



Mjolnir-X

Multifunctional GNSS Receiver

The A&I Mjolnir-X is a meticulously crafted multifunctional GNSS receiver. It is compatible with various standard-sized boards from manufacturers such as Trimble, Septentrio, Unicore, Bynav, and A&I, and is available in multiple versions, including single-antenna, dual-antenna, and integrated navigation models. Designed according to international mainstream product certification standards, this receiver ensures reliable operation even in harsh environments, making it well-suited for applications such as CORS networking, precision agriculture, machine control, and autonomous driving.



- **Ease of Use and Operation**

- Equipped with a built-in battery and pre-configured CORS account, the device is ready for immediate use upon startup.
- Features an integrated web interface for straightforward configuration.
- The integrated navigation version eliminates the need for manual lever arm measurements through automatic calibration.

- **Large-Capacity Storage**

Comes with substantial internal storage for data preservation, facilitating post-processing analysis, and supports external TF memory card expansion.

- **Integrated Control Functions⁽¹⁾**

Incorporates standard carrier control algorithms, seamlessly merging positioning, path planning, and chassis control into a single terminal.

- **Comprehensive Peripheral Interfaces**

Offers global mobile network communication SIM, radio, serial ports, Ethernet, and CAN interfaces.

- **Robust and Reliable structure**

IP67, ensuring resistance to dust, water, and explosions.

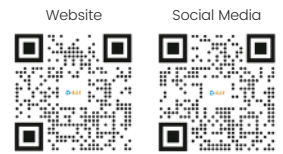
- **Robot Operating System and Drivers**

Designed with an ROS2 architecture, it also supports ROS1, ROS2, Apollo, Autoware, and other drivers.

(1) Supported in subsequent firmware updates

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— GNSS PERFORMANCE (TRIMBLE BD990 BOARD)



GNSS	Channels	336		
	GPS	L1C/A, L2E, L2C, L5		
	BDS	B1, B2, B3		
	GLONASS	L1 C/A, L2C/A, L3 CDMA		
	GALILEO	E1, E5a, E5b, E5 AltBoc, E6		
	IRNSS	L5		
	QZSS	L1C/A, L1 SAIF, L2C, L5		
	SBAS	L1 C/A, L5		
	MSS L-Band	OmniSTAR, Trimble RTX		
Time to First Fix	Cold Start <45s	Warm Start <30s	Signal Re-acquisition<2s	
Velocity Accuracy		Horizontal :0.007m/s	Vertical : 0.02m/s	
Speed Limit		515m/s		
Height Limit		18000m		
Maximum Acceleration GNSS Tracking		±11g		
RTK Initialization Time		Typically <8s		
RTK Initialization Reliability		>99.9%		
Position Latency		<20ms		
Data Update Rate		50Hz		

— COMMUNICATION

Front Panel					
SIM	SIM card slot X 1	TF	TF card slot X 1	USB	TYPE-C X 1
Battery Compartment	Removable rechargeable Li-ion battery × 1 , 3400mAh, 7.2V, 24.48Wh				
Rear Panel					
26pin Connector	Power X 1, CAN X 1, RS232 X 2, Ethernet X 1, IPPS X 1				
4G	SMA X 1				
	LTE (FDD): B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28/66				
	LTE(TDD): B34/38/39/40/41				
	SMA×1				
UHF RADIO	Standard Internal Rx/Tx: 410 to 470 MHz				
	Transmit power: 0.5 W, 1W, 2W				
GNSS	Protocol: TRANSEOT, TRIMTALK, TRIMMARK3, SOUTH				
	TNC X 1 or TNC X 2				

— PHYSICAL AND ENVIRONMENTAL

Size	151.5*145*55mm	Weight	<1kg
Operating temperature	-40° ~ 75°	Storage temperature	-45° ~ 80°
Water/Dust Proof	IP67	Shock	Survive a 1.2m drop on concrete floor
Electrostatic Discharge	Contact ±8KV; Air discharge ±15KV	Lightning Protection	Battery±200V; Power Supply±300V

— ELECTRICAL

Power consumption ⁽¹⁾	2.6 W ~ 6.5W	Power Input	9 ~ 48V	Endurance	>8h
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— CERTIFICATION

RoHS*, WEEE*, CE, FCC Class B Part 15*, UKCA*, ISO 9001-2015*					
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(1) Power consumption depends on the user's configuration