

simpleRTK 4 Dual

First dual antenna GPS board with u-blox ZED-X20D, for centimeter precision and out-of-the-box moving baseline (heading, orientation, north indicator, compass, roll, pitch, yaw).



More info about the product!



simpleRTK 4 Dual SKU is: AS-RTK4-X20D-NH-00

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

Description

simpleRTK 4 Dual is a standalone board that allows to evaluate triple band RTK GNSS technology including centimeter level accurate position and sub degree heading. It's based on **u-blox ZED-X20D** module and can be used standalone. Or connected with Arduino, Ardupilot / Pixhawk (JST connector), Raspberry Pi, Nvidia Jetson and STM32 Nucleo platforms, as a shield, to provide you up to 25 RTK positions and attitude (heading) every second.

simpleRTK 4 Dual is ideal for upgrading your ZED-F9P moving base project. With dual antenna already integrated inside the product, it's more reliable and at lower cost.

More details available in the Specification and Documentation tabs.

Good to know:

- This product is compatible but doesn't include a multiband GNSS antenna, of which 2 are necessary to use the product.
- This board is recommended if you want to test **u-blox ZED-X20D** performance.
- The onboard XBee socket can be used to expand functionality with Plugin accessories (MR/LR/XLR radios, Bluetooth, WiFi, Ethernet, Dataloggers, RS232, Canbus, 4G/3G/2G).
- The ZED-X20D can't be used as base station, only works as RTK rover.
- You can use the Shield for Second Plugin socket to connect 2 plugins at the same time.
- Compatible with ArduSimple plastic case

Known limitations:

- This is a very new chip from u-blox, regular firmware upgrades are to be expected during the coming months.
- April firmware will only support 1Hz update rate and correction data from static base station via USB and JST (UART1).
- XBee socket (UART2) base station corrections and higher update rate will be available in July firmware upgrade.

Includes:

- 1 simpleRTK 4 Dual board (ZED-X20D)

Specifications

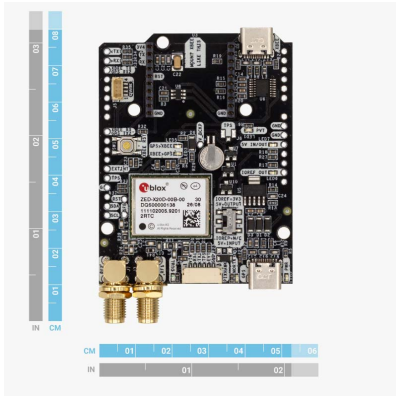
Interfaces:

- USB
- UART
- XBee
- Timepulse
- Event

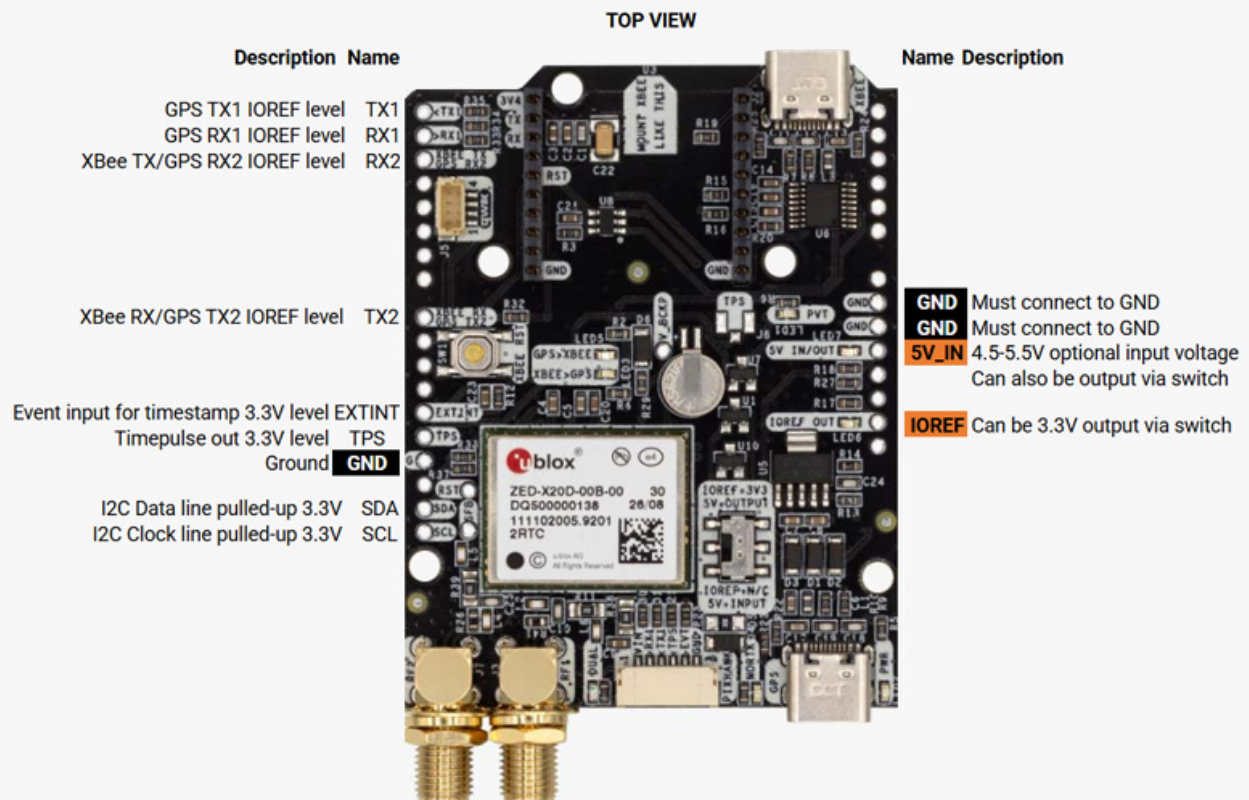
ZED-X20D features

- 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
- GNSS attitude accuracy:
 - 1m antenna separation: 0.14deg heading, 0.23deg pitch/roll
 - 5m antenna separation: 0.03deg heading, 0.05deg pitch/roll
- Multi band: L1, L2, L5 and L6 support
- Multifrequency and Multiconstellation:
 - GPS: L1C/A L2C L5
 - GLONASS*: L1OF, L2OF (*disables in areas under sanction)
 - Galileo: E1-B/C E5a E6 HAS
 - Glonass: L1OF L2OF
 - BeiDou: B1I B1C B2a B3I
 - QZSS: L1C/A L2C/B L2C L5
 - Navic: L1-SPS L5-SPS
 - SBAS: WAAS, EGNOS, MSAS, GAGAN and SouthPAN
- Start-up times:
 - First position fix: 25 seconds (cold), 2 seconds (hot)
 - Warm start: <10s
 - First RTK fix: 35 seconds (cold)
- RAW data output in UBX format
- Base and Rover functionality
- Operating temperature Range: -40 to +85degC
- Certification: CE
- Documentation: RED, RoHS

Image Gallery



Pinout



Documentation

Learn how to configure u-blox
ZED-X20 boards

<https://www.ardusimple.com/how-to-configure-u-blox-zed-x20p/>

simpleRTK 4 Dual includes free basic technical support. Contact 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.