

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)2020/1170
Certificate Holder and Manufacturer	Northrop Grumman Sperry Marine B.V. Haringbuisweg 33 3133 KP Vlaardingen The Netherlands
Product(s)	VisionMaster FT ECDIS-E
Product Sector	Navigation Equipment
Product Type	MED/4.30 Electronic Chart Display and Information System (ECDIS) with Backup and Raster Chart Display System (RCDS).

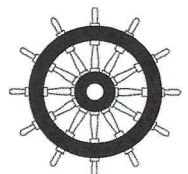
and on the basis of the Technical Data and information detailed in the Annex to this certificate.

Valid from: 14 October 2020


(Tom Twynam)

Expiry Date: 12 November 2023

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@TUV-SUD.co.uk



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Annex to Marine Equipment Directive Module B Type Examination Certificate

1 Equipment Description

Electronic Chart Display and Information System (ECDIS) with Backup, and Raster Chart Display System (RCDS)

1.1.1 Processor and Display Options

Part No.	Description
65934AA ^{Note 1}	ECDIS-E - 24" Display Panel & integrated ECDIS Processor
65934600	Trackball & keypad unit
32SDR011 or 32SDT011	Security Dongle

1.1.2 Ancillary Components

Part No.	Description
65800700	AC Isolating switch
Not numbered ^{Note 2}	C-MAP Dongle
65934610 ^{Note 3}	Portable DVD Drive
65934615	Serial Port Expander ECDIS-E
67050FA ^{Note 4}	Secure Maritime Gateway

1.2 Software

Identity	Version
VisionMaster FT Software	12.4.0 ^{Note 5}

2 Assessed Requirements

2.1 Implementing Regulation (EU)2020/1170

2.2 Compliance Requirements for MED/4.30^{Notes 6}

IMO Resolutions	International Testing Standards
Resolution MSC.232(82)	IEC 61174:2015 Electronic Chart Display & Information System (ECDIS)
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) ^{Note 8} Maritime navigation and radiocommunication equipment and systems — Digital interfaces Part 450: Multiple talkers and multiple listeners — Ethernet interconnection

As well as the equipment compliance with the requirements listed above this manufacturer has a proven record of software maintenance in conformity with the principles of IMO MSC.1/Circ.1503 Rev.1 (revoking IMO SN.1/Circ.266).

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3 Technical Documentation

3.1 Declaration of Conformity

DOC071E VMFT ECDIS-E

3.2 User Guide

ECDIS-E User Guide Part No. 65934012-5 Rev A
ECDIS-E Ships Manual Part No. 65934011-4 Rev A

3.3 Test Reports

IEC 60945:2002 (inc Corr.1)	QinetiQ/D&TS/SS/CR0607592/1.0, 2006-12-06	103230862LHD-001, 2017-12-06
	2011-3475 Rev 01, 2011-11-24	103230862LHD-001 ISS 4, 2018-01-02
	2013-3114 Rev 01, 2013-03-20	416.095.1, 2016-06-17
	65934TASCR Issue 1, 2013-07-26	416.095.2, 2016-05-11
	E13184.00, 2013-08-20	416.095.3, 2016-05-18
	20053, 2013-11-19	962, 2017-03-08
	DOC100732-15-Rev15, 2016-11-10	Declaration of Conformity VL-Gateway 460, 2018-05-18
IEC 61174:2015	QinetiQ/EMEA/iX/CR0709724/2, 2008-03-06	VDR Type Approval Evidence Matrix, 2016-03-08
	QinetiQ/MS/EES/TSTR0900779/1.0, 2009-02-24	TR-V11-NML-016 Issue 1, 2018-11-12
	QinetiQ/MS/EES/TSTR0801342/1, 2008-07-30	TR-V12-NML-030 Issue 1, 2019-08-08
	QINETIQ/TEG/TEGS/TSTR1101456/1.0, 2011-05-17	TR-V12-NML-031 Issue 1, 2019-08-08
	DOC101028-1, 2011-12-13	TR-V12-NML-032 Issue 1, 2019-08-08
	TR-V10-NML-003 Issue: 3, 2017-10-11	TR-V12.2-NML-038 Issue: 1, 2020-02-20
	TR-V9-NML-001 Issue 3, 2016-12-01	TR-V12.2-NML-044 Issue: 1, 2020-02-20
	TR-V9-NML-002 Issue 1, 2016-10-26	TR-V12.2-NML-043 Issue: 1, 2020-02-20
	TR-V10-NML-006 Issue 2, 2017-09-18	TR-V12.4-NML-053 Issue 01, 2020-09-24
	TR-V12.4-NML-050 Issue 01, 2020-09-24	TR-V12.4-NML-054 Issue 01, 2020-09-25
IEC 62288:2014	QinetiQ/MS/EES/TSTR0900216/1.0, 2009-02-17	TR-V10-NML-004 Issue 2, 2017-09-18
	DOC101028-1, 2011-12-13	TR-V11-NML-017 Issue: 1, 2018-11-12
	65934TASCR Issue 1, 2013-07-26	TR-V12-NML-028 Issue 2, 2019-09-02
	IEC 62288 Ed 2 Gap Analysis and Impact Assessment Version 1.6, 2015-07-01	TR-V12.2-NML-042 Issue: 1, 2020-02-20
	TR-V12.4-NML-055 Issue: 1, 2020-09-30	-
IEC 61162 Series	65934TASCR Issue 1, 2013-07-26	TR-V12-NML-029 Issue 2, 2019-09-02
	20053, 2013-11-19	TR-V12.2-NML-039 Issue: 1, 2020-02-20
	TR-V11-NML-015 Issue 1, 2018-11-12	-

3.4 Build Status

3.4.1 Hardware

VisionMaster FT ECDIS-E Technical File 65934TCF Issue 3

Dated

2018-10-24

3.5 Notes

- Note 1 Where marked this may bear the Jacob Hatteland designation HD 24T21 SEC-M4D-AFB2.
- Note 2 Supplied as part of C-Map chart licensing.
- Note 3 For non-operational use in chart loading & maintenance if not conducted by other media.
- Note 4 The 67050FA Secure Maritime Gateway is compliant with IEC 60945 (2002) requirements. ECDIS-E Type Approval does not cover the additional facilities provided by the connection to external, third party networks.
- 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 and Certification Regulations.
- Note 6 (EU)2020/1170 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 7 Conformance with the IHO S-52 'Specifications for Chart Content and Display Aspects of ECDIS' Edition 6.1(1) and IHO S-52 Annex A 'IHO Presentation Library' Edition 4.0(2) was demonstrated using IHO S-64 'Instruction Manual for the use of IHO Test Data Sets in ECDIS' Edition 3.0.2.
- Note 8 ECDIS image transfer to a Voyage Data Recorder via a Network interface in accordance with IEC 61174 (2015), IEC 61996-1 (2013) and IEC 61162-450 (2011) + Am1 (2016) has been verified.
- Note 9 A second ECDIS-E unit is needed to form a back-up system if this is required by carriage requirements and the Administration concerned.
- Note 10 If simultaneous access to a maintained 24V emergency supply is unavailable an Uninterruptible Power Supply (UPS) must be incorporated.

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4 U.S. Coast Guard Number

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

165.123/EC2443 (ECDIS)
165.124/EC2443 (ECDIS Backup Equipment)

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: *T. J. Twynam*
(Tom Twynam)

Date: 2020-10-14

On behalf of TÜV SÜD DANMARK ApS