CHCNAV

Geospatial

RS3600D

RIVER STAR DUAL-FREQUENCY ACOUSTIC DOPPLER CURRENT PROFILER

Highlights

The RiverStar RS3600D ADCP provides high-accuracy flow measurement in both shallow and deep-water environments. The 3600 kHz ultra-high frequency channel delivers precise results in shallow water, resolving velocities as low as 1 cm/s and reducing the near-surface blind zone to only 5 cm. For greater depths, the 1200 kHz band ensures stable and consistent performance. Through intelligent coordination of both frequencies, combined with a dedicated 600 kHz vertical beam, the RS3600D achieves comprehensive and reliable hydrological data collection with a single deployment.

Your Solution for Advanced Hydrometry

4 beams @1200 kHz, 4 beams @3600 kHz, and 1 vertical beam @600 kHz

Blind Zone: 5cm

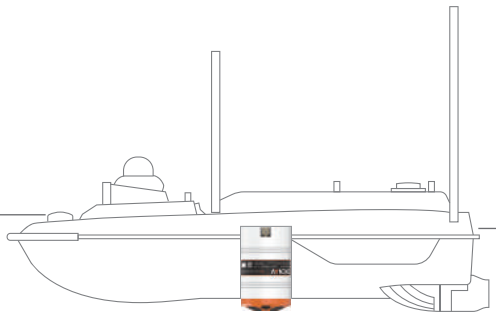
High Resolution: 1 mm/s.

Android software

High-Precision Measurement

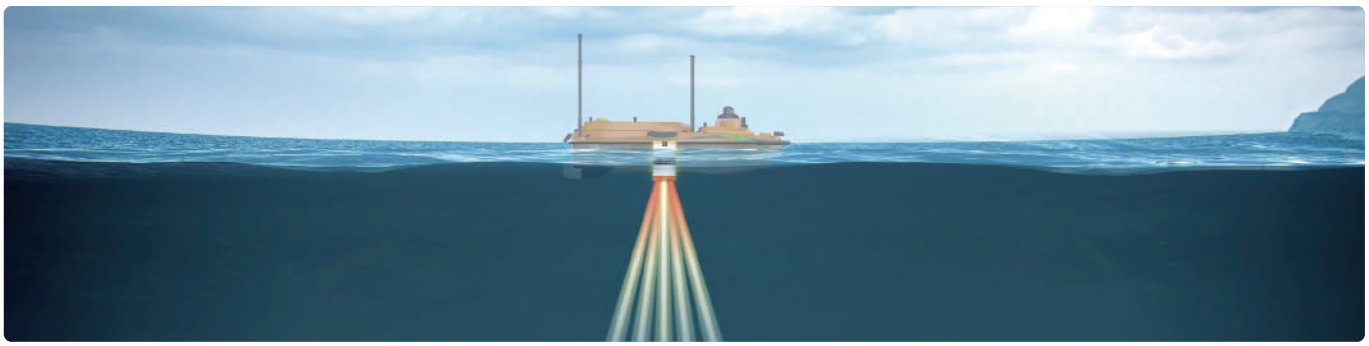
Ultra-high carrier frequencies up to **3600kHz**

Minimum layer size of **2cm**



Minimum measurable flow velocity **1cm/s**

Top blind zone of only **5cm**



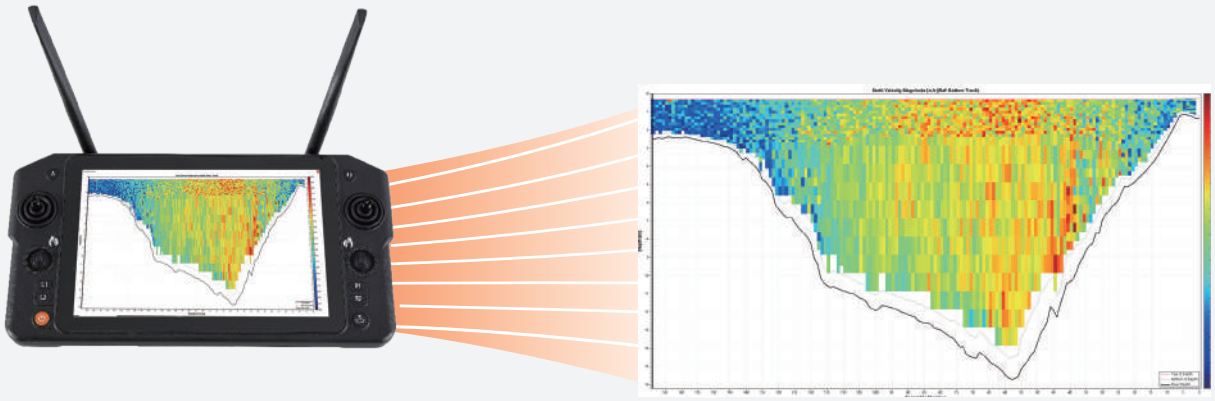
Conventional ADCPs often struggle to provide accurate data in near-still water where flow velocities fall below 5 mm/s due to signal noise limitations. The RS3600D offers a minimum velocity measurement resolution of 1 mm/s, enabling precise data acquisition in low-velocity environments and supporting reliable hydrological surveys.

Reliable Quality and Worry-Free Service

Built on years of engineering and real-world validation, the RS3600D guarantees dependable performance.

Global service network ensures responsive and worry-free support.

User-Friendly Software



EasySail for CHCNAV APACHE 4 USV supports one-click file transfer and code sharing to a computer.

HydroProfiler for PC provides efficient and flexible data management for comprehensive hydrological analysis.

Wide Adaptability

- The RS3600D ADCP measures only 12 cm in diameter and weighs 2 kg. Compatible with the CHCNAV APACHE 4 series USV, it can also be mounted on trimarans, cableway towing systems, motorized survey vessels, and channel buoys.
- Its versatility supports effective deployment across a wide range of hydrological survey applications.

Use Cases

Hydrological Measurement

Ecological Flow

Channel Monitoring

SPECIFICATIONS

RS3600D

Frequency (Flow)	1200 kHz & 3600 kHz
Frequency (Depth)	600 kHz
Transducer	9 beams:4 beams @1200 kHz, 4 beams @3600 kHz, and 1 vertical beam @600 kHz

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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