Atlans 3

North keeping INS for land and air georeferencing applications

Atlans 3 is a lightweight all-in-one positioning and orientation system for land and air applications. It combines a unique MEMS-FOG hybrid technology and a high-quality dual-antenna RTK GNSS receiver within the same housing. As a very compact device, Atlans 3 is a real game changer as it can provide outstanding heading and position performance in the most challenging GNSS-restricted environments despite its small size. It provides continuous, accurate, and real-time navigation data that can be improved with Delph INS post-processing software.

FEATURES

- North keeping capacity
- Predefined vehicle modes: plane, car, train
- Dynamic alignment with mono-antenna GNSS receiver
- Static alignment with dual-antenna GNSS receiver
- Optional dampers for harsh vibrating environment
- Compatible with Exail Delph INS post-processing software
- ROS driver available
- 24/7 worldwide technical assistance
- Free of export
- ITAR free

APPLICATIONS

- Terrestrial mobile mapping
- Aerial survey
- Road asset management
- Real-time rail positioning
- Autonomous vehicles

2023-01 | V001

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TECHNICAL SPECIFICATIONS

Performance | TYPICAL LAND PERFORMANCE AT SPEED 50KM/H

With RTK GNSS and DMI	**Real-time**	**Post-processed with Delph INS**
Heading (deg)	0.050	0.035
Roll & Pitch (deg)	0.025	0.015
Horizontal accuracy (X,Y) (m)	0.006 + 0.5 ppm*	0.006 + 0.5 ppm*
Vertical accuracy (Z) (m)	0.010 + 1 ppm*	0.010 + 1 ppm*
GNSS outage of 60 seconds		
Horizontal accuracy (X,Y) (m)	0.800	0.200
Vertical accuracy (X,Y) (m)	0.800	0.100

* 1ppm means +1cm for RTK base station at 10km

Characteristics

Dimensions (L x W x H)	122mm x 103mm x 73mm
Weight	850g
Material	Aluminum
Power supply / consumption	9 to 36VDC / < 8W
Operating temperature	-20°C to +55°C
Storage temperature	-40°C to +80°C
Environnemental	IP 67, CE, FCC, UKCA compliant
Angular dynamic range	+/- 200°/s
Maximum acceleration range	+/- 10g
GNSS Supported Signals (septentrio receiver)	GPS (L1, L2, L3, L5), GLONASS (L1, L2, L3), GALILEO (E1, E5a, E5b, AltBOC, E6), BEIDOU (B1, B2, B3), SBAS (EGNOS, WAAS, GAGAN, MSAS, SDCM) (L1, L5), IRNSS (L5), QZSS (L1, L2, L3, L5, L6)

Interfaces

Serial RS422 or RS232	5 input/output ports
Network	5 input/output ethernet ports in UDP unicast, multicast, broadcast or TCP client/server
Pulses	4 input/output, TTL
Connectors	LEMO M Series: 3 pin (Power), 40 pin (Main), 30 pin (Aux)
GNSS antenna connectors	SMA with +3 to +5.5 VDC 100mA max antenna current
DMI	+5 V or +9-36 V power / TTL 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

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