



David Plus GNSS Receiver

Dual-Antenna for Precise Position and Heading

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

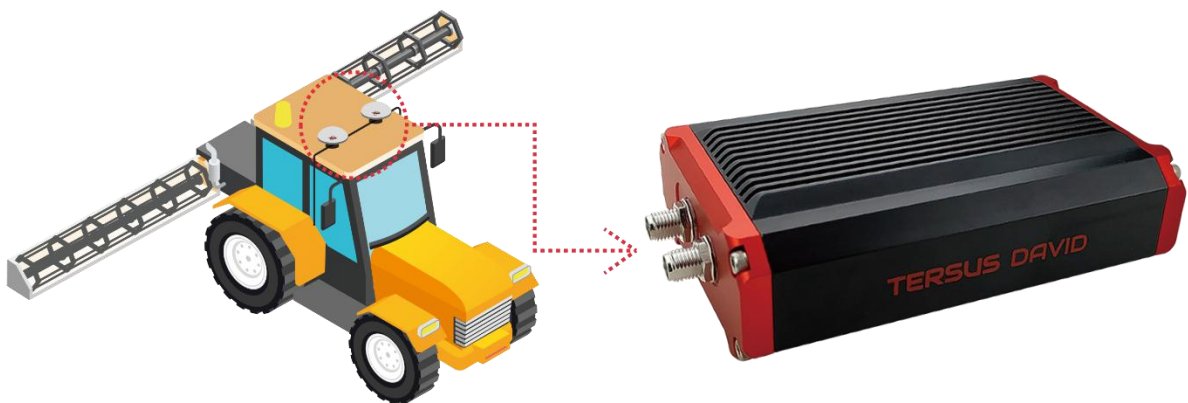
20Hz raw measurement output for post processing

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:	LVTTTL x1
Event Mark:	LVTTTL 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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