



Marine & Offshore

Certificate number: 76123/A0 BV

File number: MPA2301889

Product code: 0004I

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**Jiangsu Highland Integration Technology Co., LTD.**

NANTONG - CHINA

*for the type of product*

**SMARTSHIP SOFTWARE**

HLD-SMS600

### Requirements:

Bureau Veritas Rules for the Classification of Steel Ships NR467

Bureau Veritas Additional Class notations SMART NR675 DT R02

*This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 04 Dec 2028**

**For Bureau Veritas Marine & Offshore,**

At BV SHANGHAI, on 04 Dec 2023,

Hong Zhang

***This certificate was created electronically and is valid without signature***



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION :

Ship Intelligent Information Integration software **HLD-SMS600** aims to provide a comprehensive information data service platform for ship data application. Through data collection, comprehensive storage, and ship-shore integration program, the system combines ship navigation data, machinery condition data with chart information, voyage information, port information, weather forecast and other information to provide comprehensive data services for upper-level applications, such as energy efficiency system, operation maintenance system.

According to the working principle between devices, the digital model is constructed, and the health evaluation and maintenance analysis of devices are carried out based on the model. The system can periodically assess the health of the equipment according to the sailing state of the ship. When the device is in the sub-health state, the system can analyze possible causes and provide maintenance suggestions.

The **HLD-SMS600** software has to be installed and operated on the **HLD-PID600** platform as per manufacturer recommendations.

This certificate covers the software functionalities related to additional notation **SMART MH1, DATA-INFRA and ASYNC-COM**.

Software version : **V1R1C01 and later (V1xxxxx)**

### 2. DOCUMENTS AND DRAWINGS :

- Installation manual HLD2100AZ V1.0 dated Aug 2023
- Operation manual HLD2100CZ V1.0 dated Aug 2023
- Software specification sheet HLD2100GG V1.0 dated Aug 2023
- Test specification HLD2100XS V1.1 dated Aug 2023
- Baseline data monitoring procedures HLD2300JZ V1.0 dated 2023-08-31
- Software quality control program HLD2100ZL V1.0 dated Aug 2023
- Equipment assisted decision making operations and maintenance description HLD2300YW V1.0 dated 2023-08-31
- Equipment condition assessment methods HLD-2300SP V1.0 dated 2023-08-31
- Maintenance manual HLD2300WH V1.0 dated 2023-08-30
- Monitoring equipment condition assesment criteria HLD2300PB V1.0 dated 2023-08-31
- Monitoring the output of equipment condition assessment results HLD2300PJ V1.0 dated 2023-08-31
- Software design notes HLD2300SJ V1.0 dated Aug 2023
- Mooring test outline template HLD2400HX V1.0
- Data infrastructure test outline HLD2100XS V1.0 dated Nov 2023
- SMART MH1 test outline HLD2300XG V2.0 dated Nov 2023

### 3. TEST REPORTS :

- DATA-INFRA RAWABI Project test outline HLD2100XS V1.0 witnessed on 14 Nov 2023
- SMART (MH1) RAWABI Project test outline HLD2300XG V2.0 witnessed on 14 Nov 2023
- Highland Intelligent System data checklist rev 4.0 witnessed on 14 Nov 2023

### 4. APPLICATION / LIMITATION :

- 4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships.
- 4.2 - Approval is valid for ships to be granted with the notations: **SMART MH1, DATA-INFRA and ASYNC-COM**
- 4.3 - This certificate is valid for tested version V1R1C01 and later releases (V1xxxxx), provided that alterations of functionality remain in line with the Rules in force.
- 4.4 - The software has been approved in accordance with Category I requirements.
- 4.5 - The system is to be installed and used according to the manufacturer's recommendations.
- 4.6 - The software, once installed on board ship, is to be tested in accordance with the above referred Rules under the supervision of a Society's Surveyor.
- 4.7 - Each application and configuration is to be submitted to the Society's examination prior to fitting on board.

### 5. PRODUCTION SURVEY REQUIREMENTS :

- 5.1 - The **HLD-SMS600** software is to be manufactured, examined and tested by **Jiangsu Highland Integration Technology Co. Ltd.** in accordance with the type described in this certificate.
- 5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.
- 5.3 - BV product certificate is required.

5.4 - For information, **Jiangsu Highland Integration Technology Co. Ltd.** has declared to Bureau Veritas the following production site :

**Jiangsu Highland Integration Technology Co. Ltd.**  
**No. 199 Qingfeng Road**  
**Suxitong Science & Technology Industrial Park**  
**226017 Nantong**  
**CHINA**

**6. MARKING OF PRODUCT :**

Identification is:

- Maker's name or trade mark: **Jiangsu Highland Integration Technology Co. Ltd.**
- software id : HLD-SMS600
- Version : V1R1C01 or later (V1xxxxx)

The identification is to be displayed in the main window. It is to be available in the software manual.

**7. OTHERS :**

7.1 - The approval only concerns the functionality and does not certify that the software is free from anomalies.

7.2 - Bureau Veritas Marine & Offshore disclaims any warranty, expressed or implied, in regard to this type approval certificate, including any implied warranty of merchantability, fitness for a particular purpose or non-infringement.

7.3 - **Jiangsu Highland Integration Technology Co. Ltd.** should notify **BUREAU VERITAS** of any modification or changes to the software in order to maintain the validity of the Type Approval Certificate or to renew it, as relevant.

7.4 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the installed softwares at any time and that **Jiangsu Highland Integration Technology Co. Ltd.** will accept full responsibility for informing shipbuilders, ship owners or their sub-contractors of the proper methods of use and general maintenance of the software and the conditions of this approval.

\*\*\* END OF CERTIFICATE \*\*\*