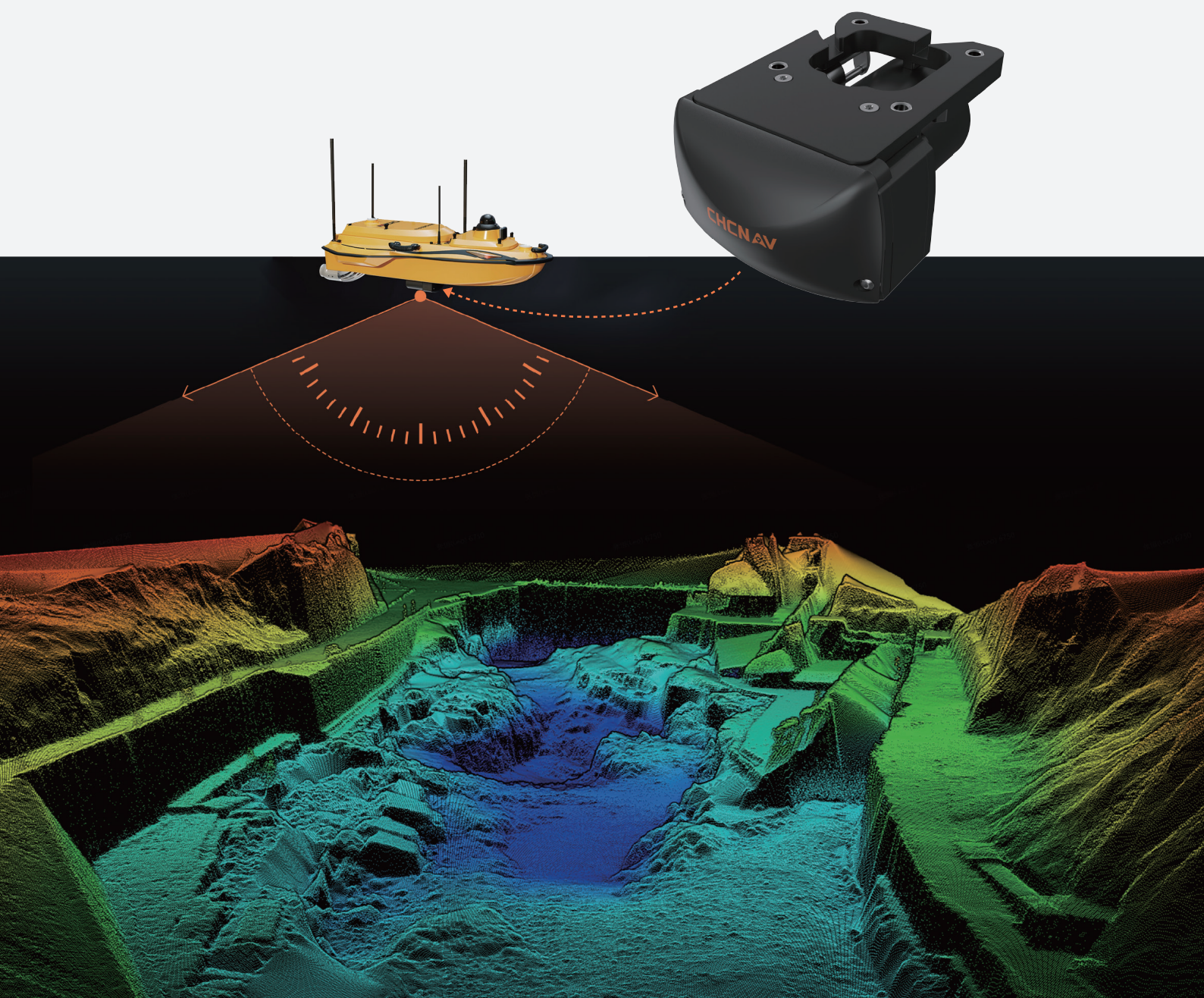


# HN-400M

MULTIBEAM ECHOSOUNDER



## ► Highlights

The CHCNAV HN-400M multibeam echosounder gives hydrographic professionals a smarter, more reliable way to survey challenging waters. Built for conditions where turbidity, depth variation, and vessel motion can affect data quality, it combines intelligent dual-frequency operation, high-precision INS-based stabilization, and a lightweight integrated design. From offshore mapping and underwater inspection to channel dredging and inland waterway surveys, the HN-400M delivers high-quality bathymetric data with faster mobilization and dependable performance.



## ► Broad Coverage and High-Precision Bathymetry



**400 kHz / 550 kHz**

400 kHz and 550 kHz dual-frequency operation



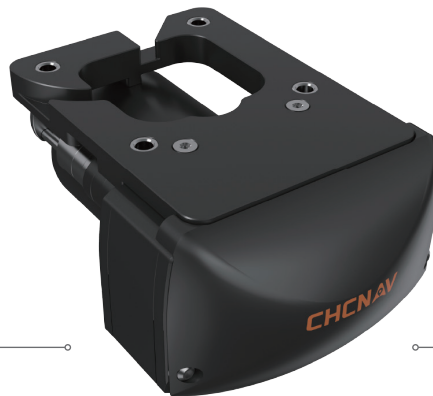
**145°**

145° wide swath coverage



**0.03°**

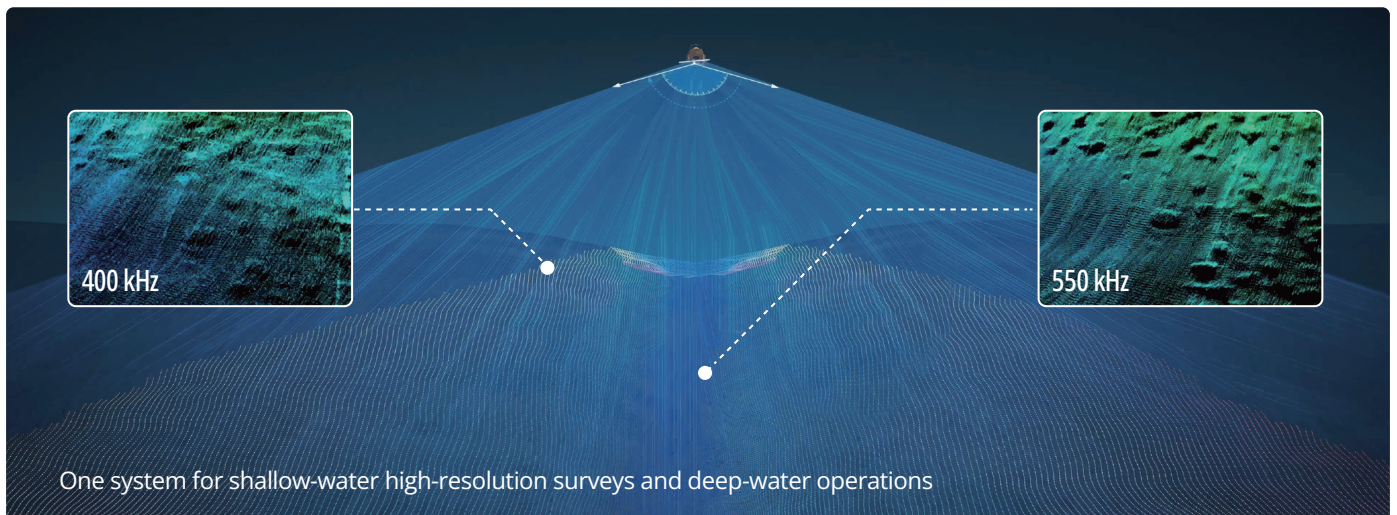
0.03° roll and pitch accuracy



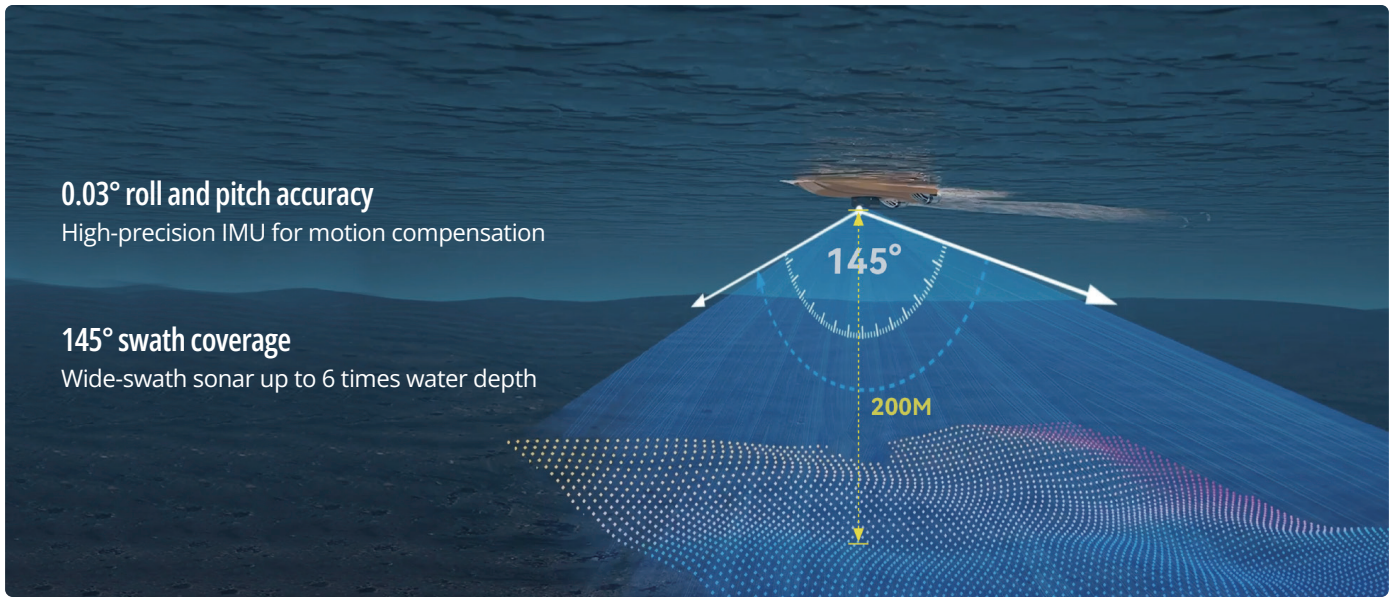
**3.5 kg**

Weight of only 3.5 kg

## ► Dual-Frequency Adaptability



## ► High Precision and Efficiency



## ► Lightweight and Easy Deployment



3.5 kg total weight

Easy deployment on USVs and manned vessels  
Calibration-free installation

EasySail Android App

Full field control in one touch



## ► Application



Channel dredging



Offshore surveying



Reservoir capacity measurement



River and lake surveying

# SPECIFICATIONS

## ► Sonar

Swath Coverage	145° <sup>(1)</sup>
Number of RX Beams	512
TX Beam Width Along-Track	1.45° <sup>(2)</sup>
RX Beam Width Across-Track	1°±0.1° <sup>(3)</sup>
Range	0.2 - 200 m <sup>(4)</sup>
Frequency	400 kHz/550 kHz
Ranging Resolution	< 10 mm
Beam Distribution	EA & ED
Ping Rate	50 Hz
Depth Rating	60 m
Real-Time Roll Stabilization	±10°

## ► Sound Velocity Surface

Sound Velocity Range	1375 m/s - 1625 m/s
Sound Velocity Accuracy	±0.025 m/s
Sound Velocity Resolution	0.001 m/s

## ► Physical

Weight (with bracket)	In air: 3.5 kg In water: 1.2 kg
Dimensions	161.5 mm × 111.5 mm × 179 mm
Power Consumption	50 W

## ► Performance

Calibration-Free Installation	Yes
Software Compatibility	Supports EasySail control & acquisition, CMS and CoSail post-processing Compatible with mainstream softwares (Beamworx, Hypack, QPS, EVIA, Caris, etc.)

\* Specifications are subject to change without notice.

### Notes:

- (1) Roll stab is limited to 130° swath.
- (2) This is the beamwidth at 550 kHz; the beamwidth at 400 kHz is 2°.
- (3) This is the beamwidth at 550 kHz; the beamwidth at 400 kHz is 1.3°.
- (4) Dependent on water temperature and salinity.

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## ► Positioning System

Position Accuracy	HOR: ±(8 mm + 1 ppm) VER: ±(15 mm + 1 ppm)
Heading Accuracy	0.08° (RTK) with 2 m Antenna Separation
Pitch/Roll Accuracy	0.03°, Independent of Antenna Separation
Heave Accuracy	2 cm or 2% (TRUEHEAVE™) 5 cm or 5% (Real Time)

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