

simpleRTK3B - Basic Starter Kit

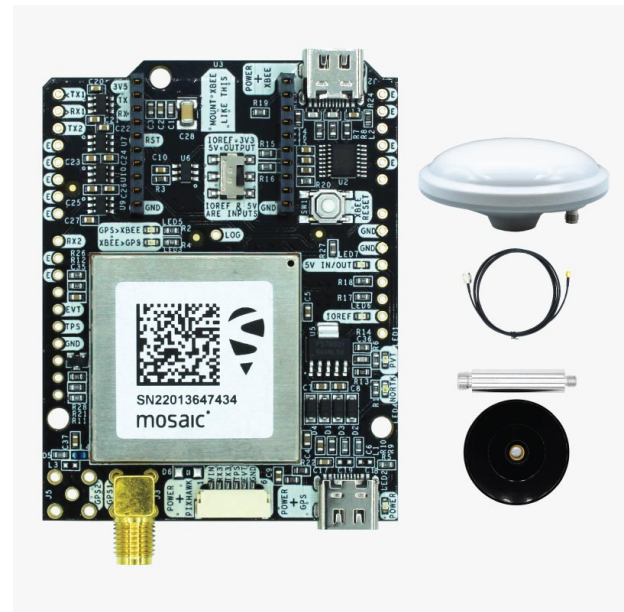
Includes:

- 1 simpleRTK3B Pro board (Mosaic-X5)
- 1 Budget Survey Tripleband GNSS Antenna (IP66) including 2.5m cable
- 1 Magnetic Stand for Survey GNSS Antenna

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[More info about the product!](#)



simpleRTK3B - Basic Starter Kit SKU is: AS-STARTKIT-BASIC3B-L125-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

This standalone set of triple band board based on Septentrio Mosaic-X5 + ArduSimple Budget Survey Antenna + Magnetic Stand is everything that you need to achieve millimeter level accuracy and evaluate triband (L1/L2/L5) RTK GNSS technology at the most affordable cost.

To achieve millimeter level 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.

The kit can be configured as a base or a rover, supports multi-rover. It is fully compatible with Arduino, STM32 Nucleo, Raspberry Pi, Nvidia Jetson, ROS and Pixhawk / Ardupilot.

More details are available in the Specifications and Documentation tabs.

Good to know:

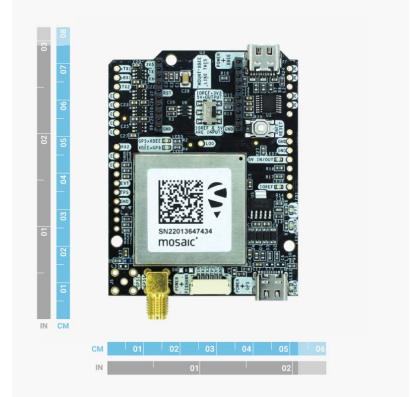
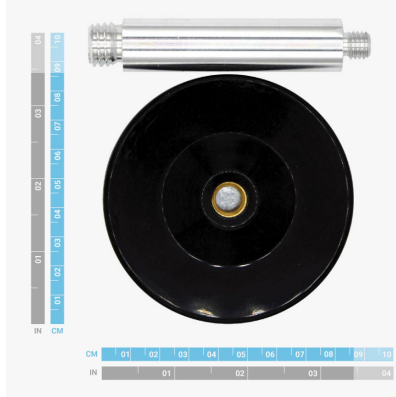
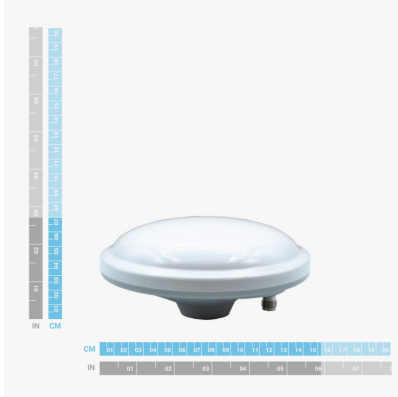
- This product is compatible but doesn't include radio, which might be useful connect to another base.
- This product is recommended if you want to evaluate Septentrio Mosaic-X5.

Specifications

Mosaic-X5 features

- Millimeter level precision
 - <1cm with a base station up to 35km
 - <1cm with NTRIP up to 35km
 - <1.2m in standalone mode
 - <0.6m standalone with SBAS coverage
- Update rate
 - Default: 1Hz
 - With maximum performance: up to 100Hz
- Multi band: L1, L2 and L5 support, 448 hardware channels
- Multifrequency and Multiconstellation:
 - GPS: L1C/A L1PY L2C L2P L5
 - GLONASS: L1CA L2CA L2P L3 CDMA
 - Galileo: E1 E5a E5b E5 AltBloc E6
 - BeiDou: B1I B1C B2a B2I B3
 - QZSS: L1C/A L2C L5
 - Navic: L5
 - SBAS: WAAS, EGNOS, MSAS, GAGAN, SDCM (L1 L5)
- Start-up times:
 - Cold start: <45s
 - Warm start: <20s
 - Re-acquisition: 1s
- Protocols:
 - Septentrio Binary Format (SBF)
 - NMEA 0183, v2.3, v3.03, v4.0
 - RINEX v2.x, v3.x
 - RTCM v2.x, v3.x (MSM included)
 - CMR v2.0 (out/in), CMR+ (input only)
- Interfaces (**check user guide to verify which are available**):
 - USB
 - UART
 - XBee
 - Timepulse
 - Event
- Base and Rover functionality
- Operating temperature Range: -40 to +85deg
- Certification: CE, WEEE, ISO 9001-2015
- Documentation: RED, RoHS

Image Gallery



Pinout

TOP VIEW

Description	Name	Name	Description
GPS TX1 IOREF level	TX1	E	Don't connect
GPS RX1 IOREF level	RX1	E	Don't connect
XBee TX/GPS RX2 IOREF level	TX2	E	Don't connect
Don't connect	E	E	Don't connect
Don't connect	E	E	Don't connect
Don't connect	E	E	Don't connect
Don't connect	E	E	Don't connect
XBee RX/GPS TX2 IOREF level	RX2	GND	Must connect to GND
Don't connect	E	GND	Must connect to GND
Don't connect	E	5V_IN	4.5-5.5V optional input voltage Can also be output via switch
Event input for timestamp 3.3V level	EVT	IOREF	1.8-5V, defines voltage of TX/RX Can also be 3.3V output via switch
Inverted timepulse out 3.3V level	TPS		
Ground	GND		

Documentation

User Guide	https://staging.ardusimple.com/simplertk3b-hookup-guide/
Antenna Installation Guide	https://staging.ardusimple.com/gps-gnss-antenna-installation-guide/
how to configure Septentrio Mosaic boards	https://staging.ardusimple.com/how-to-configure-septentrio-mosaic-x5-and-mosaic-h/

simpleRTK3B - Basic Starter Kit includes free basic technical support. Contact info@ardusimple.com for more information.
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