

HI32 SERIES

High-Performance RTK-GNSS/INS

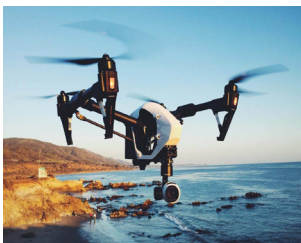


HI32 integrates a high-performance IMU with a dual-antenna, full-band/full-frequency RTK GNSS receiver. IMU+GNSS fusion provides accurate, real-time position, velocity, attitude, and timing—even during GNSS outages.

FEATURES

- Compact, high-performance, and cost-effective
- Dual-antenna heading with 0.1° accuracy on a 1 m baseline
- High-performance MEMS IMU: 1.6° /h gyro bias instability, $18 \mu\text{g}$ accel bias instability (Allan)
- Full-constellation, full-frequency RTK GNSS system

APPLICATIONS



UAV



UGV



USV

SPECIFICATIONS

Model

HI32R6-XXX-000	Single RTK-GNSS/INS Module
HI32R7-XXX-000	Dual RTK-GNSS/INS Module

Note1:XXXmeans RS-232/RS-422/CAN interfaces are available as options. Refer to the HI32 datasheet for more information.

Gyroscope

Range	$\pm 2000^{\circ} / s$
Bias Instability	$1.6^{\circ} / h$
Bias Stability	$5^{\circ} / h$
Noise Density	$0.008^{\circ} / s / \sqrt{Hz}$

GNSS

Channels	1408 channels	
Constellations	BDS/GPS/GLONASS/Galileo/QZSS	
Frequency Bands	BDS B1I/B2I/B3I GPS L1 C/A/L2P(Y)/L2C/L5 Galileo E1/E5a/E5b GLONASS L1/L2 QZSS L1/L2/L5	
Cold Start	<30s	
Hot Start	<5s	
Positioning Accuracy (RMS)	Single	Horizontal:1.5m Vertical:2.5m
	DGPS	Horizontal:0.4m+1ppm Vertical:0.8m+1ppm
	RTK	Horizontal:0.8cm+1ppm Vertical:0.8cm+1ppm
Heading Accuracy (RMS)	0.1° /1m baseline	
Timing Accuracy (RMS)	20ns	
Velocity Accuracy (RMS)	0.03m/s	
Maximum Velocity	500m/s	
Maximum Altitude	50000m	

Accelerometer

Range	$\pm 12g$
Bias Instability	0.018mg
Bias Stability	0.035mg
Noise Density	$0.09 mg / \sqrt{Hz}$

Interface

Communication	RS232/RS422/CAN
Protocols	Binary/J1939
Output Frequency	Up to 200Hz

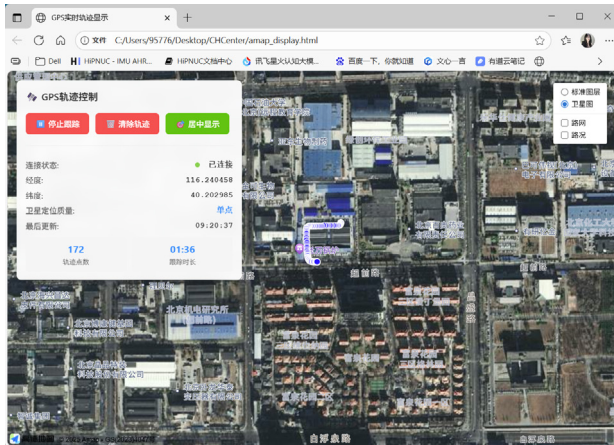
Software Suite

GUI	CHCenter
Support	User manuals Data sheet Online communication

Physical & Environmental

Input Voltage	9V-36V
Power Consumption	<1.6W
Dimension	75X70.5X25.2mm
Weight	180g
Certification	Supports Rohs CE
Temperature	Supports -40-85°C

QUICK START



The HI32 series supports connection to a PC GUI through a data cable; the GUI assists with fast product assessment and configuration.

HIPNUC SERVICE

Warranty

We provide free technical support and lifetime firmware upgrades. The HI14 Series comes with a 2-year warranty for worry-free operation.

Contact Us

- 1.Email:overseas1@hipnuc.com
- 2.Web:www.hipnuc.com
- 3.Website qrcode

