



Marine Equipment Directive Module B Type Examination Certificate

This is to certify that TÜV SÜD BABT did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the Navigation requirements of Marine Equipment Directive 96/98/EC as amended by Commission Directive 2013/52/EU and that the equipment of

True Heading AB

of

Vendevägen 90
182 32 Danderyd
Sweden

known as


CARBON PRO

conforming to the relevant requirements for:

Annex A.1/4.32 Universal Automatic Identification System (AIS)

as defined in the Marine Equipment Directive and listed in Commission Directive 2013/52/EU

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

Signed: 

Issue Date: 12 May 2015

On Behalf of TÜV SÜD BABT

Number: BABT-MED0000014 Issue: 03

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

This certificate is valid from 12 May 2015 until not later than 20 April 2020

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

TÜV SÜD BABT • TÜV SÜD Group

Octagon House • Concorde Way • Fareham • Hampshire • PO15 5RL • United Kingdom



0168

Marine Equipment Directive Module B Type Examination Certificate

Description of Equipment

Marine AIS Class A Transponder

Model: CARBON PRO

Compliance Matrix For MED Item A.1/4.32

IMO Resolutions	International Testing Standards	
IMO Res. MSC 74(69) ITU-R M. 1371-4 (2010)	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.2 (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
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.1 (2008)	Presentation of navigation-related information

Manufacturer:

Name: True Heading AB
Address: Vendevägen 90
 182 32 Danderyd
 Sweden

Authorised Representative in the EU:

Name: SRT Marine Technology Ltd
Address: Wireless House
 Westfield Industrial Estate
 Midsomer Norton
 Bath
 BA3 4BS
 UK

Relevant Technical Documentation

User Guide: Operation and Installation Manual AIS CARBON PRO,
 Version P1, Last modified 03/02/2011
 User manual update declaration.pdf, 2015-05-11



Test report numbers:

IEC 60945 : 2002 (inc Corr.1:2008)	LD3594 Issue 3, 2015-03-15 LD3603 Issue 2, 2010-03-31 7623-1 Issue 1, 2010-02-09 10R053 CR Issue 2, 2010-03-31 75907909 Report 3, Issue 1 2010-02-09 75907909 Report 1, Issue 2 2010-03-31 LD3589 Issue 3, 2015-03-17 LD3590 Issue 1, 2010-02-19 LD3591 Issue 2, 2015-03-05 LD3592 Issue 2, 2015-03-05 LD4170 Issue 3, 2012-07-12 75918709 Report 01 Issue 1, 2012-09-24 75918709 Report 02 Issue 1, 2012-09-20
IEC 61993-2 : 2012	LD3594 Issue 3, 2015-03-15 LD3610 Issue 2, 2010-02-29 75907909 Report 2 Issue 1, 2010-03-18 75907909 Report 5 Issue 2, 2010-03-25 75922680 Report 01 Issue 1, 2015-04-15 75922680 Report 02 Issue 1, 2015-02-25
IEC 61162-1 : 2010 IEC 61162-2 : 1998 IEC 61108-1 : 2003	LD4166 Issue 1, 2012-03-01 LD3605 Issue 2, 2010-03-31 BSH/4612/4321247/09 2010-02-16 LD4170 Issue 3, 2012-07-12 75918709 Report 04 Issue 1, 2012-12-18 BSH/46121/4142388/12, 2012-11-01
IEC 62288 : 2008	LD3604 Issue 2, 2010-04-01 TUVJonestr150310AK 2010-03-17

Approved Software^{Note1 & 3.}

Embedded software version	030200.06.04.00
FPGA firmware version:	
Baseband hardware (011-0009)	030500.01.06.00
Baseband hardware (011-0043)	030500.01.07.00
User interface software version number (NE)	030400.03.03.00
User interface software version number (SE)	030405.03.03.00
User interface software version number (Asian)	030404.03.03.00



Approved Hardware :

RF PCB Hardware version	4.0
Baseband hardware version number (011-0009)	5.1
Baseband hardware version number (011-0043)	1.6
User interface hardware version number	5.0

Circuit Diagram

LD 3286 Rev 3.3, 2012-08-01

011-0043 Rev 1.6, 2013-10-16¹

Parts List:

Revision: 2015-03-13

NOTES:

Note 1- 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 BAPT.

Note 2 – Three alternative GPS antennas have been assessed for use with the CARBON PRO, the BJTek MA700, the 2J 2J9001F and the 2J 2J9001GF. The 2J 2J9001GF is a GPS/GLONASS antenna, however this certificate applies solely to GPS operation of the CARBON PRO.

Note 3 – Three options for User interface Software are available enabling either South European, North European or Asian Languages to be automatically selected at switch on. This is a factory setting; there is no change to the functionality of the product.

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



Conditions of Validity

This issue of the Annex to the referenced Marine Equipment Module B Certificate relates to Issue 3 of the Certificate.

The assessed equipment is also in compliance with Directive 96/98/EC, as amended by Commission Directive 2014/93/EU, this Module B Certificate is also valid under that amendment.

This certificate will not 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 board 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."

Signed: *T. D. Turpan*

on behalf of TÜV SÜD BABT

Date: *12th May 2015*