TERSUS

Global Accuracy Easier

David GNSS Receiver

Base & Rover Kits

TERSUS GNSS

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, incluing deal-time RTK positioning data collection for PPK.
A 4GB in-built memory 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

- Convenient app operation to control David

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

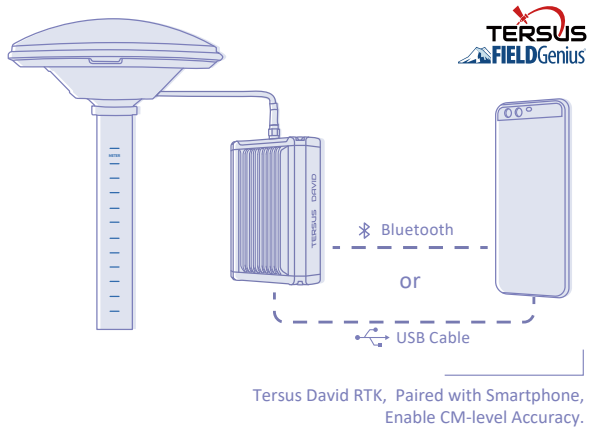
- Paired with a smartphone, the David GNSS receiver can operate as a base, rover and GIS data collector

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 L1/L2, BeiDou B1/B2)

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



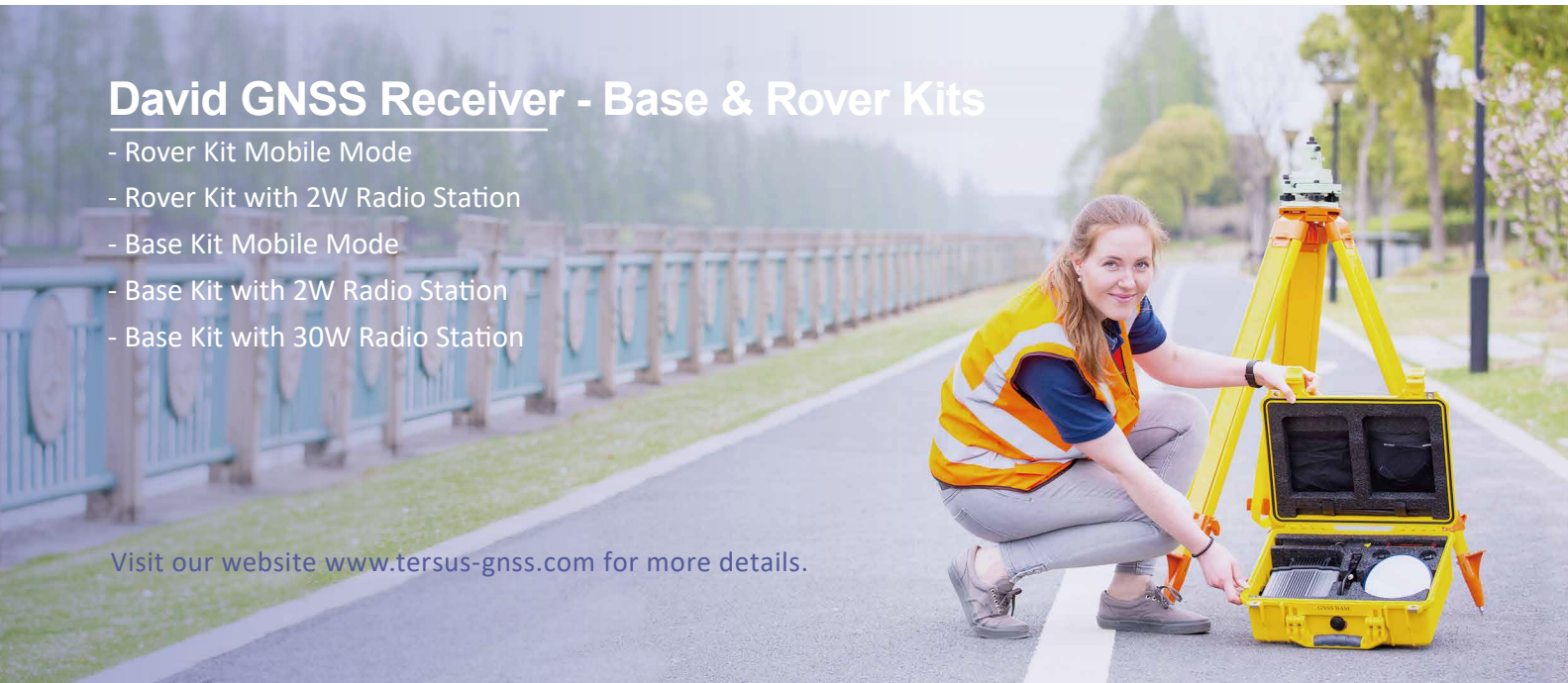
Tersus David RTK, Paired with Smartphone, Enable CM-level Accuracy.

IP67

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

Easy-to-use Software & App

- Intuitive software turns any Android phone or pad into an advanced field controller for David GNSS receiver.
- Tersus Nuwa & MicroSurvey FieldGenius support David



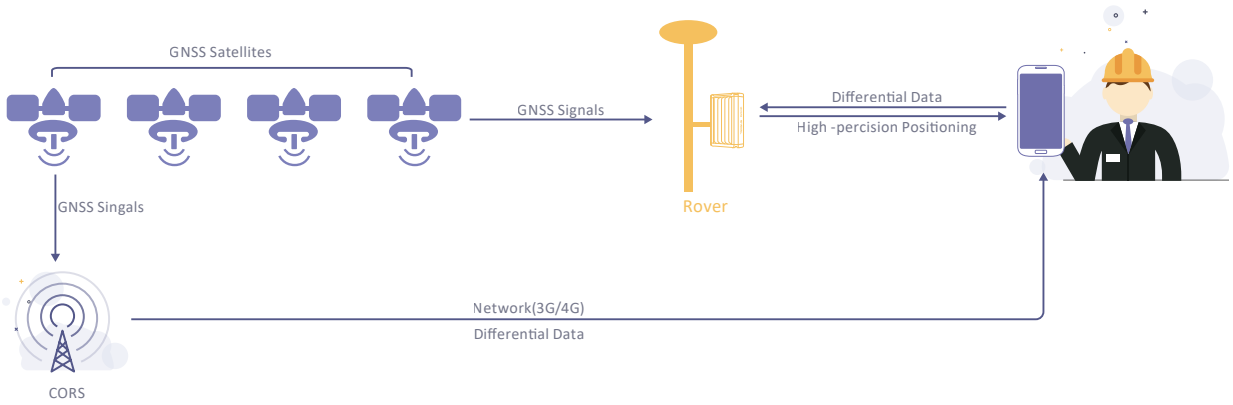
David GNSS Receiver - Base & Rover Kits

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

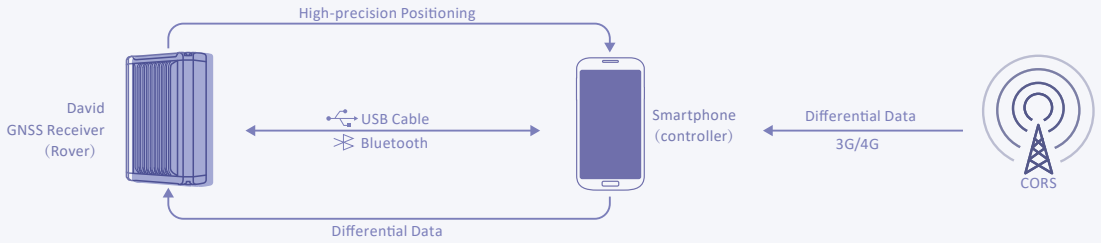
Visit our website www.tersus-gnss.com for more details.

Working Modes

Rover + CORS

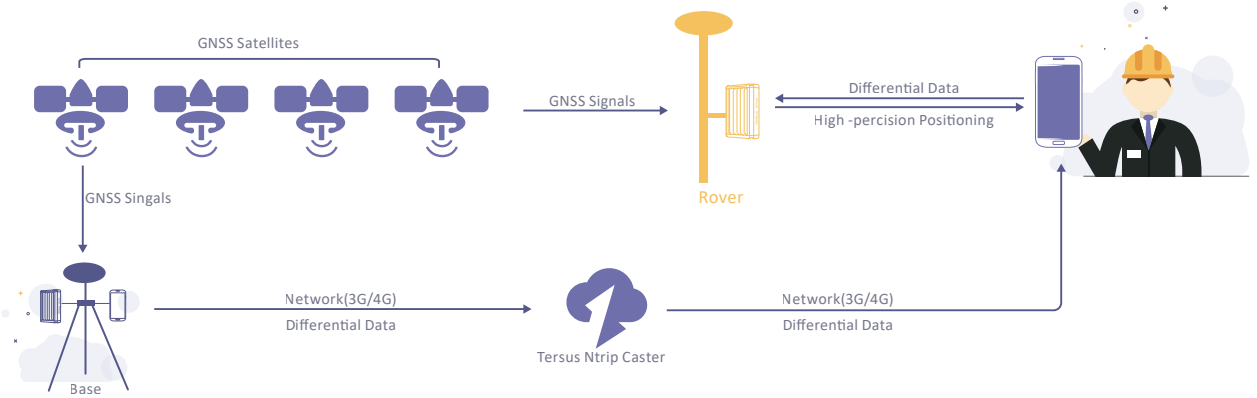


Illustration



Flow Chart

Base + Rover + Tersus Ntrip Caster



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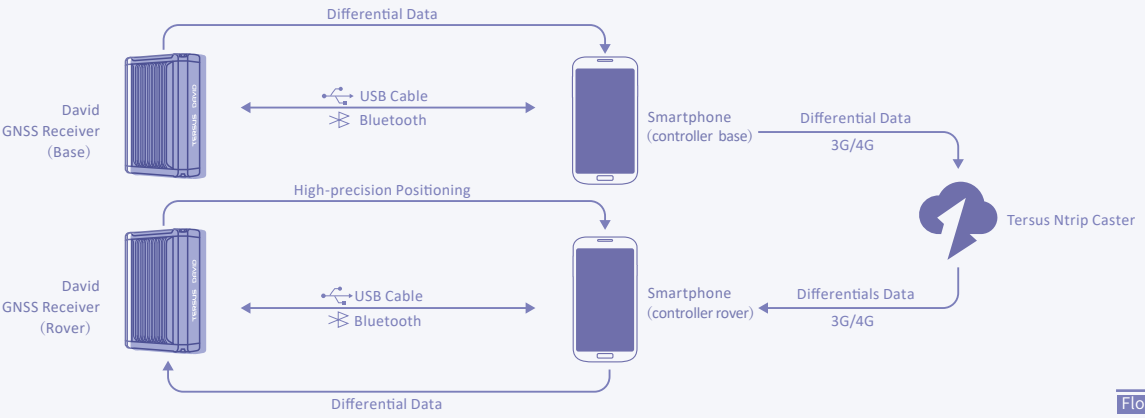
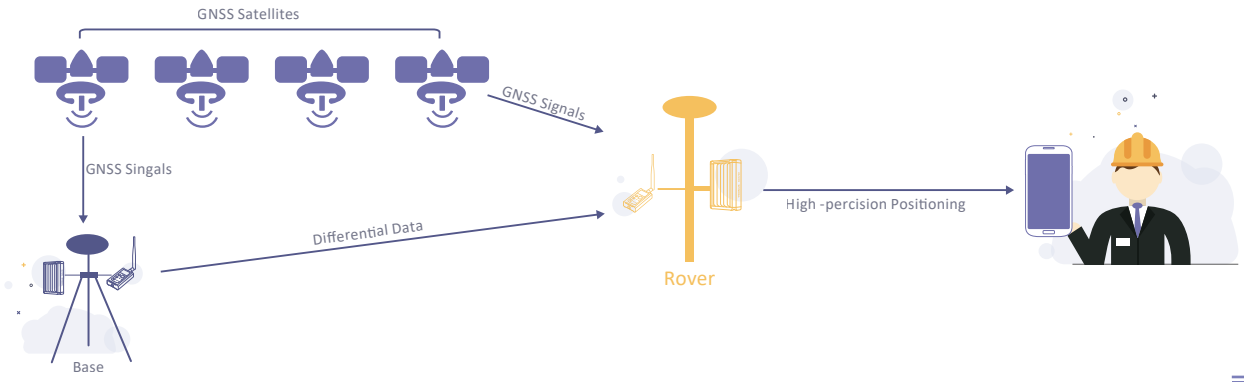


Flow Chart

Base + Rover + Radio



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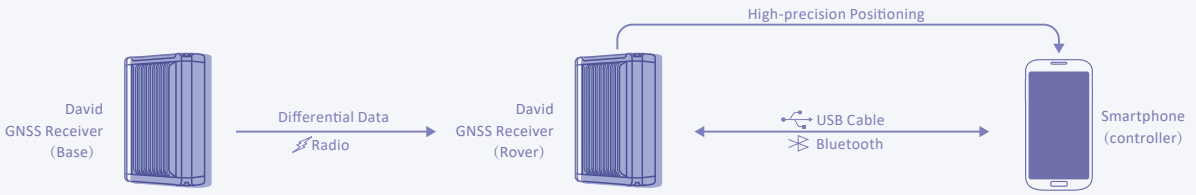
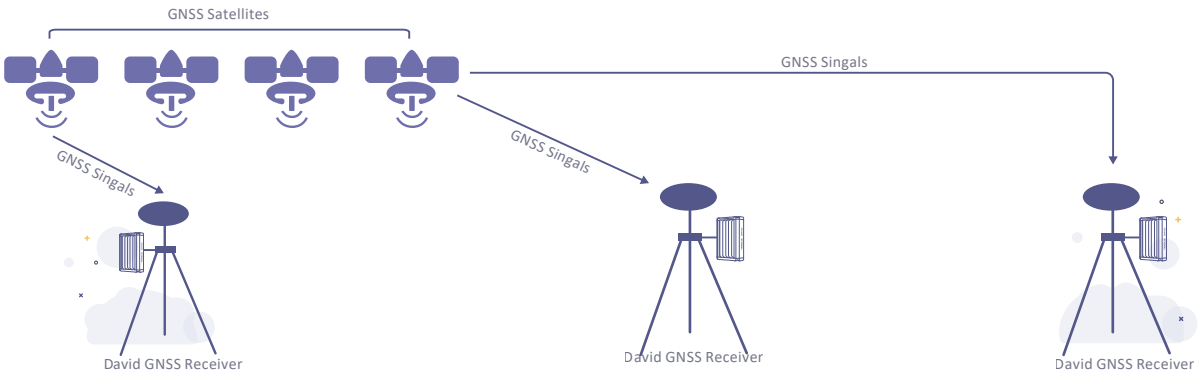


Flow Chart

Static Surveying



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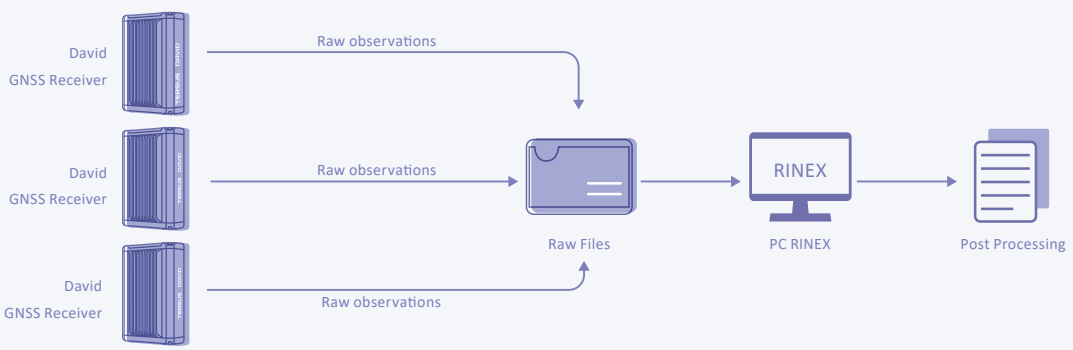


Flow Chart

Specifications

Signal Tracking

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

Positioning

Single Point Positioning Accuracy (RMS)	
Horizontal	1.5m
Vertical	3.0m
Real Time Kinematic (RMS)	
Horizontal	10mm+1ppm
Vertical	15mm+1ppm
Post Processed Kinematic (RMS)	
Horizontal	10mm+1ppm
Vertical	15mm+1ppm
Static Post Processing (RMS)	
Horizontal	3mm + 0.5ppm
Vertical	5mm + 0.5ppm

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	4.9W

Data

Storage	4GB in-built Memory
Correction	RTCM2.3/3.x, CMR, CMR+
Max. Update Rate	20Hz

Communication

Serial Ports	RS-232 x 2
COM Baud Rate	Up to 460800bps
USB Ports	USB 2.0 device x1
Active Antenna Input Impedance	50Ω
Antenna Connector	SMA female x1

Physical

Size	104x65x31mm
Weight	250g (David only) 360g (David + BT+PW/USB Cable)
Operating Temperature	-40°C ~ + 85°C
Dustproof & Waterproof	IP67

Optional Accessory

Radio	2W 460MHz 30W 460MHz
Battery	Battery bank

Software Support

Tersus Nuwa

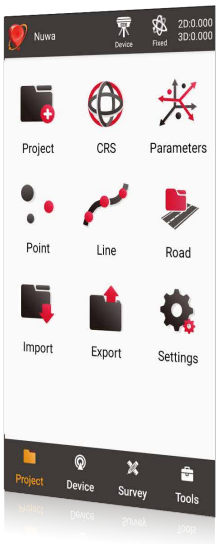
MicroSurvey FieldGenius

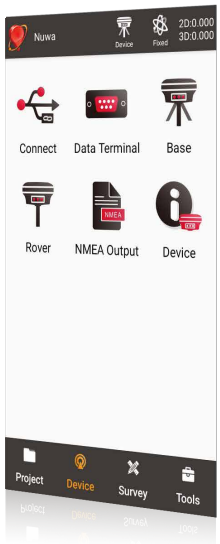
Other Third Party Software Support NMEA-0183

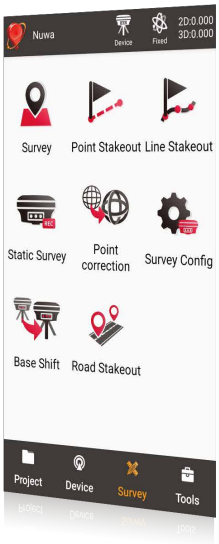
Nuwa App

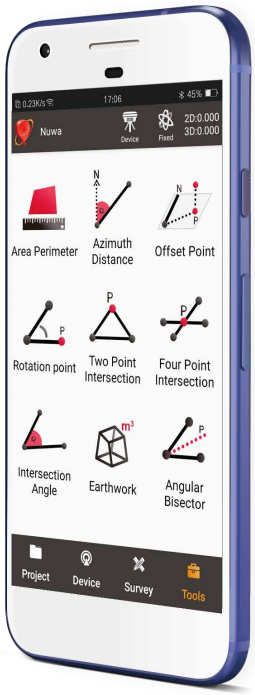
Features

- Supports Bluetooth/USB connection
- Graphical Interface for surveying and stakeout
- Data Management (import/export multiple formats)
- Configures Base, Rover and Static Survey
- Various built-in tools
- Supports background map (online/import)









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, Oscar GNSS Receiver, MatrixRTK, and GNSS-aided Inertial Navigation 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
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