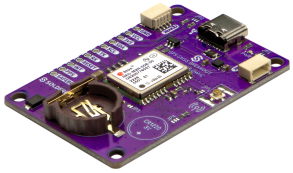
PRODUCT DATASHEET



GNSS GPS Breakout NEO-M9N-00B

333378

The GNSS GPS Breakout NEO-M9N-00B offers precise 2m positioning using GPS, GLONASS, Galileo, and BeiDou for versatile outdoor applications.

Full product documentation, files and tutorials: **solde.red/333378**

CORE ATTRIBUTES

SKU **333378**

WEIGHT **40 g**

BARCODE **732388641406**

DESCRIPTION

GPS Breakout NEO-M9N-00B is a GNSS module built around **u-blox's NEO-M9N** receiver. It tracks four satellite systems at once (**GPS, GLONASS, Galileo, and BeiDou**), which typically gets you within about 2 meters of your real position. It sends that position data as **NMEA**, the plain-text format most GPS software already reads, or as UBX, u-blox's own binary format that carries more detail per message.

It's a good fit for outdoor navigation, asset tracking, drone and robot positioning, or logging GPS coordinates alongside other sensor data. It talks over **UART** or **I2C**, with the JP4 jumper choosing which one is active (closed for I2C, open for UART). The I2C address is fixed at **0x42**. A PPS pin outputs a signal exactly once per second, synced to GPS time, which is handy for timestamping sensor readings precisely or syncing multiple devices to the same clock. A Soldered Arduino library is available to read position data directly. Two Qwiic connectors handle the I2C wiring without soldering.

The board runs on **3.3V**, with onboard regulation for 5V systems too, and measures **38 × 54 mm**, with two mounting holes for M3 screws. Separate jumpers control the power and PPS status LEDs, and a fifth jumper connects the antenna RF filter.

TECHNICAL DETAILS

- **IC:** u-blox NEO-M9N
- **GNSS support:** GPS, GLONASS, Galileo, BeiDou (concurrent)
- **Position accuracy:** 2.0 m CEP horizontal (typical position within 2 m, 50% of the time)
- **Data output:** NMEA 0183, UBX binary
- **Communication:** UART or I2C (selectable via JP4 jumper)
- **I2C address:** 0x42 (fixed)
- **Timepulse:** Configurable 1PPS output
- **Operating voltage:** 3.3V (onboard regulator for 5V compatibility)
- **Software:** Arduino library available

- **Connector:** 2x Qwiic
- **Mounting holes:** 2x M3 (3.2 mm diameter)
- **Dimensions:** 38 × 54 mm / 1.5 × 2.1 inch

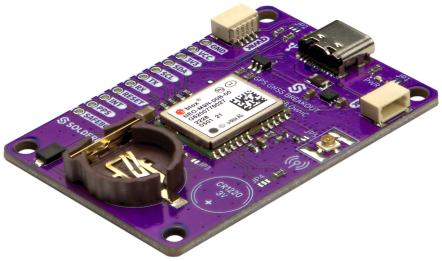
SPECIFICATIONS

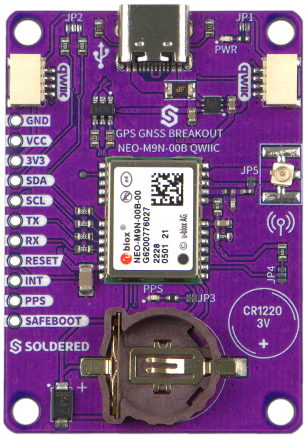
INTERFACE	I2C, Uart, Usb
QWIIC COMPATIBLE	Yes
I2C ADDRESS DEFAULT	0x42
BREADBOARD COMPATIBLE	Yes
MEASUREMENT TYPES	Position
IC PART NUMBER	NEO-M9N-00B

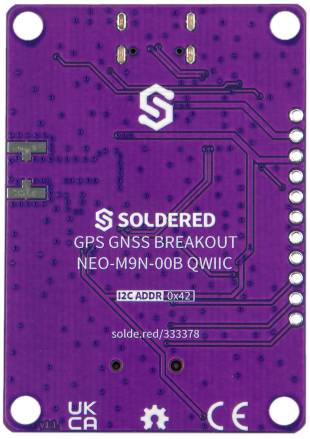
LINKS

MicroPython Module	https://github.com/SolderedElectronics/Soldered-MicroPython-Modules/tree/main/Communication/uBloxGNSS
Arduino Library Documentation	https://docs.soldered.com/neo-m9n-00b/arduino/examples/
Arduino: Get Started	https://docs.soldered.com/neo-m9n-00b/arduino/geting-started/
Full Documentation	https://docs.soldered.com/neo-m9n-00b/overview/
Arduino Library	https://github.com/SolderedElectronics/Soldered-u-blox-GPS-GNSS-Arduino-Library

GALLERY




JP2
JP1
PWR
GND
VCC
3V3
SDA
SCL
TX
RX
RESET
INT
PPS
SAFEBOOT
GPS GNSS BREAKOUT
NEO-M9N-00B QWIIC
JP5
JP4
JP3
CR1220
3V
SOLDERED


SOLDERED
GPS GNSS BREAKOUT
NEO-M9N-00B QWIIC
I2C ADDR 0x42
solde.red/333378