

CHAKA NAV

Tactical Navigation System

The ChakaNav is a versatile tactical navigation system designed for light military vehicles.

ChakaNav includes a high-performance Inertial Navigation System (INS) that combines MEMS inertial sensors, high sensitivity GPS receiver and advanced Kalman filtering algorithms to provide optimal estimation of position, velocity and orientation.

ChakaNav utilises real-time moving map technology that provides the driver and crewmembers continuously with accurate situational awareness information.

ChakaNav has a user-friendly graphical navigation capability, combining inertial, GPS and compass information for accurately navigating between pre-set waypoints towards the destination.

The integrated Inertial Measuring Unit (IMU) ensures jamming free operation and a multi-language option ensures successful joint multinational operations.



KEY FEATURES

- Route planning functionality
- Improved situational awareness
- Enhances mobility of vehicles
- Vehicle movement display
- Arabic language pack
- Moving map display
- MIL-STD-2525B symbology
- Touch screen display

The ChakaNav offers various options for vehicle installation, is vehicle agnostic, and can be configurable to specific user needs, allowing flexibility as dictated by different mission requirements.

An optional slave module is available for use in space constrained areas where specific information needs to be communicated to personnel i.e. the driver.



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MOVING MAP DISPLAY

The vehicle navigation system is a 'map based' navigation system that will allow maximum tactical advantage by enhancing the situational awareness of the crew at a reasonable cost.

ChakaNav is non-ITAR controlled and can, meeting your navigation and battlefield management needs.

MASTER DISPLAY UNIT

- Display
 - 11.5" Diagonal 16:9 TFT
 - 1920x1080 Resolution
 - Sunlight Readable
 - Capacitive touch
- Interfaces
 - Ethernet (UTP)
 - 28Vdc as specified in MIL-STD- 1275D
 - RS422
 - GPS Antenna interface
 - IMU/INS interface

The crew of the vehicle is provided with the following guidance queues to execute the planned tactical manoeuvres:

- True Heading of the vehicle.
- Desired Heading towards the Next Waypoint or Destination.
- Current Vehicle Speed.
- Desired Vehicle Speed to reach the Next Waypoint or Destination at the planned time.
- Current Vehicle Position.
- Next Waypoint or Destination Position.
- Distance to the Next Waypoint or Destination.
- Pitch and Roll Attitude of the vehicle.
- Track travelled by the vehicle.

The system uses a 'strapdown' inertial measurement unit, combined with a GPS to allow dead reckoning and positional accuracies, to allow the vehicle to fulfil its role in a tactical offensive.

