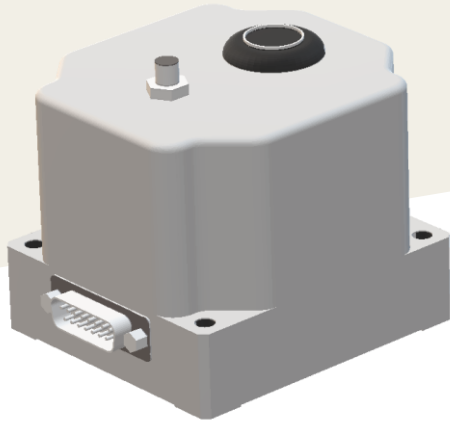


# GNSS Aided Inertial Navigation System **Wataridori (INS-00b)**



## ○ Description

- GNSS composite inertial navigation system that combines MEMS gyro/accelerometer and GNSS receiver
- Compared to RLG and FOG type INS, it is less than 1/10 smaller, lighter, low power consumption, and low price and has the same level of performance
- Receive almost all GNSS, GPS/Galileo/GLONASS/BeiDou/QZSS/SBAS
- Switchable automatically between free inertia and GNSS combined inertia based on GNSS signal receiving status and reliability (ex. based on DOP)
- Capable high adaptability and robustness following GNSS receiving condition (changes from moment)

## ○ Application

Attitude monitoring of air mobility such as eVTOL and drone

Inertial navigation system for aerospace and marine vehicles

Installed in devices that require highly accurate position information

Mobile device mapping

Etc.

# Technical Data

INS-00b	Characteristics
Navigation Performance	1.5nm/hr(GNSS No Aided), 1.0nm/hr(Aided)
GNSS Capability	Single Antenna Standard, PPP Capable
Tracking Satellites	GPS, Galileo, QZSS, GLONASS, BeiDou, SBAS
Size/Weight	9cm × 8cm × 7cm / 0.75kg ※Include mounting flange
Supply Voltage	+12VDC(Typ)
Power Consumption	2W(Max)
Operating Temperature Range	-45°C to 75°C ※No condensation
Cooling	Passive
Communication Interface	RS422/RS232/UART, others

**Next Generation Model(INS-11) Now on Progress!!**

Development will be completed around the 1Q of 2024

INS-11	Characteristics
Navigation Performance	0.3nm/hr(GNSS No Aided), 0.1nm/hr(Aided)
GNSS Capability	Single Antenna Standard, PPP Capable
Tracking Satellites	GPS, Galileo, QZSS, GLONASS, BeiDou, SBAS
Size/Weight	12cm × 12cm × 10cm / 2kg ※Include mounting flange
Supply Voltage	+12VDC(Typ)
Power Consumption	2W(Max)
Operating Temperature Range	-45°C to 75°C ※No condensation
Cooling	Passive
Communication Interface	RS422/RS232/UART, others

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