



Portable Pilot Unit

TRENZ SIRIUS+

Delivering next-level precision and real-time accuracy for maritime pilots operating in the most demanding conditions. Designed for absolute control ensuring superior positioning and independence on every voyage.

trenz-ppu.com/sirius-plus

MORE ACCURACY. MORE INDEPENDENCE. MORE CONTROL.

The TRENZ SIRIUS+ redefines maritime navigation with cutting-edge Real-Time Kinematic (RTK) positioning, providing absolute precision down to 0.01m. Designed for pilots operating in the most demanding environments, it delivers accuracy, independence, and control.

Superior

- Real-Time Kinematic (RTK) for 0.01m accuracy
- Multi-frequency L1/L5 GNSS with external active antenna
- Fast system startup in under 30 seconds

Performance You Can Rely On

- Hexa-IMU setup with TRENZ NautiTurn algorithm for highest-precision ROT measurements
- 31-hour rechargeable battery for full workday endurance
- Fast charging via USB Power Delivery

Maximum Flexibility

- WiFi & Bluetooth connections for up to eight simultaneous clients
- Compact & lightweight – 290 g (325 g with external antennas)
- AIS/RS485 input protection with polarity correction



TRENT SIRIUS+ Portable Pilot Unit

Technical Specifications



Physical	Dimensions: 135mm x 75mm x 28mm (w/o antennas) Weight: 290g Protection: IP65
GNSS	Position accuracy (RTK): up to 0.01m CEP (1ppm) Position accuracy (SBAS): up to 1m CEP Constellations: GPS/QZSS, GLONASS, Galileo, Beidou Frequencies: L1C/A, L1OF, L5, E1-B/C, E5a, B1I, B2a, SPS-L5 Augmentation Systems: QZSS/SLAS, WAAS, EGNOS, MSAS, DGNSS Concurrent GNSS: 4 Features: <ul style="list-style-type: none">• Real time kinematic positioning (RTK)• Active GNSS antenna support• Anti-jamming (active CW detection and removal)• Advanced anti-spoofing algorithms and OSNMA
Sensors (ROT/ R&P)	Type: Hexa Gyroscope & Accelerometer Features: <ul style="list-style-type: none">• TRENZ NauiTurn Algorithm• High precision at slow turns• Ultra lowdrift over time
Rate Of Turn	Time to calibrate: ≈ 20s at boot Accuracy: ±0.4° per minute
Roll & Pitch	Accuracy: ±0.4°
Battery & Power Supply	Charging technology: USB Power Delivery (USB PD) Charging time: 3h max. to full capacity Charging connector: USB Type-C Battery Capacity: 3,800mAh/ 28Wh LiPo Battery Operating time: ≈ 24h on average / up to 31h max. Features: <ul style="list-style-type: none">• Rechargeable during operation
AIS	Features: <ul style="list-style-type: none">• AIS/ RS485 input circuit protection• Polarity protection & correction• AIS check for consistency and checksum• AIS decoding of heading, ROT and vessel name
Wireless Connectivity	WiFi Standard: Wi-Fi 802.11 b/g/n Wifi Security: WPA/ WPA2 Wifi Network Modes: Access Point (AP), Station + Access Point (STA+AP) Wifi Network Protocols: TCP, UDP Bluetooth Standard: v4.2 (not compatible with iOS/iPadOS) Features: <ul style="list-style-type: none">• Up to 8 clients simultaneously• Simultaneous use of mobile data connection• Simultaneous use of WiFi and Bluetooth
Miscellaneous	Features: <ul style="list-style-type: none">• System readiness in less than 30s• Firmware upgradable via TRENZ PPU Manager App• 2 years warranty