

STRAPDOWN INERTIAL NAVIGATION SYSTEM

SINS

SINS IS INTENDED FOR generating information about attitude control and navigation of vehicles in the mode of correction by the data from the satellite navigation system (SNS) and in the autonomous mode

APPLICATION:

- automobile transport
- unmanned aerial vehicles
- small crafts
- robotics
- inertial support of SNS receivers
- sea buoys



SPECIFICATIONS

	RMSE, (σ) (corrected mode)	RMSE, (σ) (autonomous mode 15 s)
Roll/pitch/yaw angles	0.2°	0.3°
Components of angular velocity of the vehicle	0.5 °/s	0.5 °/s
Components (longitudinal, transverse and vertical) of linear pitch and roll motion speed	0.2 m/s	2.5 m/s
Heading (if multi-antenna SNS is available)	0.2°	1°
Speed over the ground	0.3 m/s	3.8 m/s
Geographic position in differential mode	5-10 m (1-5 m)	30 m

The indicated error values are ensured under the following conditions:

- vehicle speed up to 50 kt
- total roll/pitch angle up to 30° with period from 5 s to 15 s
- yawing with amplitude up to 6° and period from 30 s to 60 s
- vehicle maneuvering with angular rate up to 50 °/s and acceleration up to 10 m/s²

Output data frequency	100 Hz
Output interface	RS-232 (RS-422, RS-485)
Supply voltage	27±9 V
Power consumption	no more than 10 W
Overall dimensions	120×122×80 mm
Weight	1 kg

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