TERSUS

Affordable Centimeter Precision for Everyone

David GNSS Receiver

Base & Rover Kits

Tersus David

GNSS Receiver

The Tersus David is a cost-efficient, palm-sized GNSS receiver designed for UAVs, AGVs, and surveying applications. Using 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 onboard embedded multimedia card (eMMC) makes it easy to save data for post processing. The compact size, IP67-rated enclosure and external Bluetooth module alleviates most of the inconveniences encountered in field work.

Features

Seamless Integration with Mobile Phone

- Free survey App available

Versatile Communication & I/O Interface

- Easy connection to an external radio module for long range communications
- Bluetooth module establishes wireless connection in seconds

Wide Range of Applications

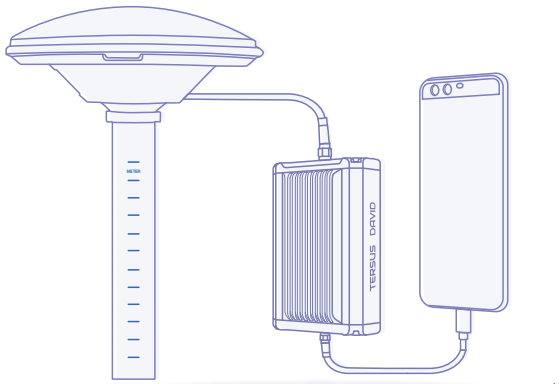
- Paired with a smartphone, the David GNSS receiver can operate as a base station, rover and GIS data collector

Convenient Connection

- Supports Ntrip protocols for receiving CORS differential data
- Tersus Ntrip Caster service available for the connection of two or more David GNSS receivers

Multi-GNSS (GPS L1/L2, GLONASS G1/G2, BeiDou B1/B2)

- Powered by the Tersus GNSS OEM board, the David GNSS receiver provides high-precision positioning performance.



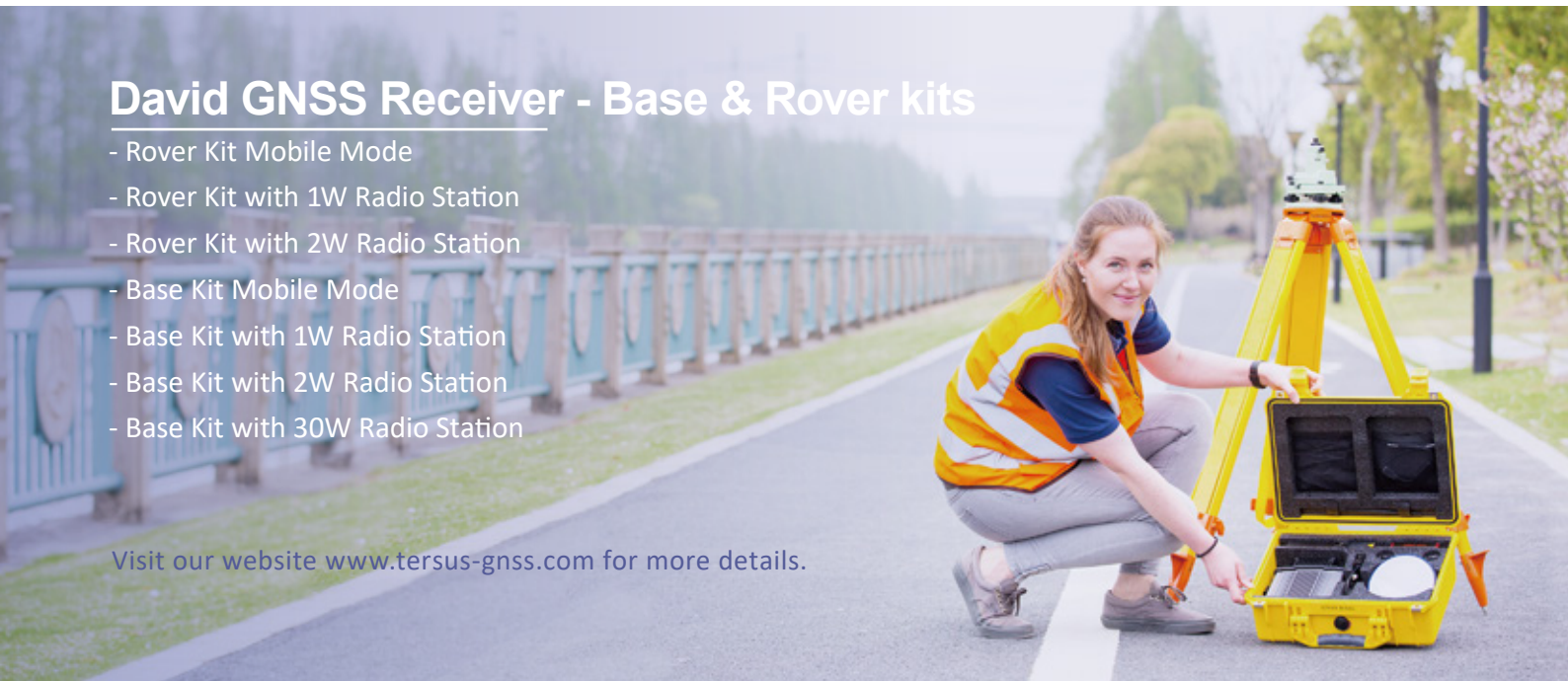
Tersus David RTK, Paired with Smartphone, Enable CM-level Accuracy.

IP67

- Rugged casing and IP67-rated enclosure to support operations in harsh field environments

Easy-to-use Software & App

- Intuitive software that turns any smartphone into an advanced field controller for David GNSS receiver.



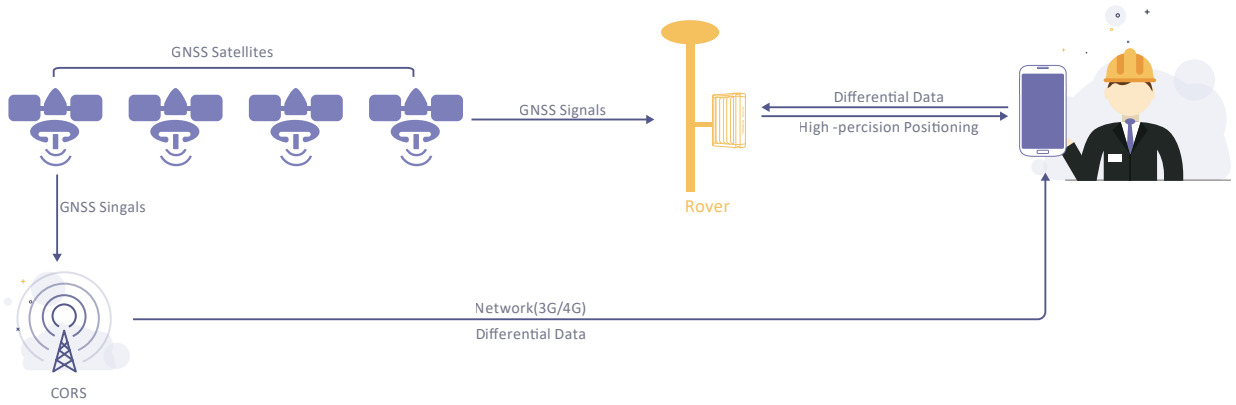
David GNSS Receiver - Base & Rover kits

- Rover Kit Mobile Mode
- Rover Kit with 1W Radio Station
- Rover Kit with 2W Radio Station
- Base Kit Mobile Mode
- Base Kit with 1W Radio Station
- Base Kit with 2W Radio Station
- Base Kit with 30W Radio Station

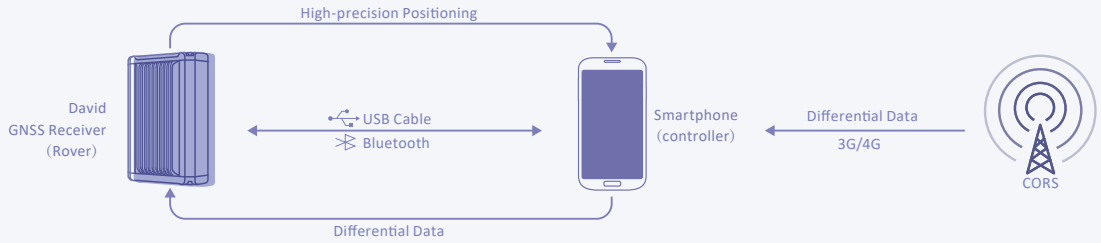
Visit our website www.tersus-gnss.com for more details.

Working Modes

Rover + CORS

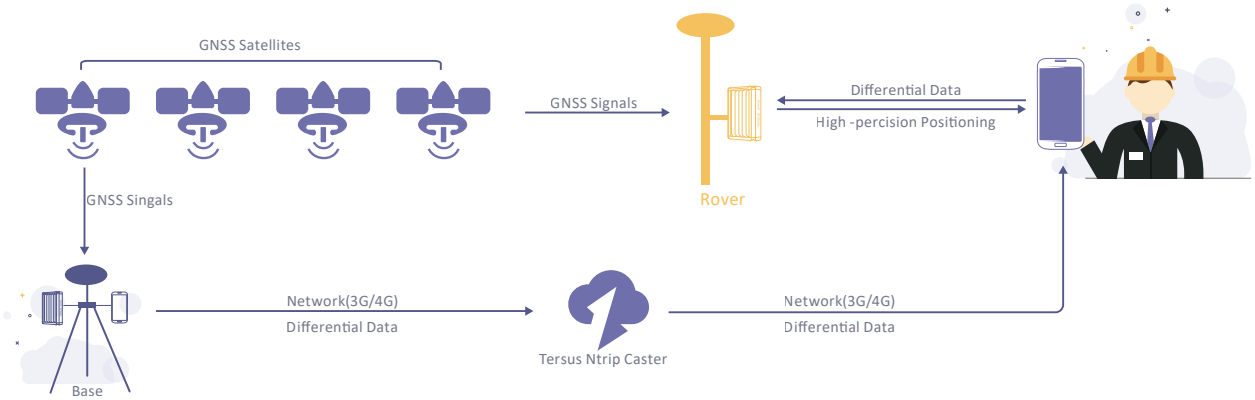


Illustration



Flow Chart

Base + Rover + Tersus Ntrip Caster



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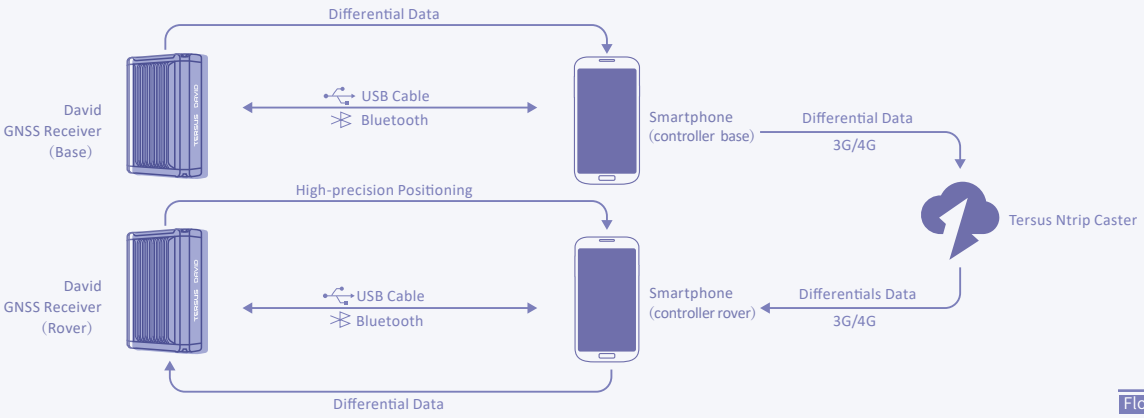
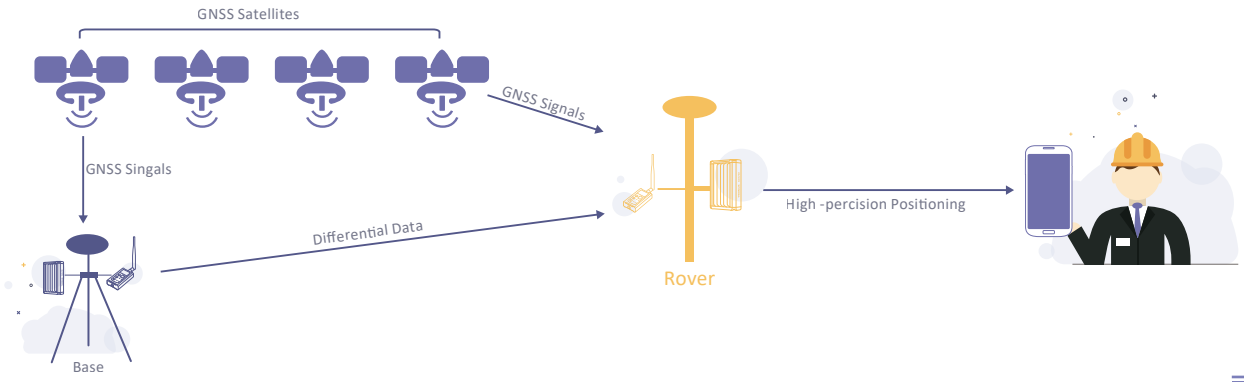


Flow Chart

Base + Rover + Radio



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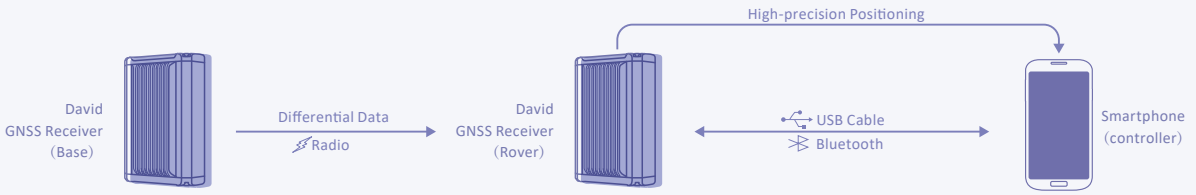
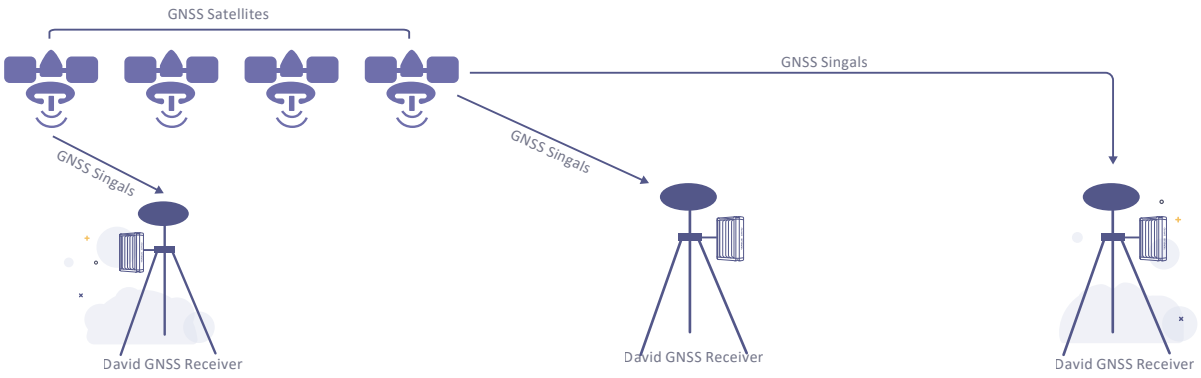


Flow Chart

Raw Measurements Collection



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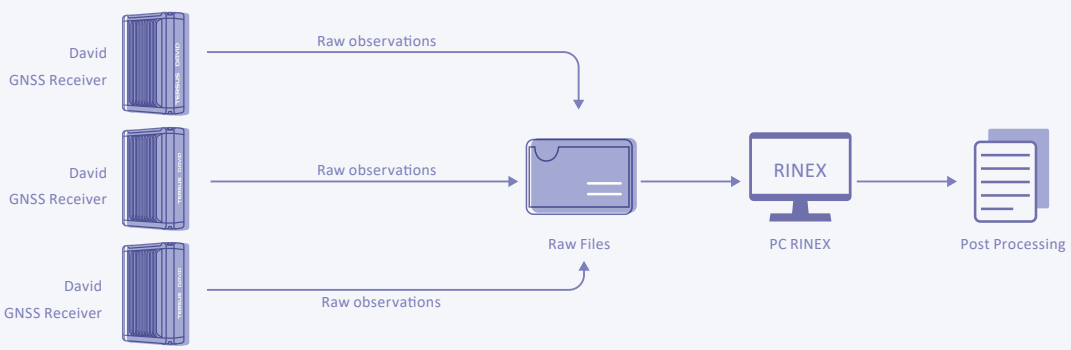


Flow Chart

Specifications

Signal Tracking

GNSS	GPS L1/L2 GLONASS G1/G2 BeiDou B1/B2

Positioning

Single Point Positioning Accuracy (RMS)	
Horizontal	1.5m
Vertical	3.0m
RTK (RMS)	
Horizontal	10mm+1ppm
Vertical	15mm+1ppm
PPK (RMS)	
Horizontal	10mm+1ppm
Vertical	15mm+1ppm

Observation (zenith direction)

C/A Code	10cm
P Code	10cm
Carrier Phase	1mm

Performance

Time to First Fix	
Cold Start	<50s
Warm Start	<30s
Timing Accuracy (RMS)	20ns
Velocity Accuracy (RMS)	0.03m/s
Initialization (typical)	<10s
Initialization Reliability	>99.9%

Electrical

Input Voltage	5V ~ 12V DC
Power Consumption	3.2W

Data

Storage	4GB on-board eMMC Card
Correction	RTCM2.3/3.x, CMR, CMR+
Max. Update Rate	20Hz

Communication

Serial Ports	TTL x 1 , RS - 232 x 1
USB Ports	USB 2.0 device x1

Physical

Size	104x65x31mm
Weight	250g (David only) 360g (David + BT+PW/USB Cable)
Active Antenna Input Impedance	50Ω
Antenna Connector	SMA female x1
COM Baud Rate	Up to 921600bps
Operating Temperature	-40°C ~ + 85°C
Dustproof & Waterproof	IP67

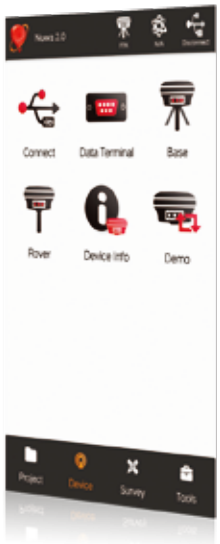
Optional Accessory

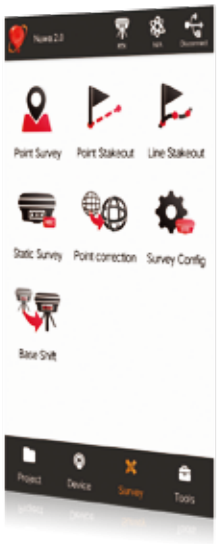
Radio	1W 915MHz 2W 460MHz 30W 460MHz
Battery	Battery bank Customized battery

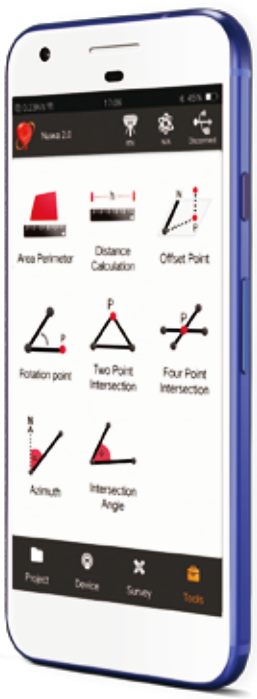
Nuwa App

Features

- Assists with Bluetooth/USB connection
- Visualized interface for receiver operations
- Data management (import/export)
- Configure base/rover setup
- Various built-in tools







Tersus GNSS Inc.

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Tersus is a leading GNSS RTK solution provider. Our engineers have been pioneers in the design of GNSS products to support high-precision positioning applications.

Our products include GNSS RTK & PPK OEM boards and receivers, as well as integrated solutions such as the David GNSS Receiver, NeoRTK, MatrixRTK, GNSS-aided Inertial Navigation System, and AutoSteer System.

Designed for easy and rapid integration, our GNSS solutions offer centimeter-level positioning accuracy and flexible interfaces for a variety of applications including: unmanned aerial vehicle (UAVs), surveying, mapping, construction engineering, and precision agriculture.

To learn more, visit www.tersus-gnss.com
Sales inquiry : sales@tersus-gnss.com
Technical support : support@tersus-gnss.com