



Marine Equipment UK Assessment Module B Type Examination Certificate

This is to certify that TUV SUD BABT UNLIMITED did undertake the relevant type approval procedures for the type of equipment identified below, which was found to be in compliance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended, under Annex 1 of the listed Amendment of MSN 1874 for the types of equipment identified.

MSN 1874	Amendment	Amendment 9
	AIIICHUIIICH	Amendments

Certificate Holder and

Manufacturer

Northrop Grumman Sperry Marine B.V.

118 Burlington Road,

New Malden, Surrey KT3 4NR

United Kingdom

Product(s) a) VisionMaster Net CAT1 Radar Systems

b) VisionMaster Net CAT1 Chart Radar Systemsc) VisionMaster Net CAT2 Radar Systemsd) VisionMaster Net CAT2 Chart Radar Systems

Product Sector Navigation Equipment

Product Type UK/4.64 CAT 1 Radar Equipment

UK/4.64 CAT 1H Radar Equipment UK/4.64 CAT 2 Radar Equipment UK/4.64 CAT 2H Radar Equipment

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

Valid from: 20 May 2024 (Andy Little) Expiry Date: 22 March 2025

TÜV SÜD BABT is a UKAS accredited Certification Body No. 0172. This certificate has been issued in accordance with the TÜV SÜD Testing, Certification, Validation and Verification Regulations and constitutes page 1 of the combined Certificate and Annex.

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



Issued by TUV SUD BABT Unlimited under document number: BABT-UKMA000080 Issue 03

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1 **Equipment Description**

CAT 1 and CAT 2 Radar Systems, with High Speed Craft (HSC) and Chart Radar options.

1.1.1 Processors and Displays

Model	Description
67026AA or 67026AB	26" Panel PC (CAT1 Radar)
67024AB or 67019AB	24" or 19" Panel PC (CAT2 Radar)
67003AH or 67003KH	Control panel with trackball + keyboard (Integrated or Kit)
32SDT001, 32SDT002, 32SDT005 or 32SDT006 Note 182	Security Device

1.1.2 Transceiver, Turning Units and Antenna

Model	Description
65604/A, 65606/A, 65608/A	X-Band Antenna (4ft, 6ft or 8ft)
67010WAR, 67010NAR, 67025WAR	X-Band Turning Unit (Masthead)Note 3
65612A	S-Band Antenna (12ft)
67030MER, 67030MFR, 67030MGR or 67030MHR	S-Band Turning Unit (Masthead)
65837AB, 65837AC, 65837AE or 65837AH	Scanner Control Unit (for S-Band use)

1.1.3 Interface Units

Model	Description
67004600	Serial Port Expander
4802181 and 65932739	Network Serial Interface and Network switch kit (EDS-G509)

1.1.4 Optional Components

Model	Description
65900AA or 65900AB	PCIO Interface Unit
65900685	Mains Distribution Unit
68001AA Note 4	Secure Maritime Gateway

1.2 Software

Identity	Version
VisionMaster Net	4.1.0 Note 5
Radar Embedded Software	3.0.0 Note 5
Baseline Operating System	Windows 10 IoT Enterprise LTSC, Version: 1809

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2 Assessed Requirements

2.1 MSN 1874 Amendment 9 Annex 1

2.2 Compliance Requirements for UK/4.64 Row 2 of 2^{Note 6}

Type approval requirements	Carriage and Performance Requirements
SOLAS 74 Reg V/18 SOLAS 74 Reg. X/3 IMO Res.MSC.36(63)-(1994 HSC Code) 13 IMO Res.MSC.97(73)-(2000 HSC Code) 13	SOLAS 74 Reg. V/19 IMO Res. A.278(VIII) IMO Res. A.694(17) IMO Res. MSC.36(63)-(1994 HSC Code) 13 IMO Res. MSC.97(73)-(2000 HSC Code) 13 IMO Res. MSC.191(79) IMO Res. MSC.192(79) IMO Res. MSC.302(87) IMO MSC.1/Circ.1349 ITU-R M.1177-4 (04/11)
Assessed Testing Standards	
IEC 62388:2013 incl. IEC 62388 Corr.1:2014	IEC 62288: 2021
IEC 60945: 2002 incl. IEC 60945 Corr. 1: 2008	IEC 61162-1: 2016
IEC 61162-2: 1998	IEC 61162-450: 2018 Note 7
IEC 62923-1: 2018	IEC 62923-2: 2018

3 Technical Documentation

3.1 Declaration of Conformity

DOC084-MER VMNet Series

3.2 User Guide

VisionMaster Net Chart Radar User Guide Part No. 67000010 Rev.6 VisionMaster Net Ships Manual Vol 1 Part No.67000011V1 Rev.6 VisionMaster Net Ships Manual Vol 2 Part No. 67000011V2 Rev.6

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

3.3 Test Reports

IEC 60945:2002	75913301 Report 10 Issue 1, 2020-03-17	JTUV008, 2020-01-27
(inc Corr.1)	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
	P21-0035-2, 2021-06-24	5P05962 rev 1, 2015-12-16
	P20-0136, 2020-10-07	E13184.00, 2013-08-20
	20053, 2013-11-19	RFI/EMCB1/RP39412ETF01A, 1999-08-27

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Test Reports - continued

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
	TR-V3.0.0-VMNet-104, 2022-12-07	TR-V3.0.0-VMNet-107, 2022-12-20
	75956857 Report 01 Issue 1, 2022-12-16	75960547-01 Issue 01, 2024-05-03
IEC 62288:2021	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	TR-V3.0.0-VMNet-103, 2023-01-23
	TR-V3.0.0-VMNet-107, 2022-12-20	75956857 Report 01 Issue 1, 2022-12-16
	TR-V3.0.0-VMNet-105, 2022-11-30	409514r00, 2020-11-12
	TR-V3.0.0-VMNet-102, 2022-11-30	346060r02, 2020-11-25
	75959442 Report 01 Issue 1, 2023-11-15	TR-V4.0.0-VMNet-139, 2023-11-16
	TR-V4.1.0-VMNet-146, 2024-05-03	-
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
	75952849 Report 02 Issue 01, 2021-12-06	-
IEC 62923-1:2018	TR-V3.0.0-VMNet-107, 2022-12-20	75952849 Report 01 Issue 01, 2021-12-16
IEC 62923-2:2018	75952849 Report 01 Issue 02, 2022-05-16	TR-V4.0.0-VMNet-135, 2023-11-14

3.4 Build Status

3.4.1 Hardware

VisionMaster Net Technical File VMNetTFRPRT Issue 5A

Installation, Operation and Service Manual.

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, CAT2 Radar, CAT2C 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	The CAT1H/CAT2H radar system approval applies when an X-Band Turning Unit is fitted and configured in accordance with the Ship's Manual.
Note 4	The 68001AA Secure Maritime Gateway is compliant with IEC 60945 (2002) requirements. This Type Approval does not cover any application or function on the external network that uses data exchanged via the Secure Maritime Gateway.
Note 5	This approval remains valid for equipment including subsequent minor software amendments which have been formally accepted in accordance with the TÜV SÜD Testing, Certification, Validation and Verification Regulations.
Note 6	The product(s) listed meet(s) the requirements of IEC 62923-1 for EUT function type P, type R and type S.
Note 7	Image transfer to a Voyage Data Recorder via IEC 61162-450 Interface.
Note 8	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

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4 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 TUV SUD BABT or a person appointed by TUV SUD BABT to perform that role.

During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved Body.

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 Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body.

Date: 20/05/2024

Signature:

(Andy Little)

On behalf of TUV SUD BABT UNLIMITED