SPECIFICATION

iBoat BS12		
Physical	Hull Dimension	1185 mm × 593 mm × 397 mm
	Working Weight	33 kg (including battery and sensors)
	Hull Material	Carbon fiber
	Wave & wind Resistance	4th wind level & 3rd wave level
	IP Rating	IP67
Power	Propeller Type	2*1000W brushless DC
	Max Velocity	5m/s
	Battery Endurance	4h per battery @ 1.5 m/s (2 batteries included)
	Direction Control	Veering without steering engine
	Battery Safety	Power display, high-temperature/over-current/short-circuit protection
Communication & Control	Control Type	2km on 2.4GHz (RF); unlimited on 4G
	GNSS Differential Types	Radio (UHF); network; controller differential; PPP
	Navigation Mode	Manual, auto-pilot, auto-return
	Camera	360° omnidirectional video
	Anticollision Sensor	Detection distance 10-30 meters
	Operating System	Supporting Windows and Android system
Features	Built-in IMU in Boat Control	Position accuracy: ＜1 m/30 s | Directional accuracy: ≤2.1°/h
	Safety Precautions	Auto-return when contact is lost or low battery; Auto reverse in shallow water; Auto obstacle avoidance
Integrated Sonar System 8140S Multibeam		
Physical	Type	All-in-one integration of transducer, deck unit, IMU, and GNSS
	Working Frequency	400KHz
	Sounding Range	0.2-300m
	Swath Coverage	30°-150°
	Beam Angle	1.4°×1.7°
	Vertical Resolution	1cm
	Number of Beams	512
	Ping Rate	60Hz
	Horizontal Stabilization	10°
	Weight (in air)	1.7kg
	Dimension	169*166*50mm
	Operating/Storage Temperature	-4℃~40℃/-20℃~60℃
Performance	Satellite System	GPS, BDS, GLONASS, Galileo, QZSS, SBAS, L-Band
	Positioning Accuracy	H: ±8mm+1ppm, V: ±20mm+1ppm
	Heading Accuracy	0.08° (2m baseline)
	Roll & Pitch Accuracy	0.03°
	Sounding Accuracy	2cm + 0.1% of Depth
Software	Acquisition Software: Hi-Survey Boat Software; Processing Software: Hi-MAX MultiBeam Software	
Features	Built-in IMU for free calibration	
	Sound velocity inversion for free SVP	
	Multi-beam bathymetry	
	Side scan image	

*Specifications are subject to change without notice. We reserve the right of final interpretation.

*All listed parameters are either theoretical values or measured under controlled conditions.

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AUTHORIZED DISTRIBUTION PARTNER

25M121

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Hi-Target

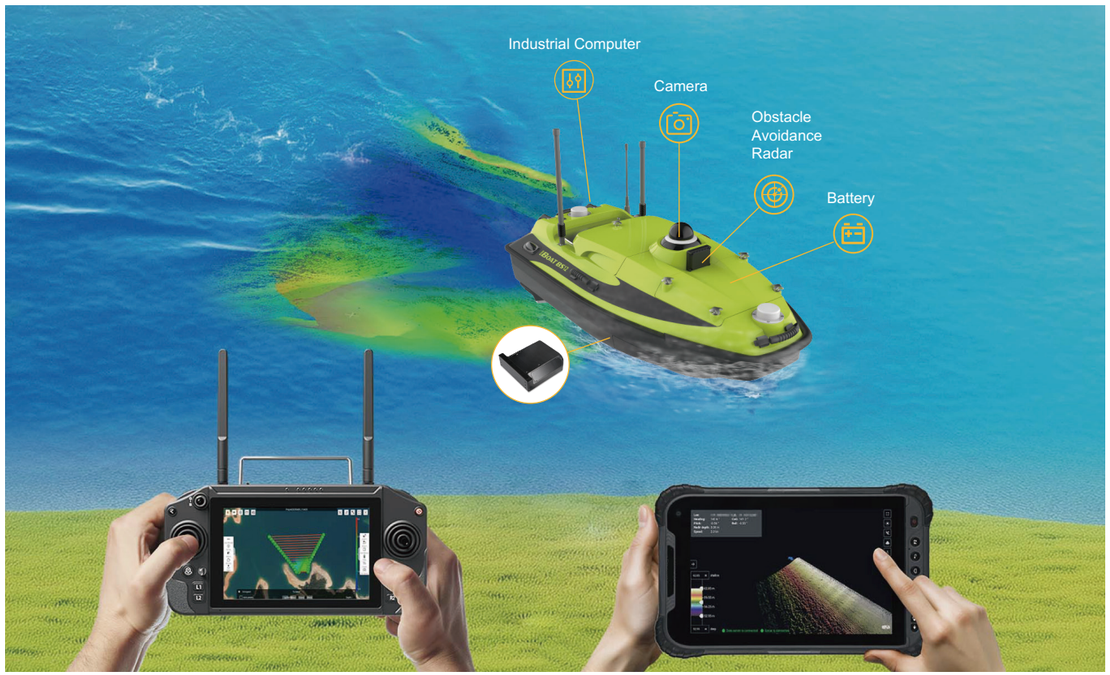
iBoat BS12 Integrated iBeam 8140S Multibeam

Simpler USV Multibeam Solution

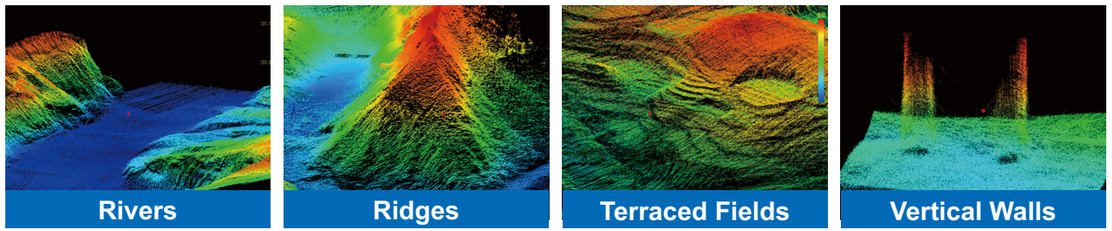


iBoat Controller

G20 Remote Control Parameters			
Display	7 inch industrial touch screen + vision viewable screen	Resolution	1920*1200
Processor	Qualcomm 6nm processor	Computer Type	Android 13
Size	277(L)*138(W)*96(H)mm	Weight	1.2kg
Battery	20000mA/H	Endurance	6~8hours
Operating Memory	8G	System Storage Memory	128G
Operating Frequency Band	2.4G/5.8G	Channels Number	16
Dynamic FM	Automatic frequency hopping	RF Power	23dBm@CE/FCC
Remote Control Distance	2KM		
Charging Interface	TYPE-C	External Interface	USB port, SIM card slot, TYPE-C



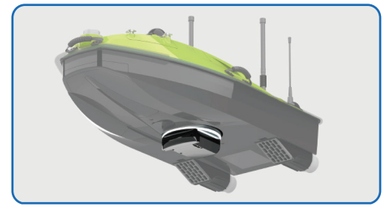
Applications



Advantages

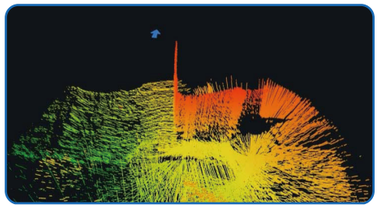
1 Ultra-Integrated Workflow

Built on advanced unmanned platform control, the system efficiently integrates the full workflow from data acquisition to deliverables.



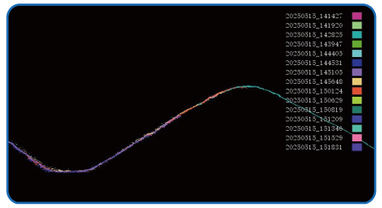
2 Live 3D Point Cloud & Side Scan Imaging

Real-time XYZ point cloud and side scan images on multiple terminals —view and monitor while surveying.



3 SVP-Free Sound Velocity Correction

Powered by SPIN(Sound Speed Profile Inversion), the system ensures precise sound velocity correction without extra SVP devices.



Benefits

5min Quick Start

Ready to survey in under five minutes —no installation, no calibration. Simple Android-based control with real-time data preview streamlines field setup.

7.5× Efficiency Boost

Covers up to 7.5× more area than single-beam systems. 512 beams and a wide swath angle improve acquisition, transition, and processing efficiency.

Up to 50% Cost Savings

Reduces costs with its all-in-one design —no separate SVP, boat rentals, or extra manpower. Less hardware, lower training needs, faster project delivery.

Reliable Everywhere

Delivers accurate, high-density bathymetric and object data, even in shallow, cluttered waters. Meets and exceeds IHO, CHS, and USACE standards.