TERSUS GNSS

TERSUS

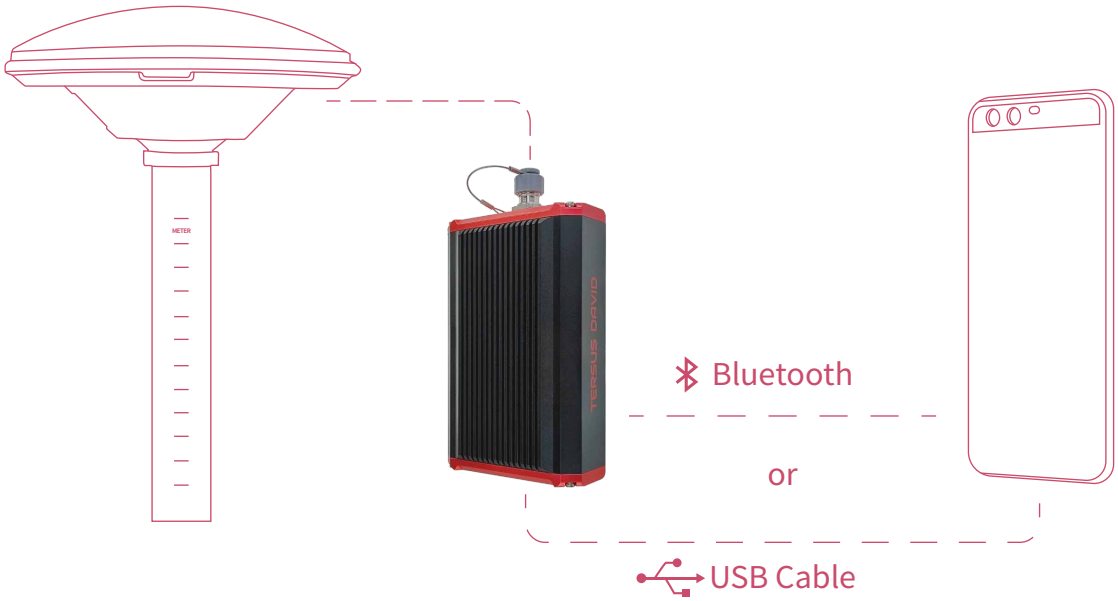
David30

Full-Constellation High Precision GNSS Receiver

Tersus David30

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.

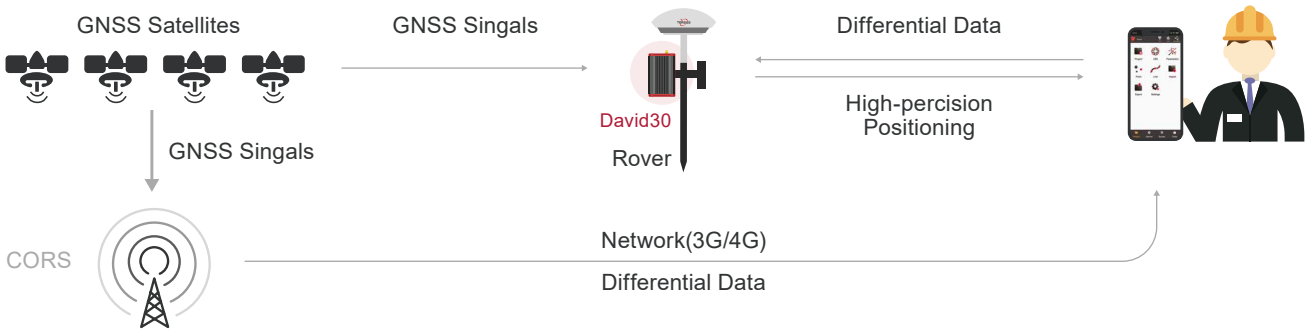


Features

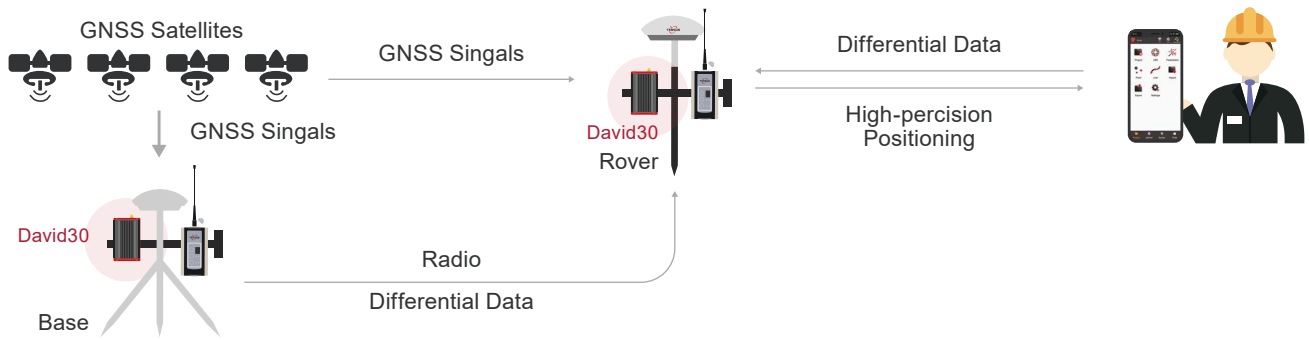
- Supports multi-constellation including BeiDou, GPS, GLONASS, Galileo, and QZSS
- Support 576 channels
- Supports RTCM2.3/3.0/3.2, CMR, CMR+ corrections
- Flexible for integration in different applications
- Data update rate up to 20Hz
- Input power range is 5~36V DC
- In-built 8GB storage benefits data collection
- IP67-rated dust- & waterproof enclosure, for reliability in harsh environmental conditions

Working Modes

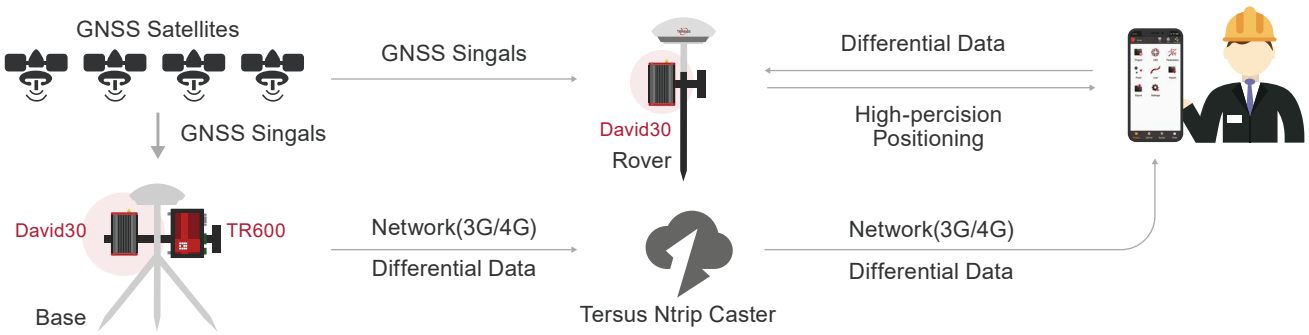
Rover + CORS



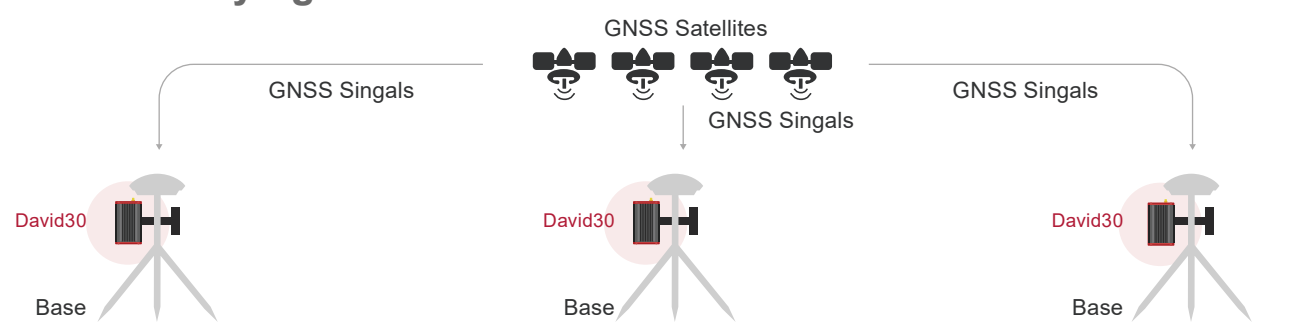
Base + Rover + Radio



Base + Rover + Tersus Ntrip Caster



Static Surveying



Technical Specifications

David30

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
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:	>99.9%
Correction:	RTCM 2.x/3.x, CMR/CMR+
Data format:	NMEA-0183 and Tersus Binary format
Max. Data Update Rate:	20Hz
Storage:	In-built 8GB memory

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~36V DC
Power Consumption (at 25°C):	6.8W

Physical

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

Environmental

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

Tersus GNSS Inc.

Right to the point.

Tersus is a leading GNSS solution provider – we research, engineer, and manufacture GNSS products for high-precision positioning applications. The product family spans a broad spectrum, from GNSS OEM boards to integrated solutions, such as the David GNSS Receiver, Oscar GNSS Receiver, MatrixRTK, and GNSS Aided Inertial Navigation System. Tersus GNSS products have been widely adopted in numerous industries: surveying, GIS, construction, UAV, automation, precision agriculture…the list continues.

To learn more, please visit: www.tersus-gnss.com
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