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**PERFORMANCE SPECIFICATION  
FOR MARINE RADAR TRANSPONDER  
FOR USE IN SEARCH AND RESCUE  
OPERATIONS AT SEA (SART)**



TELECOMMUNICATIONS AUTHORITY  
HONG KONG

## **FOREWORD**

1. This specification stipulates the minimum performance requirements for marine radar transponders used in search and rescue operations at sea (SART) 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 required 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 (TA).
3. Under the provision of the Regulation, survival craft radar transponder for use in search and rescue operations and installed 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 SART 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 TA may amend any part of this specification as and when he deems necessary.
7. The TA 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 TA shall be final.

## **CONTENTS**

- 1. Scope of specification**
- 2. Technical requirements**
- 3. Evaluation requirements**
- 4. How to obtain technical information**

## **1. SCOPE OF SPECIFICATION**

This specification stipulates the minimum performance requirements for marine radar transponders used in search and rescue operations at sea (SART) 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 which comply 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.

For easy reference, the categories of SART operations which are applicable to the relevant SOLAS Regulation and IMO Resolutions include :

- (a) integral with a survival craft;
- (b) portable and capable of floating;
- (c) as part of an EPIRB.

## **2. TECHNICAL REQUIREMENTS**

SART equipment shall comply with the basic technical requirements as defined in :-

IMO Resolution A.802(19) on "Performance Standards for Survival Craft Radar Transponders for use in Search and Rescue Operations"

## **3. EVALUATION REQUIREMENTS**

SART equipment shall be evaluated in accordance with the following technical standards :

IEC 1097-1 : Global maritime distress and safety system (GMDSS) - Part 1 : Radar transponder - Marine search and rescue (SART) - Operational and performance requirements, methods of testing and required test results, published by the International Electrotechnical Commission (IEC).

#### 4. HOW TO OBTAIN TECHNICAL INFORMATION

4.1 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.ofa.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)  
Standards Section,  
Office of the Telecommunications Authority,  
29/F Wu Chung House,  
213 Queen's Road East, Wanchai, Hong Kong.  
Fax : +852 2803 5112

4.2 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

4.3 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

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