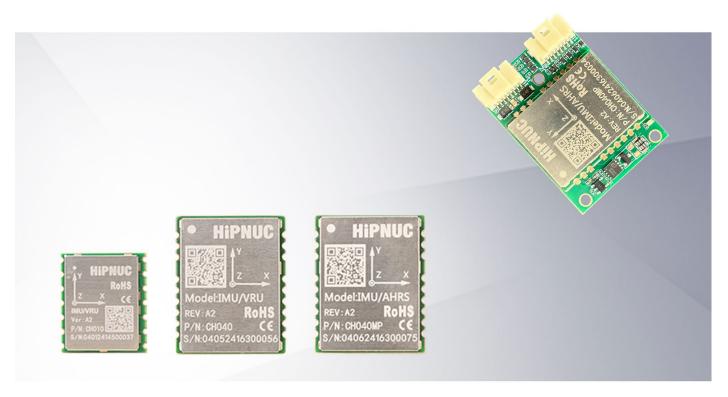
CH0X0 Series

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



Exoskeleton Robot



Lawn Mower



Unmanned Delivery



Inspection Robots



Service Robot

Product Selection

MODEL	Y HIPNUC RoHS Z X CC MUVRU Ver A2 P/N: CH010	Y HIPNUC RoHs Z X CC MUVRU Var.A2 PAI: CH020 S/Wr04032414500051	HiPNUC Z X Model:IMU/VRU Rev: A2 RoHS P/N: CH040 C€ S/N:04052416300056	• HiPNUC V z x Model:IMU/AHRS REV: A2 P/N: CH040MP C E S/N:04062416300075
P/N	CH010	CH020	CH040	CH040MP
IMU	\checkmark	\checkmark	\checkmark	\checkmark
VRU	\checkmark	\checkmark	\checkmark	\checkmark
AHRS	×	×	×	\checkmark

PHYSICAL & ENVIRONMENTAL

Input Voltage	All Supports 3.3-5	/		
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	5℃		
INTERFACE				
Communication	UART	UART	UART	UART
Protocols	All Supports Binary	y、Modbus、 CANoper	n	
Note 1:CAN need CAN PHY Exa GYROSCOPE	mple TJA1044			
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 2Gaus	55		
ACCURACY Pitch/Roll	0.15°			

Heading(AHRS)	-	2°	-	2°
Heading(VRU)	0.3°	0.3°	0.15°	0.15°
PIICH/ROIL	0.15			

Note 1:Refer to datasheet for more details

Evaluate Kit

	er 1.6. ₩®⊙	1 语言(L) 带助)	11) 内部平	台						-		×	
		N X	s	E					30- 20- 10 20- 30-	20 			
IMU原始数							241.70	Unknown		设备时间戳(ms)	Hokoowo		1 CT
加速度X(G)			角速度X(deg										
加速度X(G) 加速度Y(G) 加速度Z(G)	Unknown		角速度X(deg 角速度Y(deg 角速度Z(deg	(/3)	Unknown	12	旸Y(uT)	Unknown Unknown		₩E(pa)	Unknown		
加速度Y(G) 加速度Z(G)	Unknown Unknown		角速度Y(deg	(/3)	Unknown	12	旸Y(uT)	Unknown		₩E(pa)	Unknown		
加速度Y(G)	Unknown Unknown 前闻司步数引	4	角速度V(deg 角速度Z(deg	(/s) (/s)	Unknown	12	旸Y(uT)	Unknown		₩E(pa)	Unknown		
加速度Y(G) 加速度Z(G) 姿态数据及B	Unknown Unknown 前町同步数値 eg) Unk	f nown	角速度Y(deg 角速度Z(deg	(/s) (/s)	Unknown Unknown	12	旸Y(uT)	Unknown		₩E(pa)	Unknown		
加速度Y(G) 加速度Z(G) 姿态数据及E 橫滾角Roll(d	Unknown Unknown 时间同步取闭 eg) Unk deg) Unk	i nown nown	角速度Y(deg 角速度Z(deg 四元数 四元数	(/s) (/s) W U X U	Unknown Unknown Jnknown	12	旸Y(uT)	Unknown		₩E(pa)	Unknown		

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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