

ANS | 610-L

LAND INERTIAL NAVIGATION SYSTEM

#Navigation



1 MIL POINTING ACCURACY MIL-PRF-71185 PERFORMANCE
FIBER OPTIC GYROSCOPE TECHNOLOGY
GENUINE DESIGN INERTIAL MEASUREMENT UNIT
EMBEDDED RECEIVER GNSS



aselsan

ANS | 610-L

LAND INERTIAL NAVIGATION SYSTEM

ANS 610-L is a fiber optic gyroscope-based navigation grade land inertial navigation system with embedded receiver which is intended for application to military land vehicles.

ANS 610-L has an open architecture and flexible hardware/software which can be adapted to various land platforms.

ANS 610-L provides linear acceleration, linear and angular velocity, position, attitude and heading to the host vehicle systems continuously.

ANS 610-L provides hybrid (Inertial + Receiver) navigation solution, inertial only navigation solution and GNSS only navigation solution simultaneously.

ANS 610-L is also capable of using odometer data to complement hybrid and inertial only navigation solutions.

ANS 610-L is designed specifically for land applications and it is indigenous design of ASELSAN including the fiberoptic gyroscopes used inside.

System Interfaces

- MIL-STD-1275E and MIL-STD-704A-F Compliant 28VDC Power Interface
- High Speed RS422 Serial Test Interface
- RS422 Serial User Interface
- RS422 and 5V TTL Odometer Interface
- 3 x RS422 and RS232 Asynchronous Serial Interface
- Have Quick and 1PPS Interface
- Active and Passive RF Antenna Interface
- Discrete Interfaces

System Operational Modes

- Leveling
- Alignment
 - Gyro Compass Alignment (GC)
 - GNSS Aided In Motion Alignment (IMA)
 - Stored Heading Alignment
- Navigation
- Rotation Platform
- Initiated Built In Test (IBIT)

System Functions

- Hybrid, Free Inertial, GNSS Only Navigation Solutions
- UTM or Geographical Position Calculation
- Odometer Update
- True or Grid Heading Calculation
- Motion Detection Function
- Zero Velocity Update, Position Update
- Alignment Progress Status
- GNSS Level Arm, Odometer Level Arm Update
- Start-up BIT, Periodic BIT, Initiated BIT
- Field Programmable Software
- No Periodic Maintenance

Navigation Performance (MIL-PRF-71185 Compliant)

	Horizontal Position (CEP)	Vertical Position (PE)
Inertial + ODO+Receiver	10 m	10 m
Inertial + ODOmeter (with ZUPT every 60 minutes)	0.0025 x Distance Travelled (Distance Travelled > 4 km)	0.00067 x Distance Travelled (Distance Travelled > 10 km)
	10 m (Distance Travelled < 4 km)	6.7 m (Distance Travelled < 10 km)
Inertial + ODOmeter (with ZUPT every 10 minutes)	18 m (Distance Travelled < 27 km)	10 m (Distance Travelled < 35 km)
Free Inertial (with ZUPT every 4 minutes)	18 m	10 m
Roll, Pitch (1)	0.5 mils RMS	
Azimuth (1)	1 mils RMS	
1-Below +/- 65 Degree Latitude and Full Performance Achieved		

Alignment Durations

Ground Alignment Mode	GNSS In Motion Alignment Mode	Stored Heading Alignment Mode
15 min	10 min	30 sec

Environmental Conditions

- MIL-STD-810G Compliant

Electromagnetic Environmental Effects

- MIL-STD-461G Compliant

Dimensions and Weight

- 29 cm (H) x 20 cm (D) x 17 cm (W) (Including Connector)
- Less Than 9 kg With Receiver Installed



Specifications are subject to change without any notice. | All tolerances are within ±10%.

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