

# Tersus

## David30 GNSS Receiver

### Full-Constellation High Precision GNSS Receiver

#### Overview

The Tersus David30 is a multi-constellation high precision GNSS receiver which offers centimeter-accurate positioning. It is designed for intelligent transportation, construction, machine control, precision agriculture, and navigation applications.

The David30 GNSS receiver is built for outdoor environments with IP67-rated enclosure. The compact palm size makes it easy to integrate with various application systems.

#### Key Features

- ✓ Supports multi-constellation including BeiDou, GPS, GLONASS, Galileo, and QZSS
- ✓ Supports 576 channels
- ✓ Supports RTCM2.x/3.x, CMR/CMR+ corrections
- ✓ Flexible for integration in different applications
- ✓ Data update rate up to 20Hz
- ✓ Input power range is 5~28V DC<sup>(1)</sup>
- ✓ In-built 8GB storage benefits data collection
- ✓ IP67-rated dust- & waterproof enclosure, for reliability in harsh environmental conditions
- ✓ Supports Nuwa surveying software



# Technical Specifications

Performance	
Signal tracking:	
GPS L1 C/A, L2C, L2P, L5; GLONASS L1 C/A, L2 C/A; BeiDou B1I, B2I, B2a, B3I; Galileo E1, E5a, E5b; QZSS L1 C/A, L2C, L5	
GNSS channels:	576
Single Point Positioning Accuracy (RMS):	
- Horizontal:	1.5m
- Vertical:	3.0m
Real Time Kinematic/RTK (RMS):	
- Horizontal:	8mm+1ppm
- Vertical:	15mm+1ppm
DGPS (RMS):	
- Horizontal:	0.4m
- Vertical:	0.8m
High-Precision Static (RMS):	
- Horizontal:	3mm+0.1ppm
- Vertical:	3.5mm+0.4ppm
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
Reacquisition:	<2s
Timing accuracy (RMS):	20ns
Velocity accuracy (RMS):	0.03m/s
Initialization (typical):	<10s
Initialization reliability:	>99.99%
Correction:	RTCM 2.x/3.x, CMR/CMR+
Data format:	NMEA-0183, Tersus binary
Max. data update rate:	20Hz
Storage:	In-built 8GB

Communication	
Serial ports:	RS232 x2
Serial baud rate:	Up to 921600bps
USB ports:	USB 2.0 OTG x1
CAN ports:	CAN x1
PPS ports:	LVTTL x1
Event ports:	LVTTL x2
Antenna connector:	TNC female x1

Software Support	
Tersus Nuwa	
Other third party software support	NMEA-0183

Electrical	
Input voltage:	5V~28V DC <sup>(1)</sup>
Power consumption (at 25°C ):	6.8W

Physical	
Dimension:	124x79.5x37mm
Weight:	≈ 360g

Environmental	
Operating temperature:	-40°C ~ +70°C
Storage temperature:	-40°C ~ +85°C
Humidity:	95% non-condensing
Dust- & waterproof:	IP67

Note:

(1) Input of 28~36V DC can be customized.

**Website** | [www.tersus-gnss.com](http://www.tersus-gnss.com)

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