

# TERSUS<sup>+</sup>

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 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

- 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

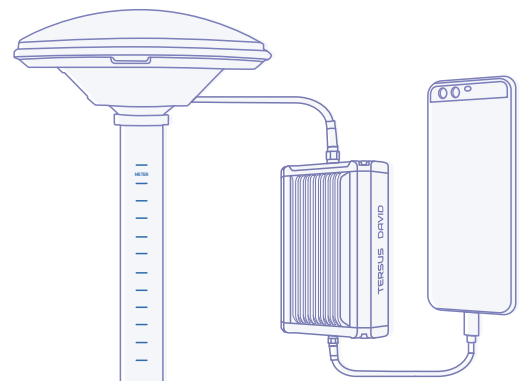
- Paired with a smartphone, the David GNSS receiver can operate as a base, rover and GIS data collector

### 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, 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/pad into an advanced field controller for David GNSS receiver.

## David GNSS Receiver - Base & Rover Kits

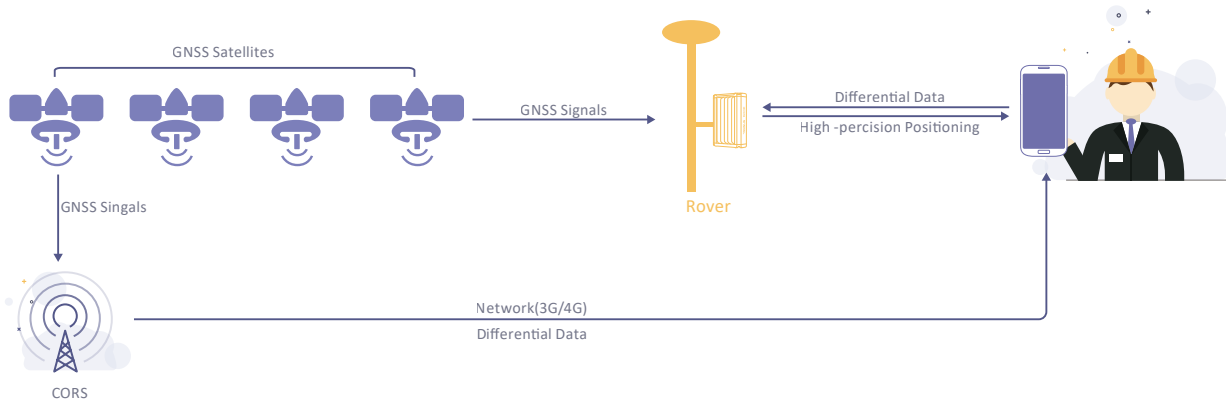
- Rover Kit Mobile Mode
- Rover Kit with 1W Radio Station
- Rover Kit with 2W Radio Station
- Base Kit Mobile Mode
- Base Kit with 1W Radio Station
- Base Kit with 2W Radio Station
- Base Kit with 30W Radio Station

Visit our website [www.tersus-gnss.com](http://www.tersus-gnss.com) for more details.

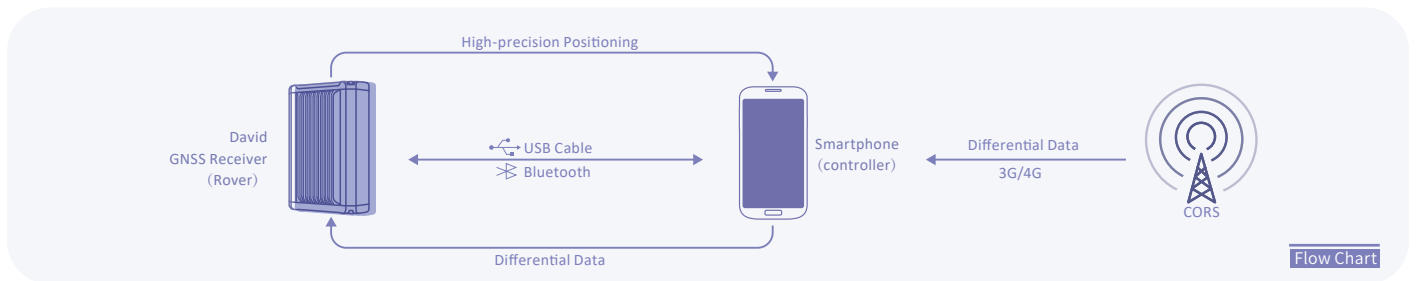


# Working Modes

## Rover + CORS

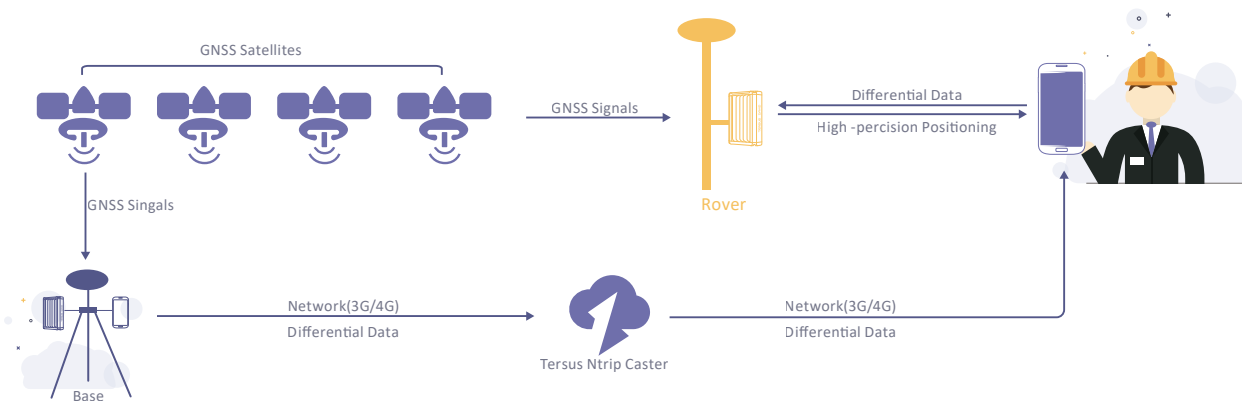


Illustration

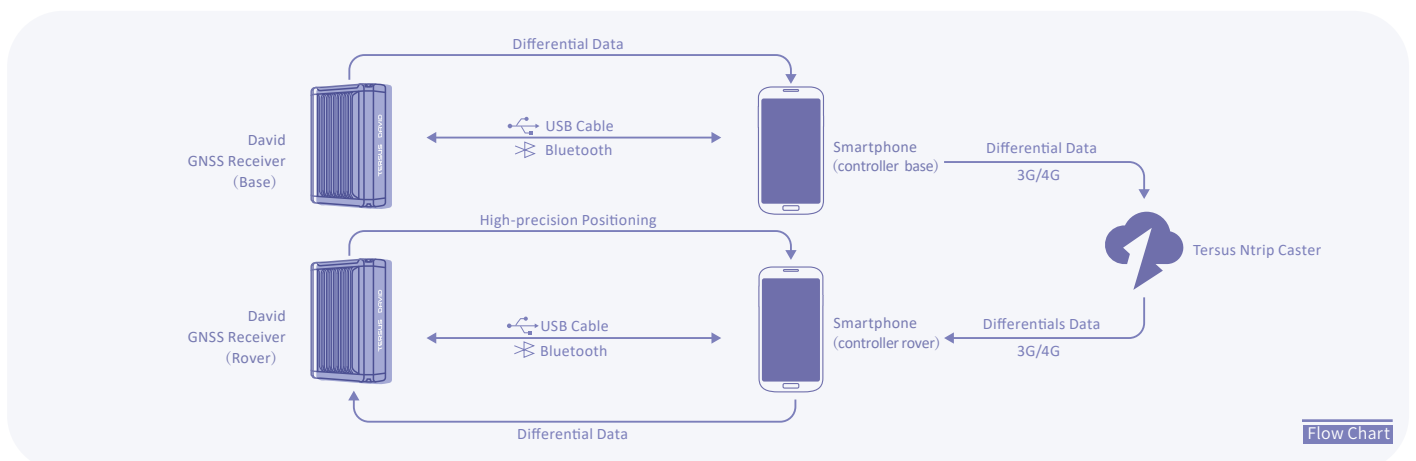


Flow Chart

## Base + Rover + Tersus Ntrip Caster

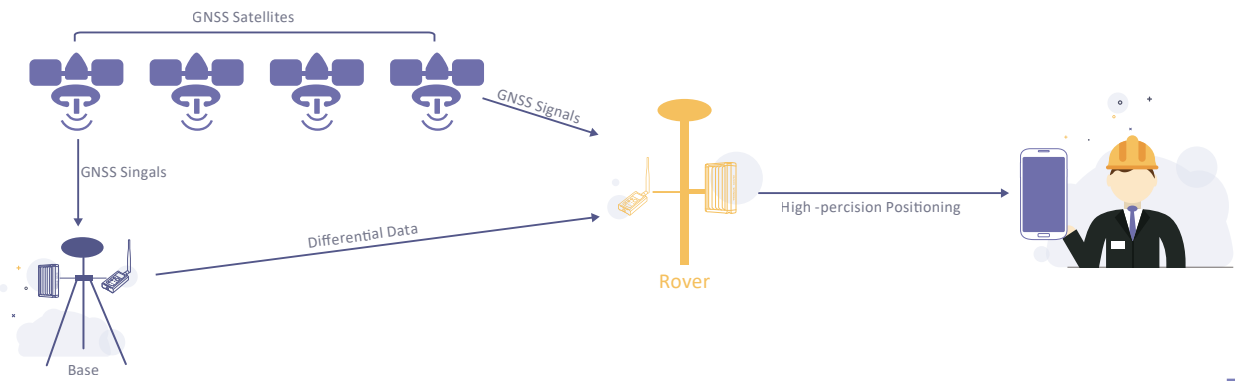


Illustration

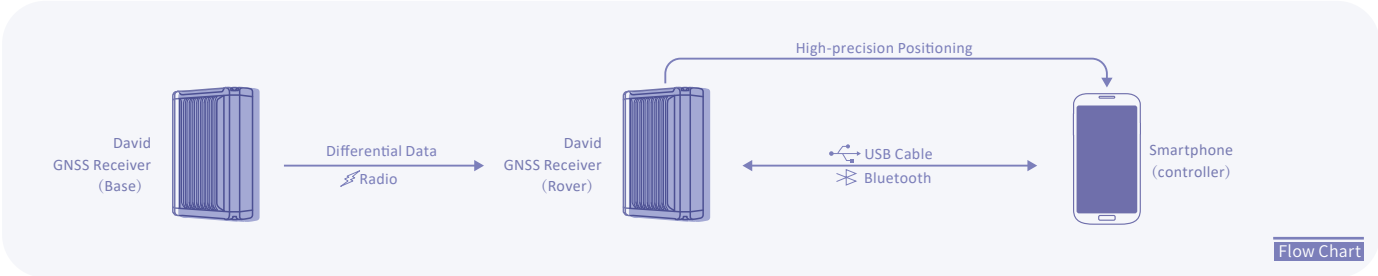


Flow Chart

# Base + Rover + Radio

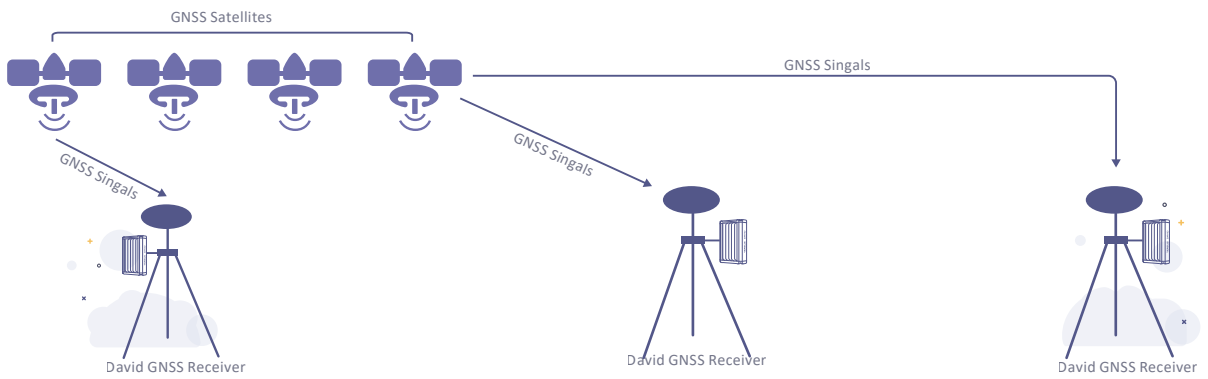


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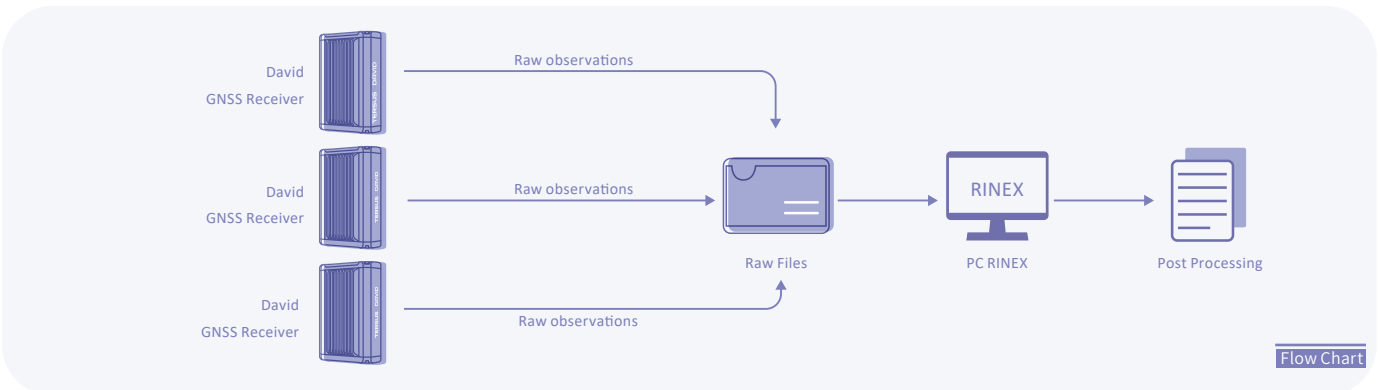


Flow Chart

# Static Surveying



Illustration



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
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	3.2W

## Data

Storage	4GB in-built Memory
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

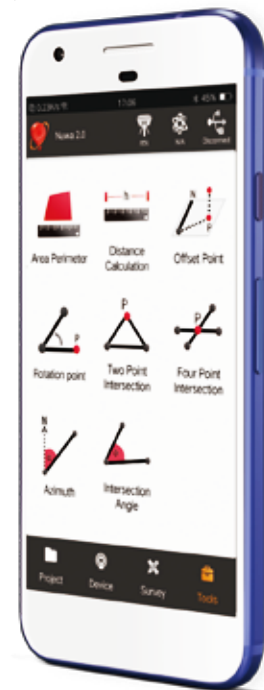
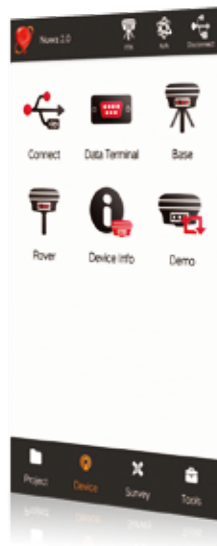
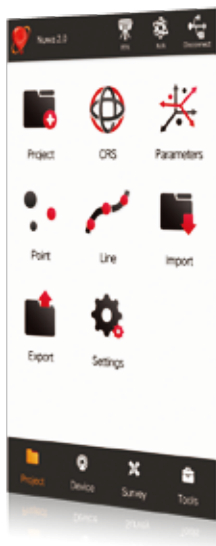
## Optional Accessory

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

# 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.

Affordable Centimeter Precision for Everyone

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](http://www.tersus-gnss.com)  
Sales inquiry : [sales@tersus-gnss.com](mailto:sales@tersus-gnss.com)  
Technical support : [support@tersus-gnss.com](mailto:support@tersus-gnss.com)

A woman wearing a yellow hard hat and a high-visibility orange safety vest is shown in profile, looking down at a GNSS receiver mounted on a tall, black, spiral-patterned pole. She is holding a small device, possibly a remote control or a data logger, connected to the receiver. The background is a clear, light blue sky with some faint clouds. The overall scene suggests a professional or industrial setting where precision positioning is being used.

Descriptions, specifications and related materials are subject to change.  
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