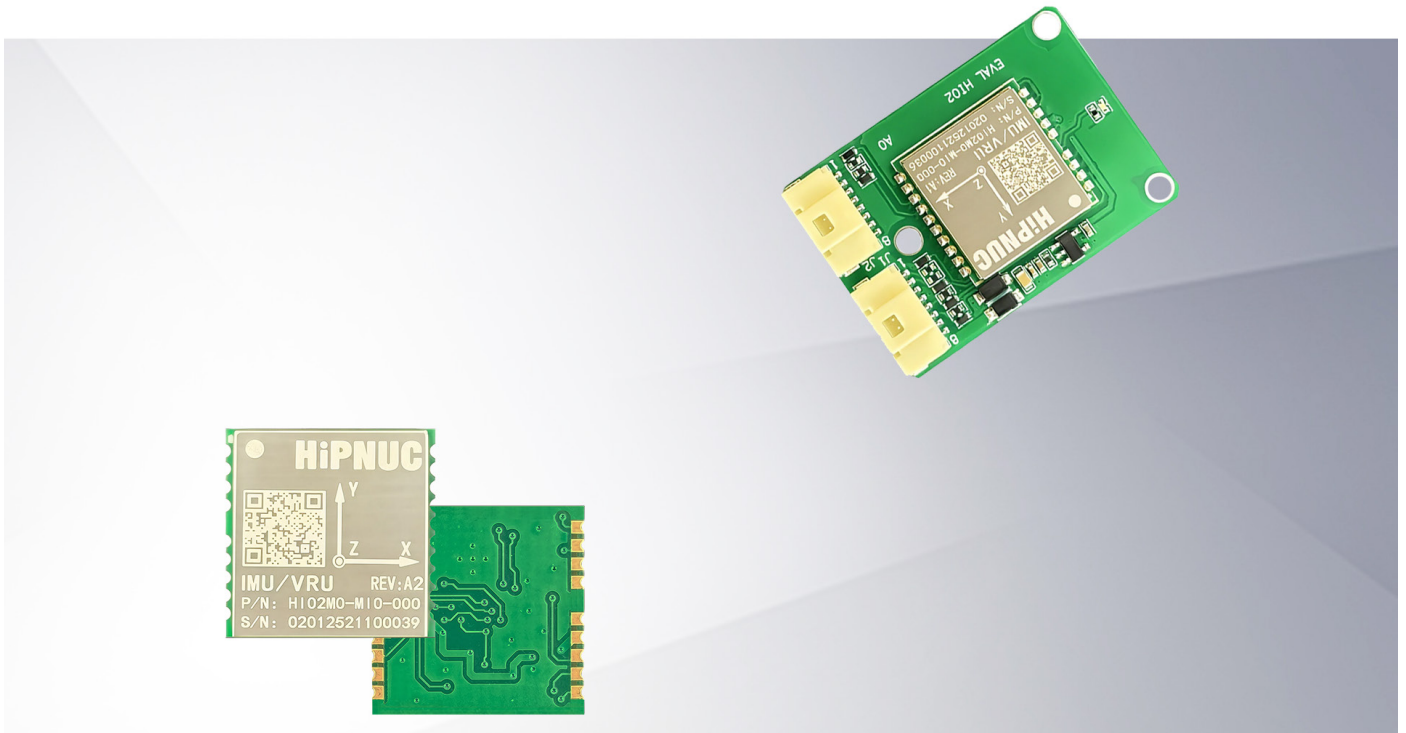


HI02 SERIES

Compact, low SWaP-C MEMS-IMU/VRU

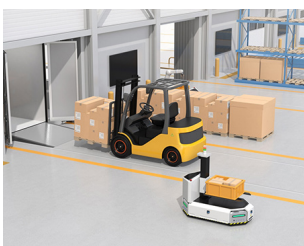


The HI02 Series Attitude Sensing System utilizes MEMS inertial sensors to detect object orientation. Featuring proprietary Extended Kalman Filtering and dynamic IMU noise analysis technology, it delivers precise attitude data.

FEATURES

- Compact size, high performance, low cost
- User-friendly UART serial interface
- Temperature compensation & turntable calibration
- Extended Kalman fusion for precision IMU/VRU

APPLICATIONS



AGV/AMR



Service Robots



Lawn Mowers



Inspection Robots

SPECIFICATIONS

Model

P/N	IMU	VRU	AHRS
H102M0-M10-000	√	√	×

Fusion Accuracy

Accelerometer	Calibrated
Gyroscope	Calibrated
Pitch/Roll	0.15°
Heading(VRU)	0.3°
Quaternion	Support

Note1: Specifications may vary post user SMT assembly. Refer to actual test data.

Gyroscope

Range	± 2000° /s
Bias Instability	3° /h
Bias Stability	10° /h
Noise Density	0.015 ° /s/ √ Hz
Bandwidth(3dB)	80Hz

Accelerometer

Range	± 12g
Bias Instability	0.03mg
Bias Stability	0.07mg
Noise Density	0.175 mg/ √ Hz
Bandwidth(3dB)	90Hz

Interface

Communication	UART
Protocols	Binary
Output Frequency	Up to 200Hz
SYNC	SYNC_IN、 SYNC_OUT

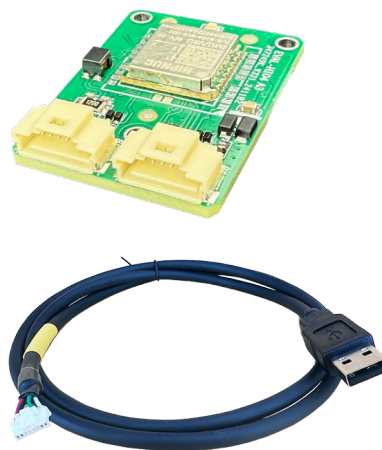
Physical & Environmental

Input Voltage	3.3-5V
Power Consumption	<160mW
Dimension	15X15X2.6mm
Weight	0.8g
Certification	Supports Rohs CE
Temperature	Supports -40-85°C

Software Suite

GUI	CHCenter
SDK	C、STM32、Matlab、Python、Ros
Support	User manuals Data sheet Online communication

QUICK START



Connect HI02 evaluation boards to PC via USB cable. Use the GUI for rapid product assessment

HiPNUC SERVICE

We provide complimentary technical support and lifetime firmware upgrades. All HI02 products include a 2-year warranty

1.Email

sales@hipnuc.com

2.Web

www.hipnuc.com

HI02

