



中国船级社
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.
BG22PTA00002_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

Jotron AS

地址/Address

Ringdalskogen 8, 3270 Larvik, Norway

产品名称/Product

406MHz 紧急无线电示位标(COSPAS-SARSAT)
406 MHz EPIRB (COSPAS-SARSAT)

认可标准/Approval Standard

- 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
- IEC61097-2 : 2008 《全球海上遇险和安全系统(GMDSS). 第2部分:COSPAS-SARSAT EPIRB工作在406MHz的卫星应急无线电示位标-操作和性能要求、测试方法和要求的试验结果》
IEC61097-2□2008 Global Maritime Distress and Safety System (GMDSS) -Part 2: COSPAS-SARSAT EPIRB - Satellite Emergency Position Indicating Radio Beacon Operating on 406 MHz - Operational and Performance Requirements, Methods of Testing and Required T
- 经MSC. 120(74)修正的国际海事组织大会决议A. 810(19) 《在406MHz上工作的自浮式卫星无线电应急示位标(EPIRBs)的性能标准》
IMO Res.A.810(19) as amended by MSC.120(74) Performance Standards for Float-Free Satellite Emergency Position-Indicating Radio Beacons (EPIRBs) Operating on 406 MHz
- 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

用于/Intended for

船舶与海上设施/Ships and Offshore Installations

证书有效期至/ This Certificate is valid until 2026年09月25日/ Sep. 25,2026

发证机构/中国船级社卑尔根办事处
Issued by CCS Bergen Office

签发日期 2022年05月26日
Date May. 26,2022

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Form No: Q01.

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:P022-78847083

产品明细/Product Description**406MHz 紧急无线电示位标(COSPAS-SARSAT)/406 MHz EPIRB (COSPAS-SARSAT) (M0001)**

名称/Name	属性(值)/Value	单位/Unit
型号/Type	Tron 60S, Tron 60GPS	
工作频率/Operating Frequency	406.037, 121.500	MHz
输出功率/Output Power	5W, 100mW	
工作时长/Working Hours	Minimum 48 hours at -20°C	
电池类型/Battery Type	Lithium	

批准的图纸/Approved Drawings

图纸批准号/ Drawings Approval No. : BG17A00009

产品认可试验报告/ Approval Test Report

试验报告编号/ Test Report No. : 280708-1
 试验报告日期/ Test Report Date : 2015-01-05
 试验单位/ Laboratory: Nemko
 试验单位地址/ Test Address: Norway

试验报告编号/ Test Report No. : 75927847 Report01 Issue2
 试验报告日期/ Test Report Date : 2015-02-13
 试验单位/ Laboratory: YUV SUD Product Service
 试验单位地址/ Test Address: U.K.

试验报告编号/ Test Report No. : 11053683 issue 1
 试验报告日期/ Test Report Date : 2011-09-01
 试验单位/ Laboratory: Interteck Testing&Certification Ltd.,
 试验单位地址/ Test Address: U.K.

试验报告编号/ Test Report No. : 11/12 Issue 2
 试验报告日期/ Test Report Date : 2012-08-29
 试验单位/ Laboratory: Public Enterprise Testing Center"OMEGA"
 试验单位地址/ Test Address: Ukraine

试验报告编号/ Test Report No. : 11/10 Issue 4
 试验报告日期/ Test Report Date : 2011-12-14
 试验单位/ Laboratory: Public Enterprise Testing Center"OMEGA"
 试验单位地址/ Test Address: Ukraine

试验报告编号/ Test Report No. : 11/11 Issue 1
 试验报告日期/ Test Report Date : 2012-01-04
 试验单位/ Laboratory: Public Enterprise Testing Center"OMEGA"
 试验单位地址/ Test Address: Ukraine

试验报告编号/ Test Report No. : 11/9 Issue 4
 试验报告日期/ Test Report Date : 2011-12-14
 试验单位/ Laboratory: Public Enterprise Testing Center"OMEGA"
 试验单位地址/ Test Address: Ukraine

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

认可后的产品检验由制造厂按本社批准的产品检验计划进行，本社在文件审核合格后颁发船用产品证书。
 After approval, product inspection should be carried out by the Manufacturer in accordance with the product inspection scheme approved by the Society, and the Marine Product Certificate is issued by the Society upon satisfactory documents review.

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. 型式认可A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。

Those who have obtained the certificate of type approval A 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

1. Other description of product:

1) General

--Battery: Lithium/iron disulfide, 12V/2900 mAh, 5 years service life

--Housing material: Glass reinforced Polycarbonate

--Dimensions:

Weight: 680 gram, Height: 340 mm, Max diameter: 128mm

--Compass safe distance: 0.85 m

--Temperature operating: -20° C to + 55° C (-4° F to +131° F)

--Temperature storage: -40° C to + 65° C (-22° F to +149° F)

2) COSPAS-SARSAT TRANSMITTER

--Frequency: 406.037 MHz ±2 ppm

--Output power: 5W ±2 dB

--Protocols: Tron 60S/GPS: Maritime, Serialized, Radio Call sign, Location protocols

--Modulation: Phase modulation 1.1 ±0.1 rad

--Data encoding: Bi Phase L

3) HOMING TRANSMITTER

--Frequency: 121.500 MHz

--Output power: Up to 100 mW

--Modulation: A9, AM sweep tone between 300Hz and 1600Hz.

Sweep range: 700 Hz.

Sweep rate: 2.5 Hz

4) NAVIGATION DEVICE

Type: 22 Channel GPS Receiver

Antenna: Chip type

2. 本证书由原型式认可证书 (No. BG18Q00001_02) 换新并替代原证书。

This certificate is renewed from and supersedes the previous Type Approval Certificate No. BG18Q00001_02.

3. Approval history:

--Initial approval: GB08T00025

--First Renewal: GB12T00032_03

--Second Renewal: BG16T00013_03

--Third Renewal: BG18Q00001_02
--Fourth Renewal: BG22PTA00002_01

4. 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.

中国船级社卑尔根办事处
CCS Bergen Office