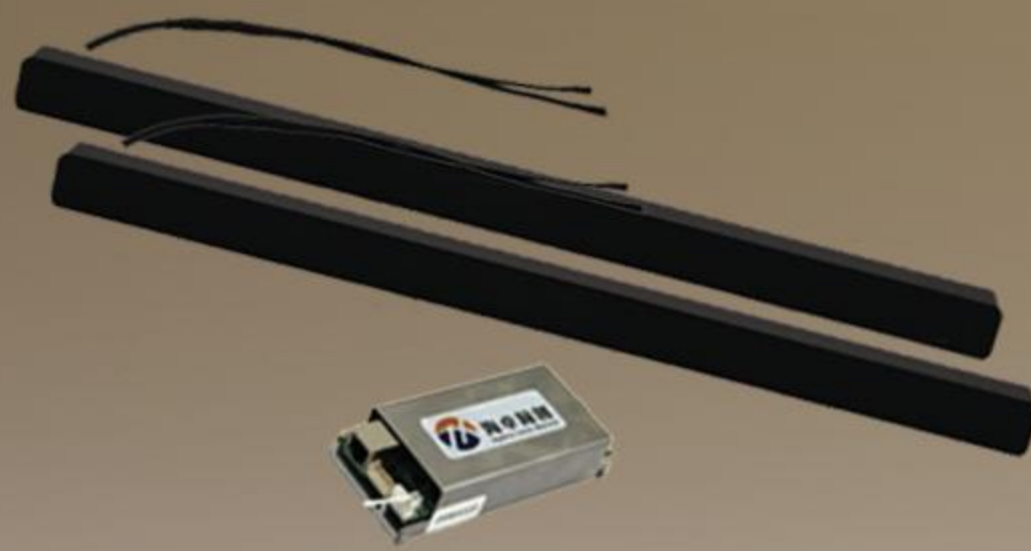


ES Series ( ES900M | ES900 | ES4590 )

## Embedded Side Scan Sonar



Easy Integration to Various Platforms



### Embedded platform

ES series of side scan sonar has the features of small size, light weight, low power consumption. Its structure is simple, operation is easy, which is suitable for integration application. With different frequency, diversified shape and connector, ES series can meet the requirements of various small USV, ROV and AUV to do second development.



### Compatibility

ES Series is compatible with various devices via Ethernet cable & RS232 Com port. Realize multi-module combination and collect all types of data of different sensors. It provides 8 output of sync signal by programmable TTL, which efficiently resolve complex sound interfering and synchronization control problem.



### High Resolution Image

Innovative transducer design and advanced self-adaptive waveform adjustment technology combining broadband signal processing & image equalization technology, ES series side scan sonar can provide a larger scanning range and high-definition results.

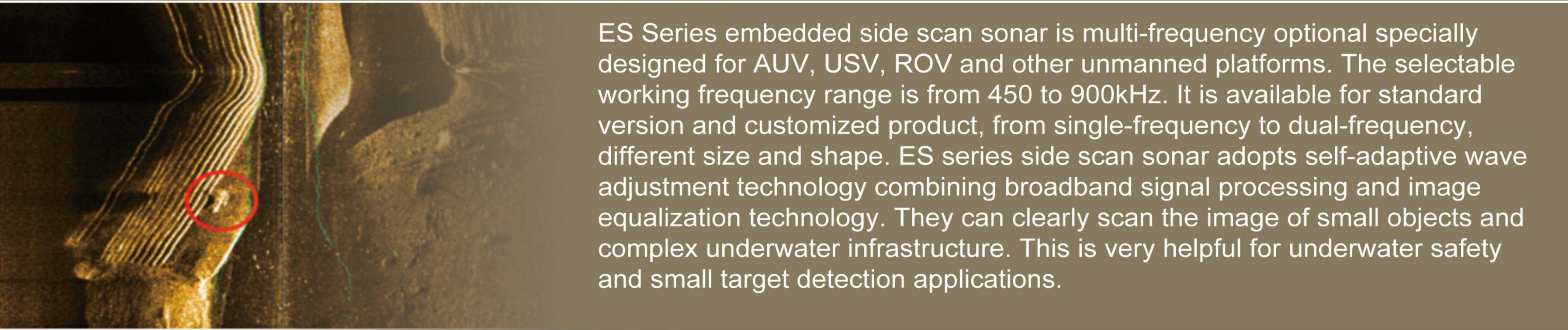


Beijing Hydro-Tech Marine Technology Co.,Ltd.



◀ Learn More

# ES Series Embedded Side Scan Sonar



ES Series embedded side scan sonar is multi-frequency optional specially designed for AUV, USV, ROV and other unmanned platforms. The selectable working frequency range is from 450 to 900kHz. It is available for standard version and customized product, from single-frequency to dual-frequency, different size and shape. ES series side scan sonar adopts self-adaptive wave adjustment technology combining broadband signal processing and image equalization technology. They can clearly scan the image of small objects and complex underwater infrastructure. This is very helpful for underwater safety and small target detection applications.



## Application



Emergency  
Rescue



USV  
application



Structure  
Inspection



Environmental  
Investigation



### Technical Specification

|                          |                                                                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Signal Form              | CW/Chirp(Optional)                                                                                                                |
| Working Depth            | 100-3000m(Optional)                                                                                                               |
| Electronic systemsize    | 12.7cmx58cmx2.7cm(LxWxH)                                                                                                          |
| Electronic system weight | 220/750g                                                                                                                          |
| Power Supply             | DC 10-30V                                                                                                                         |
| Power Consumption        | 10W-15W                                                                                                                           |
| Data Interface           | 1 100M Ethernet control and data interface<br>1 RS232 data interface<br>1 TTL sync input interface<br>8 TTL sync output interface |
| Software                 | HydroSonar and SDK development kit                                                                                                |
| Optional                 | Micro data logger, high-power storage capacitor                                                                                   |

## Specifications

|                        | ES900M                 | ES900                               | ES4590                                                                                           |
|------------------------|------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------|
| Working Frequency      | 900kHz                 | 900kHz                              | 450/900kHz                                                                                       |
| Parallel Beam Width    | 0.4°                   | 0.2°                                | 0.2°                                                                                             |
| Vertical Beam Width    | 40°                    | 50°                                 | 50°                                                                                              |
| Max Slope Range        | 75m                    | 75m                                 | 150m@450kHz<br>75m@900kHz                                                                        |
| Along Track Resolution | 0.14m@20m<br>0.35m@50m | 0.07m@20m<br>0.17m@50m<br>0.26m@75m | 450kHz<br>0.17m@50m<br>0.34m@100m<br>0.51m@150m<br>900kHz<br>0.07m@20m<br>0.17m@50m<br>0.26m@75m |
| Cross Track Resolution | 1cm                    | 1cm                                 | 2cm@450kHz<br>1cm@900kHz                                                                         |
| Transducer Size        | 29.2×2.5×2cm           | 43×2.5×2cm                          | 85×4×2.2cm                                                                                       |
| Transducer Weight      | 300g×2                 | 450g×2                              | 1.25kg×2                                                                                         |

\*\*All spec. above is subject to change without notice.