

CERTIFICATE OF CONFORMITY - EC (MODULE G)

Certificate no.:
MEDG00001ER

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

This is to certify:

that the **Electronic chart display and information system (ECDIS)**

with type designation and serial number

SEAS-NAVY ECDIS 450 - Serial Number: Ref. product description on page 2

issued to

Fincantieri NexTech S.p.A.
Milano, Lombardia, Italy

is, by design assessment and product verification, found to comply with

Regulation **(EU) 2024/1975**,

item No. **MED/4.30. SOLAS 74 as amended, Regulations V/18, V/19, V27 & X/3, IMO Res. A.694(17), IMO Res. MSC.36(63), IMO Res. MSC.97(73), IMO Res. MSC.191(79), IMO Res. MSC.232(82), IMO Res. MSC.302(87), IMO MSC.1/Circ.1503 Rev.1 or 2.**

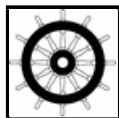
USCG Approval No: **165.123/EC0575/MEDG00001ER**

Further details of the equipment and conditions for certification are given overleaf.

Issued at **Høvik** on **2025-03-25**

DNV local unit:

**AC Europe TA/MED Electrical,
Automation & Navigation Systems**



for **DNV AS**

Approval Engineer:

Arve Lepsøe

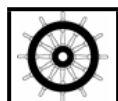
Notified Body

No.: **0575**

Mydlak-Röder, Christine

Head of Notified Body

Based on the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of certificates of conformity for marine equipment" signed 17 October 2005, and amended by Decision No 1/2019 dated February 22nd, 2019, the manufacturer is allowed to affix the U.S. Coast Guard approval number.



0575/yyyy

0575:

yyyy:

Notified Body number undertaking quality surveillance

The year in which the mark is affixed



The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU. This certificate remains valid unless suspended, withdrawn, recalled or cancelled, provided this equipment is not modified without the acceptance of the notified body named herein.

This certificate authorises the manufacturer to affix the "Mark of Conformity" (wheelmark) to the product described herein.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

The ECDIS system installed in "FREMM Fincantieri Hull 6337" consists of following:

Equipment	Description	Part no.	Serial no.
MFC1			
Computer	IRENE Marine Embedded PC, IRENENAVEMB	IRENENAVEMB	KSA5208968
Monitor 1	ISIC MONITOR 24"	DuraMON 24 Glass, 07024-089	89A2218003
Monitor 2	ISIC MONITOR 24"	DuraMON 24 Glass, 07024-089	89A2218007
Keyboard	OXI Keyboard without trackball - 24 function keys	VE052542	NA
Trackball	NSI Trackball 38 mm	TBE38F0-0BT1-MC3	NA
MFC2			
Computer	IRENE Marine Embedded PC, IRENENAVEMB	IRENENAVEMB	KSA5326606
Monitor 1	ISIC MONITOR 24"	DuraMON 24 Glass, 07024-089	89A2212004
Monitor 2	ISIC MONITOR 24"	DuraMON 24 Glass, 07024-089	89A2212005
Keyboard	OXI Keyboard without trackball - 24 function keys	VE052542	NA
Trackball	NSI Trackball 38 mm	TBE38F0-0BT1-MC3	NA
MFC3			
Computer	IRENE Marine Embedded PC, IRENENAVEMB	IRENENAVEMB	KSA5209040
Monitor 1	ISIC MONITOR 24"	DuraMON 24 Glass, 07024-089	89A2212001
Monitor 2	ISIC MONITOR 24"	DuraMON 24 Glass, 07024-089	89A2218002
Keyboard	OXI Keyboard without trackball - 24 function keys	VE052542	NA
Trackball	NSI Trackball 38 mm	TBE38F0-0BT1-MC3	NA

Software modules

- SEAS-NAVY 450 software:
- C-Map ECDIS Kernel
- IHO Presentation Library:

Version

CSCI8323 v4.20
SDK 6.0.5
Edition 4.0(.2)

Application/Limitation

- The installation shall be verified and tested onboard according to Installation, setup and maintenance manual
- The ECDIS is found to comply with the requirements for ECDIS with Back-up arrangements.
- The ECDIS has implemented the IEC61162-450 grouping functionality only for the VDO and VDM sentences
- The ECDIS is installed on a vessel (Hull 6337) without a IMO compliant Bridge Alert Management (BAM) system. Hence no interface to BAM according to MSC.302(87) is provided.
- The SEAS-NAVY ECDIS 450 have been tested in a Multi-Functional-Display (MFD) system with functions for RADAR with ARPA, HCI NAVS, Marine portal Evolution (MPeV) for Ship Management System (SMS) and Login Application Manager (LAM). This type examination certificate covers only the function/ system identified on page 1.

Technical Documentation

DNV GL No	Drawing No	Rev.	Title
63	MEDB00005AG		ECDIS Type Approval Certificate for GEM ECDIS ECD-361
64	11110012 A10 11	0	Report: Seastema, Acceptance test report for FREMM hull 6337
47	MEDB00006RT		ECDIS Type Approval Certificate for GEM WECDIS system
29	Cod. AF162693E	0	Software use and installation manual
23	20286	0	Report: Applica, EMC and environmental test report for HT C02HK STC-A6D-A000-ES2 Maritime Computer
22	20285	0	Report: Applica, EMC and environmental test report for HT C02HJ STC-A4D-A000-ES1 Maritime Computer
21	20373	0	Report: Applica, EMC and environmental test report for HT C02HJ STC-A4D-A000-ES11 Maritime Computer
19	RET102170202.01E	3	Performance test report SW upgrade from 3.62 to 3.90, incl. Appendix 1 and 2
30	RET_102181204.01E	0	Performance test report FREMM ECDIS SW upgrade from 3.90 to 4.00
18	11110012 A08 12	07	Acceptance test report
17	DOC102043-1	2015-09-08	Conformance Test Report of LCD for use in RADAR and ECDIS - JH 20T17 SSD-AAE-AOBA (HW06)
7	2008-3511	02	EMC AND ENVIRONMENTAL TESTING OF JH 20T17
5	TesLab 10A166F	1.20	IEC60945 Test Report Keyborad VE035564
4	11110012 G01 13	1.3	Block diagram and functional description

Tests carried out

- Performance testing, IEC 61174 Ed. 4.0 (2015)
- Environmental testing, IEC 60945 (2002) incl. Corr.1 (2008)
- Serial interface testing, IEC 61162-1 (2016)
- Serial interface testing, IEC 61162-450 (2018)
- Presentation of navigation information, IEC 62288 (2021)
- Bridge Alert Management, part 1, IEC 62923-1 (2018)
- Bridge Alert Management, part 1, IEC 62923-2 (2018)

Marking of product

The designation of Manufacturer and Type shall be fixed in a clearly visible location on the individual equipment. In addition the equipment shall be marked with serial number. Safe distance to magnetic compass and power consumption and/or supply voltage may be included on the label or stated in the individual installation manuals.