

本证书由中华人民共和国政府授权发给  
This Certificate is Issued Under the Authority of the Government of the People's Republic of China

中国船级社  
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: T01.01-  
HB000114

型式认可证书  
CERTIFICATE OF TYPE APPROVAL

证书编号/Certificate No. CQ10T00023

兹证明本证书所述制造厂生产的下列产品能够满足下面列明认可标准的要求。

**This is to certify** that the following products produced by the manufacturer stated in the certificate can meet the requirements of the approval standards listed below.

认可产品/ Product Approved

船舶自动识别系统船载设备 (AIS Class-B)

Ship-borne Equipment of The Automatic Identification System (Class B)

船用自动识别系统

Automatic Identification System

制造厂/ Manufacturer

成都天奥信息科技有限公司

Chengdu Spaceon Technology Co., Ltd.

成都市高新西区新业路88号, 天奥科技产业园

Spaceon Science and technology industrial centre, 88 Xingye Road, West High-tech Zone, Chendu

认可标准/ Approval Standard

- IEC60945—2002《船舶航海和无线电通讯设备系统一般要求、试验方法和要求的试验结果》  
IEC60945—2002: Maritime navigation and radio communication equipment and systems -General requirements - Methods of testing and required test results
- IEC62287—1 2006-03: 海上导航无线通信设备及系统--B类船载自动识别系统 (AIS) 设备: 第一部分  
IEC62287—1 2006-03: Maritime navigation and radio communication equipment and systems - Class B shipborne equipment of the automatic identification system (AIS) - Part 1: Carrier-sense time division multiple access (CSTDMA) techniques

证书有效期至/ This Certificate is valid until

2014年1月27日 / Jan. 27, 2014

发证机构 中国船级社重庆分社  
Issued by CCS Chongqing Branch

签发日期 2010年10月15日  
Date Oct. 15, 2010

本证书根据中国船级社《钢质海船入级规范》及有关程序规定签发。关于证书的有关规定见本证书背面的说明。当本证书包括多页纸张时, 则所有证书页为一个整体, 必须同时使用。每一页证书均须由本社盖章方为有效。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。本认可证书不代表本社对个体产品质量的检验。有关各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 for Classification of Sea-going Steel Ships and related procedures of the Society. Refer to the back of the certificate for detailed requirements of the certificate. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society 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. This approval certificate does not constitute the inspection of the Society about the quality of the unit/batch product. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



中国船级社总部/CCS headquarters: 北京市东直门南大街9号船检大厦 邮编: 100007 电话/Tel: +86(10)58112288 传真/Fax: +86(10)58112811  
CCS Mansion, 9 Dongzhimen Nan Da Jie, Beijing 100007, China 网址/Web Site: http://www.ccs.org.cn  
本地检验机构/CCS Local Office: 中国船级社重庆分社 CCS Chongqing Branch 电话/Tel: 0086-023-63827124 传真/Fax: 0086-023-63842535

CQ62215764

**产品明细/ Product Description**

船用自动识别系统/Automatic Identification System	
产品型号/Model	: SPAT-1000B- I /SPAT-1000B- II
系统组成/The system consisting of	: 2个TDMA接收机, 1个TDMA发射机, 1个GNSS接收机/Two TDMA receivers, one TDMA transmitter, one GNSS receiver
电源/Power supply	: DC9. 6V~31. 2V
发射功率/RF Out power	: 2 W
工作频率/Frequency	: 156. 025~162. 025 MHz
带宽/Bandwidth	: 25kHz
AIS 发射频道/频率/TX Channel/Frequency	: 156025kHz~162025kHz (2087/161975, 2088/162025) kHz
AIS 接收频道/频率/RX Channel/Frequency	: 156025kHz~162025kHz (2087/161975, 2088/162025) kHz
GNSS接收机/GNSS Receiver	: 内置GNSS接收机/Internal GNSS receiver
等级/Class	: B/ClassB

**批准的图纸和设计计算书/ Approved Drawings and Design Calculations**

图纸批准号/ Drawings Approval No. : NP10A02099

**产品认可试验报告/ Approval Test Report**

试验报告编号/Test Report No.	: W20100900018
试验报告日期/Test Report Date	: 2010-09-30
试验单位/ Laboratory	: 中国电子科技集团公司第十研究所天奥校准/检测实验室 Spaceon Calibration/Testing laboratory of NO.10 Institute of CETC
试验单位地址/ Test Address	: 成都市茶点东子东街48号 48. Chadianzi East Street, Chengdu, P. R. China
试验报告编号/Test Report No.	: W20100900029
试验报告日期/Test Report Date	: 2010-09-30
试验单位/ Laboratory	: 中国电子科技集团公司第十研究所天奥校准/检测实验室 Spaceon Calibration/Testing laboratory of NO.10 Institute of CETC
试验单位地址/ Test Address	: 成都市茶点东子东街48号 48. Chadianzi East Street, Chengdu, P. R. China
试验报告编号/Test Report No.	: TA20104351
试验报告日期/Test Report Date	: 2010-09-25
试验单位/ Laboratory	: 中国电子科技集团公司第十研究所天奥校准/检测实验室 Spaceon Calibration/Testing laboratory of NO.10 Institute of CETC
试验单位地址/ Test Address	: 成都市茶点东子东街48号 48. Chadianzi East Street, Chengdu, P. R. China
试验报告编号/Test Report No.	: KZ-01-2010-CCS
试验报告日期/Test Report Date	: 2010-09-20
试验单位/ Laboratory	: 成都天奥信息科技有限公司 Chengdu Spaceon Technology Co., Ltd
试验单位地址/ Test Address	: 成都市高新西区新业路88号. 天奥1科技产业园 Spaceon Science and technology industrial centre, 88 Xingye Road, West High-tech Zone, Chendu
试验报告编号/Test Report No.	: KZ-02-2010-CCS
试验报告日期/Test Report Date	: 2010-09-28
试验单位/ Laboratory	: 成都天奥信息科技有限公司 Chengdu Spaceon Technology Co., Ltd
试验单位地址/ Test Address	: 成都市高新西区新业路88号. 天奥1科技产业园 Spaceon Science and technology industrial centre, 88 Xingye Road, West High-tech Zone, Chendu
试验报告编号/Test Report No.	: TA20104361

试验报告日期/Test Report Date	:	2010-09-28
试验单位/ Laboratory	:	中国电子科技集团公司第十研究所天奥校准/检测实验室 Spaceon Calibration/Testing laboratory of NO.10 Institute of CETC
试验单位地址/ Test Address	:	成都市茶点东子东街48号 48.Chadianzi East Street, Chengdu, P. R. China
试验报告编号/Test Report No.	:	KZ-03-2010-CCS
试验报告日期/Test Report Date	:	2010-09-20
试验单位/ Laboratory	:	成都天奥信息科技有限公司 Chengdu Spaceon Technology Co.,Ltd
试验单位地址/ Test Address	:	成都市高新西区新业路88号.天奥1科技产业园 Spaceon Science and technology industrial centre, 88 Xingye Road, West High-tech Zone, Chendu
试验报告编号/Test Report No.	:	KZ-04-2010-CCS
试验报告日期/Test Report Date	:	2010-09-28
试验单位/ Laboratory	:	成都天奥信息科技有限公司 Chengdu Spaceon Technology Co.,Ltd
试验单位地址/ Test Address	:	成都市高新西区新业路88号.天奥1科技产业园 Spaceon Science and technology industrial centre, 88 Xingye Road, West High-tech Zone, Chendu

### 产品适用范围/ Application of the Product

- 1、所有300总吨以下国际航行船舶, 500总吨以下非国际航行货船。  
All ships of 300 gross tonnage downwards engaged on international voyages and cargo ships of 500 gross tonnage downwards not engaged on international voyages.
- 2、中国籍500总吨以下沿海航行货船, 中国籍内河航行船舶。  
Cargo ships registered in P. R. C of 500 gross tonnage downwards engaged on coastal voyages, and all ships registered in P. R. C engaged on inland waters voyages.

### 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. 工厂的专业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 professional 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.

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

按照规范每批抽样检验的产品/The product inspected by sampling 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每批抽样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产品证书。  
After approval, product inspection should be carried out by sampling by the Surveyor of the Society in accordance with the approved product inspection scheme, and the Product Certificate will be issued by the Society upon satisfactory inspection.

### 对于原材料和零部件的检验要求/ Inspection Requirements for Materials and Components

产品如下原材料和零部件的制造厂清单, 经本社批准方可变更/The list of manufacturer for the following materials and components of the product should not be changed without the Society's approval:  
1. VJN248型VHF收发模块 2. 显控模块 3. 结构件 4. GPS天线 5. 电缆组件 6. 阻容件 7. 紧固件

### 责任声明/ Statement of Responsibility

本社的认可不影响、替代与本社授权或检验无关的各方对上述工厂的认可和发证，并且不对与本社授权或检验无关的各方负责，不承担其未经应允而承认、接受本社认可所导致的法律和经济责任。

The approval of the Society does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and therefore takes no responsibility for these parties. The Society does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.

### 其他/Others

一、本证书由原CQ10T00006证书增项

二、本设备相配的VHF天线技术参数：

1. 阻抗:50欧姆
2. 频率范围:156.025MHz~162.025MHz
3. 驻波比:≤1.5

三、船舶自动识别系统船载设备 (AIS Class B) 船用产品是系列产品

船舶自动识别系统船载设备 (AIS Class B) SPAT-1000B只有AIS主机部分, 不带显示终端;

船舶自动识别系统船载设备 (AIS Class B) SPAT-1000B- I 带AIS主机部分和显示终端, 不带海图背景;

船舶自动识别系统船载设备 (AIS Class B) SPAT-1000B- II 带AIS主机部分和显示终端, 带海图背景;

中国船级社重庆分社

CCS Chongqing Branch

\*\*\*\*\*本证书正文完/ End of Text\*\*\*\*\*