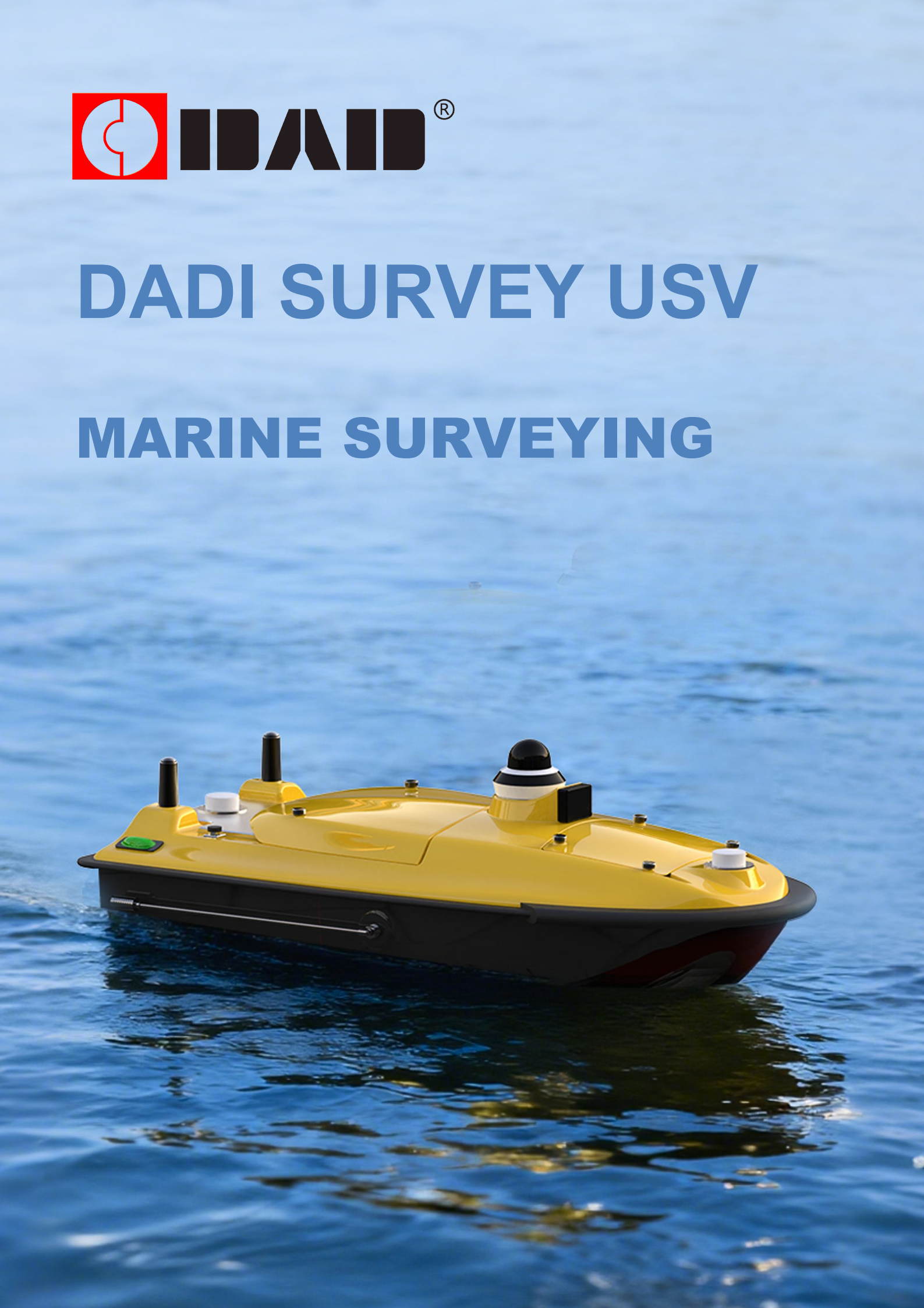
DADI SURVEY USV

MARINE SURVEYING



DUSV 8

INTELLIGENT UNMANNED SURFACE VEHICLE

AUTONOMOUS MARINE PLATFORM

The **DADI DUSV 8** is a high-performance, M-Shape monohull Unmanned Surface Vehicle engineered for the most demanding aquatic environments. Constructed from advanced **Macromolecular Polyester Carbon Fiber & Kevlar**, it offers unparalleled durability and stability. With a massive **50kg payload capacity**, intelligent obstacle avoidance, and a powerful dual-battery system, the DUSV 8 is the ultimate multi-purpose platform for professional hydrographic surveying, environmental monitoring, and search & rescue operations.

KEY PERFORMANCE HIGHLIGHTS

50KG MAX PAYLOAD	**CARBON FIBER & KEVLAR**	**38KM OPERATING RANGE**
IP67 WATERPROOF	**120° OBSTACLE AVOIDANCE**	**ANTI-CLOGGING THRUSTER**

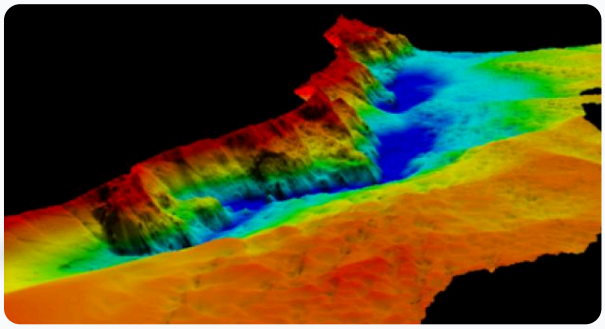
APPLICATION SCENARIOS

FIELD CASES & PERFORMANCE

CORE APPLICATION SCENARIOS

- **Hydrographic & Bathymetric Surveying:** Exceptional stability and integrated multi-beam/single-beam echosounders enable high-precision underwater topographic mapping.
- **Environmental Protection:** Seamlessly carries multi-parameter water quality meters, samplers, and TP&TN analyzers for real-time pollution tracking (Grade III to Poor V).
- **Search and Rescue (SAR):** Rapid deployment capabilities, combined with 360° night-visible cameras and side-scan sonars, ensure efficient emergency response.
- **Advanced Safety System:** Intelligent autonomous features including Low-Battery Return, Tracking Return, Auto Backing, and Disconnected Return.

FIELD APPLICATION SHOWCASE



Underwater Topographic Mapping

Hydrographic & Bathymetric Surveying

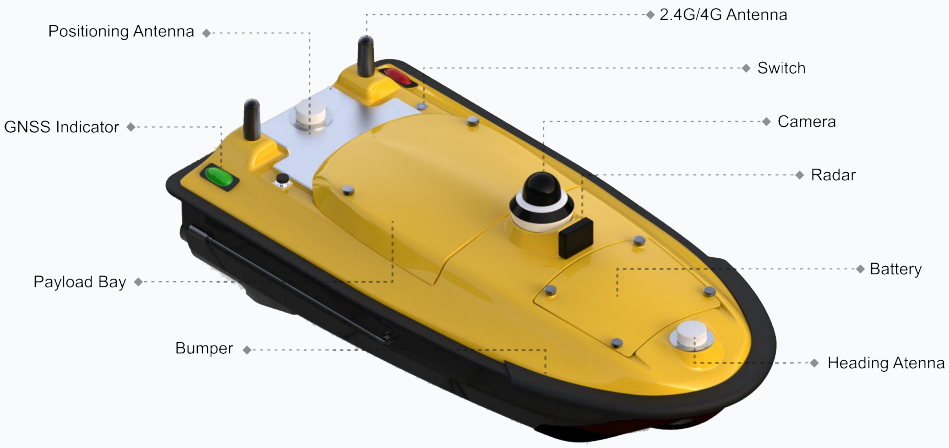
Environmental Protection

Search and Rescue

STRUCTURE & PAYLOADS

HARDWARE OVERVIEW & INTEGRATION

STRUCTURAL COMPONENT LAYOUT



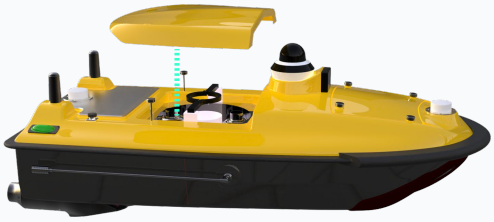
MULTI-ANGLE ORTHOGRAPHIC VIEWS

FRONT ELEVATION

TOP PLAN VIEW

SIDE PROFILE

MODULAR PAYLOAD INTEGRATION



Side-scan sonar

ADCP

In-situ analy

Multibeam echosounder

SYSTEM SPECIFICATIONS - DUSV 8

HULL & PHYSICAL SPECIFICATIONS	
Dimension (L×W×H)	1.28 × 0.58 × 0.43 m
Material & Shape	Macromolecular Polyester Carbon Fiber & Kevlar | M-Shape Monohull
Weight	12 kg (W/O Payload & Battery) | 40 kg (W/ Payload & Battery)
Maximum Payload	50 kg (Draft: 10 cm)
Anti-Wind & Wave	4th-Level Wind, 3rd-Level Wave
POWER & PROPULSION	
Motor Type & Power	Electric Brushless Motor | Pluggable | 1100W Max Power
Steering & Speed	Differential Steering (Supports Reversing) | 4000RPM | Max Speed 6m/s
Propulsion Design	Semi-Embedded Ducted Thruster (Weed-Resistant & Easy-Clean)
Battery Specification	33.6V 25Ah × 2 (21700mAh per battery) | Hot-Swap capable
Endurance & Range	3h @ 2m/s | 7h @ 1.5m/s | Operating Range: 38 km
NAVIGATION & INTELLIGENCE	
GNSS Positioning	Dual GNSS Antennas (Positioning & Heading)
Camera System	360° Night-Visible Omnidirectional Camera & AI Camera (Optional)
Obstacle Avoidance	Horizontal & Vertical Angle: 120° × 120° | Distance: 0.1-20m (Up to 40m)
Safety Alerts	System Self-Check, Abnormal Speed, Near-Obstacle, Low-Battery
U-CONTROLLER (BASE STATION)	
Screen Display	12" Touch-Sensitive, Sunlight-Visible (1200nit) | 1920×1200 Resolution
Communication Range	3km via 2.4G | Unlimited Distance via 4G Communication
Battery Capacity	20000mAh (8h Runtime) | 18W Type-C Fast Charging in 2h

REMOTE CONTROL & SOFTWARE

U-CONTROLLER & EXPANSION

U-CONTROLLER STATION LAYOUT

SYSTEM INTELLIGENCE & EXPANSION

iSAIL INTELLIGENT SOFTWARE

- **Autonomous Control:** Multiple route planning, breakpoint continuation, and automatic navigation modes.
- **Data Collection:** Real-time depth value, water quality data, and sonar imagery display with coordinate conversion.
- **Post-Processing:** Bathymetric echo stacking for high-accuracy data, targeted feature point extraction.
- **Multi-Format Support:** Import (DXF, KML) and Export (TXT, CSV, DAT, DXF).

EXPANDABLE PAYLOADS

- Acoustic Doppler Current Profiler (ADCP)
- Multi-Beam & Dual-Frequency Single-Beam Echosounders
- Side-Scan Sonar & Sub-Bottom Profiler
- Multi-Parameter Water Quality Meter & Sampler
- Total Phosphorus & Nitrogen (TP&TN) Analyzer
- Laser Radar & Gas Detector