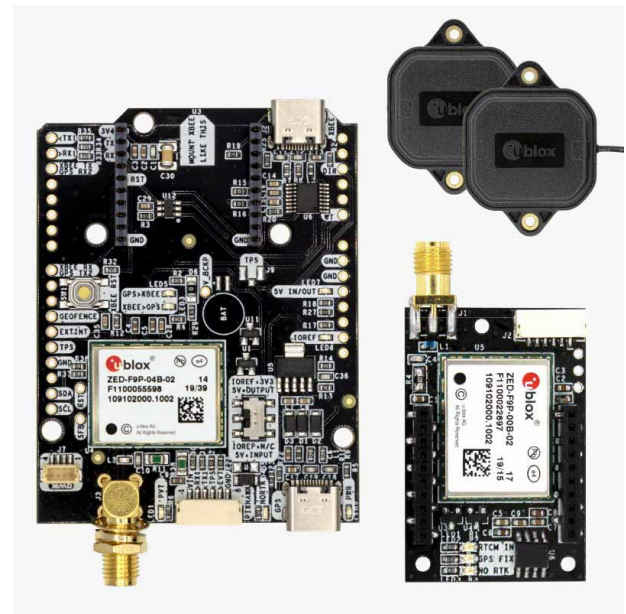


# simpleRTK2B Heading - Basic Starter Kit



More info about the product!



simpleRTK2B Heading - Basic Starter Kit has several different configurations to provide you with flexibility:

SKU	Variation Name
AS-STARTKIT-HEAD-L1L2-HS-00	Headers soldered (+26€)
AS-STARTKIT-HEAD-L1L2-NH-00	Without headers

Get a discounted bulk price on this product for orders of 50 units or more. Contact us at [info@ardusimple.com](mailto:info@ardusimple.com) to get a quote.

## Description

The u-blox ZED-F9P multi-band GNSS receiver can be employed in applications that require high position accuracy. But it can also provide with high precision relative position output, or heading and attitude information. This is enabled by using 2 ZED-F9P connected to each other, and the so-called moving base feature supported in the module firmware. And we built this kit to help you test this functionality.

This kit combines one unit of simpleRTK2B Lite, acting as a moving base and one unit of simpleRTK2B Budget, acting as a rover. The rover provides online readings of accurate heading and baseline length in RELPOSNEED message (UBX protocol).

The kit can achieve out-of-the box sub degree heading accuracy, without the need of any RTK correction service or NTRIP.

Only to achieve centimeter level position accuracy, you will need to connect it to a base station or to an RTK correction service (NTRIP or PointPerfect). You can use it with your smartphone, tablet, laptop, PC or embedded platform.

Good to know:

- It is fully compatible with Arduino, STM32 Nucleo, Raspberry Pi, Nvidia Jetson, ROS and Pixhawk / Ardupilot.
- This product is compatible but doesn't include [radio](#).
- This board is recommended if you want to test u-blox ZED-F9P.
- This board is recommended if you want to test u-blox ZED-F9H (the kit doesn't include it, but ZED-F9P has all the features of ZED-F9H plus more).
- We recommend this product if you want to test u-blox moving base functionality.

Includes:

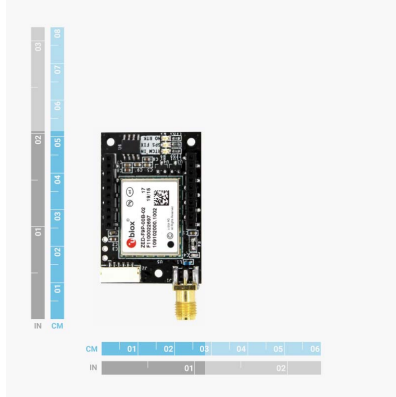
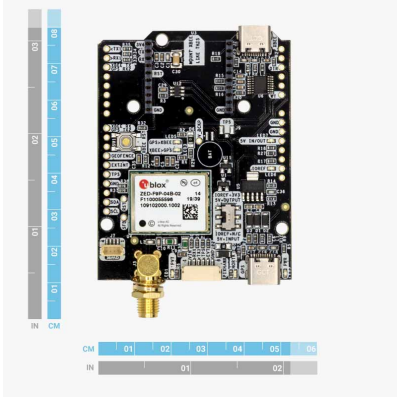
- 1 [simpleRTK2B Budget board \(ZED-F9P\)](#)
- 1 [simpleRTK2B Lite board \(ZED-F9P\) with soldered headers](#)
- 2 [u-blox GNSS Multiband antenna ANN-MB-00 \(IP67\)](#)
- System pre-configured to provide position and accurate heading at 1Hz (UBX protocol)

## Specifications

### ZED-F9P features

- Centimeter level precision
  - <1cm with a base station up to 35km
  - <1cm with NTRIP up to 35km
  - <4cm with SSR corrections
  - <1.5m in standalone mode
  - <0.9m standalone with SBAS coverage
- Update rate
  - Default: 1Hz
  - With maximum performance: up to 10Hz
  - With reduced performance: up to 20Hz
- Multi band: L1, L2 and E5b support
- Multifrequency and Multiconstellation:
  - GPS: L1C/A L2C
  - GLONASS: L1OF L2OF
  - Galileo: E1-B/C E5b
  - BeiDou: B1I B2I
  - QZSS: L1C/A L2C
  - SBAS: WAAS, EGNOS, MSAS, GAGAN and SouthPAN
- Start-up times:
  - First position fix: 25 seconds (cold), 2 seconds (hot)
  - First RTK fix: 35 seconds (cold)
- RAW data output in UBX format
- Base and Rover functionality
- Operating temperature Range: -40 to +85degC
- Documentation: RED, RoHS

## Image Gallery



## Documentation

Antenna Installation Guide      <https://www.ardusimple.com/gps-gnss-antenna-installation-guide/>

Configuration files      <https://www.ardusimple.com/how-to-configure-ublox-zed-f9p/>

simpleRTK2B Heading - Basic Starter Kit includes free basic technical support. Contact [info@ardusimple.com](mailto:info@ardusimple.com) for more information.

Data and descriptions in this document are subject to change without notice. Product photos and pictures are for illustration purposes only and may differ from the real product appearance.