



Danmark

Marine Equipment Directive EC Type Examination Module B Certificate

This is to certify that TÜV SÜD DANMARK ApS 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)2021/1158
Certificate Holder and Manufacturer	Northrop Grumman Sperry Marine B.V. Haringbuisweg 33 3133 KP Vlaardingen The Netherlands
Product(s)	a) VisionMaster Net CAT1 Radar Systems b) VisionMaster Net CAT1C Chart Radar Systems
Product Sector	Navigation Equipment
Product Type	MED/4.34 Radar Equipment CAT 1 MED/4.38a Radar Equipment approved with a chart option; CAT 1C

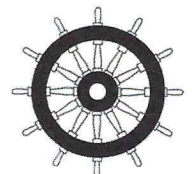
and on the basis of the Technical Data and information detailed in the Annex to this certificate.

T. J. Twynam
(Tom Twynam)

Valid from: 26 August 2021

Expiry Date: 22 March 2025

This certificate has been issued in accordance with the TÜV SÜD Testing and Certification Regulations 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@tuvsud.com



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Issued by TÜV SÜD DANMARK ApS under document number: DK-MED000131 Issue 02

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A4 / 07.17

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1 Equipment Description

Radar Systems with chart options (CAT 1 & CAT 1 C).

1.1.1 Processor and Display Options

Model	Description
67026AA	Standard 25.5" Panel PC
67026AB	Slimline 25.5" Panel PC
65900AA or 65900AB	PCIO Interface Unit
67003AH, 67003KH	Control Panel
RA00009746	Network Switch
32SDT001, 32SDT002, 32SDT005, 32SDT006 <small>Note 1&2</small>	Security Device

1.1.2 Transceiver, Turning Units and Antenna Options

Model	Description
67010WAR, 67025WAR	X-Band Turning Unit (Masthead)
65604A, 65606A, 65608A	X-Band Antenna
67030MER, 67030MFR, 67030MGR, 67030MHR	S-Band Turning Unit
65837AB, 65837AC, 65837AE, 65837AH	Scanner Control Unit
65612A	S-Band Antenna

1.1.3 Ancillary Components

Model	Description
4802181	Network Serial Interface
65900685	Mains Distribution Unit
65900614, 65900625, 65900635, 65900670	Kit Format Units

1.2 Software

Identity	Version
VisionMaster Net	1.1 <small>Note 3</small>

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2 Assessed Requirements

2.1 Implementing Regulation (EU)2021/1158

2.2 Compliance Requirements for MED/4.34 and MED/4.38a Note 4&5

IMO Resolutions		International Testing Standards
Resolution MSC.192(79)	IEC 62388 (2013)	Maritime navigation and radiocommunication equipment and systems — Shipborne radar
Resolution MSC.191(79) Resolution MSC.302(87)	IEC 62288 (2014)	Maritime navigation and radiocommunication equipment and systems — Presentation of navigation-related information on shipborne navigational displays — General requirements
Resolution A.694(17)	IEC 60945 (2002) incl. IEC 60945 Corr. 1 (2008)	Maritime navigation and radiocommunication equipment and systems — General requirements
	IEC 61162-1 (2016)	Maritime navigation and radiocommunication equipment and systems — Digital interfaces Part 1: Single talker and multiple listeners
	IEC 61162-2 (1998)	Maritime navigation and radiocommunication equipment and systems — Digital interfaces Part 2: Single talker and multiple listeners, high-speed transmission
	IEC 61162-450 (2011) with Am 1 (2016)	Maritime navigation and radiocommunication equipment and systems — Digital interfaces Part 450: Multiple talkers and multiple listeners — Ethernet interconnection
ITU-R Recommendation	ITU-R M.1177-4 (2011)	Techniques for measurement of unwanted emissions of radar systems

3 Technical Documentation

3.1 Declaration of Conformity

DoC073A VMNet CAT1

3.2 User Guide

VisionMaster Net Chart Radar User Guide Part No. 67000010-1 Rev.2A

VisionMaster Net Ships Manual Vol 1 Part No.67000011V1 Rev.1.1

VisionMaster Net Ships Manual Vol 2 Part No. 67000011V2 Rev.1.1

TotalCommand Installation, Operation and Service Manual, Part No. 67000007 Rev.1a

3.3 Test Reports

IEC 60945:2002 (inc Corr.1)	75913301 Report 10 Issue 1, 2020-03-17	JTUV008, 2020-01-27
	JTUV009, 2020-01-22	75947558 Report 01 Issue 01, 2020-01-09
	P19-0070, 2019-04-24	P19-0152-1, 2019-09-03
	5P03620 Rev1, 2015-10-16	P18-055-1, 2018-12-04
IEC 62388:2013	75913301 Report 05 Issue 1, 2020-02-27	JTUV011, 2020-03-04
	TR-V1.1.0-VMNet-071, 2021-08-13	TR-V1.1.0-VMNet-079-TC, 2021-08-17
IEC 62288:2014	75913301 Report 04 Issue 1, 2020-02-27	TR-V1.1.0-VMNet-081, 2021-08-11
	TR-V1.1.0-VMNet-079-TC, 2021-08-17	-
IEC 61162 Series	75943301 Report 06 Issue 1, 2020-03-04	75943301 Report 07 Issue 2, 2020-03-05
	75943301 Report 08 Issue 1, 2020-03-09	TR-V1.1.0-VMNet-076, 2021-08-09
	TR-V1.1.0-VMNet-077, 2021-08-09	TR-V1.1.0-VMNet-078, 2021-08-11



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3.4 Build Status

3.4.1 Hardware

VisionMaster Net Technical File VMNetTFRPRT Issue 2C

3.5 Notes

- Note 1 The 32SDT005 Multi-node security device allows operation of an integrated multi display ships bridge. A security string defines the product type on all the nodes for a particular vessel's bridge operating plan. The product type must be set to CAT1 Radar, CAT1C Chart Radar or Total Watch as appropriate.
- Note 2 A Total Watch product enables operation as a Multi-Function workstation and allows the operator to switch between Chart Radar, ECDIS and conning display. This certificate only applies when the mode is set to Chart Radar for a Total Watch System.
- Note 3 This approval remains valid for equipment including subsequent minor software amendments which have been formally accepted in accordance with the TÜV SÜD Testing and Certification Regulations
- Note 4 (EU)2021/1158 gives a last placing on board date of 29/08/2021 for equipment approved against the test standards listed above. See Conditions of Validity.
- Note 5 Image transfer to a Voyage Data Recorder vis IEC 61162-450 Interface.
- Note 6 The VisionMaster Net system may include the TotalCommand option which engages third party hardware outside of the scope of this Type Approval. Operation of the TotalCommand functionality is compliant with the User Configured Presentation requirements of IEC 62288. Commissioning and installation of the TotalCommand option should follow the TotalCommand Installation, Operation and Service Manual.

4 U.S. Coast Guard Number

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

165.115/EC2443 (Radar Equipment CAT 1)

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", Decision No. 1/2018, signed February 18th, 2019

5 Conditions of Validity

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 DANMARK ApS or a person appointed by TÜV SÜD DANMARK ApS to perform that role.

Should the specified regulations (internal conventions and the relevant resolutions and circulars of the IMO) or standards be amended and enforced through an Implementing Regulation 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:

(Thomas J. Twynam)

Date:

2021-08-26

On behalf of TÜV SÜD DANMARK ApS