

ICS 33.200
CCS M 50



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 46461.3-2025

**Information service system of vessel's emergency positioning based on global
navigation satellite system (GNSS) - Part 3: Performance requirements and test
methods for emergency position indicating radio beacon**

全球卫星导航系统（GNSS）船舶应急定位信息服务系统 第3部分：应急无线电示
位标性能要求及测试方法

Issued on: October 5, 2025

Implemented on: May 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

1.Scope	1
2 Normative References	1
3.Terms, Definitions, and Abbreviations	2
3.1 Terms and Definitions	2
3.2 Abbreviations	2
4.1 Classification	3
4.2 Classification	3
5 Requirements	3
5.1 Overview	3
5.2 Composition	3
5.3 General Requirements	5
5.4 Functions	6
5.5 Performance	10
5.6 Appearance and Reflective Materials	15
5.7 Tie	16
5.8 Product Manual	16
5.9 Tag	17
5.10 Automatic release device	17
5.11 Activate switch	18
5.12 Low duty cycle ambient lighting	18
5.13 Buoyancy	19
5.14 Ergonomics	19
5.15 Battery	19
5.16 Parameter Configuration Interface	20
5.17 Environmental adaptability	20
5.18 Electromagnetic Compatibility	21
6.Test Method	22
6.1 Test Environment Conditions	22
6.2 Test Site Conditions	22
6.3 Test Equipment Requirements	22
6.4 Composition	23
6.5 General Requirements	23

6.6 Function	23
6.7 Performance	32
6.8 Appearance and Reflective Materials	38
6.9 Tie	39
6.10 Product Manual	39
6.11 Tag	39
6.12 Automatic release device	39
6.13 Activate switch	40
6.14 Low duty cycle ambient lighting	40
6.15 Buoyancy	42
6.16 Ergonomics	42
6.17 Battery	43
6.18 Parameter Configuration Interface	44
6.19 Environmental adaptability	44
52 References	54

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document is Part 3 of GB/T 46461 "Global Navigation Satellite System (GNSS) Ship Emergency Positioning Information Service System". GB/T 46461 has published the following parts.

1. Functional Description;

2. Emergency Radio Position Beacon and Emergency Response Center Information Exchange Protocol;

3. Performance requirements and test methods for emergency radio beacons. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed and is under the jurisdiction of the Ministry of Industry and Information Technology of the People's Republic of China. This document was drafted by: China Electronics Technology Standardization Institute, Sifang Electronics Co., Ltd., and China Electronics Technology Group Corporation. The 36th Research Institute, Fujian Feitong Communication Technology Co., Ltd., China Classification Society, and the Yangtze River Communications Administration of the Ministry of Transport. The main drafters of this document are: Chen Qian, Shi Yuan, Zhao Danhua, Lin Yingshi, Huang Lunwen, Feng Ke, Chen Huarong, Wu

Xiaoming, Wang Wei, Shen Jianjun, and Liao Wei.

GB/T 46461 "Global Navigation Satellite System (GNSS) Ship Emergency Positioning Information Service System" is proposed to consist of the following three parts.

1.Functional Description. The purpose is to systematically describe the entire ship emergency positioning information service system, clarifying its basic components, Working mechanism and main functions.

2.Emergency Radio Position Beacon and Emergency Response Center Information Exchange Protocol. The purpose is to clarify the ship's emergency radio... The information interface, information exchange method, and transmitted information content between the position marker and the emergency rescue center.

3.Performance Requirements and Test Methods for Emergency Radio Position Beacons. The purpose is to standardize the performance of ship emergency radio position beacons. Technical specifications and testing methods. Global Navigation Satellite System (GNSS) Ship Emergency Response Location Information Service System Part

3.Emergency Response Radio Position Indicator Performance Requirements and Test Methods

1 Scope

GB/T 46461.3-2025 is the Chinese national standard covering the EPIRB - the float-free release and the automatic activation on immersion, the distress message and the position it carries, the battery endurance in cold water, the antenna performance in a seaway, and the tests each of these is proved by. At 31,000 words. Part 3 of the series, first edition, under the Ministry of Industry and Information Technology. In force from 1 May 2026. Issued on 5 October 2025, it has been in force since 1 May 2026.

This document specifies the ship emergency radio beacons for the Global Navigation Satellite System (GNSS) ship emergency positioning information service system. Classification, grading, requirements, and testing methods. This document applies to ship emergency radio beacons in the Global Navigation Satellite System (GNSS) ship emergency positioning information service system. The design, production and testing of Emergency Radio Position Beacons (EPIRBs).

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 16162-2021 Global Maritime Distress and Safety System (GMDSS) Terminology

GB/T 42979-2023 Performance Requirements and Test Methods for GNSS Position Reporting/Short Message Terminals

GB/T 46461.1-2025 Global Navigation Satellite System (GNSS) Ship Emergency Positioning Information Service System Part

chinastandards.org · PREVIEW