

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⁽¹⁾
- ✓ 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		Communication	
Signal tracking:		Serial ports:	RS232 x2
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		Serial baud rate:	Up to 921600bps
GNSS channels:	576	USB ports:	USB 2.0 OTG x1
Single Point Positioning Accuracy (RMS):		CAN ports:	CAN x1
- Horizontal:	1.5m	PPS ports:	LVTTL x1
- Vertical:	3.0m	Event ports:	LVTTL x2
Real Time Kinematic/RTK (RMS):		Antenna connector:	TNC female x1
- Horizontal:	8mm+1ppm	Software Support	
- Vertical:	15mm+1ppm		
DGPS (RMS):		Tersus Nuwa	
- Horizontal:	0.4m	Other third party software support NMEA-0183	
- Vertical:	0.8m		
High-Precision Static (RMS):		Electrical	
- Horizontal:	3mm+0.1ppm	Input voltage:	5V~28V DC ⁽¹⁾
- Vertical:	3.5mm+0.4ppm	Power consumption (at 25°C):	3.6W
Observation Accuracy (zenith direction):			
- C/A code:	10cm	Physical	
- P code:	10cm		
- Carrier phase:	1mm	Dimension:	124x79.5x37mm
Time To First Fix (TTFF):		Weight:	≈ 360g
- Cold start:	<50s		
- Warm start:	<30s		
Reacquisition:	<2s	Environmental	
Timing accuracy (RMS):	20ns	Operating temperature:	-40°C ~ +70°C
Velocity accuracy (RMS):	0.03m/s	Storage temperature:	-40°C ~ +85°C
Initialization (typical):	<10s	Humidity:	95% non-condensing
Initialization reliability:	>99.99%	Dust- & waterproof:	IP67
Correction:	RTCM 2.x/3.x, CMR/CMR+	Note:	
Data format:	NMEA-0183, Tersus binary		
Max. data update rate:	20Hz	(1) Input of 28~36V DC can be customized.	
Storage:	In-built 8GB		

Note:

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

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