

axl Orbit NavIC

The axl Orbit NavIC is a compact, high-precision DroneCAN GNSS module with NavIC Support for precision navigation and positioning.

Features

- u-blox NEO-F10N dual-band L1 + L5 GNSS receiver
- Multi-constellation support including GPS, QZSS, Galileo, NavIC, SBAS
- Bosch BMM350 3-axis magnetometer for precise heading and orientation.
- 20 Hz update rate for responsive real-time tracking.
- Compatible with ArduPilot, PX4, and axldrone Flight Controller for seamless integration.



Capabilities

- 1 m accuracy with NavIC support
- Stable GNSS Connectivity in Magnetic Interference
- Up to 32 Satellite Connectivity
- RF interference and jamming detection/reporting support
- Spoofing detection and reporting support

Applications

- ✈ Unmanned Aerial Vehicles (UAVs)
- 🚗 Autonomous Ground Vehicles (AGVs/UGVs)
- 🤖 Robotics & Autonomous Systems
- 🚶 Smart Mobility Solutions
- 🔬 Research & Academic Projects

Specifications

Frequency Bands	Dual-band L1 + L2
GNSS Constellations	GPS, QZSS, Galileo, NavIC, SBAS
Number of concurrent GNSS	Up to 3
Positioning Accuracy	1 m CEP
Time to First Fix (TTFF)	Cold start: 45 s; Hot start: 2 s
Data and Update Rate	up to 20 Hz
Satellites (max)	32
Maximum altitude	80,000 m
Maximum speed	500 m/s
Protocols	NMEA, UBX
Communication Protocol	UART
Baud rate	230400 bps configured
Connector Type	JST 8pin(GNSS+Compass), JST 2-pin(Buzzer)
Dimensions	ϕ57 x 23.7 mm
Cable Length (Customisable)	30 cm



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