

Advans Series

Inertial Navigation Systems for Land Defense Applications

Based on Fiber-Optic Gyroscope (FOG) technology, the Advans Inertial Navigation Systems (INS) are designed to provide highly accurate positioning and pointing to the full range of land applications from tactical navigation to high-grade artillery systems. Accurate in GNSS-denied environments, easy to integrate and operate, non-ITAR and maintenance free, the Advans Inertial Navigation Systems have been selected by many integrators and land forces worldwide.



Advans Ursa

Cost-effective INS for
all tactical vehicles



Advans Lyra

Mid-grade INS for
navigation and pointing



Advans Vega

High-grade INS for
long range applications

SCALABLE SOLUTION

- Wide range of performance
- Covers the full spectrum of land applications
- Same functions and algorithms
- Same protocols and cabling

FOG TECHNOLOGY

- Full performance in GNSS denied conditions
- No drift in heading over the long run
- Very high reliability
- No periodic maintenance

EASY INTEGRATION

- Optimized SWaP
- No velocity sensor needed
- Automatic calibration
- Web interface for settings

TECHNICAL SPECIFICATIONS



	Advans Ursa	Advans Lyra	Advans Vega
Horizontal position (without GNSS) ⁽¹⁾	0.4 % DT	0.2 % DT	0.1 % DT
Heading ⁽²⁾	4 mils	1 mil	0.5 mil
Roll and pitch ⁽²⁾	1 mil	0.5 mil	0.2 mil
Volume (mm)	166 x 160 x 136	275 x 136 x 150	180 x 180 x 162
Weight (kg)	3.8	4.5	5
Consumption	< 12 W	< 18 W	< 18 W
Minimal Static Alignment	< 2 min		
Fast alignment (stored values)	30 seconds		
Options	Advans multi-constellation Mil-Std GNSS, mounting trays, mating connector, cable harnesses		
Other GNSS compatibility	Any GNSS providing NMEA 0183 messages		
Communication	RS-232 / RS-422 / CAN / Ethernet		
Configuration	Web-based interface		
Reliability	MTBF > 100,000 hrs – No moving parts – No periodic maintenance		
Shocks	40 g/12 ms hard mounting (without internal or external shock absorbers)		
GNSS input	Advans GNSS in option – Compatible with any GNSS providing NMEA 0183 messages		
Not required even in GNSS denial to reach full performance			
Qualification	MID-STD-810 / MIL-STD-461 / MIL-STD-1275 / IP67 / CE / ROHS		
Operating temperature full performance	-46 °C to +71 °C		
Export control	French export legislation applies – No ITAR/EAR restricted components		

(1) In percentage of distance traveled. Expressed in CEP50. No odometer required for full performance navigation without GNSS

(2) After dynamic alignment is completed. Expressed in RMS