

CHCNAV

RS3600D

DUAL-FREQUENCY ACOUSTIC
DOPPLER CURRENT
PROFILER



MARINE
SURVEYING

HIGH-PRECISION MULTI-PURPOSE ADCP

The RiverStar 3600D ADCP delivers high accuracy in both shallow and deep water environments. With a 9-beam configuration and a 600 kHz central depth measurement, it performs reliably across a wide range of water conditions, from slow to fast currents and varying depths. When integrated with the CHCNAV APACHE 4 USV, it streamlines operations by requiring only one vessel and one remote controller, enhancing efficiency in hydrological surveying.

COMPACT AND PORTABLE WITH WIDE ADAPTABILITY

The RS3600D ADCP measures just 12 cm in diameter and weighs only 2 kg. In addition to its compatibility with the CHCNAV APACHE 4 USV, it can be mounted on trimarans, cableway towing systems, motorized survey vessels, and channel buoys. Its flexibility enables effective deployment across a wide range of hydrological survey applications.

DUAL FREQUENCY FOR MULTIPLE APPLICATIONS

The RS3600D ADCP features a 9-beam design with dual current measurement frequencies of 1200 kHz and 3600 kHz, along with a standard 600 kHz central depth measurement frequency. This configuration supports both deep and shallow water surveys, as well as high and low flow rate conditions, delivering versatile, high-performance operation in a single instrument.

INTELLIGENT FREQUENCY CONVERSION

The RS3600D ADCP automatically adjusts its measurement frequency based on water conditions, removing the need for manual assessment and adjustment. Its fully automatic measurement mode maximizes efficiency, reduces time spent on parameter settings, and allows operators to focus on on-site survey tasks.

HIGH-PRECISION MEASUREMENT IN LOW- VELOCITY ENVIRONMENTS

Conventional ADCPs often face challenges in delivering accurate data when water flow is nearly still and velocities are below 5 mm/s due to signal noise. The RS3600D offers a minimum velocity measurement resolution of 1 mm/s, enabling accurate data collection in low-velocity environments and ensuring reliable results for precise hydrological surveys.

USER-FRIENDLY SOFTWARE ECOSYSTEM

HydroProfiler for PC supports customizable page layouts and data output, and is compatible with external echo sounders. It enables seamless data transfer via network serial port, TCP, or UDP protocols, ensuring efficient and flexible data management for comprehensive hydrological analysis.

EasySail for the CHCNAV APACHE 4 USV allows switching between velocity profile pseudo-color maps, satellite maps, video, and other data types. It supports the export of flow summary tables, flow test records, and results tables, and offers one-click file transfer and code sharing to a computer.



HYDROLOGICAL TESTING



ECOLOGICAL FLOW



OCEAN FLOW FIELD



CHANNEL MONITORING

SPECIFICATIONS

RS3600D	
Frequency	1200 kHz & 3600 kHz
Transducer	9 beams
Water velocity profiling	
Water velocity profiling	±20 m/s maximum; ±5 m/s default
Resolution standard	1 mm/s
Number of cells	260
Cell size	0.02~4 m
Profiling range	0.05~40 m
Accuracy	± 0.25% ±2 mm/s
Bottom tracking	
Depth range	0.10~45 m
Accuracy	± 0.25% ±2 mm/s
Velocity range	±20 m/s maximum; ± 5m/s default
Vertical beam (Depth measurement)	
Frequency	600 kHz
Range	0.2~100 m
Resolution	1 mm
Accuracy	± 0.01 m + 0.1% × D (D = water depth)
Standard sensors	
Compass: Range/Accuracy/Resolution	0~360°/±0.1°/0.01°
Tilt (pitch and roll): Range/Accuracy/Resolution	±90°/±0.15°/0.01°
Temperature: Range/Accuracy/Resolution	-10°C~85°C/±0.1°C/0.01°C
Press (optional): Range/Accuracy/Resolution	0~200 m/0.5% FS/0.01 m
General features	
Operating mode	Broadband / pulse-coherent; automatic / manual
Data output rate	1-20 Hz
Voltage range	11 ~ 36 V DC, 12 V typical
Size (Height × Diameter)	191 mm×126 mm
Weight	2 kg
Depth rating	200 m
Communication interface	RS232, RS422 (optional)
Baud rate	4800 ~ 115200 (115200 default)
Internal storage	32 G (extensible)
Storage temperature	-30°C~70°C
Operating temperature	-5°C~45°C
Software	HydroProfiler, EasySail (Android)

*Specifications are subject to change without notice.



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