

Atlans 3 Compact

North keeping INS for land and air georeferencing applications

Featuring a small size, light weight and low power consumption, Atlans 3 Compact is an inertial navigation system (INS) specially designed to be integrated into mobile mapping payloads and UAVs. With its unique hybrid MEMS-FOG technology, coupled with a single or dual antenna RTK GNSS receiver, the Atlans 3 Compact provides customers with unmatched heading performance during long straight lines or at low speed. It delivers continuous, accurate, and real-time navigation data that can be improved with Delph INS post-processing software.



FEATURES & BENEFITS

- North keeping capacity
- Ideal for integration in any mobile mapping system
- Predefined vehicle modes
- Dynamic alignment with mono-antenna GNSS receiver
- Compatible with Exail Delph INS post-processing software
- ROS driver available
- 24/7 worldwide technical assistance
- Free of export
- ITAR free

APPLICATIONS

- UAV survey in challenging applications
- Multi-environment survey payloads (Air / Land)
- Compact terrestrial mobile mapping systems
- Backpack
- Autonomous vehicles

TECHNICAL SPECIFICATIONS

Performance | TYPICAL PERFORMANCE (RMS) ON UAV

With GNSS RTK	Real-time	Post-processed with Delph INS
Heading (deg)	0.100	0.035
Roll & Pitch (deg)	0.020	0.015
Horizontal accuracy (X,Y) (m)	0.020	0.010
Vertical accuracy (Z) (m)	0.030	0.016
Heading drift – 10 min straight line or low dynamic (deg)	0.08	0.04
GNSS outage of 10 seconds		
Horizontal accuracy (X,Y) (m)	0.140	0.013
Vertical accuracy (X,Y) (m)	0.140	0.020

Characteristics

Dimensions (L x W x H)	70.5 mm x 70.5 mm x 58.4 mm
Weight	325 g
Material	Aluminum
Power supply / consumption	4.5 to 36VDC and 5V / < 5W
Operating temperature	-20°C to +55°C
Storage temperature	-40°C to +80°C
Angular dynamic range	+/- 200°/s
Maximum acceleration range	+/- 10g
GNSS Supported Signals (embedded receiver)	GPS L1C/A L2C, GLO L1OF L2OF, GAL E1B/C E5b, BDS B1I B2I, QZSS L1C/A L1S L2C, SBAS L1C/A

Interfaces

Serial	5 input/output LVTTTL ports
Network	5 input/output RMII ports in UDP unicast, multicast, broadcast or TCP client/server
Pulses	4 input/output LVTTTL pulses
Connectors	LSHM-140 SAMTEC, 80 pins
GNSS antenna connectors	2 MMCX with +3.3VDC 50mA max antenna current
DMI	LVTTTL A/B or differential A ⁺ /A ⁻ B ⁺ /B ⁻
Input/output formats	Industry standards: NMEA 0183 v2.30; RTCM (NTRIP client); ASCII; Binary
Baud rates	600 Baud to 460 kBaud
Data output rate	0.1 Hz to 200 Hz
Event data input rate	Up to 1000 Hz

All specifications subject to change without notice