

# Certificate

of

## EC Type-examination (Module B)

**Certificate N°: 06212502/AA/00**

Product Category: A.1/5.14 A.1/5.15

With respect to Marine Equipment Directive 96/98/EC and the amending Directive 2002/75/EC,  
Telefication declares that the equipment:

Product description: **150W GMDSS MF/HF SSB Radiotelephone with integrated Class-A DSC-controller, NBDP terminal and DSC-watchkeeping receiver**

Trademark: **See annex 3**

Family name: **System 5000 MF/HF**

Type designation: **See annex 3**

Serial No: **See annex 3**

Software release No: **See annex 3**

Manufacturer: **Thrane & Thrane A/S**

Address: **Lundtoftegaardsvej 93D**

City: **2800 Lyngby**

Country: **Denmark**

complies with the international instruments and test standards as listed in the Annex.

This certificate is granted to:

Name: **Thrane & Thrane A/S**

Address: **Lundtoftegaardsvej 93D**

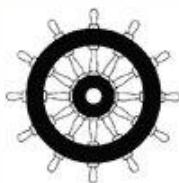
City: **2800 Lyngby**

Country: **Denmark**

Validity of this certificate is 5 years; **Expiry date: 23 August 2012**

This certificate has THREE Annexes.

Zevenaar, 31 August 2007



M.H. Koop  
Manager Certification



## General conditions

- Each product to which this certificate relates shall be provided with Marine markings.

The Marine marking consist of symbol in the form of a wheel followed by the identification number of the responsible Notified Body (Telefication - 0560 -), and by the last two digits of the number of the year in which the mark is affixed.

- The holder of this Certificate has drawn up a Declaration of conformity to type with Directive 96/98/EC and amending Directives, declaring that the product(s) described in this EC Type-examination certificate, satisfy the requirements that apply to them.
- Each product shall be identified by means of type, batch and/or serial numbers and the name of the manufacturer and/or importer.
- If the equipment is to be modified, Telefication shall be notified immediately. Depending on the modifications, Telefication may have additional examinations carried out in consultation with the applicant.

## Remarks and observations

*The following conditions are applicable:*

This certificate covers the following 150 Watt System 5000 versions:

- 150W MF/HF SSB radiotelephone with integrated class-A DSC controller and 2187.5 kHz watchkeeping receiver;
- 150W MF/HF SSB radiotelephone with integrated class-A DSC controller and 6-ch scanning watchkeeping receiver;
- 150W MF/HF SSB radiotelephone with integrated class-A DSC controller, NBDP controller and 6-ch scanning watchkeeping receiver.

All systems utilize the same hardware; version difference is by software programming.

For NBDP-operation however, the following hardware must be added: keyboard TT-3601E, printer H1252B/TT-3608A and/or data terminal TT-3606E.

Verification of which system is on-board ships, is done by readout of the special menu-item on the control-unit:

\* Menu - Setup - Config Status \*.

The Config Status clearly indicates what functionality is active and as such the system version is defined.

The products to which this certificate relates include the following units or equipment:

- CU5100: Control-unit
- TU5150: Transceiver-unit
- ATU5215: Antenna Tuning Unit
- PS4655: AC power supply
- AP5065: Distress Alarm Panel
- H1252B or TT-3608A: Printer
- TT-3601E: Keyboard
- TT-3606E: Data Terminal
- CB4616: Terminal Block Converter Box

## Documentation lodged for this EC type-examination

### *Test Reports:*

- Delta: DANAK 198724, 13 April 2007
- Delta: DANAK-195321, 12 July 2000
- Telefication bv: 99816933, 22 August 2007
- Telefication bv: 99817220, 22 August 2007
- Telefication bv: 99817230, 22 August 2007
- Telefication bv: 99817231, 22 August 2007
- Telefication bv: 99817232, 22 August 2007

### *Product Documentation:*

- Bill of materials
- Electric diagrams
- Photos
- User manual
- Technical manual

## International instruments and test standards

### *The equipment complies with:*

- |                            |               |           |
|----------------------------|---------------|-----------|
| - EN 300 338               | April 1999    | V1.2.1    |
| - EN 300 373 -1            | October 2002  | V1.2.1    |
| - EN 301 033               | December 2005 | V1.2.1    |
| - EN 60945                 | October 2002  | Edition 4 |
| - ETS 300 067 A1           | October 1993  |           |
| - IEC 61162-1              | July 2000     | 2nd Ed.   |
| - IMO Resolution A.694(17) | 1991          |           |
| - IMO Resolution A.806(19) | 1995          |           |
| - ITU-R M.1082-1           | October 1997  |           |
| - ITU-R M.1173             | October 1995  |           |
| - ITU-R M.476-5            | October 1995  |           |
| - ITU-R M.491-1            | July 1986     |           |
| - ITU-R M.492-6            | October 1995  |           |
| - ITU-R M.493-11           | May 2004      |           |
| - ITU-R M.541-9            | May 2004      |           |
| - ITU-R M.625-3            | October 1995  |           |
| - ITU-R M.821-1            | February 1997 |           |
| - MSC Resolution 36(63)    | May 1994      |           |
| - MSC Resolution 68(68)/A3 | 1997          |           |
| - MSC Resolution Cir. 862  | 1998          |           |

### **Technical features and characteristics**

*The product includes the following features and characteristics:*

MF HF equipment:

- Operating frequency range: Transmitter: 1.6-30 MHz; Receiver: 0.15-30 MHz
- Maximum output power: 150 W PEP rated
- Modulation method(s): J3E; J2B; A3E (RX only)
- DSC class A
- NBDP

## Trademarks and Type designations

*The product as described in this EC type-examination includes the following type designations:*

Product description: 150W GMDSS MF/HF SSB Radiotelephone with integrated Class-A DSC-controller, NBDP terminal and DSC-watchkeeping receiver  
Type designation: 150 Watt System 5000  
Trademark: SAILOR  
Software release No: CU: 1.35.xx; TU: 1.35.0; ATU: 101.2.0

Product description: 150W GMDSS MF/HF SSB Radiotelephone with integrated Class-A DSC-controller, NBDP terminal and DSC-watchkeeping receiver  
Type designation: 150 Watt System 5000  
Trademark: DEBEG  
Software release No: CU: 1.35.xx; TU: 1.35.xx; ATU: 101.2.0

Product description: 150W GMDSS MF/HF SSB Radiotelephone with integrated Class-A DSC-controller, NBDP terminal and DSC-watchkeeping receiver  
Type designation: 150 Watt System 5000  
Trademark: Sperry marine  
Software release No: CU: 1.35.xx; TU: 1.35.xx; ATU: 101.2.0

Product description: 150W GMDSS MF/HF SSB Radiotelephone with integrated Class-A DSC-controller, NBDP terminal and DSC-watchkeeping receiver  
Type designation: 150 Watt System 5000  
Trademark: Kongsberg  
Software release No: CU: 1.35.xx; TU: 1.35.xx; ATU: 101.2.0

Product description: 150W GMDSS MF/HF SSB Radiotelephone with integrated Class-A DSC-controller, NBDP terminal and DSC-watchkeeping receiver  
Type designation: 150 Watt System 5000  
Trademark: HUSUN  
Software release No: CU: 1.35.xx; TU: 1.35.xx; ATU: 101.2.0

Product description: 150W GMDSS MF/HF SSB Radiotelephone with integrated Class-A DSC-controller, NBDP terminal and DSC-watchkeeping receiver  
Type designation: 150 Watt System 5000  
Trademark: Raytheon  
Software release No: CU: 1.35.xx; TU: 1.35.xx; ATU: 101.2.0