

海卓 SS3060 高分辨双频侧扫声纳系统数据手册

Hydro SS3060 High resolution dual-frequency side sweep sonar system data sheet

1. 海卓 SS3060 高分辨双频侧扫声纳系统特点

The features of SS3060 High resolution dual-frequency side sweep sonar system

海卓 SS3060 是北京海卓同创科技有限公司最新推出的高分辨双频侧扫声纳系统，该侧扫声纳系统可同时发射 300kHz 和 600kHz 两个频率的 CW 或 Chirp 信号，既保证了大的扫测宽度，同时又确保能够生成高清晰度的声纳图像。

SS3060 is the latest high resolution dual-frequency side sweep sonar system by the Beijing Sea Zhuo Technology Co., Ltd. The side-scan sonar system can simultaneously emit 300kHz and 600kHz two-frequency CW or chirp signals, both of which ensure large sweep widths while ensuring that high-resolution sonar images can be generated.

该产品最大的特点是采用了变孔径变焦匹配技术，有效提高了图像的景深，使得远景、近景图像均同时清晰可见。同时，硬件系统采用 1-3 复合材料换能器、24bit 超高精度 A/D 变换器和高性能的 FPGA+DSP 组合式的信号处理平台，并创新性的采用硬件和软件相结合的图像均衡处理技术，完整呈现高清晰地貌。

The biggest feature of the product is the use of variable aperture zoom matching technology, effectively improve the depth of the image, so that the vision, close-range images are clearly visible at the same time. At the same time, the hardware system uses 1-3 composite material transducer, 24bit Ultra high precision A/D converter and high-performance + combined signal processing platform, and innovative use of hardware and software combination of image equalization processing technology, complete display of high clear terrain.

SS3060 还内置姿态仪，可高精度测量水下拖鱼的航向、横摇、俯仰等信息，为数据处理提供实时的姿态修正。该侧扫声纳系统可广泛应用于水下危险物搜索、礁石等碍航物调查、水下遗失物体调查、水下考古调查、水下管线路由调查、

水下结构物检测等领域。

SS3060 also built-in attitude instrument, can be high-precision measurement of underwater towed fish, yaw, pitching and other information, for data processing to provide real-time attitude correction. The side-scan sonar system can be widely used in underwater dangerous object search, reef obstruction survey, underwater lost object investigation, underwater archaeological investigation, underwater pipeline survey, underwater structure detection and other fields.



2. 性能指标 Performance indicators

技术指标	参数
工作频率	300kHz/600kHz 双频
最大斜距	230m @300kHz 120m @600kHz
水平波束宽度	0.5° @300kHz 0.26° @600kHz;
垂直波束宽度	50°
纵向分辨率	与水平波束宽度相关
横向分辨率	300kHz: 1.3m @150m 600kHz: 0.45m @100m
信号形式	CW/Chirp
工作水深	200m（大深度可定制）

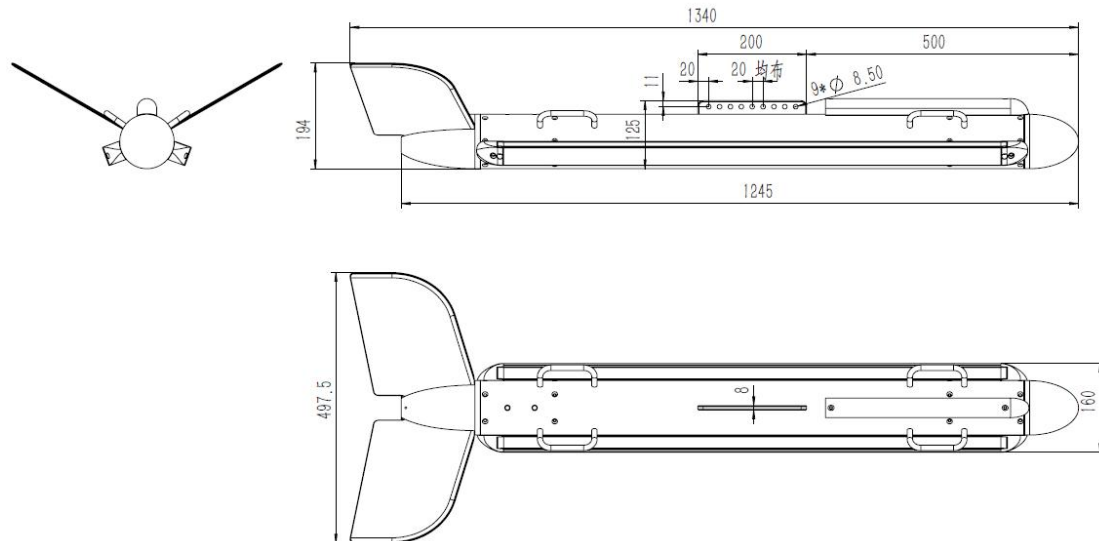
辅助传感器	横摇、纵摇、航向、压力传感器（标配）
特殊功能	软硬件结合图像均衡（标配）/可变孔径（标配）/复合脉冲（可选）
尺寸	长度 1250mm ， 直径 100mm
重量	~25Kg(空气中)/~12Kg（水中）
供电	DC20-36V 或 AC110-240V 50/60Hz
电缆长度	标配 50m（200m 选配）
数据接口	100M 以太网

注：因产品升级带来的技术参数变更，恕不另行通知。

Technical indicator	Parameter
Operating frequency	300kHz/600kHz Dual frequency
Max Slant Distance	230m @300kHz 120m @600kHz
Horizontal beam width	0.5° @300kHz 0.26° @600kHz;
Vertical Beam Width	50°
Vertical resolution	Related to horizontal beam width
Horizontal resolution	300kHz: 1.3m @150m 600kHz: 0.45m @100m
Signal form	CW/Chirp
Working water depth	200m (large depth can be customized)
Auxiliary sensors	Rolling, pitching, heading, pressure sensors (standard)
Special Features	Software and hardware combined with image equalization (standard)/variable aperture (standard)/compound pulse (optional)
Size	Length 1250mm, diameter 100mm
Weight	~25kg (in Air)/~12kg (in water)
Power	dc20-36v or ac110-240v Hz
Cable length	Standard 50m (200m optional)
Data interface	100M Ethernet

Note: The technical parameters of product upgrades are subject to change without prior notice.

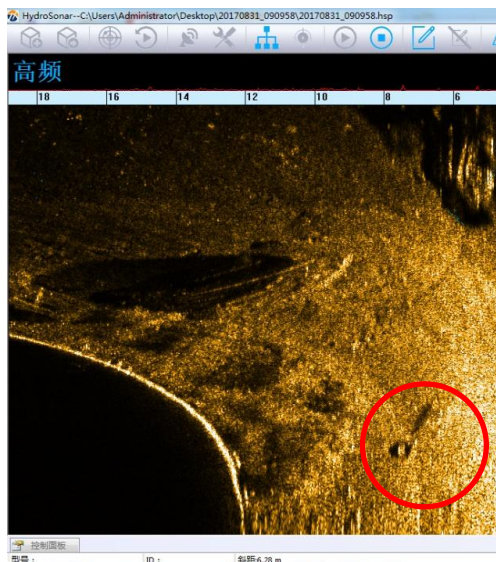
3. 物理尺寸 Physical dimensions



4. 应用案例 Application Cases

(1) 汽车轮胎（水雷形状目标）测深声纳图像。

(1) The sounding sonar image of the automobile tyre (mine shape target).



(2) 水中人形目标（水下蛙人、潜水员等）侧扫声纳图像。其中黄色圆圈和白色圆圈中分别为站立姿态和平躺姿态的假人。

(2) The sonar image of the humanoid target (underwater diver, diver, etc.) in

water. In which the yellow circle and the white circle are the dummies standing peacefully lying posture respectively.

