



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.  
JS24PTB00497

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

船用雷达  
Marine Radar

认可标准/Approval Standard

1. 中华人民共和国海事局《船舶与海上设施法定检验规则-内河船舶法定检验技术 规则》（2019）及其修改通报第5篇第6章  
Chapter 6, Part Five of China MSA Regulation for Statutory Survey of Ships and Offshore Installations - Technical Regulations for the Statutory Surveys of Inland Waterways Ships (2019) and its Amendments
2. 中华人民共和国海事局《国内海洋渔船法定检验技术规则》（2019）及其修改通报第11篇第1、2章  
Chapter 1,2 Part Eleven of China MSA Regulation for Statutory Survey of Domestic Fish vessels (2019) and its Amendment
3. 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

用于/Intended for

国内海洋渔船/Domestic sea-going fishing vessels, 内河船舶/Inland waters ship

产品明细/Product Description

雷达设备/Radar Equipment (M0001)

名称/Name	属性(值)/Value	单位/Unit
型号/Type	HLD-RADAR 300/300C/300H	
系统组成/System Component	详见附页   See additional page	



证书有效期至/This Certificate is valid until 2027年07月30日/ Jul. 30,2027

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

签发日期/Date 2024年12月30日  
Dec. 30,2024

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，可以向本社检验机构咨询。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 the 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:P024-86078609

批准的图纸/Approved Drawings

图纸批准号/ Drawings Approval No. : NP23PPP02855

产品认可试验报告/ Approval Test Report

试验报告编号/ Test Report No. : J24-007-WT

试验报告日期/ Test Report Date : 2024-01-12

试验报告编号/ Test Report No. : HLD\_1030DG 202401\_1

试验报告日期/ Test Report Date : 2024-01-01

试验报告编号/ Test Report No. : 23TAS06P20D32-80100

试验报告日期/ Test Report Date : 2023-12-05

试验报告编号/ Test Report No. : HLD\_1030DG 202401\_2

试验报告日期/ Test Report Date : 2024-01-01

试验报告编号/ Test Report No. : A15-006-ZC

试验报告日期/ Test Report Date : 2015-04-08

试验报告编号/ Test Report No. : JECZ S202011002

试验报告日期/ Test Report Date : 2021-01-18

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.

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. JS23PTB00420）变更并替代原证书。

This Certificate is modified from and supersedes the previous Type Approval Certificate No. JS23PTB00420.

**中国船级社江苏分社**

**CCS Jiangsu Branch**

注：本证书含有附页，共4页

Note: The certificate is attached with additional 4 page(s)

## 船用雷达 Marine Radar (M0001)

名称/Name	属性(值)/Value
1. 产品型号/Type	HLD-RADAR 300/300C/300H
2. 系统组成/System Components	一体机/雷达收发单元/雷达天线/Integrated Machine/Transceiver Unit/Radar Antenna
3. 额定电压/Rated Voltage	DC24V/AC110V/220V
4. 峰值功率/Peak of output power	6kW/10kW/25kW
5. 天线长度/Length of Antenna	4ft/6ft/8ft
6. 软件版本号/Software Version	2. x
7. 工作频率/Frequency	9410±30MHz
8. 最小操作显示区直径/Minimum operation display area diameter	一体机: 12.1/15 英寸 184mm 17/19 英寸 250mm 显示单元(可选): 23 英寸 325mm /24 英寸 275mm /26 英寸 323mm /27 英寸 320mm
9. 最小显示区域/Minimum display area	一体机: 12.1 英寸 254*184mm 15 英寸 304*228mm 17 英寸 337*270mm 19 英寸 375*300mm 显示单元(可选): 23 英寸 470*353mm 24 英寸 531*298mm 26 英寸 550*343mm 27 英寸 597*336mm
10. 是否具有自动捕获目标功能/AUTO acquisition of targets function	是/yes
11. 最少被捕获的雷达目标数/Minimum acquired radar targets capacity	100
12. 最少被激活的 AIS 目标数/Minimum acquired AIS targets capacity	250
13. 罗经安全距离/Compass safe distance	收发单元与标准罗经距离: 90cm; 与操舵罗经距离: 80cm 显示单元与标准罗经距离: 100 cm ; 与操舵罗经距离: 80 cm

	主控单元与标准罗经距离: 130 cm ; 与操舵罗经距离: 85 cm Distance Between Transceiver and Standard compass: 90cm Distance Between Transceiver and Steering compass: 80cm Distance Between Display and Standard compass: 100cm Distance Between Display and Steering compass: 80cm Distance Between Main Control Unit and Standard compass: 130cm Distance Between Main Control Unit and Steering compass: 85cm				
14. 性能监视器型号/Performance Monitor type	PMX (可选)				
15. 是否集成电子标会 (EPA) 功能/Whether Electric Plotting Aid function be integrated into the radar equipment	是/yes				
16. 是否集成自动目标跟踪 (ATA) 功能/Whether Automatic Tracking Aid function be integrated into the radar equipment	是/yes				
17. 是否集成自动雷达标会 (ARPA) 功能/Whether Automation Radar Plotting Aid function be integrated into the radar equipment	是/yes				
18. 天线型号/Type of Antenna	HLD-AT104A(4ft.) or HLD-AT106A(6ft.) or HLD-AT108(8ft.)				
19. 收发单元型号/Type of Transceiver	HLD-TU106(6KW) or HLD-TU110A(10KW) or HLD-TU125(25KW)				
20. 一体机/All-in-One Machine	型号/Type	显示区域 /Display Area (mm)	操作直径 /Operation Diameter (mm)	显示分辨率 /Display Resolution (pixel)	适用范围 /Application Scope
	HLD-MCS212	254×184	184	1024×768	CAT 3/CAT 3C
	HLD-MCS215	304×228	184	1024×768	CAT 3/CAT 3C
	HLD-MCS217	337×270	250	1280×1024	CAT 2/CAT 2C/CAT3/CAT 3C
	HLD-MCS219	375×300	250	1280×1024	CAT 2/CAT 2C/CAT3/CAT 3C

21. 显示单元（可选）/Display Unit (Optional)	型号/Type	显示区域 /Display Area (mm)	操作直径 /Operation Diameter (mm)	显示分辨率 /Display Resolution (pixel)	适用范围 /Application Scope
	HLD-DU112	470×353	325	1600×1200	CAT 1/CAT 2/CAT 3/CAT 1C/CAT2C/CAT 3C
	HLD-DU121	336×269	220	1280×1024	CAT 3/CAT 3C
	HLD-DU122	376×301	251	1280×1024	CAT 2/CAT 2C/CAT3/CAT 3C
	HLD-DU133	376×301	251	1280×1024	CAT 2/CAT 2C/CAT3/CAT 3C
	HLD-DU134	531×298	275	1920×1080	CAT 2/CAT 2C/CAT 3/CAT 3C
	HLD-DU135	550×343	323	1920×1200	CAT 1/CAT 2/CAT 3/CAT 1C/CAT 2C/CAT 3C
	HLD-DU138	597×336	321	1920×1080	CAT 1/CAT 2/CAT 3/CAT 1C/CAT 2C/CAT 3C
	HLD-DU140	531×298	275	1920×1080	CAT 2/CAT 2C/CAT 3/CAT 3C
	HLD-DU141	550×343	323	1920×1200	CAT 1/CAT 2/CAT 3/CAT 1C/CAT 2C/CAT 3C
	HLD-DU142	376×301	251	1280×1024	CAT 2/CAT 2C/CAT 3/CAT 3C
	HLD-DU160	304×228	188	1024×768	CAT 3/CAT 3C

	HLD-DU161	336×269	220	1280×1024	CAT 3/CAT 3C
	HLD-DU162	376×301	251	1280×1024	CAT 2/CAT 2C/CAT3/CAT 3C
	HLD-DU163	531×298	275	1920×1080	CAT 2/CAT 2C/CAT 3/CAT 3C
	HLD-DU164	550×343	323	1920×1200	CAT 1/CAT 2/CAT 3/CAT 1C/CAT 2C/CAT 3C
	HLD-DU165	597×336	321	1920×1080	CAT 1/CAT 2/CAT 3/CAT 1C/CAT 2C/CAT 3C
22. 主控单元型号/Type of Main Unit	HLD-MCU600、HLD-MCU750、HLD-MCU770				
23. 人机交互单元型号/Type of Human Interface Unit	HLD-IU600A				
24. 电源转换单元型号/Type of Power Conversion Unit	HLD-PCU600A				
25. 距离分辨率/Range discrimination	优于 40m/Better than 40m				
26. 方位分辨率/Bearing discrimination	4ft 2.4° / 6ft 1.3° /8ft1.0°				
27. 量程/Range scales	0.125/0.25/0.5/0.75/1.5/3/6/12/24/48 n mile				