Global Accuracy Easier

David GNSS Receiver
Base & Rover Kits
Tersus David

GNSS Receiver

The Tersus David is a cost-efficient, palm-sized GNSS receiver designed for UAVs, AGVs, and surveying applications. Using an external GNSS antenna, the free Tersus Survey App and post-processing software, the David GNSS receiver is a low-cost solution for all survey applications, including real-time RTK positioning data collection for PPK. A 4GB in-built memory makes it easy to save data for post-processing. The compact size, IP67-rated enclosure and external Bluetooth module alleviates most of the inconveniences encountered in field work.

Features

Seamless Integration with Mobile Phone
- Convenient app operation to control David

Versatile Communication & I/O Interface
- Easy connection to an external radio module for long range communications
- Bluetooth module establishes wireless connection in seconds

Wide Range of Applications
- Paired with a smartphone, the David GNSS receiver can operate as a base, rover and GIS data collector

Convenient Connection
- Supports Ntrip protocols for receiving CORS differential data
- Tersus Ntrip Caster service available for the connection of two or more David GNSS receivers

Multi-GNSS (GPS L1/L2, GLONASS L1/L2, BeiDou B1/B2)
- Powered by the Tersus GNSS OEM board, David GNSS receiver provides high-precision positioning performance.

IP67
- Rugged casing and IP67-rated enclosure to support operations in harsh field environments

Easy-to-use Software & App
- Intuitive software turns any Android phone or pad into an advanced field controller for David GNSS receiver
- Tersus Nuwa & MicroSurvey FieldGenius support David

David GNSS Receiver - Base & Rover Kits

- Rover Kit Mobile Mode
- Rover Kit with 2W Radio Station
- Base Kit Mobile Mode
- Base Kit with 2W Radio Station
- Base Kit with 30W Radio Station

Visit our website www.tersus-gnss.com for more details.
Working Modes

**Rover + CORS**

- GNSS Satellites
- Network (3G/4G)
- CORS
- Differential Data
- High-precision Positioning

- GNSS Signals
- USB Cable
- Bluetooth
- Smartphone
- Differential Data
- 3G/4G
- CORS
- Differential Data
- High-precision Positioning

**Base + Rover + Tersus Ntrip Caster**

- GNSS Satellites
- Network (3G/4G)
- Base
- Differential Data
- Tersus Ntrip Caster
- Differential Data

- GNSS Signals
- USB Cable
- Bluetooth
- Smartphone
- Differential Data
- 3G/4G
- Tersus Ntrip Caster
- Differential Data
- Controller base
- Controller rover
**Base + Rover + Radio**

- **Base**: GNSS Satellites → GNSS Signals → Differential Data → Rover
- **Rover**: GNSS Signals → High-precision Positioning
- **Smartphone (controller)**: USB Cable, Bluetooth

**Static Surveying**

- **GNSS Satellites**: GNSS Signals → GNSS Signals
- **David GNSS Receiver (Base)**: Raw observations → Raw Files → PC RINEX → Post Processing
- **David GNSS Receiver (Rover)**: Raw observations
Specifications

**Signal Tracking**
- **GNSS**: GPS L1/L2, GLONASS L1/L2, BeiDou B1/B2

**Positioning**
- **Single Point Positioning Accuracy (RMS)**
  - Horizontal: 1.5m
  - Vertical: 3.0m
- **Real Time Kinematic (RMS)**
  - Horizontal: 10mm+1ppm
  - Vertical: 15mm+1ppm
- **Post Processed Kinematic (RMS)**
  - Horizontal: 10mm+1ppm
  - Vertical: 15mm+1ppm
- **Static Post Processing (RMS)**
  - Horizontal: 3mm + 0.5ppm
  - Vertical: 5mm + 0.5ppm

**Observation (zenith direction)**
- **C/A Code**: 10cm
- **P Code**: 10cm
- **Carrier Phase**: 1mm

**Performance**
- **Time to First Fix**
  - Cold Start: <50s
  - Warm Start: <30s
- **Timing Accuracy (RMS)**: 20ns
- **Velocity Accuracy (RMS)**: 0.03m/s
- **Initialization (typical)**: <10s

**Electrical**
- **Input Voltage**: 5V ~ 12V DC
- **Power Consumption**: 3.2W

**Data**
- **Storage**: 4GB in-built Memory
- **Correction**: RTCM2.3/3.x, CMR, CMR+
- **Max. Update Rate**: 20Hz

**Communication**
- **Serial Ports**: RS-232 x 2
- **COM Baud Rate**: Up to 460800bps
- **USB Ports**: USB 2.0 device x1
- **Active Antenna Input Impedance**: 50Ω
- **Antenna Connector**: SMA female x1

**Physical**
- **Size**: 104x65x31mm
- **Weight**: 250g (David only), 360g (David + BT+PW/USB Cable)
- **Operating Temperature**: -40°C ~ + 85°C
- **Dustproof & Waterproof**: IP67

**Optional Accessory**
- **Radio**: 2W 460MHz
- **Battery**: 30W 460MHz
- **Software Support**: Tersus Nuwa, MicroSurvey FieldGenius, Other Third Party Software Support NMEA-0183

**Nuwa App**

**Features**
- Supports Bluetooth/USB connection
- Graphical Interface for surveying and stakeout
- Data Management (import/export multiple formats)
- Configures Base, Rover and Static Survey
- Various built-in tools
- Supports background map (online/import)

![Nuwa App Features](image-url)
Tersus is a leading GNSS RTK solution provider. Our engineers have been pioneers in the design of GNSS products to support high-precision positioning applications.

Our products include GNSS RTK & PPK OEM boards and receivers, as well as integrated solutions such as the David GNSS Receiver, Oscar GNSS Receiver, MatrixRTK, and GNSS-aided Inertial Navigation System.

Designed for easy and rapid integration, our GNSS solutions offer centimeter-level positioning accuracy and flexible interfaces for a variety of applications including: unmanned aerial vehicle (UAVs), surveying, mapping, construction engineering, and precision agriculture.

Tersus GNSS Inc.
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To learn more, visit: www.tersus-gnss.com
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