



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.  
DB21PAA00001

产品检测和试验机构认可证书  
CERTIFICATE OF TEST AGENCY APPROVAL

兹证明本证书所述试验机构具备按照本社接受的试验标准进行本证书所列产品试验的能力和条件。  
This is to certify the agency stated in the certificate is available with the ability and conditions to test the relevant products in accordance with the standards accepted by this Society.

检测和试验机构/ Test Agency

Labotech International Co.,Ltd

地址/Address

1-16, Fukazu-cho, Nishinomiya-shi, Hyogo, Japan

认可试验范围/Items of Test Approved

1. 电气电子产品/Electrical and electronic product:
  - 1.1. 性能试验/Performance Test;
  - 1.2. 环境试验/Environmental Test;
  - 1.3. 电磁兼容试验/Electromagnetic Compatibility Test.
2. 航行和无线电通信设备及系统/Maritime navigation and radio-communication equipment and system:
  - 2.1. 操作试验/Operation Test;
  - 2.2. 电源试验/Power Supply Test;
  - 2.3. 环境条件试验/Environmental Conditions Test;
  - 2.4. 电磁兼容性试验/Electromagnetic Compatibility Test;
  - 2.5. 特殊试验/Special Purpose Test;
  - 2.6. 人身安全试验/Safety Precautions Measurement.

(详见附页/Refer to Additional Pages)

试验主要适用标准/ Main Test Standards

1. 详见附页  
Refer to Additional Pages

认可保持条件/ Maintenance Requirements of Approval

1. 产品检测和试验机构认可后, 如果检测、试验设备或试验程序、方法有较大改变, 应征得本社同意。若改变涉及或影响到检测、试验的结果时, 本社检验人员将到厂进行检查和见证有关试验, 其结果应能证实仍符合认可条件。  
After works approval, if there are any major changes to the inspection and testing instruments or testing procedure, prior consent should be obtained from the survey office of the Society. If the changes involve or affect the results of inspection and testing, the surveyor to the Society will go to the agency to inspect or witness relevant tests and the results of the tests should be able to demonstrate compliance with the approval conditions.

证书有效期至/This Certificate is valid until 2026年01月27日 /Jan. 27,2026

发证机构<sup>1</sup> 中国船级社大阪分社  
Issued by CCS Osaka Branch

签发日期 2022年01月27日  
Date Jan. 27,2022

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。  
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.

Form No: A01.

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:P021-80465108

2. 认可证书获得者应接受本社一次定期审核，定期审核日为认可证书的期满之日对应的第二个周年日，检查工作应在定期审核日的前后三个月内进行。

Those who have obtained the certificate of agency approval shall receive periodical audit done by the Society. The date of periodical audit shall be the second anniversary date of the approval certificate 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 or after the above periodical audit date.

3. 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机构的检测和试验过程进行审核，以验证检测和试验过程是否符合认可条件。机构应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the inspection and testing process of the product in order to confirm whether it is in compliance with the approval conditions. The agency should provide an active cooperation and necessary for the surveyor.

4. 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，机构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 certificate, the agency should take corrective actions in a prompt and effective manner.

### 备注/Remarks

1. 认可的试验机构包含如下试验室信息：

The approved test agency includes the following lab information:

1.1 Labotech EMC Center (1-16, Fukazu-cho, Nishinomiya-shi, Hyogo, Japan)

1.2 Nishinomiya Lab (9-52, Ashihara-cho, Nishinomiya-shi, Hyogo, Japan)

1.3 Nishinomiya-Hama Lab (2-20, Nishinomiyahama, Nishinomiya-shi, Hyogo, Japan)

1.4 Kishu Lab (579-1, Umehara, Wakayama-shi, Wakayama, Japan)

2. 本证书由原产品检测和试验机构认可证书 (No. DB17S00001) 换新并替代原证书。

This certificate is renewed from and supersedes the previous Test Agency Approval Certificate No. DB17S00001.

中国船级社

CCS Osaka Branch

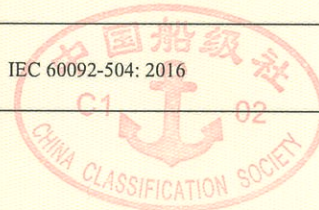
注：本证书含有附页，共2页

Note: The certificate is attached with additional 2 page(s)



**试验项目及标准明细**  
**Description of Test Items and Standards**

试验产品 Test of Product	试验类别 Test Category	试验项目 Test Items	测试标准 Test Standards
电气电子产品 Electrical and Electronic Product	性能试验 Performance Test	外观检查 Visual Inspection	CCS Guidelines for Type Approval Test of Electric and Electronic Products Section 2.1
		性能试验 Performance Test	CCS Guidelines for Type Approval Test of Electric and Electronic Products Section 2.2
		绝缘电阻测量 Insulation Resistance Test	IEC 60092-504: 2016
		电源波动试验 Power Supply Variation Test	IEC 60092-504: 2016
		电源故障试验 Power Supply Failure Test	IEC 60092-504: 2016
		耐电压试验 High Voltage Test	IEC 60092-504: 2016
		环境试验 Environmental Test	干热试验 Dry Heat Test
	低温试验 Low Temperature Test		IEC 60068-2-1: 2007
	湿热试验（交变） Damp Heat Test (cyclic)		IEC 60068-2-30: 2005
	湿热试验（恒定） Damp Heat Test (steady)		IEC 60068-2-78: 2012
	倾斜摇摆试验 Inclination & Rolling Test		IEC 60092-504: 2016
	振动试验 Vibration Test		IEC 60068-2-6: 2007
	外壳防护试验（IP X2/X5/X6） Enclosure Test (IP X2/X5/X6)		IEC 60529: 1989/AMD1: 1999/AMD2: 2013 /COR1: 2019
	电磁兼容试验 Electromagnetic Compatibility Test	传导发射测量 Conducted Emissions	CISPR 16-1-1: 2019 CISPR 16-1-2: 2014/AMD1: 2017 CISPR 16-2-1: 2014/AMD1: 2017/COR1: 2020
		外壳端口辐射发射测量 Radiated Emission from Enclosure Port	CISPR 16-1-1: 2019 CISPR 16-1-4: 2019/AMD1: 2020 CISPR 16-2-3: 2016/AMD1: 2019
		静电放电抗扰度 Immunity to Electrostatic Discharge	IEC 61000-4-2: 2008
		射频电磁场辐射抗扰度 Immunity to Radiated Radio Frequencies	IEC 61000-4-3: 2020
		电快速瞬变抗扰度 Immunity to Fast Transients on A.C. Power, Signal & Control Lines	IEC 61000-4-4: 2012
		浪涌（冲击）抗扰度 Immunity to Surges on A.C. Power Lines	IEC 61000-4-5: 2014/AMD1: 2017
		射频场感应的传导骚扰抗扰度 Immunity to Conducted Radio Frequency Disturbances	IEC 61000-4-6: 2013
		低频传导抗扰度 Immunity to Conducted Low Frequency Interference	IEC 60092-504: 2016



试验产品 Test of Product	试验类别 Test Category	试验项目 Test Items	测试标准 Test Standards
航行和无线电通 信设备及系统 Maritime Navigation and Radio-communication Equipment and System Test	操作及电源试验 Operation and Power Supply Test	操作检查 Operational Check	IEC 60945: 2002/COR1: 2008 Clause 6
		电源波动试验 Power Supply Variation Test	IEC 60945: 2002/COR1: 2008 Clause 7.1
		电源异常 Excessive Conditions	IEC 60945: 2002/COR1: 2008 Clause 7.2
	环境试验 Environmental Test	干热试验 Dry Heat Test	IEC 60945: 2002/COR1: 2008 Clause 8.2
		湿热试验 (交变) Damp Heat Test (cyclic)	IEC 60945:2002/COR1: 2008 Clause 8.3
		低温试验 Low Temperature Test	IEC 60945:2002/COR1: 2008 Clause 8.4
		振动试验 Vibration Test	IEC 60945:2002/COR1: 2008 Clause 8.7
		雨和喷水 Rain and Spray	IEC 60945:2002/COR1: 2008 Clause 8.8
	电磁兼容试验 Electromagnetic Compatibility Test	传导发射测量 Conducted Emissions	IEC 60945:2002/COR1: 2008 Clause 9.2
		外壳端口辐射发射测量 Radiated Emission from Enclosure Port	IEC 60945:2002/COR1: 2008 Clause 9.3
		射频场感应的传导骚扰抗扰度 Immunity to Conducted Radio Frequency Disturbances	IEC 60945:2002/COR1: 2008 Clause 10.3
		射频电磁场辐射抗扰度 Immunity to Radiated Radio Frequencies	IEC 60945:2002/COR1: 2008 Clause 10.4
		电快速瞬变抗扰度 Immunity to Fast Transients on A.C. Power, Signal & Control Lines	IEC 60945:2002/COR1: 2008 Clause 10.5
		浪涌 (冲击) 抗扰度 Immunity to Surges on A.C. Power Lines	IEC 60945:2002/COR1: 2008 Clause 10.6
		电源短时波动抗扰度 Immunity to Power Supply Short-term Variation	IEC 60945:2002/COR1: 2008 Clause 10.7
		电源故障抗扰度 Immunity to Power Supply Failure	IEC 60945:2002/COR1: 2008 Clause 10.8
		静电放电抗扰度 Immunity to Electrostatic Discharge	IEC 60945:2002/COR1: 2008 Clause 10.9
		特殊试验 Special Purpose Test	噪声和听觉信号 Acoustic Noise & Signals
	磁罗经安全距离 Compass Safe Distance		IEC 60945:2002/COR1: 2008 Clause 11.2
	人身安全测试 Safety Precautions Measurement	防止触及危险电压 Protection Against Accidental Access to Dangerous Voltages	IEC 60945:2002/COR1: 2008 Clause 12.1
		射频电磁辐射 Electromagnetic Radio Frequency Radiation	IEC 60945:2002/COR1: 2008 Clause 12.2
视觉显示单(VDU)的发射 Emission from Visual Display Unit (VDU)		IEC 60945:2002/COR1: 2008 Clause 12.3	

