



G620INS-232/CAN

Smart Antenna

The A&I G620INS-232 is a highly integrated GNSS/INS all-in-one unit, combining the GNSS antenna, GNSS module, and IMU module into a single structure, making the product easier to install and more reliable in performance.



- **L1 Frequency GNSS Reception Compatible with Multiple Systems**

Supports multi-constellation L1 band signals including GPS L1, BeiDou B1, Galileo E1, QZSS L1, and GLONASS G1, enhancing positioning reliability and coverage.

- **Robust Inertial Assistance and Anti-Jamming Performance**

Supports automatic inertial navigation positioning in the absence of GNSS signals, with multipath signal detection and interference suppression capabilities, ensuring continuous navigation in complex environments.

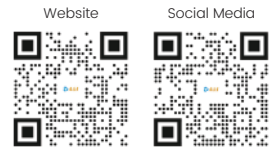
- **High-Precision Positioning and Speed Measurement Capability**

Offers 1.5-meter CEP horizontal positioning accuracy and 0.3 m/s CEP ground speed accuracy, meeting the requirements of high-dynamic and high-precision navigation.

- **High Sensitivity and Standardized Communication Protocol**

Equipped with a built-in high-gain LNA, offering sensitivity up to -165 dBm; the default baud rate is 115200 bps, supporting the NMEA-0183 standard protocol for easy system integration and data parsing.

G620INS-232



— GPS Parameters

Signal Reception Types	L1 frequency supports GPS L1, Beidou B1, Galileo E1, QZSS L1, GLONASS G1		
	SBAS:WAAS, EGNOS, MSAS, GAGAN		
	L5 Frequency Optional *		
Sensitivity	Tracking: -165dBm		
	Cold Start Acquisition: -148dBm		
	Hot Start Acquisition: -159 dbm		
TTFF (Automatic)	Navigation Positioning: -165dBm		
	Cold Start: 28 seconds (AVG) @ -130 dBm		
	Warm Start: 25s(AVG)@-130		
	Hot Start: 1s(AVG)@-130		
Horizontal Positioning Accuracy	<1.5m CEP @-130 dBm		
	RTK Function Optional*		
Inertial Navigation Accuracy	In inertial navigation mode without odometer: meter-level accuracy (3% CEP @ 120s)		
Speed Measurement Accuracy	0.03m/s(RMS)		
Attitude Accuracy	Tilt Angle < 0.6 °		
Dynamic Range	Speed: 515 m/s	Altitude: 18,000 m	Maximum Acceleration: 4G
Data Update Rate (Hz)	0.2、0.5、1、2、5、10、20		

— Electrical

Power Consumption	< 200mW
Operating Voltage	9V~36V

— System

NMEA-0183 Protocol	Supported
Communication Method	UART232, default 115200 bps
	CAN Interface Optional*

— Physical

Dimensions	55x50x20mm	Weight	150g
Operating Temperature	-40°C~85°C	Waterproof Rating	IP68
Cable Specifications	Molex 4-Pin, L=5000±50mm	Installation Method	3M Adhesive