



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

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**Global maritime distress and safety system - Performance and
test requirements for marine search and rescue radar
transponder**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces GB 15216-1994 "Global Maritime Distress Safety System (GMDSS) Search and Rescue Radar Transponder (SART) Performance Requirements

Compared with GB 15216-1994, except for editorial changes, the main technical content changes are as follows.

---Modified the scope of application of the standard (see Chapter 1, Chapter 1 of the.1994 edition);

---Added terms, definitions and abbreviations (see Chapter 3);

---Modified the "general requirements" (see 4.1, 3.1 in the.1994 edition);

---Modified the "operation requirements" (see 4.2, the.1994 edition of 3.2);

---Modified the requirements of antenna characteristics (see 4.6, 3.6 in.1994 edition);

---Modified the requirements of distance performance (see 4.7, 3.7 of the.1994 edition);

---Modified the labeling requirements (see Chapter 5, Chapter 4 of the.1994 edition);

---Modified the requirements of the polarization mode (see 6.2, 5.2 in the.1994 edition);

---Modified the requirements for the effective sensitivity of the receiver (see 6.8, 5.8 in the.1994 edition);

---Added "temperature range" and "effective antenna height" (see 6.10, 6.12);

--- Added "Test Method and Result Requirements" (see Chapter 7).

This standard uses the redrafting method to modify and adopt IEC 61097-1.2007 "Global Maritime Distress and Safety System (GMDSS) Part 1

Points. Radar transponder maritime search and rescue (SART) operation and performance requirements, test methods and required test results".

Compared with IEC 61097-1.2007, this standard has the following structural adjustments.

--- Added a chapter "Terms and Definitions, Abbreviations" (see Chapter 3);

---Added the next level headings of the general requirements in the test method and result requirements (see 7.1.1, 7.1.2, 7.1.3, 7.1.4, IEC 61097-1.6.1 of.2007);

---Added the chapter number of dry heat test result requirements (see 7.4.1.2, IEC 61097-1.2007, 6.4.1);

---Added the antenna height test method and result requirements chapter number (see 7.5.1, 7.5.2, IEC 61097-1.2007, 6.5);

---The distance performance in the test method and result requirements (see 7.6) is combined to avoid repeated descriptions (see IEC 61097-

1 .2007 6.7.1, 6.7.2, 6.7.3 and 6.7.4);

---The antenna characteristics in the test methods and result requirements (see 7.8.6) are combined to avoid duplication of descriptions (see IEC 61097-

1.6.6 and 6.9.6 of.2007);

---Added "References".

The technical differences between this standard and IEC 61097-1.2007 and the reasons are as follows.

---Regarding normative reference documents, this document has made adjustments with technical differences to adapt to my country's technical conditions and adjustments.

The situation is collectively reflected in Chapter 2 "Normative Reference Documents", and the specific adjustments are as follows.

* Added reference to GB/T 16162 (see 3.1);

* Added reference to ITURR "Radio Regulations" (see 4.1);

* Move IMORes.A.530(13) and IMORes.A.802(19) to references;

* Added reference to IMORes.MSC.192(79) (see 4.7, 6.8);

* Deleted ITU-RRec.M.628-4.

---Added the Chinese requirements for label content (see Chapter 5). In order to meet the needs of our country, the label content in addition to the English operating instructions, also Chinese operating instructions are required.

This standard was proposed and managed by the Ministry of Transport of the People's Republic of China.

The previous releases of the standards replaced by this standard are as follows.

---GB 15216-1994.

Global Maritime Distress and Safety System

Search and rescue radar transponder performance and test requirements

1 Scope

This standard specifies the performance requirements, labels, technical characteristics, and test methods of maritime search and rescue radar transponders working in the 9GHz frequency band

And result requirements.

This standard applies to the design, manufacture and inspection of search and rescue radar transponders (SART) required by global maritime distress and safety systems.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

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

IEC 60936-1 Shipborne radar operation and performance requirements test methods and required test results (Shipborneradar-Op-

erationalandperformancerequirements-Methodsoftestsandrequiredtestresults)

IEC 60945.2002 Marine navigation equipment general requirements test methods and required test results (Marinenavigational

equipment-Generalrequirements-Methodsoftestingandrequiredtestresults)

ITU-RReport1036-1 Global Maritime Distress and Safety System (GMDSS) search and location frequency [Frequenciesfor

homingandlocatingintheglobalmaritimedistressandsafetysystem(GMDSS)]

ITU-R Radio Regulations (Radio Regulations)

IMO A.222(VII) Resolution Navigation Radar Equipment Performance Standards
(Performance standards for navigational radar equipment)

IMO A.477 (XII) resolution radar equipment performance standards
(Performance standards for radar equipment)

The IMO A.694(17) resolution applies to the general requirements of shipborne radio equipment for global maritime distress and safety systems and electronic navigation equipment.

Requirements

(General requirements for shipborne radio equipment forming part of the global maritime distress and safety system and for electronic navigational aids)

IMO MSC.192(79) Resolution Radar Equipment Performance Standard Amendment
(Adoption of the Revised Performance Standards for Radar Equipment)

IMO SOLAS Convention (1974) Amendment (1988) International Convention for the Safety of Life at Sea (1974) Regarding Global Maritime Distress and Safety

Revision of Radio Communication in the Whole System (GMDSS) (1988) [Safety of Life at Sea (SOLAS) Convention (1974)-

Amendments concerning Radiocommunications for the Global Maritime Distress and Safety System
(GMDSS) (1988)]

3.1 Terms and definitions

The terms and definitions defined in GB/T 16162 apply to this document.