

## SYSTEM EXTENSION

Multiple applications, available for single beam echo sounder, ADCP and side scan sonar.



## APPLICATIONS



Underwater topographic survey



Hydrographic survey



Underwater geomorphic survey

## TECHNICAL SPECIFICATIONS

<b>Hull Parameters</b>	Dimensions	1100mm*520mm*300mm
	Weight of base boat	7kg (without battery)
	Hull material	Kevlar & carbon fiber high-strength composite
	Hull design	Heavy duty trimaran, low barycenter, low resistance, stable sailing
	Anti-wave&wind	3rd wind level and 2nd wave level
<b>Power and Electrical Parameters</b>	Battery endurance	4h with 2m/s ( The battery pack can be added to improve the battery life)
	Maximum speed	6 m/s
	Propulsion	Removable modular culvert propeller
	Propeller type	Brushless DC
	Direction control	Veering without steering engine and sailing reversely
<b>Safety Guarantee</b>	Camera	360° PTZ camera
	Auto-return	Auto-return while low battery or signal loss
<b>Ashore Base</b>	Operating system	Windows 10
	Communicating mode	RF point to point in real-time
	Transmission range	2km radio communicating (4G optional)
	Navigation mode	Manual or auto-pilot
<b>Intelligent Controller</b>	Communicating mode	RF point to point in real-time
	Transmission range	2km
	Water proof	IP66
	Function	Real-time switching operation mode, control ship speed, steering and other functions, display the basic information
<b>Sounding Performance</b>	Work frequency	200KHz
	Beam angle	5°±0.5°
	Sounding range	0.15m~300m
	Sounding accuracy	1cm ± 0.1%h ( h=depth), 1cm depth resolution
	Storage	Computer-based real-time storage
<b>Positioning Accuracy</b>	RTK	Horizontal: ±8mm + 1ppm RMS    Vertical: ±15mm + 1ppm RMS
	Beacon (optional)	
	SBAS	0.5m CEP
<b>System Software</b>	Hull control system	Autopilot, hull parameter control, coordinate conversion , etc
	HiMAX sounding software	Supporting parameter configuration, coordinate conversion, depth location collecting, post-processing (simulative depth and digital depth combined for conveniently judging false depth), sampling feature point randomly, RTK and tide document for tide gauging, multiple data formats for result output , etc



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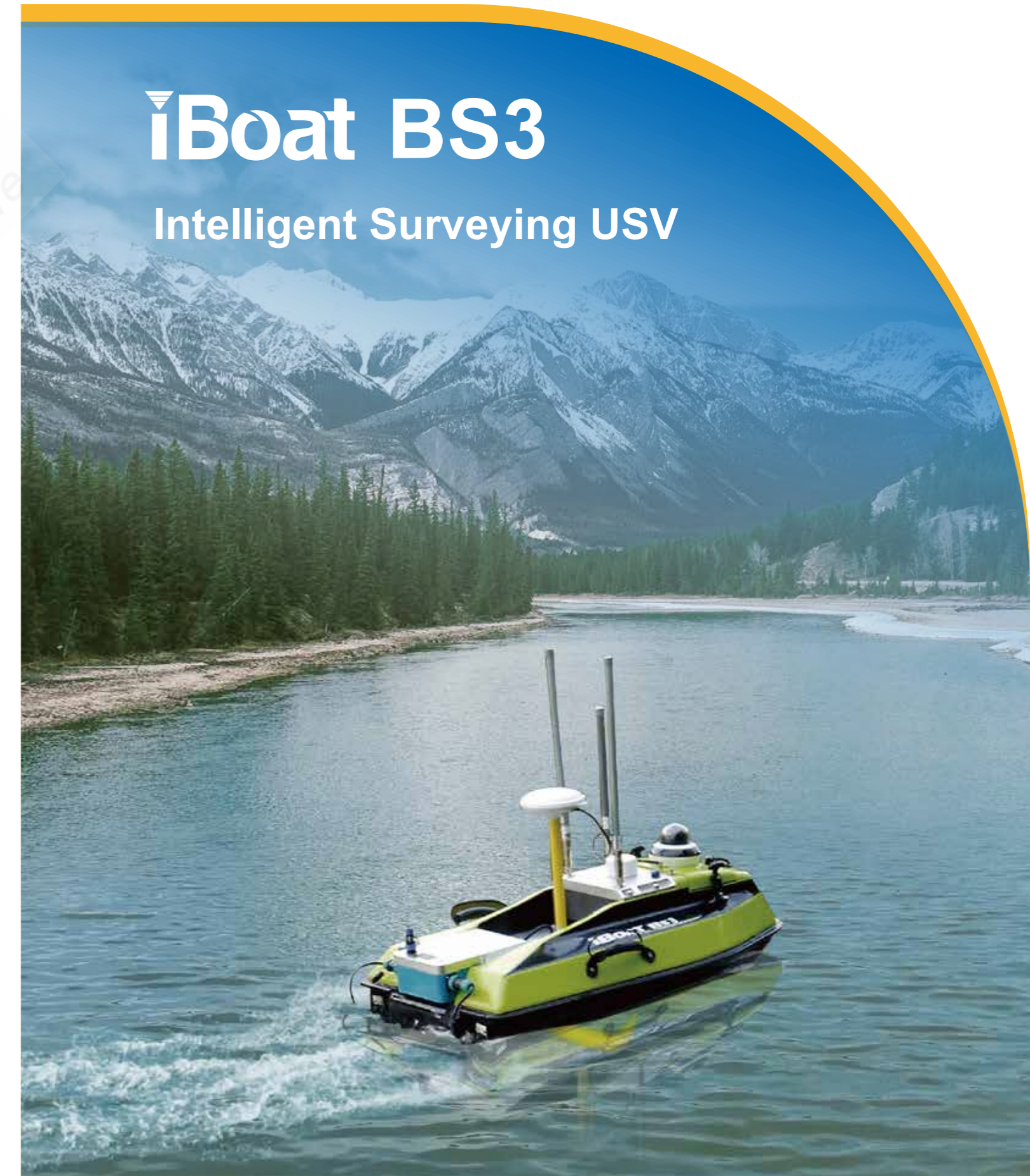
### Hi-Target Surveying Instrument Co. Ltd

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# iBoat BS3

## Intelligent Surveying USV





## SYSTEM INTRODUCTION

Hi-Target latest intelligent USV — iBoat BS3 is a swift, efficient and robust unmanned surface vessel, offering the portable, fast, secure and multi-functional service for hydrographic survey and all kinds of water-related applications in different environments like rivers, lakes, reservoirs, harbors and even torrents.



## SYSTEM COMPOSITION AND FEATURES

### Hull Structure

- Streamlined trimaran and low barycenter design to ensure low resistance and sailing stably
- Only 7kg weight  
Small and portable hull convenient for transmission  
Available placement in the car trunk
- Made of Kevlar & carbon fiber high-strength composite with strong resistance to impact



### Power System

	<ul style="list-style-type: none"> <li>• Propellers are applied with culvert-design and protective shield outside to prevent aquatic plants and fishing net from twining.</li> </ul>
	<ul style="list-style-type: none"> <li>• Innovate highly integrated modular design making the propellers easy to remove and change. Paralleled level with the boat and convenient for transmission and placement.</li> </ul>
	<ul style="list-style-type: none"> <li>• Auto-return while low battery or signal loss.</li> </ul>

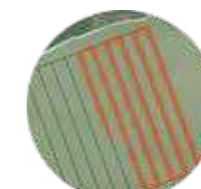
### Base System



- The industrial controller with a large-capacity battery has more than 20 hours of battery life, and it is of easy use with one key to switch between manual and automatic mode while control distance reaches 2 km.



- The base station adopts a new omnidirectional high gain antenna and built-in Wi-Fi to guarantee the communication distance not less than 2km.



- iBoat BS3 supports automatic operation, automatic navigation, auto-return to fixed point and users can switch between manual and automatic mode at any time.

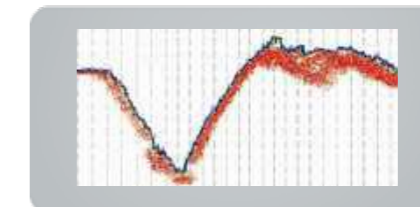
### Hi-Target Sensors



- The Hi-Target HD-510 single beam echo sounder shows fantastic performance with its high-accuracy professional sounding module. The 0.15~300m sounding range adapts to all kinds of complex topographic surveying.



- With Hi-Target high-accuracy GNSS RTK module or DGPS beacon module, the location device support GPS/GLONASS/Galileo/BDS location. Besides, iBoat BS3 is equipped with multiple communication modes, such as UHF radio, beacon and SBAS.



- HiMAX surveying software is available for collecting, guiding and post-processing. The simulative depth and digital depth are combined for conveniently judging true water depth.