PERFORMANCE SPECIFICATION

FOR FLOAT-FREE SATELLITE

EMERGENCY POSITION-INDICATING

RADIO BEACONS (EPIRBs)

OPERATING THROUGH THE GEOSTATIONARY

INMARSAT SATELLITE SYSTEM ON 1.6 GHz



TELECOMMUNICATIONS AUTHORITY HONG KONG

## **FOREWORD**

- 1. This specification stipulates the minimum performance requirements for float-free satellite emergency position-indicating radio beacons (EPIRBs) operating through the geostationary INMARSAT satellite system on 1.6 GHz as required by the 1988 amendments to the 1974 International Convention for Safety of Life at Sea (SOLAS) on the introduction of the Global Maritime Distress and Safety System (GMDSS).
- 2. Under the Merchant Shipping (Safety) (GMDSS Radio Installations) Regulation (hereafter referred to as the Regulation) under section 37 and 107 of the Merchant Shipping (Safety) Ordinance (Cap. 369), every GMDSS equipment to be provided under the Regulation -
  - a) shall conform to the relevant performance standards adopted by the International Maritime Organization (IMO); and
  - b) shall, in the case of equipment provided on Hong Kong ships, in addition, conform to appropriate performance specifications issued by the Telecommunications Authority.
- 3. Under the provision of the Regulation, satellite EPIRBs operating through the geostationary INMARSAT satellite system on 1.6 GHz equipped in Hong Kong ships shall comply with this specification.
- 4. Type-approval of the equipment will be granted on the basis of satisfactory document evaluation of the certification issued by competent overseas authorities for the equipment. Where applicable, the application should list all type-numbers that apply to non-technical variants of the model submitted.
- 5. Manufacturers or their specified agents, who wish to submit their EPIRB equipment for type-approval, shall apply to:

Radio Laboratory, Standards Section, Office of the Telecommunications Authority, 29/F., Wu Chung House, 213 Queen's Road, East, Wanchai Hong Kong.

Tel. No.: +852 2343 7565 Fax No.: +852 2343 5824

- 6. The Telecommunications Authority may amend any part of this specification as and when he deems necessary.
- 7. The Telecommunications Authority reserves the right to conduct tests or evaluations on models he considers to be technical variants and whose performance may differ as between models.

- 8. In case of doubt about the interpretation of this specification, the methods of carrying out the test and the validity of statements made by the manufacturers of the equipment, the decision of the Telecommunications Authority shall be final.
- 9. The HKTA series specifications are issued by the Telecommunications Authority. The documents can be obtained through one of the following methods:-
  - download direct through the OFTA's Internet Home Page. The Home Page address is http://www.ofta.gov.hk;
  - download direct through the OFTA's Bulletin Board Service. The access details are given below:

BBS telephone number : +852 2834 0119

Number of data bits: 8
Number of parity bit: none
Number of stop bit 1

Flow Control: Hardware Terminal Mode: ANSI

Default Protocol: Zmodem is recommended

hard copies will be available upon request to:-

Senior Telecommunications Engineer (Standards) Office of the Telecommunications Authority, 29/F Wu Chung House, 213 Queen's Road East, Wanchai, Hong Kong.

Fax: +852 2803 5112

10. The publications of IMO can be obtained from :

International Maritime Organization 4 Albert Embankment, London SE1 7SR

Tel: 0171-735 7611 Fax: 0171 587 3210

11. The technical standards issued by the IEC can be obtained from :

International Electrotechnical Commission 3, rue de Varembé, PO Box 131 211 Geneva 20, Switzerland

Tel: +41 22 919 02 11 Fax: +41 22 919 03 00

12. The technical specifications issued by the ETSI can be obtained from :

The Publications Office ETSI, 06921 Sophia Antipolis CEDEX, France

Tel: +33 92 94 42 41 Fax: +33 93 95 81 33

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#### 1. SCOPE OF SPECIFICATION

This specification stipulates the minimum performance requirements for float-free satellite emergency position-indicating radio beacons (EPIRBs) operating through the geostationary INMARSAT satellite system on 1.6 GHz as required by the 1988 amendments to the 1974 International Convention for Safety of Life at Sea (SOLAS) for the introduction of the Global Maritime Distress and Safety System (GMDSS).

Equipment complying with this specification shall be required to meet all relevant performance standards adopted by the relevant IMO Resolutions and technical characteristics as defined in the relevant ITU's Radio Regulations and Recommendations for the concerned equipment.

# 2. TECHNICAL REQUIREMENTS

Satellite EPIRBs operating through the geostationary INMARSAT satellite system on 1.6 GHz shall comply with the basic technical requirements as defined in :-

(a) IMO Resolution A.812(19) on "Performance Standards for Float-free Satellite Emergency Position-Indicating Radio Beacons (EPIRBs) Operating through the Geostationary INMARSAT Satellite System on 1.6 GHz" for equipment installed on or after 23 November 1996; or

IMO Resolution A.661(16) on the same subject for equipment installed before 23 November 1996;

and

(b) IMO Resolution A.662(16) on "Performance Standards for Float-free Release and Activation Arrangements for Emergency Radio Equipment".

### 3. EVALUATION REQUIREMENTS

The Satellite EPIRB equipment shall be evaluated in accordance with the following technical standards:

(a) IEC 61097-5 "Global Maritime Distress and Safety System (GMDSS) - Part 5: Inmarsat-E - Emergency position indicating radio beacon (EPIRB) operating through the Inmarsat system - Operational and performance requirements, methods of testing and required test results", published by the International Electrotechnical Commission (IEC);

or

(b) ETS 300 372 "Radio Equipment and Systems (RES); Technical characteristics and methods of measurement for maritime float-free satellite Emergency Position Indicating Radio Beacon (EPIRB) operating in the 1.6 GHz band through geostationary satellites", published by the European Telecommunications Standards Institute (ETSI)