

Certificate

of

EC Type-examination (Module B)

Certificate No.: 12212003/AA/00

Product Category: A.1/5.17

With respect to Marine Equipment Directive 96/98/EC and the amending Directive 2010/68/EU, Telefication declares that the equipment:

Product description: **Portable Survival craft VHF radiotelephone**
Trademark: **McMurdo**
Family name: --
Type designation: **R5 GMDSS**
Serial No: --
Software release No: **2.00.XX**

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.

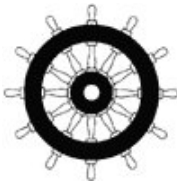
This certificate is granted to:

Name: **Orolia Ltd.**
Address: **Silver Point, Airport Service Road**
City: **Portsmouth PO3 5PB**
Country: **United Kingdom**

Validity of this certificate is 5 years; **Expiry date: 16 May 2017**

This certificate has THREE Annexes.

Zevenaar, 16 May 2012



c.o. BJ

W.J.M. Jong
Manager Product
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 for module D, E, F or G, 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.
- Enforcement of a new amending directive voids the validity of this certificate for (re)placement of the product onboard ships.

Remarks and observations

The following conditions are applicable:

The R5 GMDSS may also be utilized for on-board communication. For this purpose a rechargeable 1800mAh Lithium-ion battery, model TT-1707A, is available.

The supplied battery charger, model TT-1704A, in combination with AC/DC switching power adapter, model OH-1048A1200500U-VDE or OH-1048A1201200U-VDE and dual battery charger, model TT-1705A, in combination with AC/DC switching power adapter, model OH-1048A1201200U-VDE have been part of the type approval test.

Documentation lodged for this EC type-examination

Test Reports:

- Delta: Danak-19K0457, 15 June 2007
- Delta: Danak-19K0469, 18 September 2007
- Telefication B.V.: 99788220, 05 April 2007
- Telefication B.V.: 99788230 Rev 2.0, 03 April 2007

Product Documentation:

- Assembly drawings
- Bill of materials
- Block diagram
- Electric diagrams
- Photos
- User manual

International instruments and test standards

The equipment complies with:

- | | | |
|----------------------------|---------------|-----------|
| - EN 300 225 | December 2004 | V1.4.1 |
| - EN 301 843-2 | June 2004 | V1.2.1 |
| - EN 60945 | October 2002 | Edition 4 |
| - EN 60945/Corrigendum 1 | April 2008 | Edition 4 |
| - IMO Resolution A.694(17) | 1991 | |
| - ITU-R M.489-2 | October 1995 | |
| - MSC Resolution 149(77) | June 2003 | |

Technical features and characteristics

The product includes the following features and characteristics:

VHF equipment:

- Operating frequency range: Transmitter: 155.000-161.450MHz; Receiver: 155.000-163.425MHz
- Output power: 2 Watt rated
- Modulation method(s): 16K0G3E
- Primary battery: Lithium Iron Disulfide 3000mAh
- Temperature range: -20°C to +55°C
- Channel separation: 25 kHz

Trademarks and Type designations

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

Product description:	Portable Survival craft VHF radiotelephone
Type designation:	R5 GMDSS
Trademark:	McMurdo
Serial No:	--
Software release No:	2.00.XX