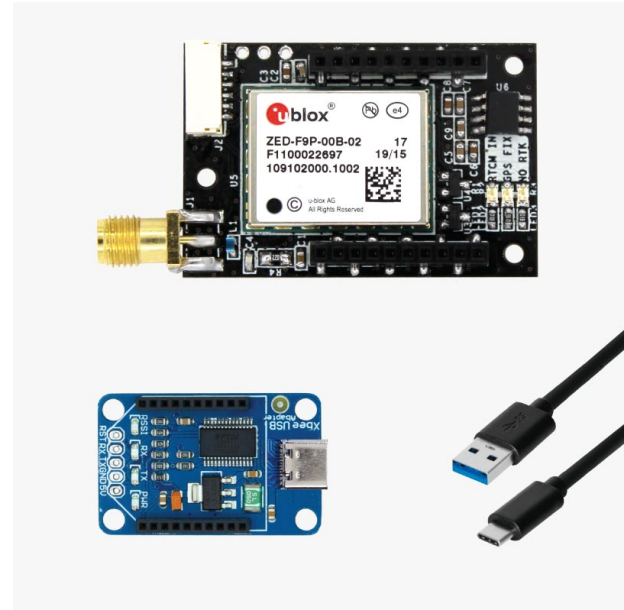# simpleRTK2B Lite

Includes:
- 1 simpleRTK2B Lite board (ZED-F9P)
- 1 USB-C Carrier Board for XBee Plugins
- 1 USB to USB-C cable

More info about the product!

simpleRTK2B Lite SKU is: AS-RTK2B-LIT-L1L2-SMA-01

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.

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Description

simpleRTK2B Lite is a compact standalone board that allows to integrate dual band RTK GNSS technology including centimeter level accurate position.
It's powered by u-blox ZED-F9P module and can be used standalone with a USB cable, or connected Ardupilot / Pixhawk (JST connector). It can provide up to 10 RTK positions every second.

This board is ideal for a compact and lightweight ZED-F9P integration.
More details are available in the Specifications and Documentation tabs.

Good to know:
– This product is compatible but doesn't include multiband GNSS antenna, which is necessary to use the product.
– The module will not give good performance with a standard GNSS antenna, requires a multiband one.
– This product can be used as Base or Rover
– This board is recommended if you want to have u-blox ZED-F9P performance.
– The onboard XBee socket can be used to expand functionality with Plugin accessories (MR/LR radios, Bluetooth, WiFi, Ethernet, Dataloggers, RS232, Canbus, L-Band). Not compatible with high power XBee accessories (XLR radio and 4G NTRIP Master).
– Compatible with Ardusimple plastic case for Lite board
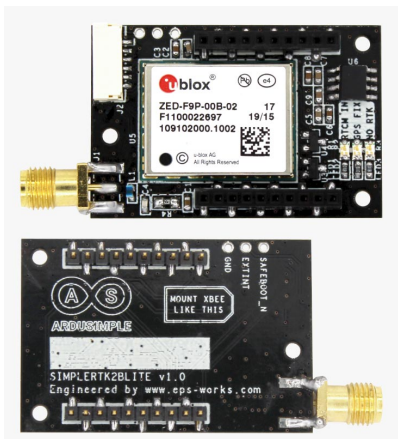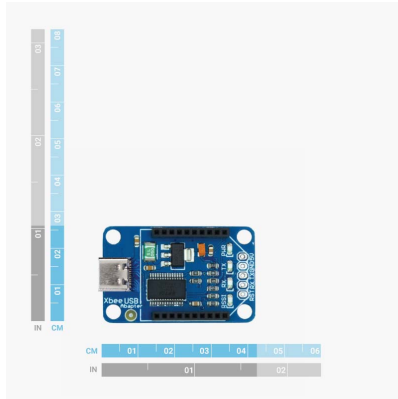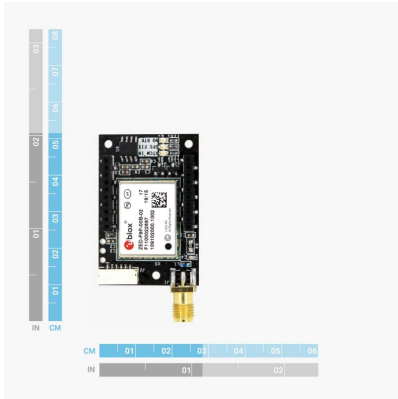
Product Change History:
– AS-RTK2B-LIT-L1L2-SMA-00: initial version
– AS-RTK2B-LIT-L1L2-SMA-01: changed included adapter board from Mini-USB to USB-C

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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 +85deg
- Documentation: RED, RoHS

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Image Gallery

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Pinout

TOP VIEW

Description	Name	#		#	Name	Description
3.0-3.3V output max 300mA	VCC OUT	1		20	N/C	
Data in 3.3V level	ZED RX2	2		19	N/C	
Data out 3.3V level	ZED TX2	3		18	N/C	
	N/C	4		17	N/C	
	N/C	5		16	N/C	
	N/C	6		15	N/C	
	N/C	7		14	N/C	
	N/C	8		13	N/C	
	N/C	9		12	N/C	
Must connect to GND	GND	10		11	N/C	

BOTTOM VIEW

Description	Name	#		#	Name	Description
	N/C	20		1	VCC IN	3.0-3.6V 100mA peak (+ plugin current)
	N/C	19		2	ZED TX1	Data out 3.3V level
	N/C	18		3	ZED RX1	Data in 3.3V level
	N/C	17		4	N/C	
	N/C	16		5	N/C	
	N/C	15		6	N/C	
	N/C	14		7	N/C	
	N/C	13		8	N/C	
	N/C	12		9	N/C	
Must connect to GND	GND	11		10	GND	Must connect to GND

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Documentation

User Guide	https://www.ardusimple.com/simplertk2blite-hookup-guide/
Configuration files	https://www.ardusimple.com/how-to-configure-ublox-zed-f9p/
Download CAD model	https://www.ardusimple.com/wp-content/uploads/3D_CAD/simpleRTK2B_Lite-00.STEP

simpleRTK2B Lite 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.

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