**Overview**

The Tersus David Plus is a dual-antenna GNSS receiver which offers centimeter-accurate positioning and heading. It is designed for intelligent transportation, construction, machine control, precision agriculture, and navigation applications.

The David Plus GNSS receiver is built for outdoor environments with IP67-rated enclosure. The compact palm size makes it easy to integrate with various application systems. A 4GB in-built memory is to record data for post-processing conveniently.

**Key Features**

- Supports measurements output
  - GPS L1, L2; GLONASS L1, L2; BeiDou B1, B2 from primary antenna
  - GPS L1, GLONASS L1 or GPS L1, BeiDou B1 from secondary antenna
- Supports RTK positioning mode or RTK positioning + heading mode
- Supports 384 channels
- Supports RTCM2.3/3.x, CMR, CMR+ corrections
- Easy to connect an external powerful radio for long range communication
- Flexible for integration in different applications
- RTK and Heading solution update rate up to 20Hz
- 20Hz raw measurement output for post processing
- The carrier phase accuracy down to 1mm
- Input power range is 5~28V DC
- IP67-rated dust- & waterproof enclosure, for reliability in harsh environmental conditions
- Supports Nuwa & FieldGenius surveying software
Technical Specifications

**Performance**

| Signal Tracking for Primary Antenna: | GPS L1, L2; GLONASS L1, L2; BeiDou B1, B2 |
| Signal Tracking for Secondary Antenna: | GPS L1+GLONASS L1 or GPS L1+BeiDou B1 |

**GNSS Channels:** 384

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

**Heading Accuracy:**
- 1m Baseline (RMS): 0.15°

**Time To First Fix (TTFF):**
- Cold Start: <50s
- Warm Start: <30s

**Timing Accuracy (RMS):** 20ns

**Velocity Accuracy (RMS):** 0.03m/s

**Initialization (typical):** <10s

**Initialization Reliability:** >99.9%

**Correction:** RTCM 2.x/3.x/CMR/CMR+

**Max. Measurements Update Rate:** 20Hz

**Input Voltage:** 5V~28V DC

**Power Consumption (at 25°C):** 4.2W (David+ only)

**Active Antenna Input Impedance:** 50Ω

**Storage:** In-built 4GB memory

**Communication**

| Serial Ports: | RS232 x2 |
| USB Ports: | USB 2.0 device x1 |
| CAN Ports: | ISO/DIS 11898 x1* |
| PPS Ports: | LVTTL x1 |

**Event Mark:** LVTTL x1

**Antenna Connector:** SMA female x2

**COM Baud Rate:** Up to 460800bps

**Data Output:** NMEA-0183 and Tersus Binary format

* This port’s function is related to firmware version.

**Software Support**

- Tersus Nuwa
- MicroSurvey FieldGenius
- Other Third Party Software Support NMEA-0183

**Physical**

- **Dimension:** 104x65x31mm (David+ only)
- **Weight:** ≈ 260g (David+ only)
- **Operating Temperature:** -40°C ~ +85°C
- **Dust- & Waterproof:** IP67

**Optional Accessories**

- 2W 460MHz/30W 460MHz radio to transmit/receive RTK corrections
- AX3702 GNSS Antenna / AX3703 Mini GNSS Antenna
- Ntrip Modem TR600

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