



Adaptive to various water depths

Frequency agility 150~450kHz. Endurance anti-interference ability for stable operation in complex underwater environments.



UHD data resolution

Adopts 700kHz ultra-high frequency, elevate survey with a high level of detail and presents a clean and delicate underwater terrain.



Extrodinary Data Presentation

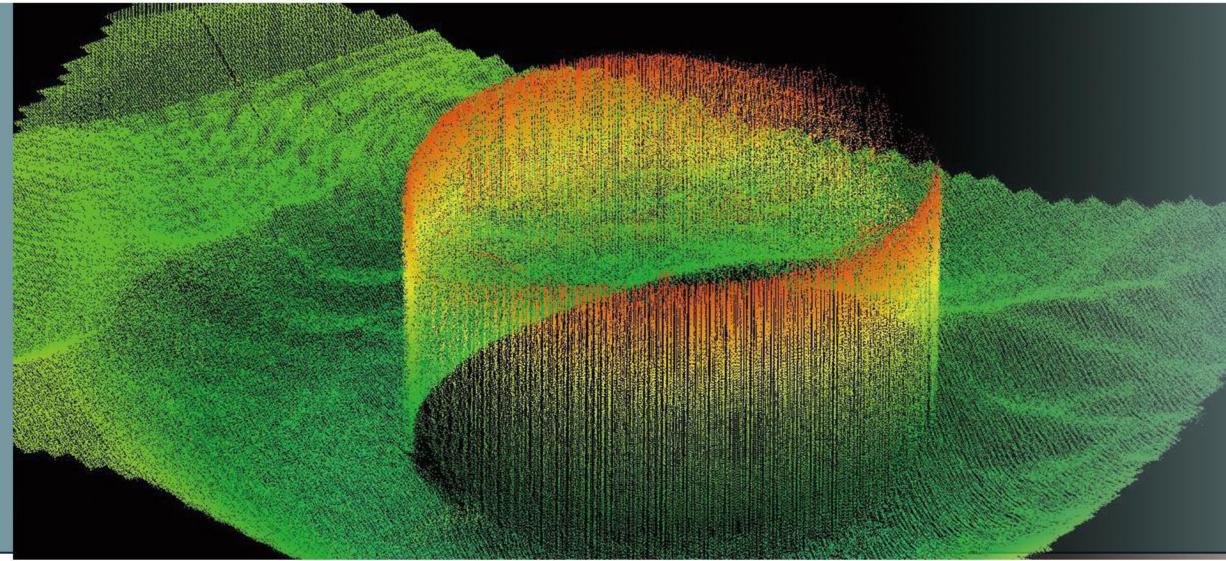
Higher quality data with rare noises make underwater survey easier. 0.6°*0.6° beam angle at 700kHz frequency.



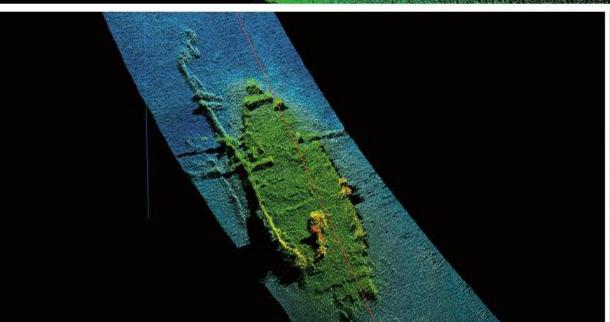


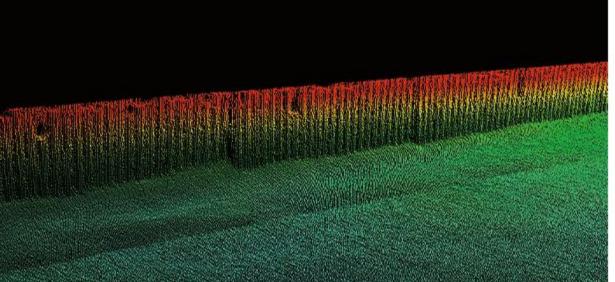
MS400PW

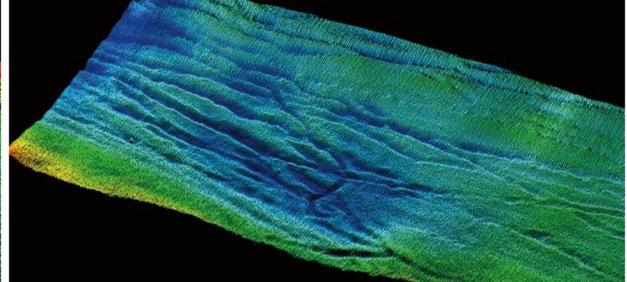
Wide Band Multi-frequency Multibeam Echo Sounder

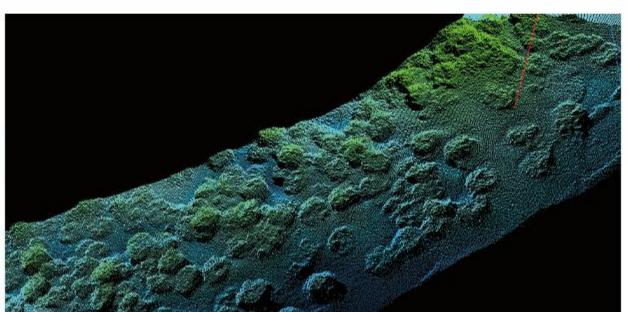


MS400PW multibeam echo sounder has frequency agility 150 - 450 kHz, also support 500kHz, 600kHz and 700kHz three high-frequency modes. Leverage high resolution performance with easy operation experience, this system is engineered for complicated terrains and diverse application environments. MS400PW is ideal for seabed mapping, underwater structure detection and pipeline route track etc...









Applications

- Complex lake terrain survey
- Subsea topographic investigation
- Waterway Mining Survey
- Large-scale seabed mapping
- Underwater object detection



Technical Specifications

Working Frequency	150 ~ 450kHz, support	
	500k, 600k and 700kHz	

Number of Beams	512
ACross Track Beam	1°@400kHz
	2°@200kHz
	0.6°@700kHz
Along Track Beam \	Nidth 1°@400kHz
	2°@200kHz
	0.6°@700kHz
Swath Coverage	143°
Sounding Depth	0.2-400m+*
Depth Resolution	0.75cm
Max Ping Rate	60Hz
Sounding Mode	Equiangular / Equidistant
Signal Type	CW/Chirp
Pulse Width	30µs – 8ms
Max Working Depth	50m



Features

Near field focusing	Yes
Bottom tracking	Yes
Water column imaging	Yes
Real-time roll stabilization	Yes
Muddy water survey	Yes



Physical Specifications

Transducer Size	410mm×240mm×120mm
Transducer Weight	10.5kg
Deck Unit Size	200 × 145 × 76.5mm
Deck Unit Weight	1.9kg
Working Temperature	-2℃ ~ 40℃
Storage Temperature	-20℃ ~ 55℃
Power Supply	DC 10 ~ 32V/AC 110 ~ 240V
Power Consumption	60W ~ 90W



Software

Software	HydroTechSurvey2024	
Options	Hypack, Qimera, EIVA and	
BeamworX post-processing software		
Compatible with	Hypack, Qinsy, EIVA and	
	BeamworX acquisition software	



Auxiliary Sensors

Sound Velocity Sensor	SVS1500M (Built-in)	
Sound Velocity Profiler	SVP1500 (Optional)	
IMU Sensor	POS25(Optional)	
GNSS Module	POS25(Optional)	



Adaptable Positioning & Attitude Specifications

Optional positioning and attitude equipment model	POS08	POS15	POS25
Heading Accuracy(GNSS Effective)	0.01°, 4mBase Line 0.02°, 2mBase Line	0.015°, 4mBase Line 0.03°, 2mBase Line	0.06°, 4mBase Line 0.08°, 2mBase Line
Attitude Accuracy(GNSS Effective)	0.01°, Real-Time RTK 0.008°, processed	0.02°, Real-Time RTK 0.015°, processed	0.03°, Real-Time RTK 0.025°, processed
Heave Accuracy	5cm or5%h,2cm or2%h		
Horizontal Positioning Accuracy	±8mm+1ppm(RTK, PPK)	, 10cm(PPP. Satellite station	n difference), 2-5m(DGPS)
Auxiliary Positioning Data	1. Support Qiai	nxun RTK CORS 2. PPK P	P-RTK supported

^{*}Depending on environmental conditions.

