ECDIS

ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEM

HLD-ECDIS 600

HIGHLANDER
海兰信

ECDIS

*Electronic Chart Display and Information System*

HLD-ECDIS 600 is fully developed by Highlander's own advanced technology. The product fully meets the requirements of IMO standard and the latest IEC standards, approved by CCS and the Norway classification society DNV-GL. A prototype of the system has experienced of validation in the market, to ensure the convenient use, stable and reliable, powerful. The product supports Chinese / English switch, chart data update online, radar overlay, track control etc.. The system can be composed of a double workstation, also can be used as a part of INS.

【Features】

Chinese/ English switch
Provide Chinese/ English switch function, Chinese display interface is more friendly.


Chinese interface
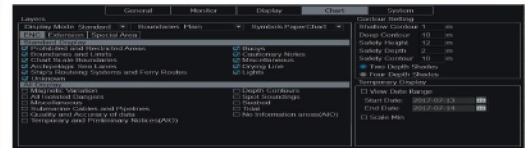
English interface

Track control
Track Control is available by connecting to the Steering Control System from Highlander so that the sailor could do more tasks besides frequent rudder adjustment.

ENC update on line
ENC update not only can be implemented locally, but also the ENC update can be finished on line, by addressing to the data sever in Highlander and downloading the ENC updates.

Radar echo and ARPA overlay
Highlander Radar overlay is supplied directly based on LAN. For other manufacturers' radar, Extractor Radar Acquisition PCI Board adapter is needed for echo overlay, ARPA targets can be displayed on Charts based on TTD or TTM sentence.

Weather routing
Provide weather data loading and display function, Route generation based on the departure port and destination, and route optimization based on weather data and optimization index (short time、short distance or lower energy), can supply the weather forecast date of China and France to ship owner, to assist the sailor to make the decision of navigation route.

NAVTEX management
Receive and display NAVTEX message, some filter criteria are available. For some special NAVTEX message, like military exercise area or wreck, the exact position of objects will be drawn on charts.
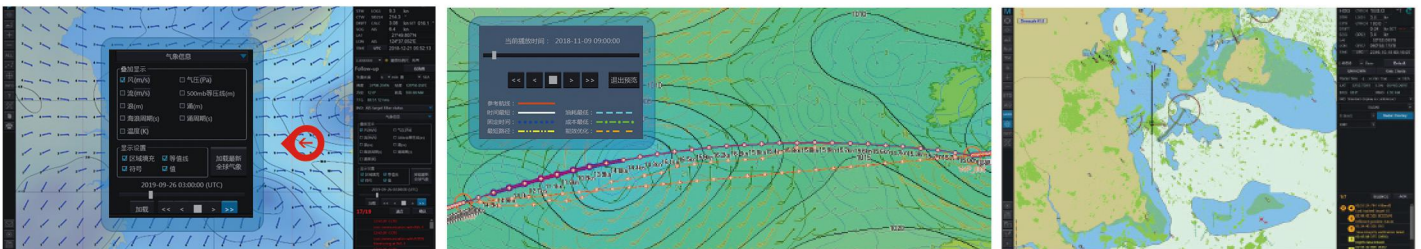
Chart data display
Support IHO S-57, S-63 formats of electronic chart, can supply the ENC date of UKHO AVCS, PRIMAR, CNHO, China MSA, China CWB (Yangtze River), etc. to ship owner, global data coverage.
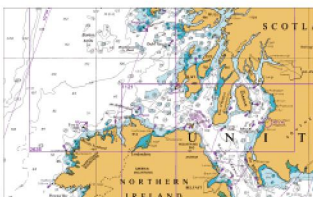

Chart data show

Chart data source

Friendly interface

Integrated information display is convenient for the user at any time to observe and set the control parameters; provide English / Chinese switching function; support 19 ", 23", 24 "and 26" and other dimensions of maritime special industrial LCD monitors

Good training system

To meet the requirements of the latest STCW convention, can be in the sea he believed in office and engineering agency to attend training, also can be authorized by the owner training center to participate in training, but also by the sea he believed in online education system for training.（http://ecdis600.highlander.com.cn/）

【Functions】

Basic functions

●Chart showing： Course up or North up; different layers showing the chart information.

●Route Planning Task：Ability to calculate the distance and bearing between any 2 waypoints, vessel position, track error, etc.

●Chart Data Correction：Accepts official chart data update automatically or via user's download, with automatic or manual correction.

●Position Fix & Navigation：Receives and process navigational sensors data,providing consistent reference position, track, heading, speed, etc, with various land reference for position fixing

●Voyage information acquirement：get the information including the description of the objects and the marine condition ,ex. meteor logical, tide, and the Ocean current.

●Radar overlaying：Radar signals overlay on the chart display for navigation and collision avoidance function. correlation between moving and fixed targets.navigator can assess collision risk and taking collision avoidance decisions and actions test trial collision avoidance decisions.

●Route Monitoring：automatic calculation of ship offset current state and plan routes when sailing, alert in necessary condition, automatic detection of dangerous sea, reef and so on, to realize the collision avoidance and Stranded prevention.

●Voyage recording：ECDIS will record and playback the 12 hours tracking information(include the time, vessel location, heading, speed, chart source, version and so on)every 1 min.

CCS certificate   DNV certificate

Specific functions

●LOP data can be presented both alphanumerically and graphically

●BACK UP two workstations are mutual backup function

●NAVTEX message management and display

●TCS track control (Optional)

●Conning integrated navigation information display system (Optional)

●RDS route decision support (Optional)

【parameter】

System Technical parameter

- Product standards: IMO MSC.232(82):2006, IEC 61174:2015
- Display unit: a total of 7 from 19 inch to 26 inch models to choose from
- Operating system: Windows 7 (EN)
- interface

Input: Serial or LAN
Own ship sensor data/ENC /PERMIT /SA CERTIHO certificate/Charts UPDATE/External alerts
Output: Serial or LAN
VDR/INS interface/TCS interface/BAMs
Power supply: 115-230 VAC AND 24 VDC INPUT, 300 w
UPS: 115-230 VAC INPUT, 1 kva
Working environment:
IEC 60945 STANDARDS
Temperature: -15 ℃ to 55 ℃ + (ALL UNITS)

Interface Unit

- Power supply：   5V DC
- Installation：   Desk mount/ Embedded mount
- Weight(about):   1kg
- EMC/EMI: IEC 60945

Process Unit

- Processor   Intel ® Core ™
- internal storage   DDR3, 8 GB
- storage   SSD 250GB
- size （LxWxH）：

HLD-MCU200：320x 300x 171mm
HLD-MCU600：250x 283x 135mm
HLD-MSC100：593x 384x 76.4mm
HLD-MSC110：595x 393x 75mm

- operating temperature：   -15 ~ 55 °C
- Storage temperature：   -20 ~ 60 °C
- Power：   18~36VDC IN
- power dissipation：   <100W
- up to standard：   IEC 60945
- Weight （anout）：

HLD-MCU200：4.5kg
HLD-MCU600：3.5kg
HLD-MSC100：11.2kg
HLD-MSC110：12.4kg

Display Unit Technical parameter

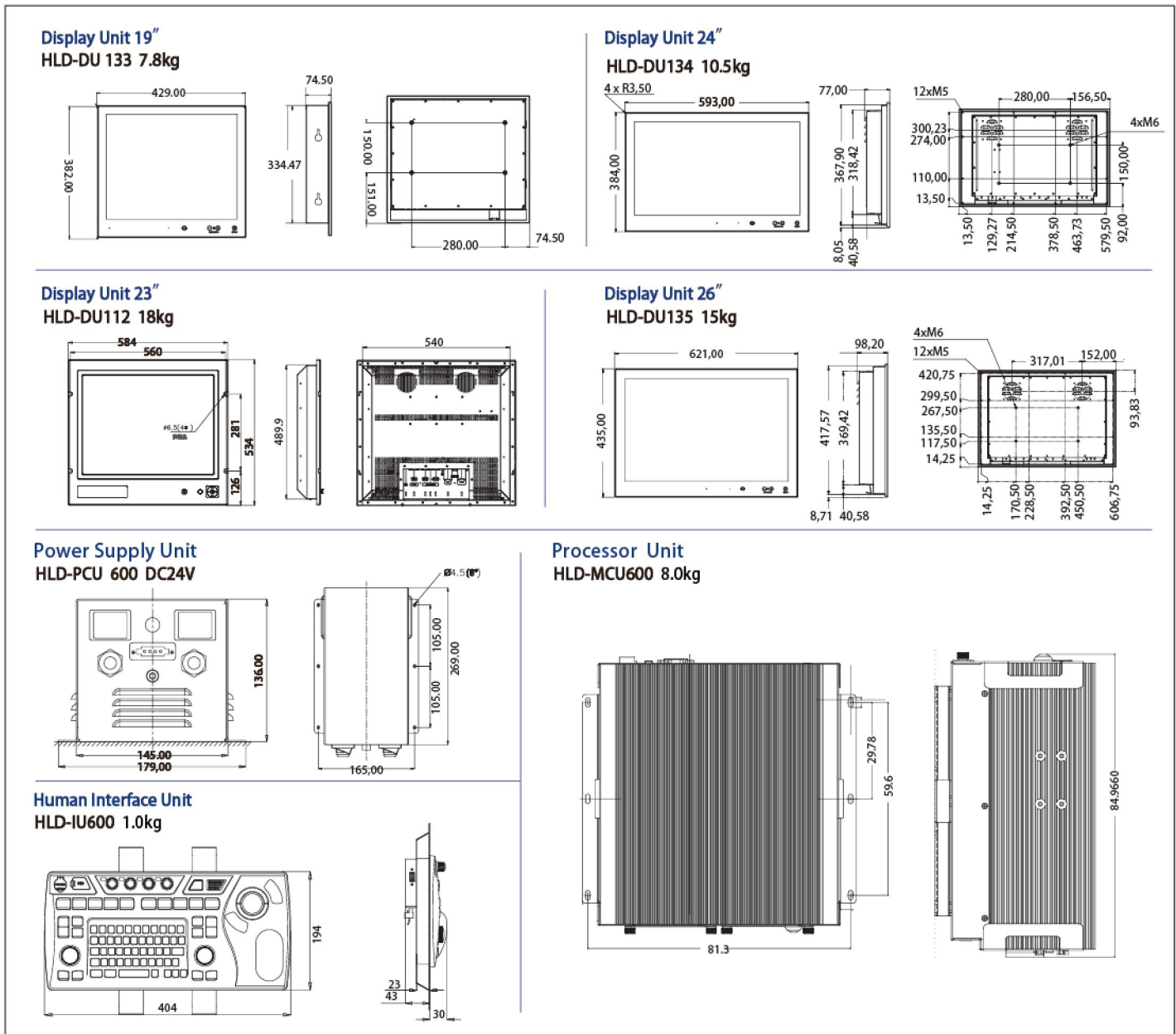| Model		HLD-DU112	HLD-DU133	HLD-DU134	HLD-DU135	HLD-DU140	HLD-DU141
Part Number		HD23T21	HD19T21	HD24T21	HD26T21	MD-224	MD-226
Manufacturers		Hatteland	Hatteland	Hatteland	Hatteland	MOXA	MOXA
Type Approval		DNV-GL	DNV-GL	DNV-GL	DNV-GL	DNV-GL	DNV-GL
Display Unit	Size	23.1 "	19 "	24 "	26 "	24 "	26 "
	Resolution	1600×1200	1280×1024	1920×1080	1920×1200	1920×1080	1920×1200
	Dimension	584×534×85	429×382×74.5	593×384×77	621×435×98.2	595.3×393.3×36.7	621×444×90.8
	Weight(Kg)	18	7.8	10.5	15	12.5	15.5
Signal Input		DVI-I/VGA					
Environment	Temperature	-15~55℃					
	Relative Humidity	0~95%					
	Anti vibration	5Hz~500Hz/1G/3Axis					
	IP	IP66(Front) IP22(Behind)	IP66(Front) IP22(Behind)	IP66(Front) IP24(Behind)	IP66(Front) IP22(Behind)	IP66(Front) IP22(Behind)	IP66(Front) IP22(Behind)
	Shock	15G （11ms duration)					
Power Supply		115 & 230V AC and 24V DC					
Consumption		95W （TYP) -125W (MAX)	50W （TYP) -60W (MAX)	40W （TYP) -125W (MAX)	125W （MAX)	40W （TYP) -75W (MAX)	125W （MAX)

【Configuration 】
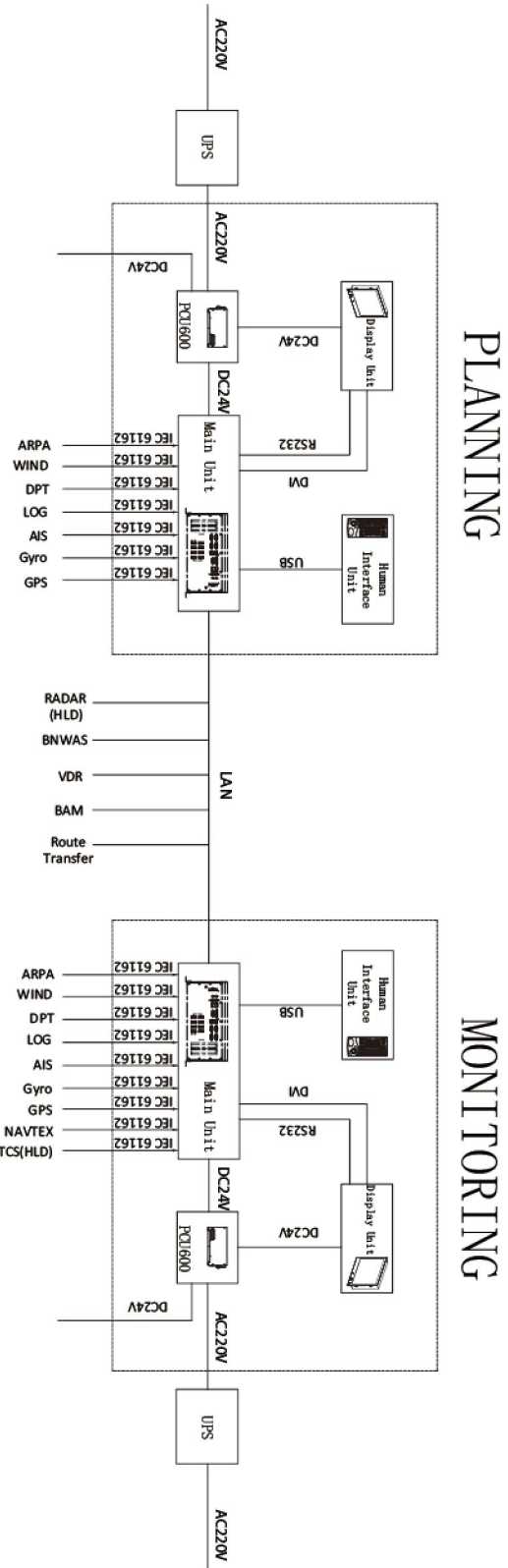
Standard Configuration

- Main Control Unit   HLD-MCU 600
- Diaplay Unit (24")   HLD-DU 134
- Interactive Unit   HLD-IU 600
- Certificate   ECDIS 100 (M)
- Documents
- Documents
- Power Supply Unit   HLD-PSU 600
- DVD drive
- Globe map and 3 months CNHO China area ENC.

Optional

- Power Supply Unit   HLD-PSU 600
- Qin Desktop Stand   HLD-SM 200
- Desk Bracket   HLD-DM 200
- Serial data server   HLD-SPS 100
- Display Unit

HLD-DU 133	19″
HLD-DU 112	23.1″
HLD-DU 134	24″
HLD-DU 135	26″
HLD-DU 140	24″
HLD-DU 141	26″

- U disk with chart Data
- VDR interface
  (only HLD-VDR 600 no need)
- UPS Power
- Radar image card
- TCS interface
- Internet switch
- CCS Product Certificate

【Dimensional Drawings】

Display Unit 19″
HLD-DU 133 7.8kg

Display Unit 24″
HLD-DU134 10.5kg

Display Unit 23″
HLD-DU112 18kg

Display Unit 26″
HLD-DU135 15kg

Power Supply Unit
HLD-PCU 600 DC24V

Processor Unit
HLD-MCU600 8.0kg

Human Interface Unit
HLD-IU600 1.0kg