



David GNSS Receiver

Base Kit with 30W Radio Station

Overview

The Tersus David is a cost-efficient, palm-sized GNSS receiver designed for surveying UAVs, AGVs, and agricultural applications. Working with 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 and data collection for PPK.

4GB on board an embedded multimedia card (eMMC) 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.



Key Features

Supports GPS L1/L2, GLONASS G1/G2, and BeiDou B1/B2

Supports RTCM2.3/3.x, CMR, CMR+ corrections

Easy to connect an external powerful radio for long range

Solution update rate up to 10Hz

20Hz raw measurement output for post processing

The carrier phase accuracy down to 1mm

Post-processing software for 1cm-level positioning accuracy

Input power range is 5-12V, connect to battery bank directly

IP67-rated dust- & waterproof enclosure, for reliability in harsh environmental conditions

In the Box

- 1x David GNSS receiver
- 1x GNSS antenna
- 1x GNSS antenna connector
- 1x GNSS antenna 1.5m RF cable
- 1x 30W radio
- 1x 30W radio antenna
- 1x TNC-TNC 3m cable
- 1x COMM1-USB +5 Pin Y cable
- 1x Alligator clip power cable (2m)
- 1x Y Power cable for 30W radio station and receiver
- 1x Metal plate for radio antenna
- 1x Telescopic pole for radio antenna
- 1x Antenna connector for radio
- 1x USB cable (Type C, Micro) for mobile phone
- 1x Tape meter
- 1x Height measure accessory
- 1 x David GNSS receiver installation hook
- 1x Carrying case
- 1x Accessory bag



Technical Specifications

Performance

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| Frequencies For Antenna: | |
| GPS L1/L2, GLONASS G1/G2, BeiDou B1/B2 | |

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| Single Point Positioning Accuracy: | |
| – Horizontal (RMS): | 1.5m |
| – Vertical (RMS): | 3.0m |

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| RTK Positioning Accuracy: | |
| – Horizontal (RMS): | 10mm+1ppm |
| – Vertical (RMS): | 15mm+1ppm |

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| PPK Positioning Accuracy: | |
| – Horizontal (RMS): | 10mm+1ppm |
| – Vertical (RMS): | 15mm+1ppm |

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| Observation Accuracy: | |
| – C/A Code (zenith direction): | 10cm |
| – P Code (zenith direction): | 10cm |
| – Carrier Phase (zenith direction): | 1mm |

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| Time To First Fix (TTFF): | |
| – Cold Start: | <50s |
| – Warm Start: | <30s |

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| Timing Accuracy (RMS): | 20ns |
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| Velocity Accuracy (RMS): | 0.03m/s |
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| Initialization (typical): | <10s |
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| Initialization Reliability: | >99.9% |
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| Max. Measurements Update Rate: | 20Hz |
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Communication

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| Serial Ports (DB-9 female): | RS232 x2 |
| USB Ports: | USB 2.0 device x1 |

Physical

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|---------------------------------|---|
| Input Voltage: | 5V~12V DC |
| Power Consumption: | 3.2W (David only) |
| Active Antenna Input Impedance: | 50Ω |
| Size: | 104x65x31mm (David only) |
| Weight: | 250g (David only) 360g (David + BT+PW/USB cable) |
| Antenna Connector: | SMA female x1 |
| COM Baud Rate: | Up to 921600bps |
| Operating Temperature: | -40°C ~ +85°C |
| Dust- & Waterproof: | IP67 |

Optional Accessories

1W 915MHz/2W 460MHz/30W 460MHz radio to transmit/receive RTK corrections

Battery bank

Customized battery

