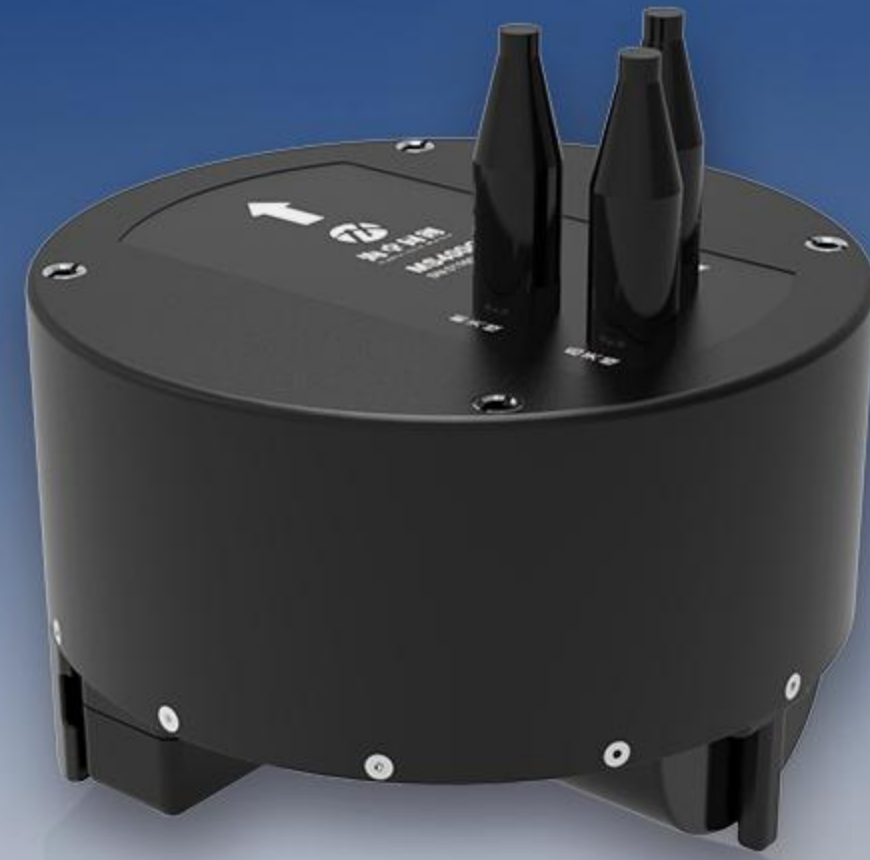


MS400C (FullyAll-In-one)

Multibeam Echo Sounder



Fully All-in-one

Combine transducer, SVS, IMU, GNSS and deck unit into a single compact housing. Require only three cable connections: power/data transmission and dual GNSS antennas. Greatly change the traditional installation method of multibeam bathymetric USV.



Easy Operation

Fewer parts and connecting cables enable simpler and quicker operation
Eliminate deck unit installation and save space for other USV equipment
Solve the problem of heat dissipation inside the USV cabin, even in extreme hot summer.



Plug and Play Convenience

All position relationships of IMU & transducer center and USV GNSS antenna are fixed and set up in the software already. Start to collect data in just 5 minutes with simple installation and auto-survey settings
Reduce complexity and boost survey efficiency.



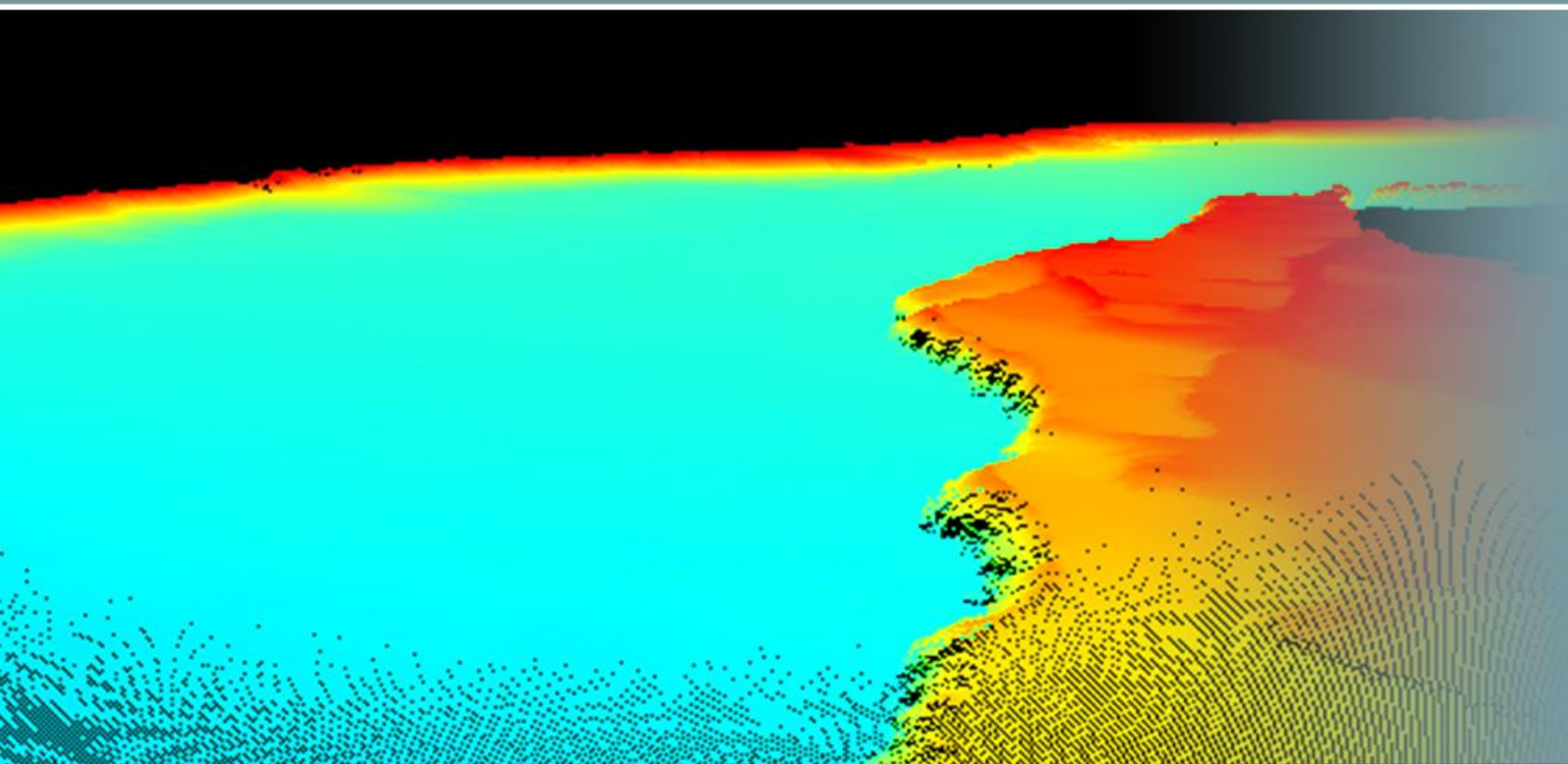
Hydro-Tech

Beijing Hydro-Tech Marine Technology Co.,Ltd.

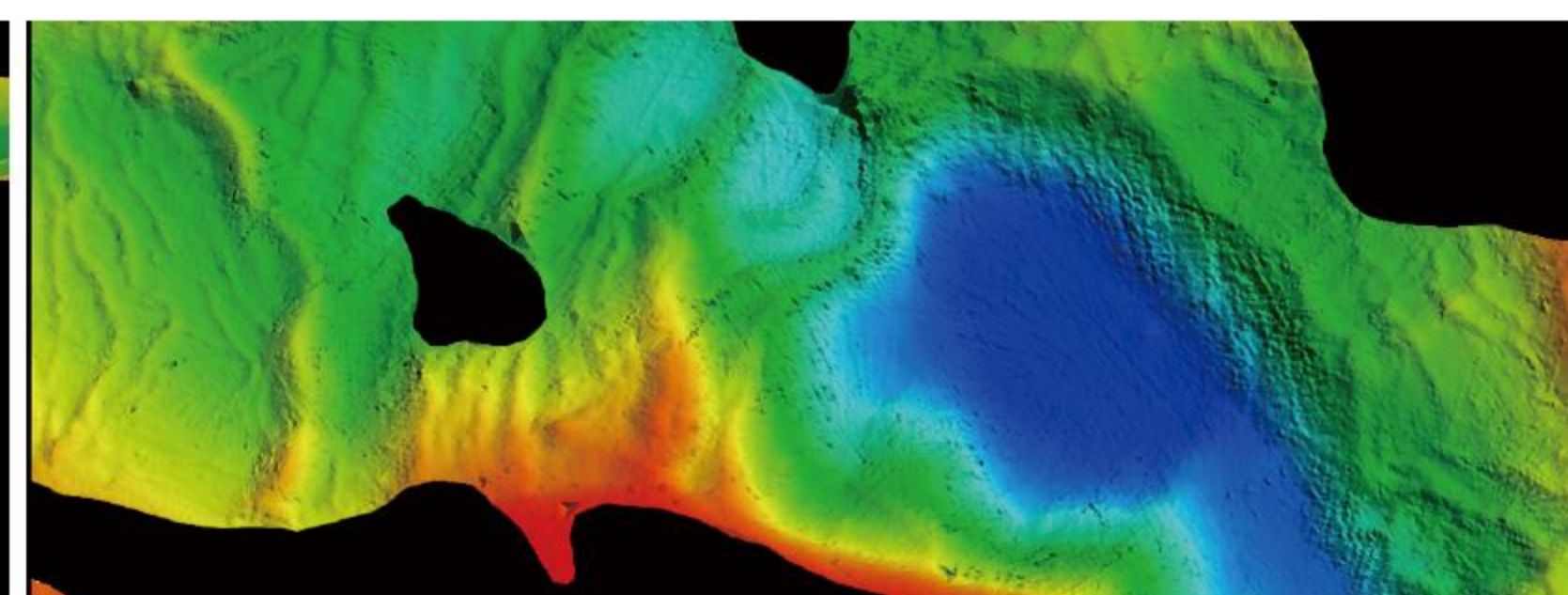
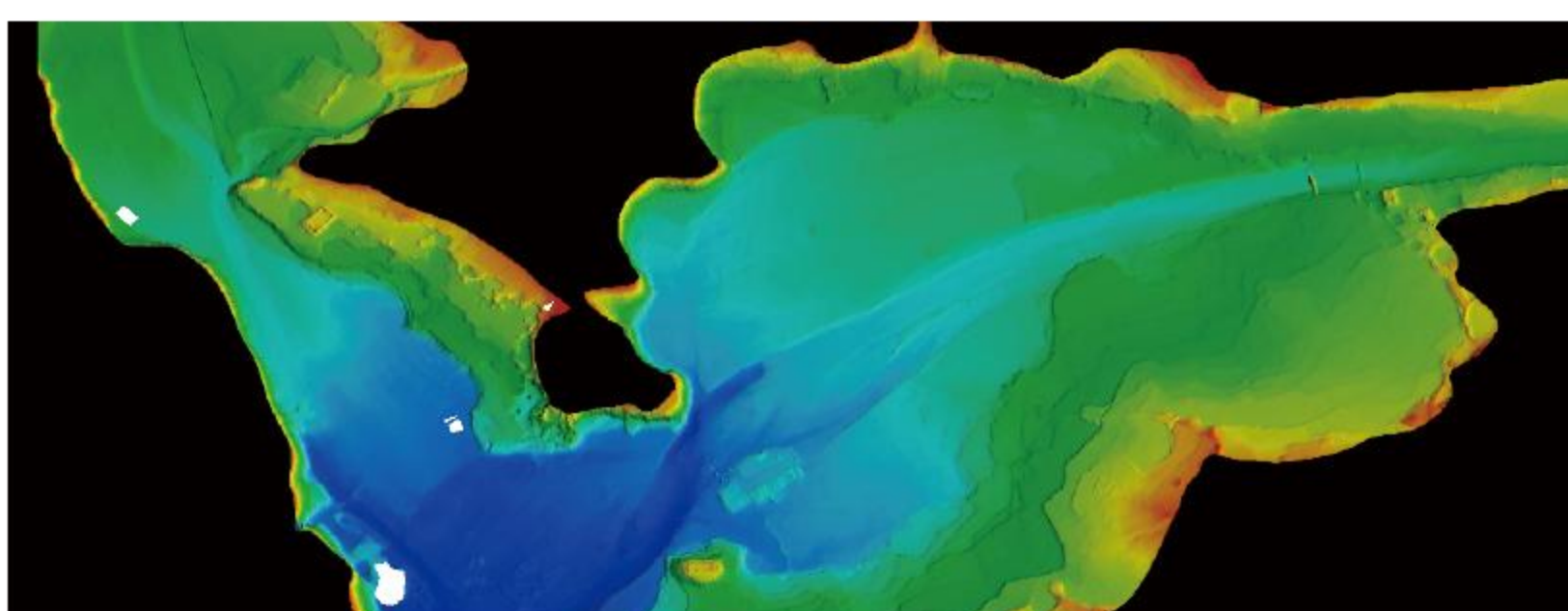
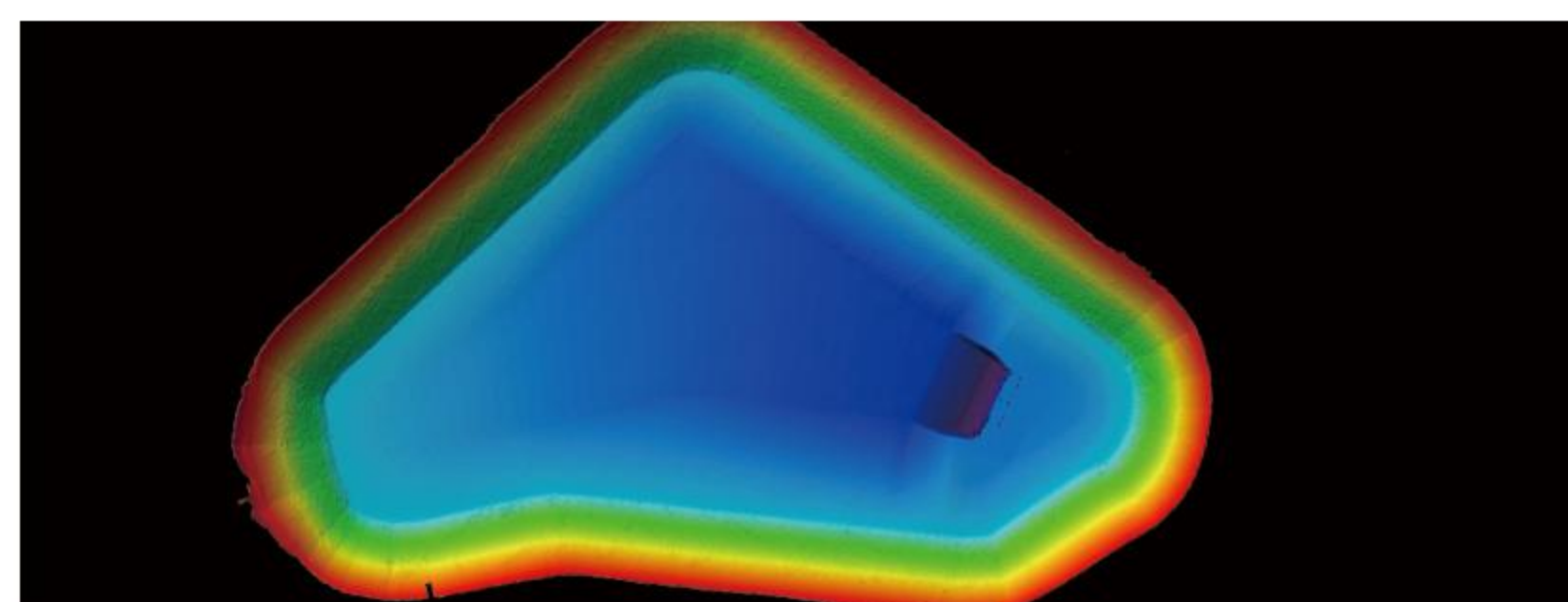


◀ Learn More

MS400C Multibeam Echo Sounder



MS400C revolutionizes multibeam technology as an all-in-one echosounder integrating SVS, IMU, GNSS and deck unit entirely within its compact sonar head. This innovation exemplifies Hydro-Tech's leadership in miniaturized intelligent sonar systems. Weighing just 5.55kg, the bathymetric system enables effortless deployment on small USVs while maintaining reliable performance.

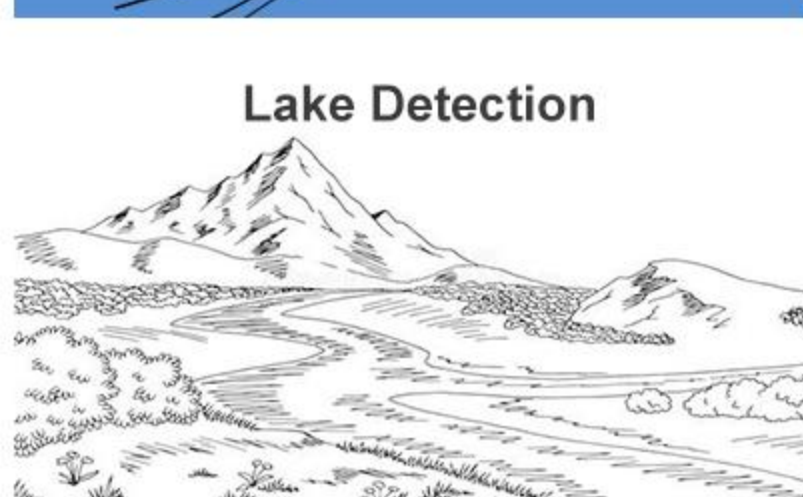
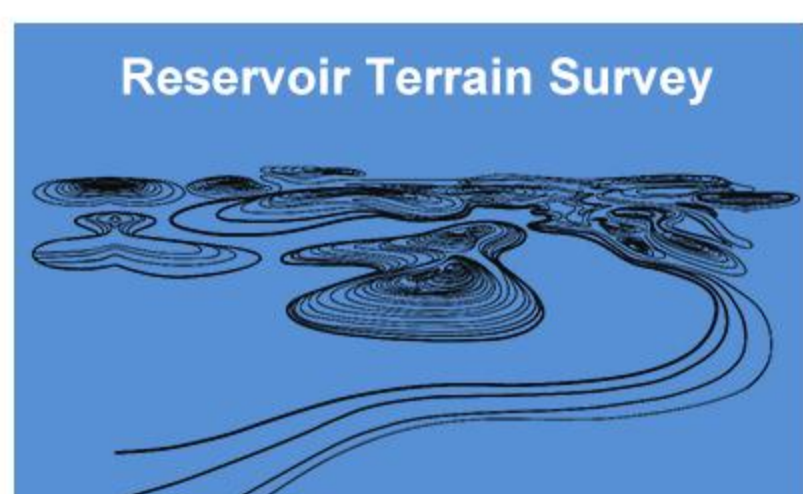
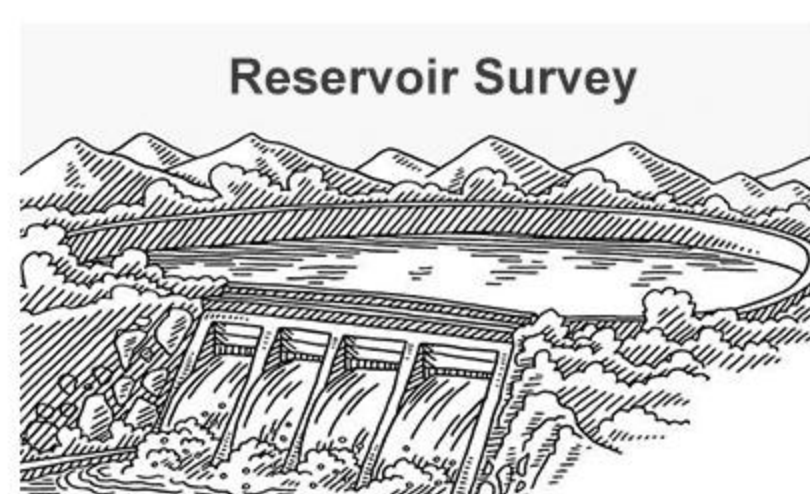


Recommendations

- Integrated with small USV for surveys of rivers, reservoirs, and lakes.
- Renovation and upgrade of existing hydrographic ADCP traveling vessels to rapidly add multi-beam bathymetry functions
- Rapid integration of various small USV for underwater 3D terrain survey



Applications



Technical Specifications

Working Frequency	400kHz
Number of Beams	512
ACross Track Beam Width	1.4°
Along Track Beam Width	2°
Swath Coverage	143°
Sounding Depth	0.2-200m+*
Depth Resolution	0.75cm
Max Ping Rate	60Hz
Sounding Mode	Equiangular / Equidistant
Signal Type	CW/Chirp
Pulse Width	30μs – 8ms
Max Working Depth	5m



Features

Near Field Focusing	Yes
Bottom Tracking	Yes
Water Column	Yes
Real-time Roll Stabilization	Yes
Real-time output of flight attitude data	Provide positioning, orientation time and attitude data for USV navigation



Physical Specifications

Transducer Size	φ220mm*H139mm
Transducer Weight:	5.55kg
Working/Storage Temperature	-2°C~40°C/-20°C~55°C
Power Supply	DC12-48V
Power Consumption	60W-80W



Software

Display & Control Software	HydroQuest
Navigation & Data Collection Software	HydroNavi
Compatible with	Hypack, Qinsy, BeamworX EIVA



Auxiliary Sensors

Sound Velocity Sensor	SVS1500M(Built-in)
Sound Velocity Profiler	SVP1500(Optional)
IMU Sensor	5651(Built-in)
GNSS Module	NovAtel GNSS(Built-in)



Positioning & Attitude Specifications

Installation-free calibration	Yes
Heave: 5cm or 5% Range	5cm or 5% Range
Heading	0.1° (2m baseline)
Attitude	0.1°
Positioning	2cm+2ppm(RTK)/1.5m(Single Point)

**All specifications are subject to change without notice.

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