



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.  
JS24PTB00178\_01

型式认可证书  
CERTIFICATE OF TYPE APPROVAL

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products described in the certificate.

制造厂/Manufacturer

江苏海兰船舶电气系统科技有限公司  
Jiangsu Highland Integration Technology Co., Ltd.

地址/Address

江苏省南通市苏通科技产业园清枫路199号  
No.199, Qingfeng Road, Sutong Science Park, Nantong City, Jiangsu

产品名称/Product

电子海图显示与信息系统 (ECDIS)  
Electronic Chart Display and Information System (ECDIS)

认可标准/Approval Standard

1. IEC 61174:2015《船用航行和无线电通信设备及系统-电子海图显示与信息系统-操作和性能要求、试验方法和要求的试验结果》  
IEC 61174:2015 Maritime Navigation and Radio communication Equipment and Systems - Electronic Chart Display And Information System (ECDIS) - Operational and Performance Requirements, Methods of Testing and Required Test Results
2. IEC 60945:2002/COR1:2008《船用航行和无线电通信设备及系统-通用要求-试验方法和试验结果的要求》  
IEC 60945:2002/COR1:2008 Maritime Navigation and Radiocommunication Equipment and Systems - General Requirements - Methods of Testing and Required Test Results
3. 国际海事组织海安会决议MSC. 232 (82)《通过经修订的电子海图显示与信息系统(ECDIS)性能标准》  
IMO Resolution MSC.232(82) Adoption of the Revised Performance Standards for Electronic Chart Display and Information Systems (ECDIS)
4. 国际海事组织大会决议A. 694 (17)《作为全球海上遇险和安全系统(遇险和安全系统)组成部分的船载无线电设备和电子助航设备的一般要求》  
IMO Resolution A.694(17) General Requirements for Shipborne Radio Equipment Forming Part of The Global Maritime Distress and Safety System (GMDSS) and for Electronic Navigational Aids
5. 国际海事组织海安会决议MSC. 191 (79)《船载航行显示器有关航行信息显示的性能标准》  
IMO Resolution MSC.191(79) Performance Standards for the Presentation of Navigation-Related Information on Shipborne Navigational Displays
6. 国际海事组织航行安全分委会1503号通函《电子海图显示与信息系统良好实施指南》  
IMO MSC.1/Circ.1503/Rev.1 ECDIS-Guidance for Good Practice
7. 国际海事组织海安会决议MSC. 302 (87)《驾驶室警报管理性能标准》  
IMO Resolution MSC.302(87) Adoption of Performance Standards for Bridge Alert Management
8. 国际海事组织海安会决议 MSC. 466 (101) 关于船载航行显示器有关航行信息显示的性能标准》(MSC. 191 (79))的修正案  
IMO Resolution MSC.466(101) Amendment of MSC.191(79) Performance Standards for the Presentation of Navigation-Related Information on Shipborne Navigational Displays.

证书有效期至/This Certificate is valid until 2027年09月21日/ Sep. 21,2027

发证机构/Issued by 中国船级社江苏分社  
China Classification Society Branch

签发日期/Date 2025年02月10日  
Feb. 10, 2025

本证书根据中国船级社规范和相关规定签发。所有证书页为一个整体,必须同时使用。纸质证书每页均须由本社盖章方为有效,电子证书含数字签名方为有效,本证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。有关方对所持证书的真实性有疑问时,可以向我社检验机构咨询。本证书凡是未注明版本的规范,其(发证时)最新版本适用于本证书。  
This Certificate is issued pursuant to the Rules of the Society and related regulation. All pages of the certificate are taken as a whole and are used simultaneously. No paper certificate page is valid without bearing the stamp of the Society, no electronic certificates is valid without the digital signature, and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices. For Rules with no version indication, their latest version (at the time of issuance of the certificate) applies to this certificate.

Form No: T01.

联系方式/Contact Us, 见本社官方网站/See official web site of the Society (<http://www.ccs.org.cn>)



UTN:P024-32623792

9. 中国船级社《船舶网络安全指南》（2024）第1、2、3章  
Chapter 1, 2, 3 of China Classification Society Guidelines for Ship Cyber Security (2024)  
10. . IACS UR E27 (Rev.1) 船载系统和设备网络韧性  
IACS UR E27(Rev.1) Cyber resilience of on-board systems and equipment

用于/Intended for

国内航行海船/Domestic sea-going ship , 国际航行海船/International sea-going ship, 内河船舶/Inland waters ship

产品明细/Product Description

电子海图显示与信息系统（ECDIS）/Electronic Chart Display and Information System (ECDIS) (M0001)

名称/Name	属性（值）/Value	单位/Unit
型号/Type	HLD-ECDIS 600	
电源/Power Source	AC110V/220V, 50/60Hz, or DC24	V
屏幕尺寸/Screen Size	17/19/20/23.1/24/26/27	inch
是否可作为后备布置/Whether for Back-Up Arrangements	是 Yes	
是否具有RCDS 模式功能/Whether Includes Rcds Mode of Operation	否 No	
是否具有雷达图像叠加功能/Whether Includes Radar Overlay Function	是 Yes	
S-57 版本号/S-57 Edition	3.1	
S-52 版本号/S-52 Edition	6.1.1	
表示库版本号/Preslib Edition	4.0.2	
S-63 版本号/S-63 Edition	1.2.0	
ENC 文本格式/ENC Format	S-57, S-63	
软件版本号/Software Version	1.x	
罗经安全距离/Compass Safe Distance	155 cm	
系统组成/System Component	详见附页 See additional page	

批准的图纸/Approved Drawings

图纸批准号/ Drawings Approval No. :  
NP13A01326/NP15A02845/NP15A03291/NP17A00884/NP19PPP03508/NP21PPP01729/NP24PPP00464/NP24PPP02385

产品认可试验报告/ Approval Test Report

试验报告编号/ Test Report No. : A12-033-ZC  
试验报告日期/ Test Report Date : 2012-07-25

试验报告编号/ Test Report No. : HLD5100CG23  
试验报告日期/ Test Report Date : 2023-09-07

试验报告编号/ Test Report No. : JECZ S202011002  
试验报告日期/ Test Report Date : 2021-01-18

试验报告编号/ Test Report No. : HLD3400CG  
试验报告日期/ Test Report Date : 2017-03-16

试验报告编号/ Test Report No. : 23TAS06P20D32-80100  
试验报告日期/ Test Report Date : 2024-01-31

试验报告编号/ Test Report No. : HLD3400CG21  
试验报告日期/ Test Report Date : 2021-06-03

试验报告编号/ Test Report No. : SI24PTCCV011  
试验报告日期/ Test Report Date : 2024-12-31

**认可后的产品检验方式/ Method of Product Inspection after Approval**

按规范认可后应进行产品检验的产品/The product should be inspected in term of the rules:  
认可后的产品检验应由本社验船师根据本社规范规定按批准的产品检验计划进行检验, 经检验合格后由本社颁发船用产品证书。

After approval, product inspection should be carried out by the Surveyor of the Society in accordance with the approved product inspection scheme, and the Marine Product Certificate will be issued by the Society upon satisfactory inspection.

**认可保持条件/ Maintenance Requirements of Approval**

1. 型式认可后, 如果产品及其重要零部件的设计、所用材料或制造方法有所改变, 且影响到产品的主要特性、特征; 或产品的性能指标有所更改, 且超过认可的范围, 则有关图纸和文件应经检验机构审批。并在检验机构认为必要时, 经本社检验人员见证有关试验和进行检查, 其结果应能证实仍符合认可条件。

After type approval, if there are changes to the design, materials used or manufacturing method of the product and important components and such changes affect major characteristics and properties of the product, or property indexes of the product are changed and exceed the scope of approval, related drawings and documents are to be examined and approved by the concerned survey office. Where deemed necessary by the survey office, the surveyor to the Society will go to witness relevant tests and conduct inspection and the results should be able to demonstrate compliance with the approval conditions.

2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。

The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 认可证书有效期内, 如果出现可能导致本社取消认可的情况, 工厂应及时采取有效的纠正措施。

Within the validity of the approval certificate, if cases occur that may cause the Society to withdraw the approval, the manufacturer should take corrective actions in a prompt and effective manner.

4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

5. 如果属于获得型式认可B 模式证书, 且无需颁发船用产品证书/等效证明文件的情况, 证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作应在周年日的前后三个月内进行。

If belong to the situation of the product has type approval mode B certificate, and marine product certificate/equivalent document is not necessary, those who have obtained the certificate should be subject to periodical audit every year. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit shall be done within a time span of three months before and after the annual surveillance date.

**备注/Remarks**

本社已审核了产品厂无石棉声明, 但本社的审核不免除产品厂按照合同关系向订货方保证产品无石棉的责任。

The declaration of asbestos-free submitted by manufacturer has been reviewed by the Society. However, liability of the manufacturer to guarantee the products are asbestos-free to purchaser under contract will not be exempted.

本证书由原型式认可证书 (No. JS23PTB00137\_03) 变更并替代原证书。

This Certificate is modified from and supersedes the previous Type Approval Certificate No. JS23PTB00137\_03.

网络安全等级: SL0.

Cyber Security Class: SL0.

本产品不支持无线访问管理, 无线使用控制。

This product does not support wireless access management, wireless controlling.

软件的重大变更应通知本社, 并提交相关文件进行评估。如果评估认定该变更会影响到规范中要求的功能, 应重新进行相关型式试验, 并进行型式认可的相关变更。

Significant software changes should be notified to the China Classification Society and relevant documents should be submitted for assessment. If the assessment confirms that the change will affect the function required in the rules, relevant type test should be carried out again, and type approval will be modified.

中国船级社江苏分社  
CCS Jiangsu Branch

注: 本证书含有附页, 共1页

Note: The certificate is attached with additional 1 page(s)

系统组成/System Component

序号 (No)	部件名称 (Name of Part)	型号 (Type)	防护等级 (IP)
1	主控单元/Main Control Unit	HLD-MCU200 or HLD-MCU600 or HLD-MCU750 or HLD-MCU770	IP22
2	显示单元/Display Unit	HLD-DU109 or HLD-DU110 or HLD-DU112 or HLD-DU133 or HLD-DU134 or HLD-DU135 or HLD-DU138 or HLD-DU140 or HLD-DU141 or HLD-DU142 or HLD-DU161 or HLD-DU162 or HLD-DU163 or HLD-DU164or HLD-DU165	IP22
3	人机交互单元/Interactive Unit	HLD-IU600	IP22
4	一体机单元/All-in-one machine	HLD-MCS100 or HLD-MCS110	IP22
5	电源转换单元/power conversion unit	HLD-PCU600	IP20