



# David GNSS Receiver

## Overview

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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.

A 4GB in-built memory makes it easy to record 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

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

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

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Easy to connect an external powerful radio for long range

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Solution update rate up to 10Hz

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20Hz raw measurement output for post processing

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The carrier phase accuracy down to 1mm

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Post-processing software for 1cm-level positioning accuracy

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Input power range is 5~12V DC

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

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Software supports MicroSurvey FieldGenius

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# Technical Specifications

## Performance

Frequencies For Antenna:	
GPS L1/L2, GLONASS L1/L2, BeiDou B1/B2	
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
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%
Max. Measurements Update Rate:	20Hz
Input Voltage:	5V~12V DC <sup>1</sup>
Power Consumption (at 25°C):	3.2W (David only)
Active Antenna Input Impedance:	50Ω

Note: 1. It is recommended using 2A instead of 1A when the external power is 5V.

## Communication

Serial Ports:	RS232 x2
USB Ports:	USB 2.0 device x1
Antenna Connector:	SMA female x1
COM Baud Rate:	Up to 921600bps

## Software Support

Tersus Nuwa
MicroSurvey FieldGenius

## Physical

Dimension:	104x65x31mm (David only)
Weight:	≈ 250g (David only)
Operating Temperature:	-40°C ~ +85°C
Dust- & Waterproof:	IP67

## Optional Accessories

2W 460MHz/30W 460MHz radio to transmit/receive
RTK corrections
Battery bank

