



Maritime &
Coastguard
Agency

Notified body authorised by the MCA



B A B T

Marine Equipment Directive EC Type Examination Module B Certificate

This is to certify that TUV SUD BABT did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Marine Equipment Directive (2014/90/EU) requirements, under the following Implementing Regulation for the listed types of equipment

Implementing Regulation	(EU)2018/773
Certificate Holder and Manufacturer	Raymarine UK Limited Marine House Cartwright Drive Fareham United Kingdom PO15 5RJ
Authorised Representative	SRT Marine Systems plc Wireless House Westfield Industrial Estate Midsomer Norton Bath United Kingdom BA3 4BS
Product(s)	AIS4000 (E70601)
Product Sector	Navigation Equipment
Product Type	MED/4.32 Universal Automatic Identification System Equipment (AIS)

and on the basis of the Technical Data and information detailed in the Annex to this certificate.

Valid from: 29 November 2018

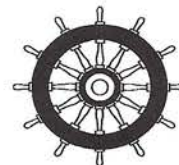
T. J. Twynam
(Tom Twynam)

Expiry Date: 27 June 2021

This certificate has been issued in accordance with the Certification Regulations of TUV SUD BABT (Notified Body Number 0168) and constitutes page 1 of the combined Certificate and Annex.

The Conditions for the validity of this certificate are listed in the Annex.

For further details, related to this certification please contact BABT@TUV-SUD.co.uk



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Issued by TUV SUD BABT under document number BABT-MED000126 Issue 02

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1 Equipment Description

Marine AIS Class A Transceiver

1.1 Models

1.1.1 System Components

Model No.	Name
E70601	AIS4000

1.2 Software ^{Note 1}

Identity	Description
AIS modem software version	110200.01.xx.xx
MKD software version	110404.01.xx.xx
AIS modem PCA hardware version	5.0
MKD PCA hardware version	5.0

2 Assessed Requirements

2.1 Implementing Regulation (EU)2018/773 ^{Note 2}

2.2 Compliance Requirements for MED/4.32 Universal Automatic Identification System Equipment (AIS)

IMO Resolutions	International Testing Standards	
IMO Res. MSC 74(69) ITU-R M. 1371-5 (2014)	IEC 61993-2 Ed.2 (2012)	Maritime navigation and radiocommunication equipment and systems –Automatic identification systems (AIS) Part 2: Class A shipborne equipment of the automatic identification system (AIS)
	IEC 61162-1 Ed.4 (2010)	Maritime navigation and radiocommunication equipment and systems — Digital interfaces Part 1: Single talker and multiple listeners
	IEC 61162-2 Ed.1 (1998)	Maritime navigation and radiocommunication equipment and systems — Digital interfaces Part 2: Single talker and multiple listeners, high-speed transmission
	IEC 61162-3:2008 +A2:2014	Maritime navigation and radiocommunication equipment and systems — Digital interfaces — Part 3: Serial data instrument network
IMO Res. A.694(17)	IEC 60945 Ed.4 (2002)	General Requirements for Marine Navigation Equipment (Inc. Corr1:2008)
IMO Res. MSC.191(79)	IEC 62288 Ed.2 (2014)	Presentation of navigation-related information

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3 Technical Documentation

3.1 Declaration of Conformity

Dofc AIS4000 V1 Dated 2018-11-06

3.2 User Guide

AIS4000 Installation and operation instructions, Document No. 201-0895 Dated 2018-10-09

3.3 Test Reports

3.3.1 IEC 61993-2 Ed.2 (2012)

BSH/4543/001/4322830/15-1 Issued 2016-03-07
 BSH/4542/001/4112945/15 Issued 2015-09-21
 75929063 Report 05 Issue 1 Issued 2015-12-16
 75929063 Report 06 Issue 1 Issued 2015-12-16

3.3.2 IEC 61162-1 Ed.4 (2010)

BSH/4543/001/4322830/15-1, 2016-03-070 Issued 2016-03-07

3.3.3 IEC 61162-3:2008 +A2:2014

Exhibit 24 - NMEA 2000 information Issued 2016-06-06

3.3.4 IEC 60945 Ed.4 (2002)

APO-2854 Issued 2016-03-30
 75929063 Report 09 Issue 1 Issued 2016-04-05
 5960 Issued 2015-05-19
 15R174 CR Issued 2016-01-21
 75929063 Report 02 Issue 1 Issued 2015-06-03
 TRA-024860-43-00A Issued 2015-03-17

3.3.5 IEC 62288 Ed.2 (2014)

75929063 Report 08, 2016-04-05 Issued 2016-04-05

3.3.6 IEC 61108-1 (2003)

75929063 Report 06 Issue 1 Issued 2015-12-16

3.3.7 IEC 61108-2 (1998)

75929063 Report 07 Issue 1 Issued 2015-12-16

3.4 Build Status

3.4.1 Hardware

Apollo Main PCA, Drawing No. 011-0069 Rev 5 Dated 2015-07-12
 Apollo MKD Drawing No. 011-0070 Rev 5 Dated 2015-07-12
 Apollo Junction Box, Drawing No. 011-0077 Rev 4 Dated 2015-06-22
 Apollo SD Card PCB, Drawing No. 011-0083 Rev 2 Dated 2014-10-20

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3.5 Notes

- Note 1 (EU)2018/773 gives a last placing on board date of 31/08/2019 for equipment approved against the test standards listed above. See Conditions of Validity.
- Note 2 This approval remains valid for equipment including subsequent minor software amendments which have been formally accepted in accordance with the Certification Regulations of TÜV SÜD BABT.
- Note 3 The optional Chart feature may invalidate compliance with the Marine Equipment Directive and is not intended for use on SOLAS vessels. The manufacturer should be consulted before enabling any additional features.
- Note 4 The AIS4000 has a WiFi interface. Operation of this interface was assessed against, or in excess, of IEC 60945 Environmental and EMC conditions in addition to regulatory testing of the WiFi Module.
- Note 5 IEC 61162-3:2008+A2:2014 Annex A contains details of installation documentation and validation.

4 U.S. Coast Guard Number)

This product has been assigned U.S. Coast Guard Module B number

165.155/EC0168

To note type approval to Module B only as it pertains to obtaining US Coastguard approval as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27th, 2004

5 Conditions of Validity

This issue of the Annex, to the referenced Marine Equipment Module B certificate, relates to issue 02 of the certificate.

This certificate ceases to be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with TÜV SÜD BABT or a person appointed by TÜV SÜD BABT to perform that role.

Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be reapproved prior to it/them being placed on the market or onboard vessels to which the amended regulations or standards apply.

The Mark of Conformity may only be affixed to the above type approved equipment and a manufacturer's Declaration of Conformity issued when the production-control phase module (D, E, or F) of Annex B of the directive is fully complied with and controlled by a written inspection agreement with a notified body.

Signature: <u>Tom Twynam</u>	Date: <u>29th November 2018</u>
Print Name: <u>Tom Twynam</u>	
On behalf of TÜV SÜD BABT	