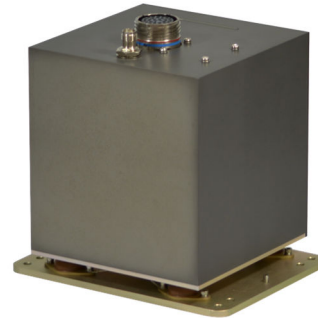


Features

- INS/GPS Integrated Navigation System
- Fast Start-up and Fully Self-contained
- Low Power Consumption
- Compact and Rugged Package



Applications

- Vehicle Navigation
- Robotics/Avionics
- Guidance and Control Systems
- Platform Stabilization
- Unmanned Aerial Vehicles

Description

Marion GA6370R is an integrated navigation system that can provide 3D positioning, velocity, attitude, angular rate and acceleration under dynamic conditions. GA6370R is a fully self-contained navigation system which constituted of three RLG type gyroscopes, three accelerometers, and a GPS receiver. By using these sensors with Kalman filter, GA6370R integrates Inertial Measurements Units (IMU) with GNSS (Global Navigation Satellite System) technology to provide stabilized navigation solutions. For the more accurate outputs, external magnetometers and Differential GPS can be implemented with GA6370R. Data rates is up to 100Hz.

Specification

Performance	Input Range	Rate	± 1000 °/sec
		Acceleration	$\pm 37G$
	Accuracy	Position	3 m CEP (with GPS)
		Velocity	0.5 m/s RMS (with GPS)
		Heading, Roll, Pitch	1 °, 0.1 °, 0.1 °RMS (with GPS)
	Gyro Drift		1 °/hr
Update Rate		100 Hz	
Physical	Weight	2.8 kg (Including case)	
	Size (L, W, H)	139 mm X 179 mm X 183.5 mm	
Electrical	Power Consumption	12 W (28V)	
	Input Voltage	19 ~ 40 V	
Environmental	Operating Temperature	-40 ~ 85 °C	

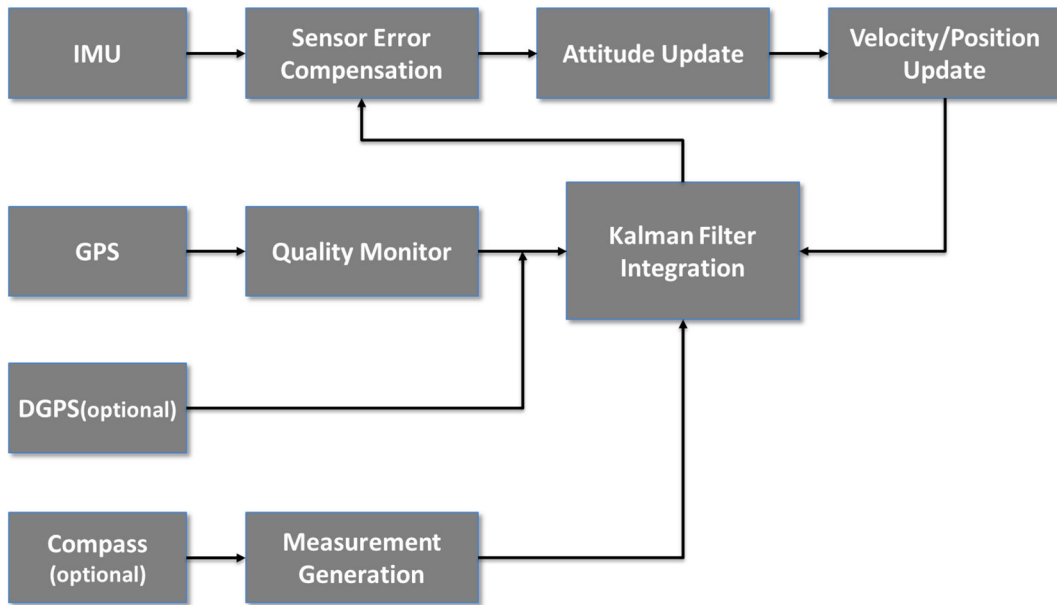


Figure 1. Architecture of Integration Algorithm

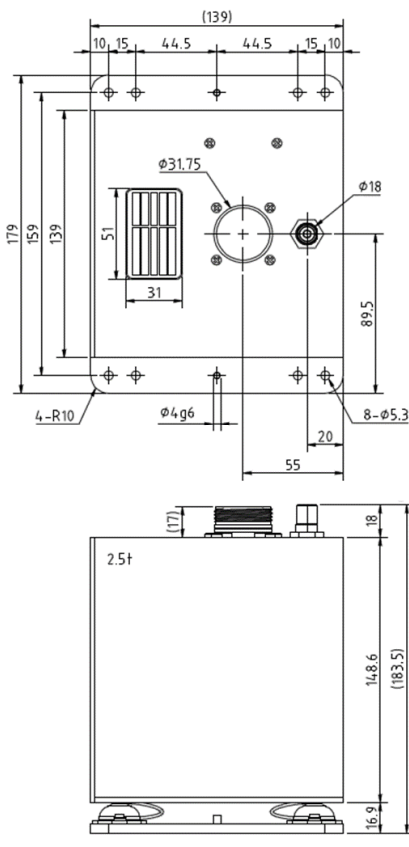


Figure 4. Physical Dimension

Table 1. Connector

Part Number	Remark
D38999/20FF32SN	Main Connector (55pin)
TNC-BH Female	GPS Antenna (RF)



Figure 2. Main Connector Shape



Figure 3. GPS Connector Shape

(In Millimeters)