



MINU

PORTABLE SMART ANTENNA FOR GIS APPLICATIONS

Proudly developed on a brand-new platform, the RinoNav MINU is an all-new, easy-to-use, wearable, portable smart antenna that provides professional-level positioning data to any Android & iOS devices.

Full Constellations and Multi-frequency

The MINU supports BDS/GPS/GLONASS/Galileo/QZSS constellations, comprehensive GNSS signal trackings, 1408 channels, and fully supports BDS-3.

All-in-view RTK Positioning

Embedded with a high-precision GNSS module, the MINU supports centimeter-level CORS differential data positioning. Enjoy lightning speed of fixed positioning, cold start $\leq 30s$, hot start $\leq 3s$.

High-performance Integrated Antenna

With a customized high-gain quadrifilar helix antenna and a built-in Bluetooth feature, the MINU can be easily connected to any handheld devices. No need for expensive and heavy data collectors anymore.

Ideal for Multiple Applications

The MINU is competent for various survey & lofting tasks, for example, road construction, power line survey, site leveling control, CAD application, etc.

Rugged, Compact, and Portable Design

The MINU is designed to work in the toughest environments. It presents great heat dispersion and weighs 220g, which is ideal for mobile surveys. Thanks to its IP67 protection, the MINU has the highest level of dust protection and is able to withstand low-pressure water jets from all directions. Carry the MINU in an armband bag or a shirt pocket using its metal clip on the back, or use an external connector to attach it to a survey pole - enjoy flexible wearable modes to make your job even easier.

Max 90° Tilt Survey: A Different Way of Working

Quickly measure accurate points while standing or walking without leveling the pole. Concentrate on where the pole tip needs to go, which is especially useful during a stakeout. Easily start a survey in environments that are hard to reach, such as building corners and slopes. No longer worry about the movement of the pole when measuring, provided that the pole tip is stationary.

Product Specification

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GNSS Performance

Channels	1408
Satellites tracking	<ul style="list-style-type: none">■ GPS: L1C/A, L2P(Y), L2C, L5■ GLONASS: L1, L2■ GALILEO: E1, E5a, E5b■ BDS: B1I, B2I, B3I, B1C, B2a, B2b1■ QZSS: L1, L2, L5t■ SBAS: Support
Position accuracy	<ul style="list-style-type: none">■ H: $\pm (8+10^{-6} \times D)$ mm■ V: $\pm (15+10^{-6} \times D)$ mm Tilt accuracy with RTK fixed solution: 0°~60°: 1.5 cm 60°~90°: 2.0 cm
Cold start	≤ 30 seconds
Hot start	≤ 3 seconds
Speed accuracy	≤ 0.03 m/s

Electrical

Battery	Built-in, Non-replacable, Lithium Polymer Battery 3.7V / 5200 mAh.
Working time	≥ 18 hours
Input voltage	5V dc / 2A

Data Interface

Bluetooth	Yes
Type-C port	1 Type-C port
ROM	8 GB

User Interface

Button	Power button x1
Indicator	<ul style="list-style-type: none">■ Power indicator x1■ Bluetooth indicator x1■ Satellite indicator x1

Physical

Dimension	135 mm x 42mm x 64 mm
Weight	≤ 220 g

Environment

Operating temperature	-20°C - +60°C
Storage temperature	-40°C - +85°C
Water/dust-proof	IP67
Shock resistance	1.6 m free drop
Humidity	95% No condensation