



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 7

Certificate Holder and

Manufacturer

Northrop Grumman Sperry Marine B.V.

118 Burlington Road,

New Malden, Surrey KT3 4NR

United Kingdom

Product(s) VisionMaster Net ECDIS with Track Control

Product Sector Navigation Equipment

Product Type UK/4.33 Track Control System (working at ship's speed from minimum

manoeuvring speed up to 30 knots)

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

Valid from: 24 November 2023 (Andy Little) 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



Issued by TUV SUD BABT Unlimited under document number: BABT-UKMA000104 Issue 02

Page 1 of 5

1 **Equipment Description**

Track Control System

1.1.1 Processors and Displays

Model	Description
67026AA or 67026AB	26" Panel PC
67024AB or 67019AB	24" or 19" Panel PC
67003AH or 67003KH	Control panel with trackball + keyboard (Integrated or Kit)
67003AF or 67003KF	Control Panel with trackball only (Integrated or Kit)
67003KT	Trackball Desktop Assembly
32SDT003, 32SDT004, 32SDT005 or 32SDT006 Notes 1&2	Security Device
074929-0000-xxx Note 3	NAVIPILOT 4500N, Control and Display Unit (CDU)
074928-0000-xxx Note 3	NAVIPILOT 4500N, Autopilot Processing Unit (APU)

1.1.2 Interface Units

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

1.1.3 Optional Components

Model	Description
65900AA or 65900AB	PCIO Interface Unit
65900685	Mains Distribution Unit
1982776	Analogue Interface Unit
65932605	Digital Interface Unit
68001AA Note 9	Secure Maritime Gateway
4303153	Course Mode Joystick
074851-0000-xxx	Steering Control Interface Unit

1.2 Software Note 4

Identity	Version
VisionMaster Net	4.0.0
Baseline Operating System	Windows 10 IoT Enterprise LTSC, Version: 1809
NAVIPILOT 4500N Application	2.xxx

2 Assessed Requirements

2.1 MSN 1874 Amendment 7 Annex 1

2.2 Compliance Requirements for UK/4.33 Row 2 of 2 Notes 6, 7 & 8

Performance Requirements	International Testing Standards	
Resolution MSC.74(69)	IEC 62065:2014	Maritime navigation and radiocommunication equipment and systems — Track Control Systems
Resolution MSC.191(79)	IEC 62288:2021	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 61162-450:2018 Note 5	Maritime navigation and radiocommunication equipment and systems — Digital interfaces Part 450: Multiple talkers and multiple listeners — Ethernet interconnection
Resolution MSC.302(87)	IEC 62923-1:2018	Maritime navigation and radiocommunication equipment and systems – Bridge alert management Part 1: Operational and performance requirements, methods of testing and required test results
	IEC 62923-2:2018	Maritime navigation and radiocommunication equipment and systems – Bridge alert management Part 2: Alert and cluster identifiers and other additional features

3 Technical Documentation

3.1 Declaration of Conformity

DOC083-UKCA VMNet Series

3.2 User Guide

VisionMaster Net ECDIS User Guide, Part No. 67000012 Rev.5 VisionMaster Net Ships Manual Vol 1, Part No.67000011V1 Rev.5 VisionMaster Net Ships Manual Vol 2, Part No. 67000011V2 Rev.5 Navipilot 4500N Operation Manual, Part No. 056403 Rev.B Navipilot 4500N Installation and Service Manual, Part No. 056404 Rev.B

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	-

Test Reports - continued

IEC 62065:2014	75943301 Report 09, 2020-03-11	MERB00006Y5, 2022-11-15
	TR-V3.0.1-VMNet-126 Issue: 2, 2023-08-03	5032-0141-12, 2023-06-14
	TR-V3.0.1-VMNet-122 Issue: 1, 2023-06-26	TR-V4.0.0-VMNet-133, 2023-11-15
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
	346060r02, 2020-11-25	TR-V3.0.1-VMNet-124 Issue: 1, 2023-07-20
	75959442 Report 01 Issue 1, 2023-11-15	TR-V4.0.0-VMNet-139, 2023-11-16
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 4A

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 ECDIS, ECDIS with Radar overlay 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 ECDIS for a Total Watch System.
Note 3	Refer to Type Approval certificate MERB00006Y5 for full product information for the NAVIPILOT 4500N.
Note 4	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 5	Image Transfer to a Voyage Data Recorder via IEC 61162-450 Interface.
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	The VisionMaster Net ECDIS with Track Control meets the requirements for a Category C track control system.
Note 8	This equipment also provides an interface to the ship's propulsion controller which is compliant with IEC 62065:2014 Annex B (Speed Control) when used in Route Based Speed Control mode.
Note 9	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.

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: 24/11/2023

Signature:

(Andy Little)

On behalf of TUV SUD BABT UNLIMITED