

# simpleRTK2B mPCle

Includes: - 1 simpleRTK2B-mPCIe board with u-blox ZED-F9



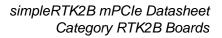
More info about the product!





simpleRTK2B mPCIe has several different configurations to provide you with flexibility:

SKU	Variation Name
AS-RTK2B-MPCIE-L1L2-F9P-01	ZED-F9P
AS-RTK2B-MPCIE-L1L2-F9R-01	ZED-F9R
AS-RTK2B-MPCIE-L1L2-F9T-01	ZED-F9T





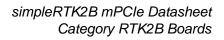
## Description

Bring low cost high precision RTK GNSS positioning to your Mini PCI Express platforms thanks to ZED-F9 and this board fully compatible with MiniPCIe half-size and full-size sockets.

Good to know:

- The board by default is compatible with full size Mini PCI Express sockets, and it's precut so you can convert it yourself to Half Size Mini PCI Express size.

- You will need a uFL to SMA pigtail to connect it to our Multiband GPS/GNSS antennas.
- ZED-F9T variant has an extra uFL connector for timepulse output.
- Bulk pricing starting 50 units





## **Specifications**

#### ZED-F9P features

- Centimeter level precision
  - <1cm with a base station up to 35km</li>
  - $\circ\,$  <1cm with NTRIP up to 35km
  - <4cm with SSR corrections</li>
  - <1.5m in standalone mode</p>
  - o <0.9m standalone with SBAS coverage</p>
- 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
  - $\circ\,$  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)
- Interfaces (check product documentation to verify which are available):
  - ∘ USB
  - UART
  - XBee
  - $\circ$  Timepulse
  - $\circ \,\, \text{Event}$
  - Safeboot
- RAW data output in UBX format
- Base and Rover functionality
- Operating temperature Range: -40 to +85deg
- Documentation: RED, RoHS



## **Image Gallery**





### **Pinout**

Description	Function	Pin		Pin		Function	Description
	VIN_3V3	2	1				
	VIIN_3V3	4	3				
		4	5				
		8	7				
		8 10	9	GND			
			11				
		12	13				
		14	15	GND			
		16	11/1				
		18	- 0				
Feature disabled			21	GND			
Feature disabled		22	22				
	VIN_3V3	24	25				
		26	27	GND			
		28	29	GND			
		30	31	0110			
		32	22				
		34	25	GND			
	USB_DN	36	27	GND			
	USB_DP	38	20	VIN_3V3			
		40	11	VIN_3V3			
		42	41	GND			
		44	15	GND			
		46	17				
		48					
		50	49				
	VIN_3V3	52					



## Documentation

Configuration files	https://www.ardusimple.com/configuration-files/
EU Conformity & RoHS Certificates	https://www.ardusimple.com/eu-conformity- certificates/
3D CAD STEP Files	https://www.ardusimple.com/3d-cad-step-files/
PCB Integration Guide	https://www.ardusimple.com/pcb-integration-guides/
Footprint	https://www.snapeda.com/search/?q=ardusimple

simpleRTK2B mPCIe 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.