Voyage Data Recorder

FBB/VSAT/WIFI/3G/4G

Download and playback

Audio download and playback

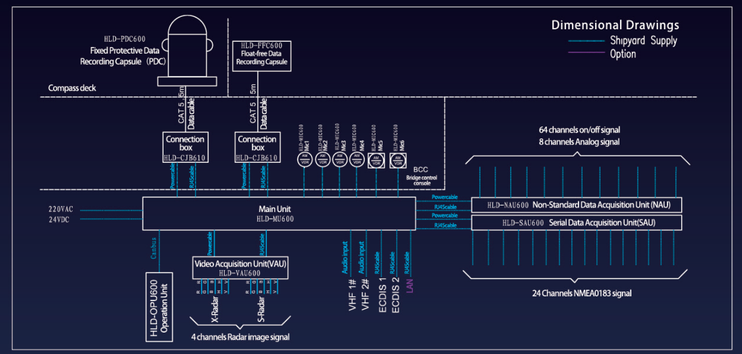
AIS download and playback

Conning download and playback

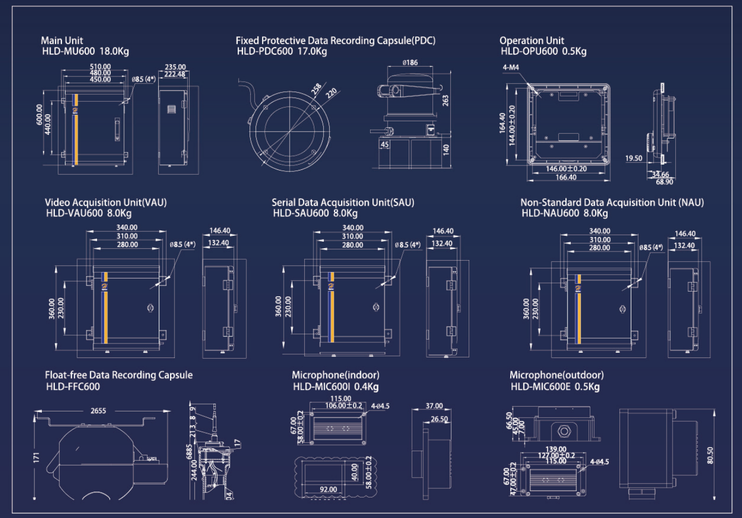
Information of the ship

Video download and playback

SYSTEM ARCHITECTURE



DIMENSIONAL DRAWINGS



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VDR+

HLD-VDR600/SVDR600 VOYAGE DATA RECORDER

CCS type approval
(EC) MED (B+D) type approval
RS type approval

Hi-CLOUD

- Remote diagnosis
- Remote maintenance
- Download &. replay

海兰信
Highlander

PRODUCT OVERVIEW

- HLD-VDR 600 / SVDR600 are Highlander's best and most stable voyage data recorder to date. It is the fruition of nearly two decades of endeavor in the challenging field of maritime black boxes and embodies the wealth of experience gained from VDRs fitted in thousands of seagoing vessels around the World.
- HLD-VDR 600 / SVDR600 fully meets the requirements of IMO A.861(20), MSC.333(90), MSC.163(78), IEC 61996-1 Ed.2, IEC91996-2 and IEC 60945 and carries MED, CCS and other certifications.
- The new "Hi-Cloud" remote connection facility is the way to harness the HLD-VDR 600 / SVDR600's full potential. Comprehensive ship's data is easily and economically made available to shoreside users for optimization of fleet management with existing IT nfrastructure with both fixed and mobile devices. "Hi-Cloud" is also a handy tool for servicing bridge electronic equipment, providing accurate information about the functionality of all of many sensors and devices that are recorded by the VDR.

PRODUCT FEATURES

- STABLE AND RELIABLE: The operating system is embedded, software applications are tried and true, bug-free.
- EASY TO INSTALL: Distributed architecture provides for convenience in situating the single elements close to recorded sensors and devices.
- SMALL AND COMPACT: easily fits into even the most cramped wheelhouse environs.
- FLEXIBLE: Independent image, serial data, non-standard data acquisition modules, flexible configuration depend on demand, flexibly according to demand ,that can reduce the cost effectively
- ADAPTABLE: Can be configured with several data acquisition modules with a number of accessible signals to meet the recording demands of various ships
- STATE-OF-THE-ART: support video image via Ethernet for Radar, ECDIS and others.
- SECURE: The data stored in the HLD-VDR 600 is tamper-proof. It is not possible to alter or delete it.
- POWERFUL: Via "Hi-Cloud" connectivity, VDR data is accessed remotely on common fixed and mobile devices in order to achieve smart fleet management and check-up and troubleshooting of shipboard systems. Data is compress-packaged for low-cost transmission over satellite networks.

TECHNICAL SPECIFICATIONS

Main Unit(MU)

- Power input：AC110/220V、50-60Hz； DC 24V
- Consumption：< 70W
- Reserve battery：7AH for not less than 2hours usgae
- Inputs:Audio: 5x audio channels
  8x Microphones input
  2x VHF audio input
- Ethernet：10x Ethernet channels(100MBS) for ECDIS, RADAR, etc.
- Integral Long Term Recording Storage Medium
- Dimensions (LxWxH)：600x450x235mm
- Weight：18kg
- Installation：Wall or bulkhead mounting
- IPProection：IP22
- Working temperature：-25°C ~ 55°C

Operation Unit (OPU)

- Display：High definition touch screen LCD, (800x480 Pixel)
- Human-Machine Interface：User friendly interface, displays all the warnings and alarms
- Data Back Up function
- Dimension(LxWxH)：166.4×164.4×70mm
- Weight：0.5kg
- Installation：Flush mounting
- IP Protection：IP22
- Working temperature：-25°C ~ 55°C

Long- term Data Recording Unit

- Integrated in the Main Unit
- Memory capacity：512GB
- Operating system：Linux OS
- Recording Speed：100MBPS
- Working temperature：-25°C ~ 55°C

Fixed Protective Data RecordingCapsule

- Recording time：not less than 48h
- Memory Capacity： 32GB
- Operation System：Linux OS
- Standards：IEC61996-2 (2013)
- Dimension (DxH)：Φ180x240(mm);
- Weight：17kg
- IP Protection：IP 66
- Working temperature：-25°C ~ 70°C

Float-free Data Recording Capsule

- Recording time：not less than 48h
- Memory Capacity：32GB
- Operation System：Linux OS
- Standards：IMO A.662(16), IEC61996-2 (2013),
- Release mechanism：Auto-release when 4m underwater.
- COSPAS-SARSATEPIRB：Complies with IMO Res A.810(19);

Video Acquisition Unit

- Number of Video Channels：4x video channels for VGA inputsHigh definition up to 1920x1200pixels
- Installation of unit can be located near to image source.
- Dimension：360×260×150mm
- Weight：8kg
- IP Protection：IP22
- Working temperature：-25°C ~ 55°C

Serial Data Acquisition Unit

- 24xIEC61162serial data input
- Selectable Baud rate
- Dimension (LxWxH)：360×260×150mm
- Weight：8kg
- IP Protection：IP22
- Working temperature：-25°C ~ 55°C

Non-Standard Data Acquisition Unit

- 8xAnalogue Voltage or Current Inputs
- 64xON/OFF potential free contacts
- 8xON/OFF configurable active or passive contacts
- Dimension：360×260×150mm
- Weight：8kg
- IP Protection：IP22
- Working temperature：-25°C ~ 55°C

Assembly Microphone(AM)

- Frequency Range: 100Hz-12kHz
- Installation：Flush mounting (Indoor) or Wall Mounting (Outdoor)
- IP Protection：IP22 for indoor units and IP56 for outdoor units
- Integratedbuilt-in self-test function
- High clarity and quality sensor
- Dimension(LxWxH)：115×67×33.7 mm (indoor)
  139×81× 64 mm (outdoor)
- Weight:0.4 kg (Indoor);
  0.5 kg (Outdoor)
- Working temperature：-25°C ~ 55°C

- IEC61097-2; IEC61096-7andITU-RM.633-3:2004 regulations.
- Watertight：up to 10M underwater
- Drop height：20 meters
- IP Protection：IP56
- Working temperature：-25°C ~ 70°C

CONFIGURATION

Standard configuration

Main Unit	HLD-MU600
Operation Unit	HLD-OPU600
Fixed Protective Data Recording Capsule(PDC)	HLD-PDC600
Float-free Data Recording Capsule(FFC)	HLD-FFC600
Storage unit adapter box	HLD-CJB600
Video Acquisition Unit(VAU)	HLD-VAU600
Serial Data Acquisition Unit(SAU)	HLD-SAU600
Non-Standard Data Acquisition Unit (NAU)	HLD-NAU600
Microphone(Indoor)	HLD-MIC600
Microphone(Outdoor)	HLD-MIC610
Playback software	

Optional

- VMS

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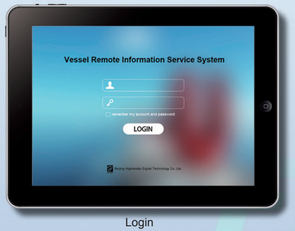
HI-CLOUD VESSEL REMOTE INFORMATION SERVICE SYSTEM

HIGHLANDER "Hi-Cloud" vessel remote information service system collect ship informations viacan VDR, such as Navigation data, Engine data, Cargo information, Video etc. and send these ship information to the Cloud server on land via satellite or 3G/4G. the system also sent the ocean weather and current information to the server .

The system is a interaged ship information service plateform, which save, devide, analysis and merge all kind of information in the Cloud server. Shio manager can use an iPad to monitor his fleet, as ship's moving statement, weather, ship's equipment are shown on the iPad.

Ship manager can remote diagnose equipment, download and replay the ship's data on the iPad, so that owner can monitor his fleet and make better decision to improve ship's safety and the performance.

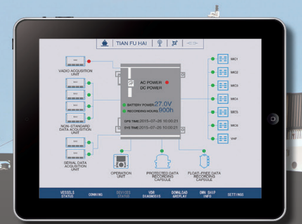


Login

Vessel dynamics

Conning

Equipment diagnosis



Internally-connected equipment state

Externally-connected equipment state