

LLN-GZ

HYBRID LAND NAVIGATOR



LITEF has 60 years of experience in Inertial Systems Technology and was the first company in the world to introduce Fiber Optic Gyroscopes (FOG) in commercial aviation systems in the 1990s.

Triggered by demand of the German Army, LITEF established its line of land navigation systems. All LITEF LAND NAVIGATORS are based on either FOG or MEMS gyro technology, combined with high accuracy MEMS accelerometers, developed and produced in Germany.

The LLN-GZ is a dead reckoning navigator which receives automatic position updates from GPS - when available. Based on a full six degrees of freedom IMU its design provides state-of-the-art navigation performance by consistently applying the inherent advantages of LITEF's proprietary MEMS technology.

Designed for the demanding environmental conditions of armoured land platforms, the LLN-GZ is the best choice for all kinds of military vehicles, both wheeled and tracked, providing reliable and un-interruptible position, heading and attitude data for situational awareness and command-and-control (C2) systems.

MAIN FEATURES

- Hybrid and dead reckoning navigation
- Continuous position and heading data
- Automatic operation
- Alignment on the move
- Fully operational immediately after power-on
- Gyrocompass alignment as emergency mode
- Rotational rate and linear acceleration data
- Jamming robustness
- RS-422, CAN-BUS and Ethernet interfaces
- No scheduled maintenance
- Designed for 20+ year life time
- Digital inertial sensor generation
- German technology

TYPICAL APPLICATIONS

- Waypoint navigation
- Heading reference for Laser Range Finder
- Attitude data for Far Target Location and Active Suspension
- Reliable C2 position updates independent of GPS

TECHNICAL DATA LLN-GZ

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PERFORMANCE (all values PE50/CEP50, unless otherwise stated)	
Heading	$\leq 0.24^\circ$ (GPS moving alignment) $\leq 3.0^\circ \bullet \text{sec (Lat) RMS}$ (Gyro compass alignment)
Position - INS/VMS/GPS - INS/VMS	$\leq 8 \text{ m}$ $\leq 0.5 \% \text{ DT}$
Altitude - INS/VMS/GPS - INS/VMS	$\leq 8 \text{ m}$ $\leq 0.8 \% \text{ DT}$
Attitude (Pitch / Roll) - static - dynamic	$\leq 0.05^\circ$ $\leq 0.15^\circ$
PHYSICAL	
Weight	< 4 kg
Dimensions L x W x H	177 x 186 x 104 mm ³
Power Consumption	< 20 W
Power Supply	18 - 32 VDC (MIL-STD-1275B)
ENVIRONMENT	
Operating temperature	-46 °C to +71 °C
Vibration Shock	MIL-STD-810H
EMC	MIL-STD-461E
LOGISTICS	
Built in Test	Power up BIT Continuous BIT
Compatible GPS receivers	GPS-ICD 153, NMEA-0183, LLN-GPS-4x
OPTIONAL EQUIPMENT	
GPS receivers	
Odometers	
Displays	
Test equipment	

FOR MORE INFORMATION,
PLEASE CONTACT:

Northrop Grumman LITEF GmbH
 Lörracher Strasse 18
 79115 Freiburg | Germany
 Phone: +49 761 4901-0
 info@litef.de | www.litef.com

