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 Jetson Nano and STM32 Nucleo platforms, as a shield
- GNSS attitude accuracy
  - 1m antenna separation: 0.15deg heading, 0.25deg pitch/roll
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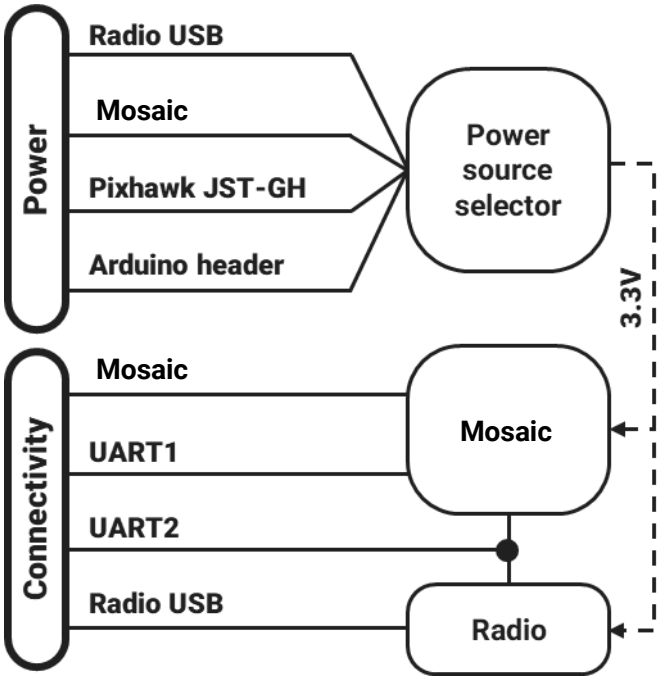
- Protocols:
  - Septentrio Binary Format (SBF)
  - NMEA 0183, v2.3, v3.03, v4.0
  - RINEX v2.x, v3.x
  - RTCM v2.x, v3.x (MSM included)
  - CMR v2.0 (out/in), CMR+ (input only)

Functional schematic diagram



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)

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