

Marine Equipment Directive EC Type Examination Module B Certificate

This is to certify that TÜV SÜD Danmark 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)2019/1397
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).

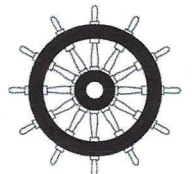
and on the basis of the Technical Data and information detailed in the Annex to this certificate.

Valid from: 28 February 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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TÜV SÜD Danmark • Tuborg Boulevard 12.3 • 2900 Hellerup • Denmark

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1 Equipment Description

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

1.1 Models

1.1.1 System Components

Model	Description
65934AA ^{Note 1}	ECDIS-E - 24" Display Panel & integrated ECDIS Processor
65934600	Trackball & keypad unit
32SDR011 or 32SDT011	Security Dongle

1.1.2 Optional Components

Model	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

Description	Version
VisionMaster FT Software	12.2.0 ^{Note 5}

2 Assessed Requirements

2.1 Implementing Regulation (EU)2019/1397

2.2 Compliance Requirements for MED/4.30 ^{Note 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	Presentation of navigation-related information
Resolution A694(17)	IEC 60945:2002	General Requirements for Marine Navigation Equipment (Inc. Corr1:2008)
	IEC 61162-1:2016	Digital Interfaces – Part 1, single talker
	IEC 61162-2:1998	Digital Interfaces – Part 2 High Speed interface

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

DOC065E 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 & Supporting Documentation

3.3.1 IEC 61174 (2015)

QinetiQ/EMEA/iX/CR0709724/2	Issued	2008-03-06
QinetiQ/MS/EES/TSTR0900779/1.0	Issued	2009-02-24
QinetiQ/MS/EES/TSTR0801342/1	Issued	2008-07-30
QINETIQ/TEG/TECS/TSTR1101456/1.0	Issued	2011-05-17
DOC101028-1	Issued	2011-12-13
TR-V10-NML-003 Issue: 3	Dated	2017-10-11
TR-V9-NML-001 (PresLib 4.0 (.1) test report - C-Map)	Dated	2016-12-01
TR-V9-NML-002 (PresLib 4.0 (.1) test report - SevenCs)	Dated	2016-10-26
TR-V10-NML-006 Issue 2 (S-52 PresLib 4.0(.2))	Dated	2017-09-18
VDR Type Approval Evidence Matrix	Dated	2016-03-08
TR-V11-NML-016 Issue 1	Issued	2018-11-12
TR-V12-NML-030 Issue 1	Issued	2019-08-08
TR-V12-NML-031 Issue 1	Issued	2019-08-08
TR-V12-NML-032 Issue 1	Issued	2019-08-08
TR-V12.2-NML-038 Issue: 1	Issued	2020-02-20
TR-V12.2-NML-044 Issue: 1	Issued	2020-02-20
TR-V12.2-NML-043 Issue: 1	Issued	2020-02-20

3.3.2 IEC 60945 (2002) including Corr.1

QinetiQ/D&TS/SS/CR0607592/1.0	Issued	2006-12-06
2011-3475 Rev 01	Issued	2011-11-24
2013-3114 Rev 01	Issued	2013-03-20
65934TASCR Issue 1	Issued	2013-07-26
E13184.00	Issued	2013-08-20
20053	Issued	2013-11-19
DOC100732-15-Rev15	Issued	2016-11-10
103230862LHD-001	Issued	2017-12-06
103230862LHD-001 ISS 4	Issued	2018-01-02
416.095.1	Issued	2016-06-17
416.095.2	Issued	2016-05-11
416.095.3	Issued	2016-05-18
962	Issued	2017-03-08
Declaration of Conformity VL-Gateway 460	Issued	2018-05-18

3.3.3 IEC 62288 (2014)

QinetiQ/MS/EES/TSTR0900216/1.0	Issued	2009-02-17
DOC101028-1	Issued	2011-12-13
65934TASCR Issue 1	Issued	2013-07-26
IEC 62288 Ed 2 Gap Analysis and Impact Assessment Version 1.6	Dated	2015-07-01
TR-V10-NML-004 Issue 2	Dated	2017-09-18
TR-V11-NML-017 Issue: 1	Issued	2018-11-12
TR-V12-NML-028 Issue 2	Issued	2019-09-02
TR-V12.2-NML-042 Issue: 1	Issued	2020-02-20



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3.3.4 IEC 61162-1 (2016) & IEC 61162-2 (1998)

65934TASCR Issue 1	Issued	2013-07-26
20053	Issued	2013-11-19
TR-V11-NML-015 Issue 1	Issued	2018-11-12
TR-V12-NML-029 Issue 2	Issued	2019-09-02
TR-V12.2-NML-039 Issue: 1	Issued	2020-02-20

3.3.5 Supporting Documentation

APL-V9.00-NML-TUV-008	Dated	2017-03-27
IA-V10-NML-008 (Impact Assessment VMFT 10.0.0) Issue 1.1	Dated	2017-09-18
IA-V11-NML-010 (Impact Assessment VMFT 11.0.0) Issue 9	Dated	2018-12-11
IA-V12-NML-014 (Impact Assessment VMFT V12.0.0) Rev 8	Dated	2019-09-02

3.4 Build Status

3.4.1 Hardware

ECDIS-E 24" Display Outline 65934051-1 Rev A	Issued	2013-03-08
ECDIS-E Production Performance Specification 65934PPSSYS-1 Rev A	Dated	2013-08-06
ECDIS-E Trackball Outline 65934050-1 Rev A	Issued	2013-03-08
ECDIS-E Technical Specification 65934DS01 Issue 1	Issued	2013-04-03
ECDIS-E Cabling 65934060-1 Rev A	Issued	2013-07-26
ECDIS-E 24" Panel PC Specification 65934AA-2 Rev A	Dated	2013-08-06

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)2019/1397 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	Compliant with IHO S-52, Edition 6.1(.1) and Presentation Library 4.0(.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.

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 Back-up 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.

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

Should the specified regulations (international conventions and the relevant resolutions and circulars of the IMO) or the testing standards be amended and enforced through an Implementing Regulation during the period of validity of this certificate, the product(s) is to be re-approved prior to it 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 Date: 2020-02-28
Print Name: Tom Twynam
On behalf of TÜV SÜD Danmark