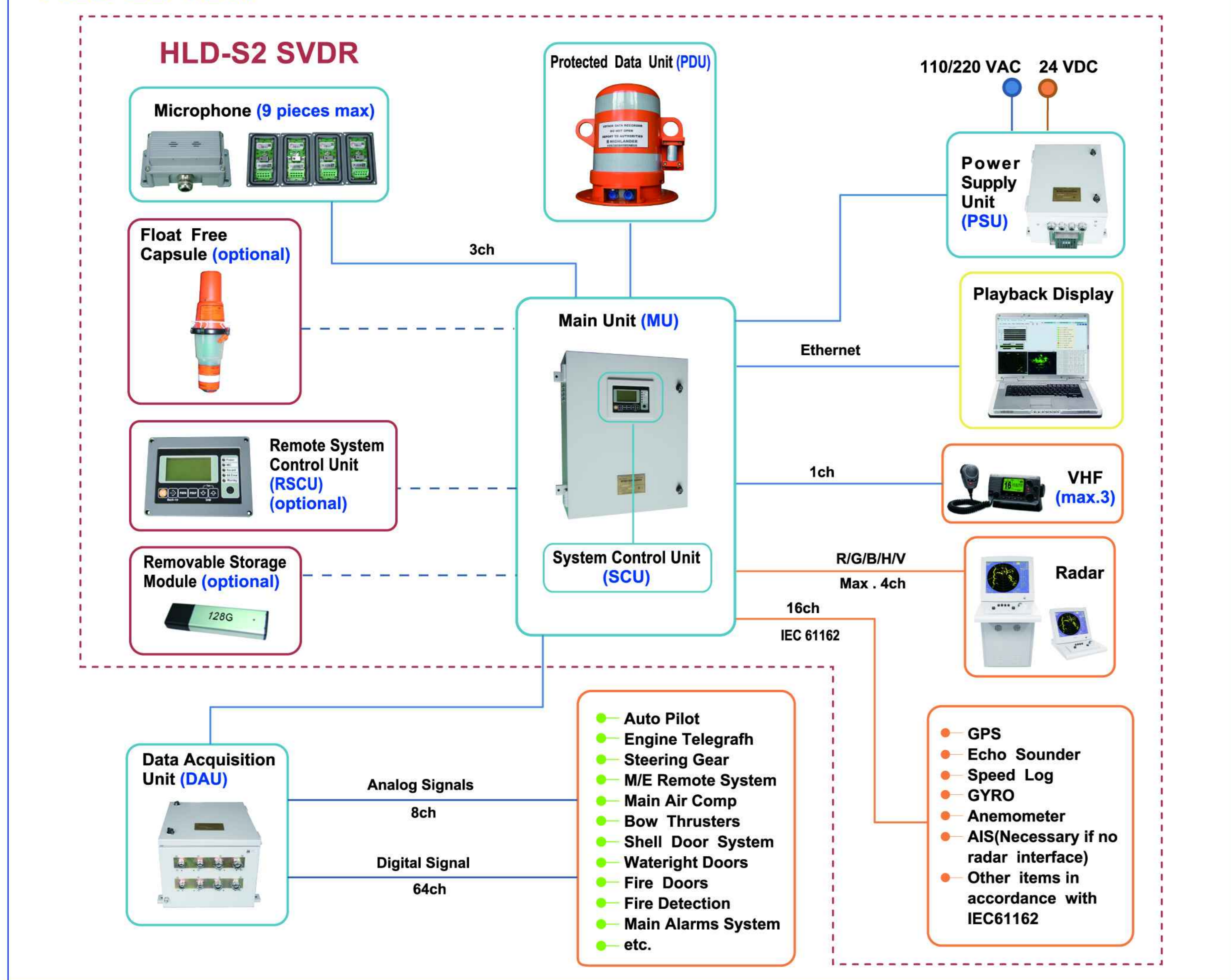
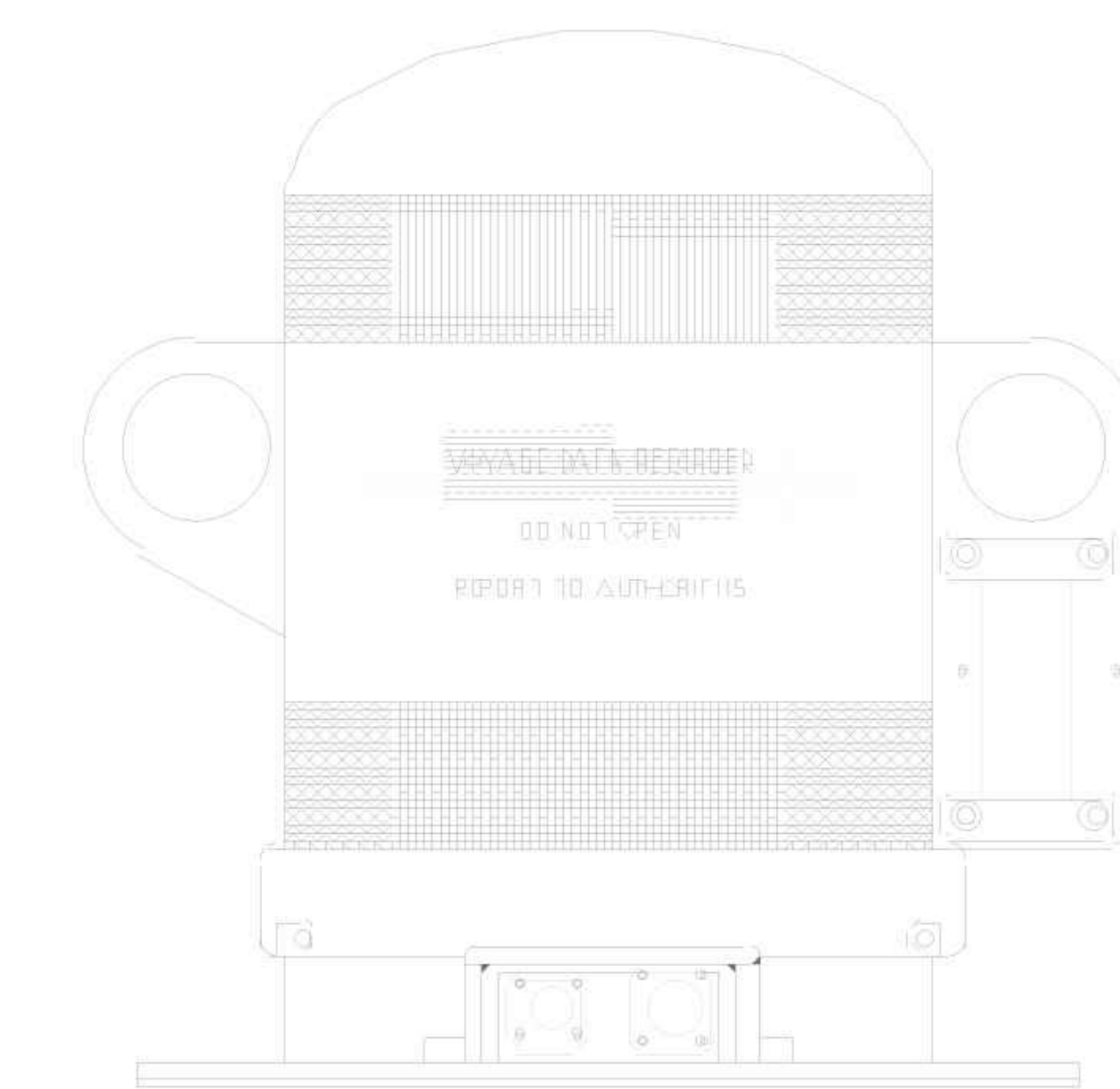


### HLD-B2 VDR



Highlander



# VDR Voyage Data Recorder HLD-B2

# SVDR Simplified Voyage Data Recorder HLD-S2

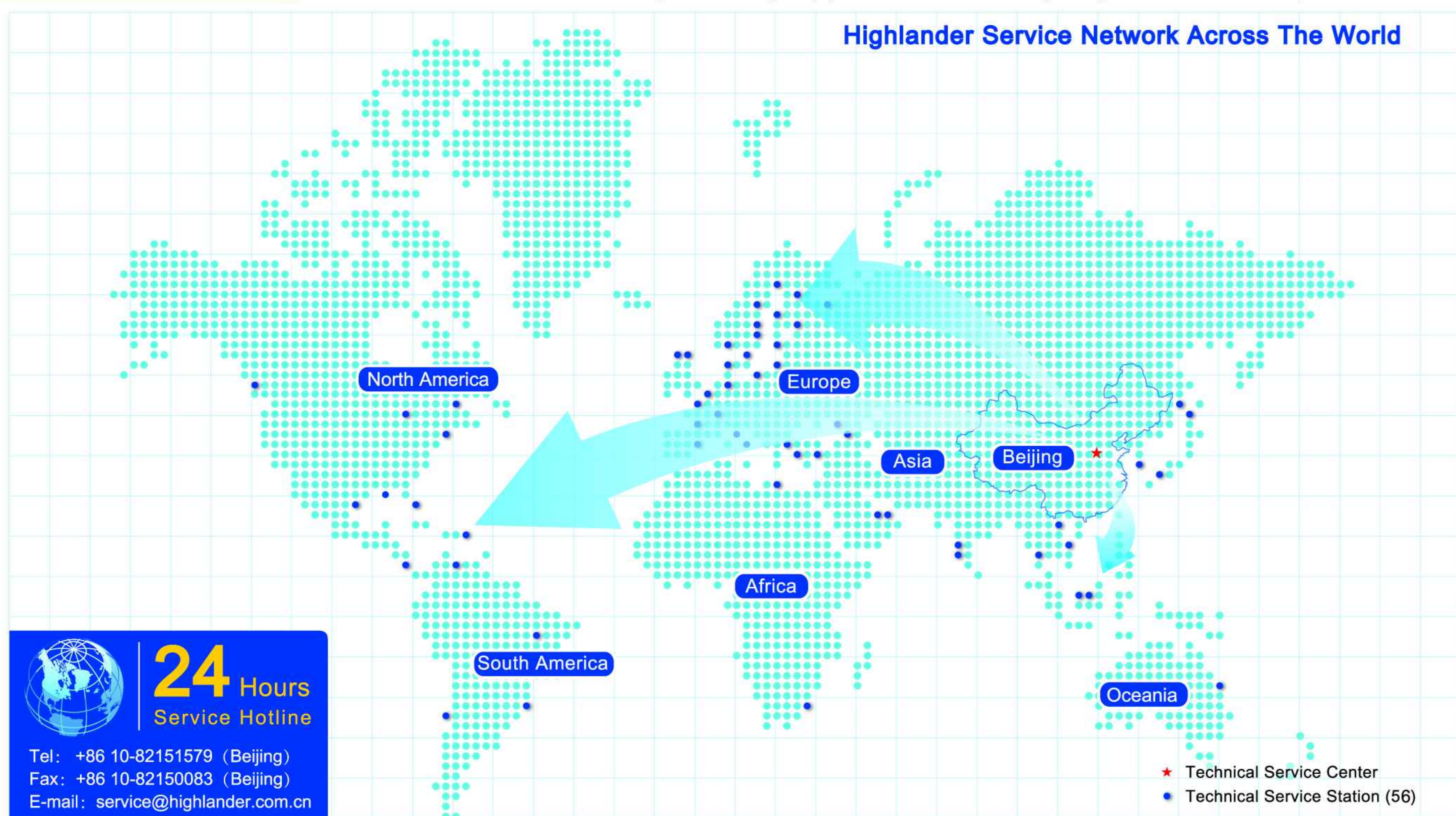


<http://www.highlander.com.cn>

### Service Network

If you need any help, please contact us. Timely and perfect service will be provided.

#### Highlander Service Network Across The World



**24 Hours Service Hotline**

Tel: +86 10-82151579 (Beijing)  
 Fax: +86 10-82150083 (Beijing)  
 E-mail: service@highlander.com.cn

HIGHLANDER®



Beijing Highlander Digital Technology Co., Ltd

# HLD-B2 VDR & HLD-S2 SVDR

Beijing Highlander Digital Technology Stock Co.,Ltd is an international enterprise manufacturing and supplying Voyage Data Recorder(VDR) and Simplified Voyage Data Recorder(SVDR).Highlander's second generation VDR/SVDR are designed for interfacing all common bridge Systems and ship sensors,and manufactured on the same hardware and software.

**HLD-B2 VDR:** Comlies with IMO A861(20) and IEC 61996-1 Ed.1 and IEC 60945,and obtained EC and CCS certificates.  
**HLD-S2 SVDR:** Complies with IMO MSC.163(78) and IEC 61996-1,IEC 61996-2 Ed.2 and IEC 60945,andobtained Type Approval Certificates issued by GL and CCS respectively.



**VDR** | **SVDR**  
HLD-B2 | HLD-S2

## Technical Specifications

### Main Unit

- 16 Channels of NMEA 0183 / IEC 61162 signals, 4800 -115200 bps supported;
- 4 audio channels:
  - 9 Microphone interfaces,
  - 3 standard VHF interfaces;
  - 2 nonstandard VHF interfaces;
- Up to 4 channels of video input for Radar,ECDIS,CCTV etc.;
- 5 Port 100M Ethernet Switch for maintenance,downloading and other applications;
- 1 channel isolated pulse input (passive or active,configurable) for speed log.
- Max. output power: 200W.

### Power Supply Unit

- Input voltage: DC 24V,AC 110 / 220V,50-60Hz;
- Output: DC 24V,Max. 10A;
- Input-output isolation voltage: AC 3000V (1 min),DC 2000V (1 min);
- Backup battery supply time: >2h;
- Interface bus: RS - 232 C.

### System Control Unit / Remote System Control Unit

- Power Supply: 24V / 0.2A;
- Display of malfunction and alarm;
- Data backup operation.

### Microphone

- Frequency range: 100 -12 kHz;
- Panel Installation (Indoors);
- Special protecting housing (Outdoors);
- Integrated self-test function;
- Special Audio Chamber,to improve recording effect and audio quality.

### Protected Data Unit

- Strong time: ≥ 12 h;
- Communication with Main Unit: Ethernet;
- Storage capacity: 4 Gb,optional up to 8 Gb;
- Operating system:Embedded Linux with high reliability and stability;
- Protecting container satisfies the specific requirements of IEC 61996.

### Data Acquisition Unit

- Convert non-IEC 61162 format data,such as analog,
- Contact or other signals into IEC 61162 format data;
- Different interface acquisition boards can be selected;
- Output data ( to Main Unit ) format is in compliance with IEC 61162.

### Float Free Capsule

- Strong time: ≥ 12 h;
- Communication with Main Unit:Ethernet;
- Storage capacity: 4Gb,optional up to 8Gb;
- Operating system:Embedded Linux with high reliability and stability;
- Release mechanism satisfies the requirement of IMO A.662 (16),it will release automatically when reach a water depth of 4 m;
- EPIRB satisfies the requirements of IEC 61097-2,IEC 61096-7,IMO A.810 (19) and ITU - RM.633 - 3:2004;
- Watertight at a depth of 10m for at least 5 min;
- Be capable of floating upright in calm water and have positive stability and sufficient buoyancy in all sea conditions;
- Be capable of being dropped into the water without damage from a height of 20 m.

### Removable Storage Module

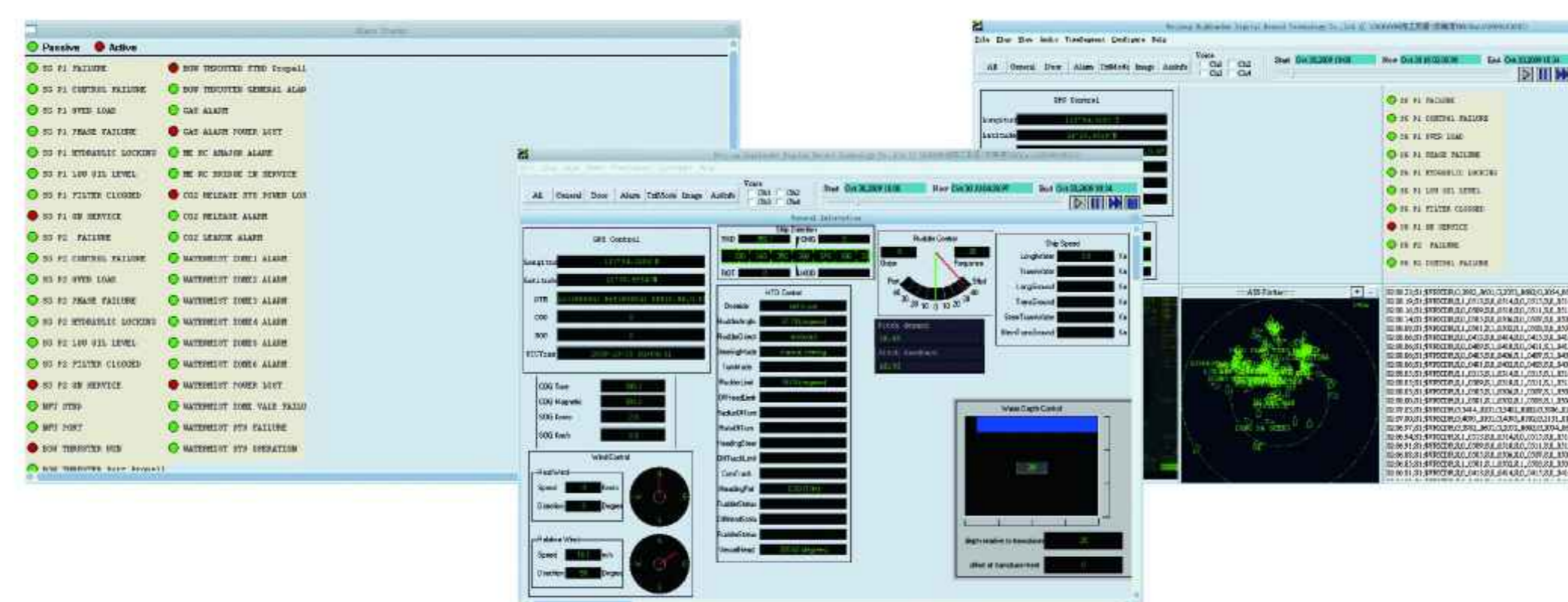
- Embedded operating system with high reliability;
- Storage capacity:User selectable,128 Gb as standard (USB interfaces);
- Storage time: ≥30 days;
- Shock absorption,onboard environment satisfied;
- Hot swap supported,Plug and Play supported;
- Portable.

## Carriage Requirement

Product	Ships on international voyages	Mandatory Installation
HLD-S2 SVDR	Existing cargo ships of 20,000 GT and upward	At the first scheduled dry-docking after 1 July 2006 but not later than 1 July 2009
	Existing cargo ships of 3,000 GT and upward but than 20,000GT	At the first scheduled dry-docking after 1 July 2007 but not later than 1 July 2010
HLD-B2 VDR	All passenger ships as well as newly built cargo ships of 3,000 GT and upwards.	

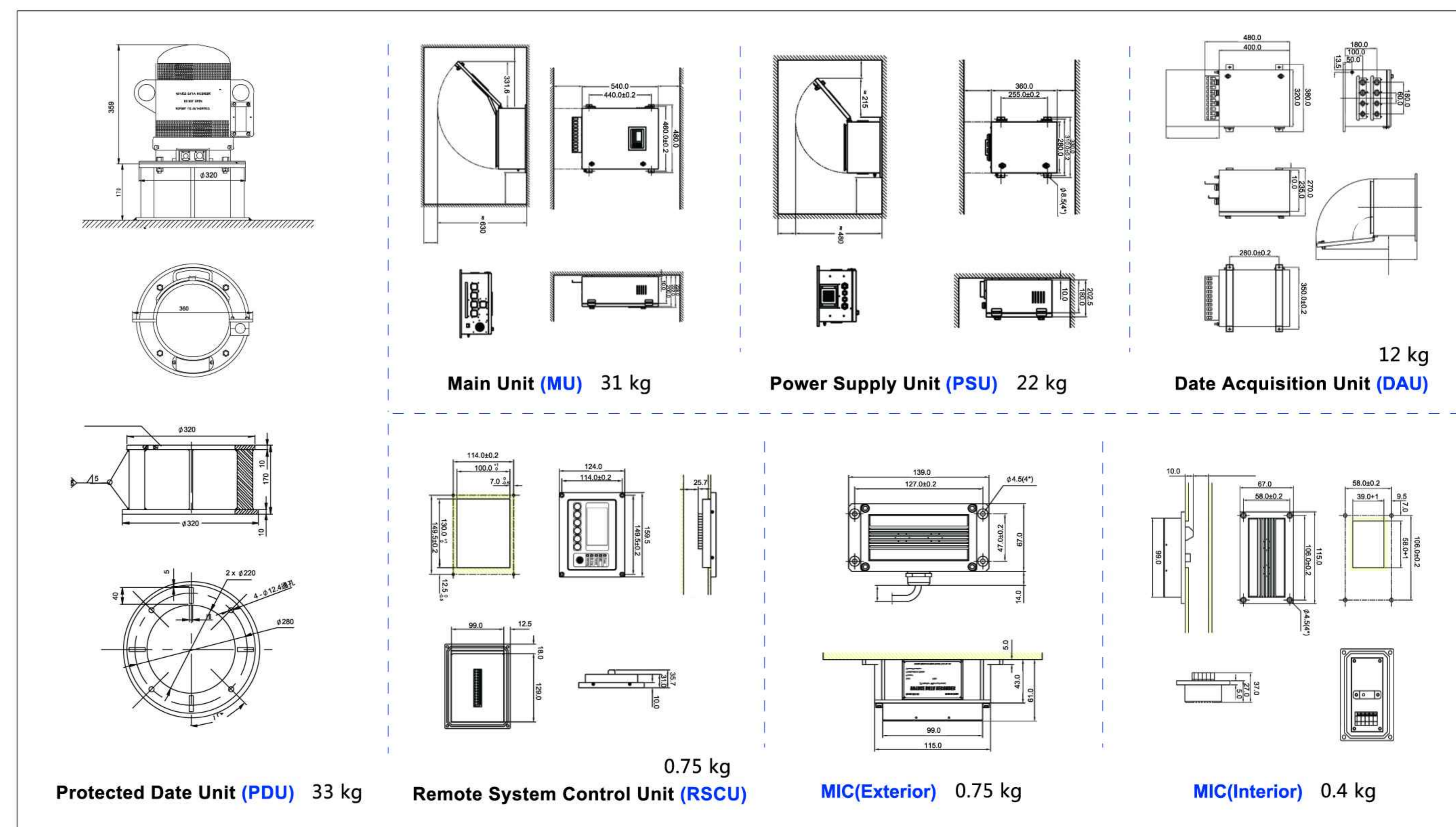
## Product Features

- High reliability - With embedded operating systems;
- Easy to install - Compact,lightweight ,suitable to be installed on different ships;
- Flexible configurations, good adaptability -Analogue and digital signal inputs can be easy adapted to the specific ship requirements; -Inmarsat interface, long distance annual performance test (additional devices required);
- Extendible -Some optional components can be selected: Removable Storage Module,Data Acquisition Unit etc;
- Detailed log backup, remote fault diagnosis;
- Real time playback software and interface provided,VDR / SVDR and PC can be connected by Local Area Network,any PC on board can be used to replay or copy the ship data;
- Radar interface -HLD - B2 VDR is able to record up to 4 radars.



Playback Display

## Product size



## Equipment list

Standard	Quantity	
	HLD -B2 VDR	HLD -B2 SVDR
Main Unit(MU)	1	1
Power Supply Unit (PSU)	1	1
Protected Data Unit (PDU)	1	1*
Data Acquisition Unit(DAU)	1	-
System Control Unit(SCU)	1	1
Microphone	interior microphone	4
	exterior microphone	2
Cables	2	2
Playback Software	1	1
Optional	Quantity	
Removable Storage Module,128 GB.(RSM)	1	1
Remote System Control Unit	1	1
Compass interface	1	1
Float Free Capslue	1	1

\*Optional:Fixed or Float Free

## Data items to be recorded

Data	HLD-B2 VDR	HLD-S2 SVDR
Data and Time	√	√
Ship's Position	√	√
Speed	√	√
Heading	√	√
Bridge Audio	√	√
VHF Communication Audio	√	√
Radar Image	√	√*
AIS Data	√	√*
Depht	√	
Main Alarms	√	
Rudder Operation and Response	√	
Engine Operation and Response	√	
Hull Opening Status	√	
Watertight and Fire Door Status	√	
Accelerations and Hull Stress	√	
Wind Speed and Direction	√	
Other items in accordance with IEC61162		√

\*AIS Data is nessary if no radar interface