

# simpleRTK2B M.2

Includes:

- 1 simpleRTK2B M.2 board



More info about the product!



simpleRTK2B M.2 has several different configurations to provide you with flexibility:

SKU	Variation Name
AS-RTK2B-M2-L1L2-F9P-00	ZED-F9P
AS-RTK2B-M2-L1L2-F9R-00	ZED-F9R

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

Bring low cost high precision RTK GNSS positioning to your M.2 socket platforms thanks to ZED-F9 and this board fully compatible with M.2 2230 Key A and Key E sockets (Part of NGFF, Next Generation Form Factor). For example, you can easily add RTK to your Asus Tinkerboard or the NVIDIA Jetson Xavier NX.

Good to know:

- You will need a uFL to SMA pigtail to connect it to our Multiband GPS/GNSS antennas.
- Both GPS antenna input and Timepulse output have a uFL connector.
- Bulk pricing starting 50 units

## Specifications

### ZED-F9P features

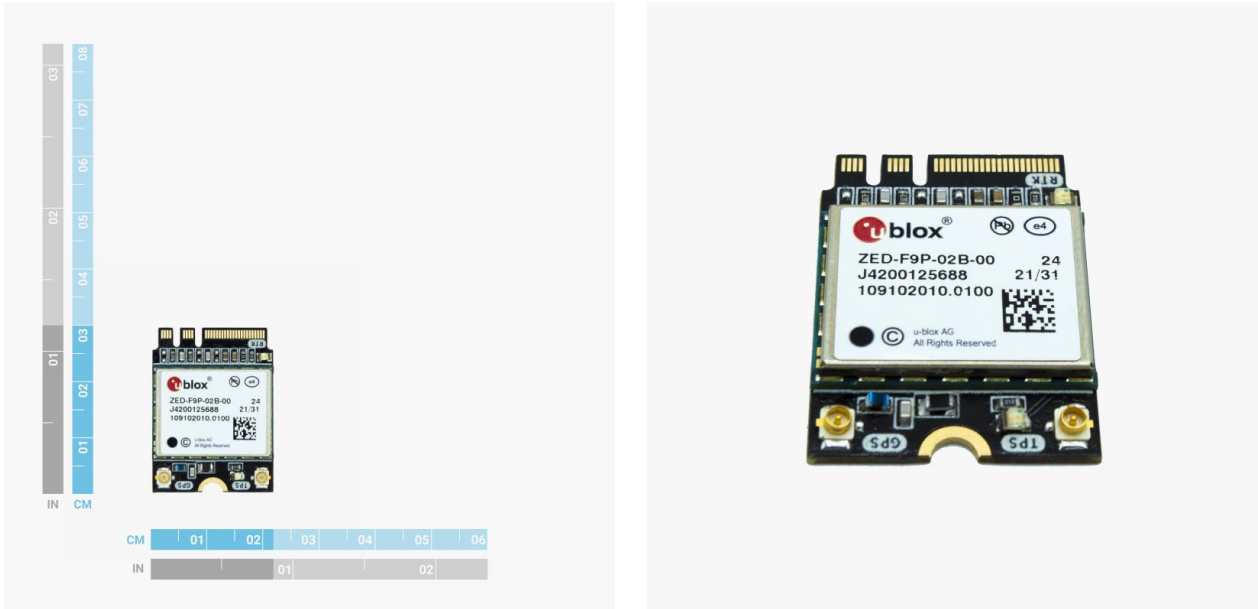
- Centimeter level precision
  - <1cm with a base station up to 35km
  - <1cm with NTRIP up to 35km
  - <4cm with SSR corrections
  - <1.5m in standalone mode
  - <0.9m standalone with SBAS coverage
- Update rate
  - Default: 1Hz
  - With maximum performance: up to 10Hz
  - With reduced performance: 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

### ZED-F9R 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
  - Maximum GNSS update rate: 4Hz
  - Maximum fusion update rate: 30Hz
- 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)
- Dynamic models: ground vehicle, slow-moving service robots and electric scooters (drones, boats and pedestrians not supported)
- RAW data output in UBX format
- No Base Station function, only RTK Rover
- Operating temperature Range: -40 to +85deg
- Documentation: RED, RoHS

## Image Gallery



## Pinout

Description	Function	Pin	Function	Description
		1	GND	
	VIN_3V3	2	3	USB_DP
	VIN_3V3	4	5	USB_DN
		6	7	GND
		8	9	
		10	11	
		12	13	
		14	15	
		16	17	
	GND	18	19	
		20	21	
		22	23	
		24	25	
		26	27	
		28	29	
		30	31	
		32	33	GND
		34	35	
		36	37	
		38	39	GND
		40	41	
		42	43	
		44	45	GND
		46	47	
		48	49	
		50	51	GND
Feature disabled	RESET	52	53	
		54	55	
Feature disabled	W_DISABLE	56	57	GND
		58	59	
		60	61	
		62	63	GND
		64	65	
		66	67	
		68	69	GND
		70	71	
	VIN_3V3	72	73	
	VIN_3V3	74	75	GND

## Documentation

User Guide	<a href="https://www.ardusimple.com/user-guide-simplertk2b-m-2/">https://www.ardusimple.com/user-guide-simplertk2b-m-2/</a>
Configuration files	<a href="https://www.ardusimple.com/how-to-configure-ublox-zed-f9p/">https://www.ardusimple.com/how-to-configure-ublox-zed-f9p/</a>
Download CAD model	<a href="https://www.ardusimple.com/wp-content/uploads/3D_CAD/AS-RTK2B-M2-L1L2-F9P-00-R00.STEP">https://www.ardusimple.com/wp-content/uploads/3D_CAD/AS-RTK2B-M2-L1L2-F9P-00-R00.STEP</a>
Footprint	<a href="https://www.snapeda.com/search/?q=ardusimple">https://www.snapeda.com/search/?q=ardusimple</a>

simpleRTK2B M.2 includes free basic technical support. Contact [info@ardusimple.com](mailto:info@ardusimple.com) for more information.

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