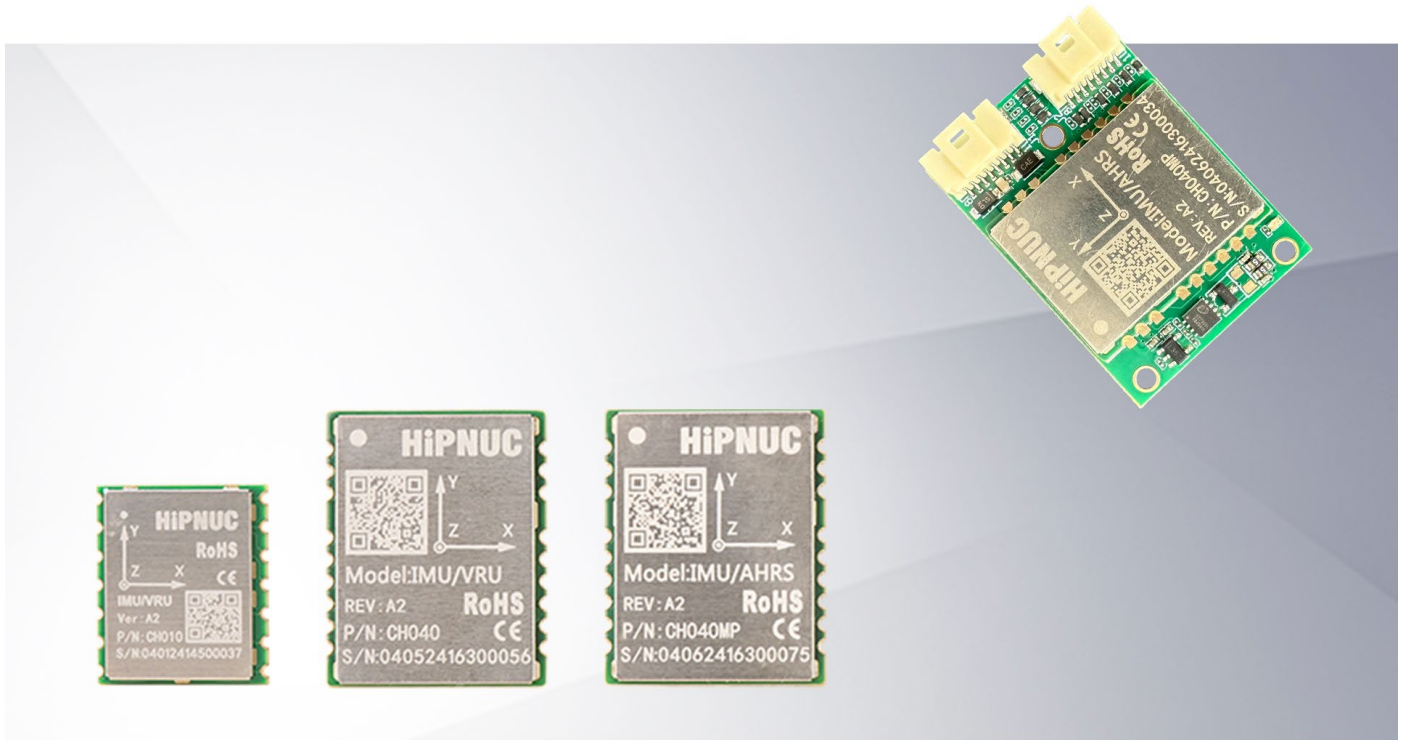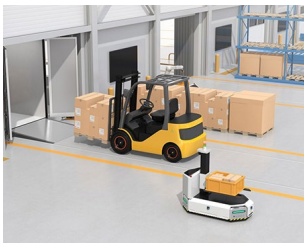# CH0X0 Series

Small Size、 High Performance MEMS- IMU/VRU/AHRS

Attitude Measuring System utilizes an array of MEMS IMU/VRU/AHRS modules with geomagnetic field and sensing the attitude information of objects,equipped with the independent R&D Extended Kalman Filter Fusion Algorithm and IMU noise dynamic analysis technology, which can meet High accuracy of attitude angles in high dynamic conditions.

Application

AGV/AMR

Agricultural Machinery

Lawn Mower

Inspection Robots
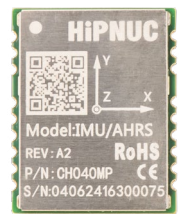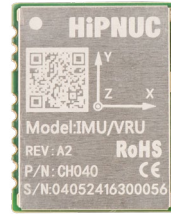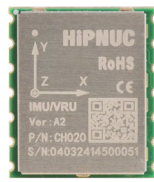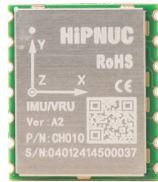

Exoskeleton Robot

Unmanned Delivery

Service Robot

Product Selection

MODEL

P/N	CH010	CH020	CH040	CH040MP
IMU	√	√	√	√
VRU	√	√	√	√
AHRS	×	×	×	√

PHYSICAL & ENVIRONMENTAL

Input Voltage	All Supports 3.3-5V			
Power Consumption	<160mW	<160mW	<250mW	<250mW
Dimension	17.78x15.24x3mm	17.78x15.24x3mm	25x20x2.6mm	25x20x2.6mm
Weight	1.6g	1.6g	2.5g	2.5g
Certification	All Supports Rohs CE			
Temperature	All Supports -40-85℃			

INTERFACE

Communication	UART	UART	UART	UART
Protocols	All Supports Binary、Modbus、 CANopen			

Note 1:CAN need CAN PHY Example TJA1044

GYROSCOPE

Range	All Supports 2000° /s			
Bias Instability	3° /h	2.2° /h	1.6° /h	1.6° /h
Bias Stability	10° /h	7° /h	5° /h	5° /h

ACCELEROMETER

Range	All Supports 24g			
Bias Instability	0.03mg	0.022mg	0.018mg	0.018mg
Bias Stability	0.07mg	0.05mg	0.035mg	0.035mg

MAGNETIC

Range	All Supports 2Gauss			

ACCURACY

Pitch/Roll	0.15°			
Heading(VRU)	0.3°	0.3°	0.15°	0.15°
Heading(AHRS)	-	2°	-	2°

Note 1:Refer to datasheet for more details

Evaluate Kit

The CH0X0 series evaluation board can be connected to the PC GUI via a USB cable. The GUI can help users quickly evaluate the product.

HiPNUC Service

Quality Warranty

HiPNUC provide users with free technical support and free firmware upgrade services throughout the product life cycle. The warranty period is 2 years, Longer Quality Warranty for HiPNUC Product

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CH0X0 >