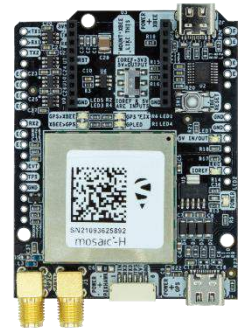


simpleRTK3B Heading

*affordable and low power standalone board
that allows to evaluate dual band RTK GNSS technology
including heading functionality*



SKU: AS-RTK3B-MH-L1L2-NH

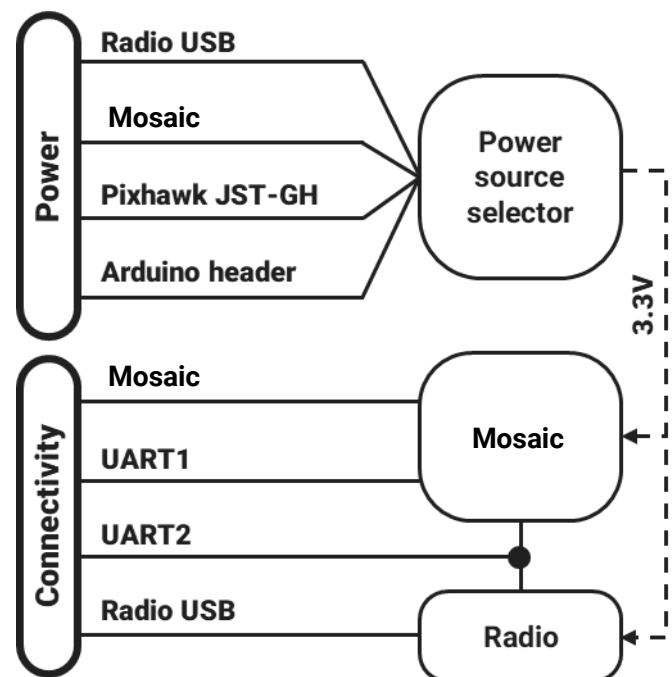
Key features

- Millimeter level precision
 - <1cm with a base station up to 35km
 - <1cm with NTRIP up to 35km
 - <4cm with SSR corrections (PPP-RTK)
 - <1.2m in standalone mode
 - <0.6m standalone with SBAS coverage
- Based on Septentrio mosaic-H module
- Fully compatible with Arduino, Raspberry Pi, Nvidia Jetson Nano and STM32 Nucleo platforms, as a shield
- GNSS attitude accuracy
 - 1m antenna separation:
0.15deg heading, 0.25deg pitch/roll
 - 1m antenna separation:
0.15deg heading, 0.25deg pitch/roll
- 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)

Supported frequencies

- GPS: L1 L2
- GLONASS: L1 L2
- Galileo: E1 E5b
- BeiDou: B1 B2
- QZSS: L1 L2
- SBAS: WAAS, EGNOS, MSAS, GAGAN, SDCM (L1 L5)

Functional schematic diagram



Mechanical

- Arduino UNO form factor 69x53mm
- 26g (without radio)
- Compatible with Arduino UNO headers
- 3xM3 holes (Arduino UNO compatible)
- Supports all radio modules via 2mm 10pin headers

Electrical

- Power consumption: 250mA @ 5V
- Active antenna power supply at 3V up to 75mA
- Interfaces: USB, UART(3)
- Timepulse output, Time sync input
- XBee socket up to 1A @ 3V