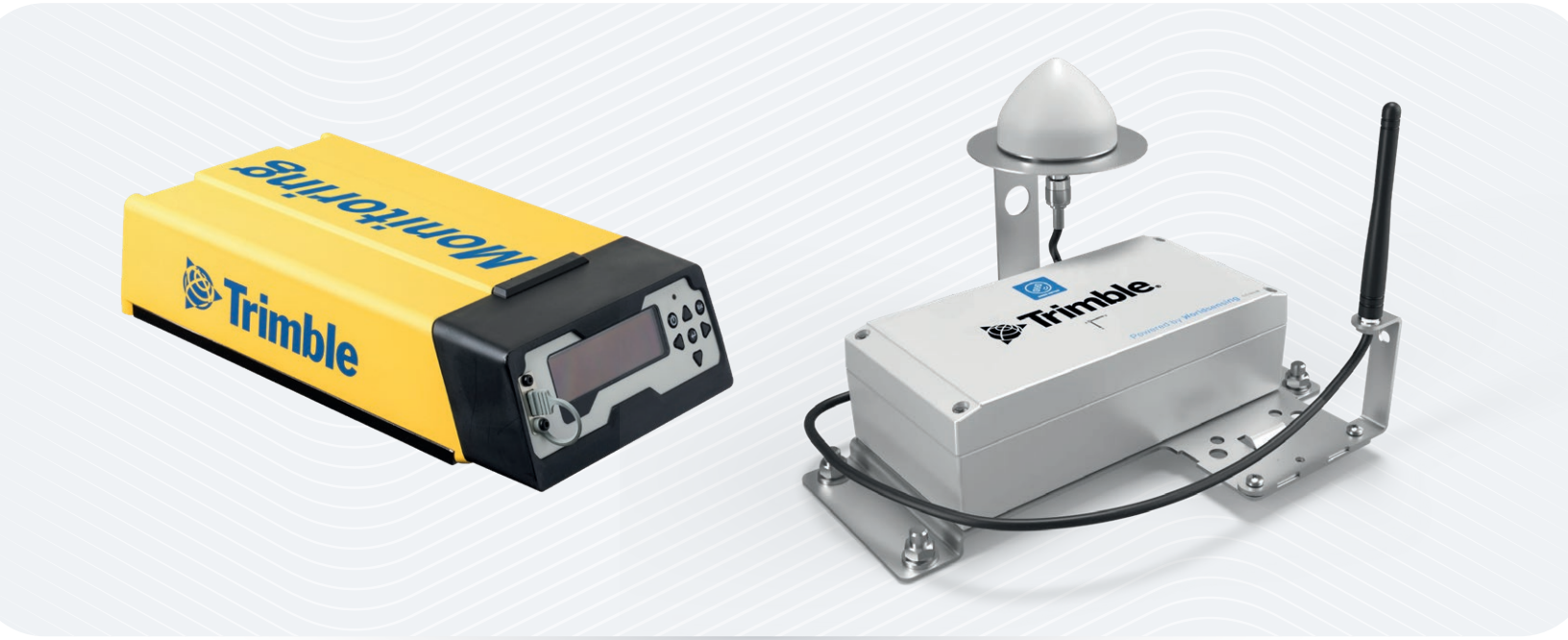
COMPARISON GUIDE

Trimble GNSS Monitoring

3D MONITORING WITH CONFIDENCE



GNSS monitoring portfolio tailored to meet diverse demands of various monitoring applications.

Each monitoring project requires specific tools. Whether you are handling demanding projects in challenging environments or need to cover large areas quickly with tens, hundreds, or even thousands of sensors, you can trust the Trimble monitoring portfolio to provide reliable solutions.

Discover the differences between the Trimble® R750 MON and the Trimble GNSS Meter and gain a better understanding of the applications and where their strengths are best utilized.

Find out more at:
geospatial.trimble.com

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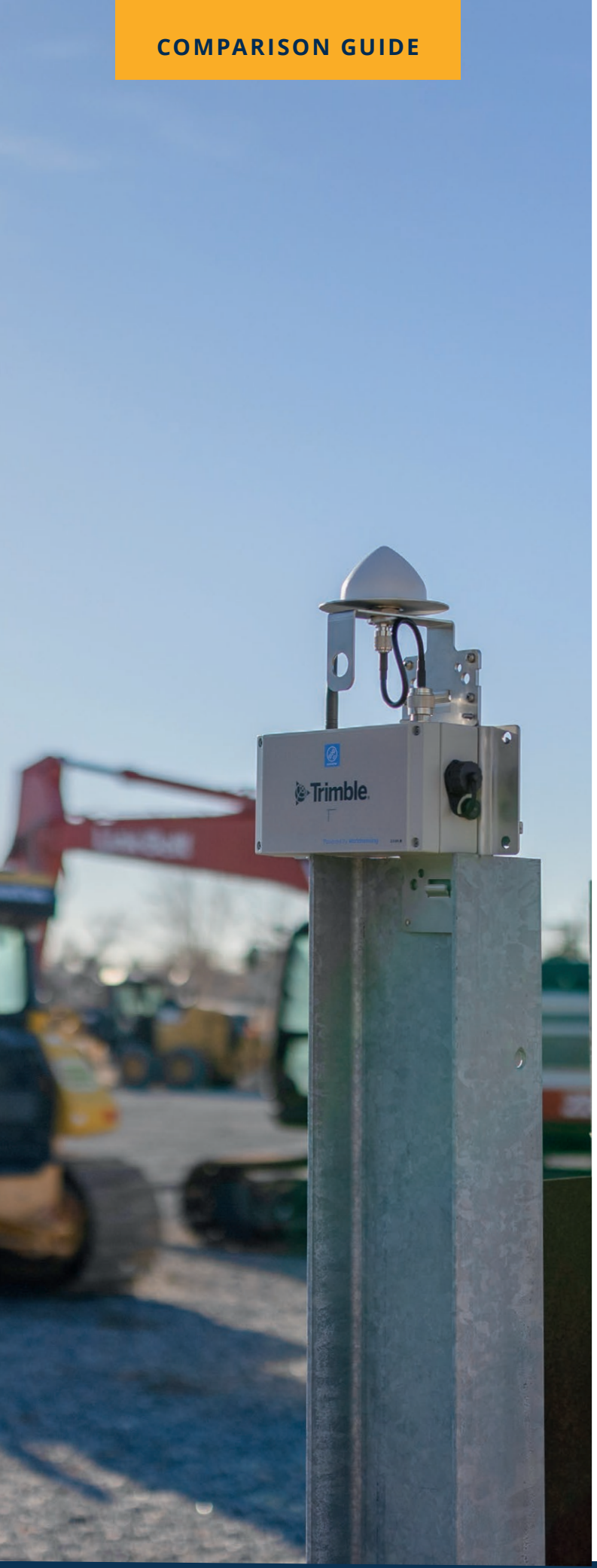

Trimble GNSS Meter

The Trimble GNSS Meter is tailored for long-term position monitoring with survey-grade accuracy. Featuring long-range radio communication and an extended battery life, it is ideal for large-scale projects that require extensive ground coverage. GNSS Meter's easy integration with Trimble 4D Control™ (T4D) helps mitigate risks associated with land instability over the duration of your project.

Key features

- Ability to achieve **survey-grade precision** with advanced Real-Time Kinematic (RTK) technology
- **Flexible configuration options** enabling Trimble GNSS Meters to function as either a base station or a rover, thus adapting to various monitoring needs
- Edge processing providing information on the quality of position measurements and system performance, transmitted via radio
- Battery power source with a lifespan of **more than 2 years**
- **Integrated tiltmeter** delivering supplementary movement data even when conditions for precise RTK measurement are not met
- **Easy data integration with T4D** for analysis, reporting, and alarming, providing crucial information to understand movement

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Trimble R750 MON

The Trimble R750 MON GNSS receiver incorporates the latest industry-leading positioning technology from Trimble, along with modern communications capabilities, in a rugged form factor that is ready to be deployed on automated monitoring projects.

Key features

- Achieves millimeter movement with up to 8 mm horizontal and 15 mm vertical real-time kinematic precision with 336 tracking channels
- Supports up to **20 Hz position update rate**
- 4G LTE modem for **robust cellular connectivity**
- Equipped with **Trimble Maxwell™ 7 GNSS technology** to track the latest signals from all constellations, mitigate multipath, detect interference, and protect against spoofing
- Monitoring **configuration tailored for specific monitoring applications** in combination with T4D
- **Seamless integration with T4D** for automated data collection, real-time and post-processed analysis, reporting, and alarming in monitoring projects

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3D monitoring solutions comparison

The following table highlights key comparisons between the Trimble GNSS Meter and the R750 MON. For additional context, the Trimble total station is also included as another primary solution for 3D monitoring, providing a comprehensive overview of these technologies.

	TRIMBLE GNSS METER	TRIMBLE R750 MON	TRIMBLE TOTAL STATION
			
Accuracy and area coverage	Sub-centimeter precision movement monitoring over large areas	Millimeter movement for long-term trends with high reliability and safety factors	Millimeter movement over a localized area within the LoS
Technology and frequency	RTK (hourly results with 2 levels of aggregation - 6 and 24 hours)	RTK real-time post processing (in T4D) RTX real-time RTX post processing (in T4D)	Prism round measurement (5 min to 1 day measurements)
Setup	Wireless, compact and battery-powered (battery life more than 2 years) Easy installation in the field	Externally powered Fit-for-purpose monitoring configuration	Requires careful setup, leveling, calibration and external power
Communication	LoRa radio between devices and Gateway	Cellular (integrated cellular/LTE modem) Ethernet Wi-Fi®	Cellular or Ethernet with Settop M1
Additional sensors	Tilt sensor Temperature and humidity sensor Barometer	-	Camera Barometer
GNSS antenna support	Integrated external antenna	Zephyr™ 3 Base/Geodetic/Rover/Rugged Zephyr 2 Geodetic/Rugged GA830 Marine	-
Cost	$$ per point	$$$ per point	$ per point