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 $5 \sim 28 \text{V DC}^{(1)}$
- ✓ In-built 8GB storage benefits data collection
- ✓ IP67-rated dust- & waterproof enclosure, for reliability in harsh environmental conditions
- ✓ Supports Nuwa surveying software





Datasheet

Technical Specifications

Signal tracking: GPS L1C/A, L2C, L2P,L5; GLONASS L1 C/A, L2 C/A; BDS B1, B2, B3, support BDS-3; Galileo E1, E5a, E5b; QZSS L1 C/A, L2C, L5 GNSS channels: 576 Single Point Positioning Accuracy (RMS): - Horizontal: 1.5m Neal Time Kinematic/RTK (RMS): - Horizontal: 8mm+1ppm - Vertical: 15m+1ppm DGPS (RMS): 0.25m - Horizontal: 0.25m Portical: 0.5m - Horizontal: 0.5m - Horizontal: 0.5m - Vertical: 0.5m - Horizontal: 2.5m+0.1ppm DGPS (RMS): 0.5m - Horizontal: 2.5m+0.1ppm - Vertical: 3.5m+0.4ppm Observation Accuracy (zenith direction): - - C/A code: 10cm - P code: 10cm - P code: 10cm - Surger phase: 1mm Time To First Fix (TTFF): - - Cold start: <30s - Warm start: <30s Reacquisition: <2s	Performance	
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Max. data update rate: 20Hz	Correction: RTCM 2	x/3.x, CMR/CMR+
	Data format: NMEA-01	83, Tersus binary
Storage: In-built 8GB	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 ⁽¹⁾
Power consumption (at 25°C):	3.6W

Physical	
Dimension:	124x79.5x37mm
Weight:	pprox 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.

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