

GNSS

N-UM9I10 / N-UM9R10

The N-UM9I10 / N-UM9R10 is a compact, concurrent GNSS receiver designed to track multiple GNSS constellations simultaneously. Powered by the u-blox M9N, it delivers fast, reliable performance with a time-to-first-fix (TTFF) of under 24 seconds, maintaining a strong satellite lock in various environments.

Offering professional-grade positioning accuracy, the N-UM9I10 / N-UM9R10 is fully compatible with PX4 and ArduPilot. Simply mount it, connect it, and you're ready to fly.



Key Features

- Multi-GNSS: 1.5m accuracy, 4-system lock
- Integrated compass
- Easy Integration: MAVLink-ready, anti-interference
- Compatible with PX4 and ArduPilot

Specifications

GNSS Receiver	Standard Model: U-blox NEO-M9N Module (non-RTK)
Number of Concurrent GNSS	Up to 4 GNSS: GPS, GLONASS, Galileo, and BeiDou
Frequency Band	GPS/QZSS L1, GLONASS L1, Galileo E1, BeiDou B1, SBAS L1
Compass	• IST8310 (N-UM9I10) • RM3100 (N-UM9R10)
LEDs	Safety x1, GNSS Fix x1, Flight Status x1
Buzzer	Supported
Safety Switch	Supported
Supported Protocol	UBX, NMEA 4.10, RTCM 3.3
Position Accuracy	1.5 m CEP (with SBAS)
Nav. Update Rate	Up to 25 Hz (Max.)
GNSS Augmentation System	• SBAS: EGNOS, GAGAN, MSAS and WAAS • QZSS: L1S
Default Baud Rate	• 115200 (for Px4) • 230400 (for Ardupilot)
Input Voltage	4.7-5.2V
Connector Type	JST-GH-10pin
Antenna	25 x 25 x 6 mm ceramic patch antenna
Antenna Gain	1.59dBi
Power Consumption	< 200mA @ 5V
Operating Temperature	-20~+80 °C
Dimension	Ø53.5 x 18.3 mm
Weight	46 g
IP Rating	IP55
Cable Length	26 cm

Order Information

N-UM9I10	M9N GPS with IST8310 compass, JST-GH-10pin connector
N-UM9R10	M9N GPS with RM3100 compass, JST-GH-10pin connector