DNV·GL

Certificate No:
**MEDB00006RT**

# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

## This is to certify:

**That the Electronic chart display and information system (ECDIS) with backup**

with type designation(s)
**WECDIS System**

Issued to
**G.E.M. ELETTRONICA S.R.L.**
**San Benedetto del Tronto AP, Italy**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
**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**

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

This Certificate is valid until **2025-07-08**.
Issued at **Hamburg** on **2020-07-09**

DNV GL local station:
**Italy/Malta CMC**

Approval Engineer:
**Harald Bluhm**

Notified Body
No.: **0098**

for **DNV GL SE**

**Gerhard Aulbert**
**Head of Notified Body**

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), 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", signed February 27th, 2004, and amended by Decision No 1/2018 dated February 18th, 2019.

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-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.



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Job Id: **344.1-010654-1**
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## Product description

Warship Electronic Chart Display and Information System
The WECDIS system is composed of the following units:

**Hardware:**

| Unit ID | Description |
|---|---|
| MCU-2301A | (W)ECDIS Elaborator |
| DuraMON 27 | 27" LCD Monitor |
| TST-902 | Keyboard + Trackball |
| TS-551 | Serial Interface Unit |

The following software is installed on the MCU-2301A WECDIS elaborator:

**WECDIS software list**

| Operating System | WECDIS SW | Presentation library | Cartographic kernel |
|---|---|---|---|
| Windows 10 Enterprise LTSC 2019 vers. 1809 | WECDIS LN CSCI2C09 v1.xx | IHO Pres. Lib. 4.0(.2) | SevenCS EC2007 5.22.53.0 |

or
The WECDIS software can be configured as ECDIS version with the following features:

**ECDIS software list**

| Operating System | ECDIS SW | Presentation library | Cartographic kernel |
|---|---|---|---|
| Windows 10 Enterprise LTSC 2019 vers. 1809 | ECDIS LN CSCI2C07 v1.xx | IHO Pres. Lib. 4.0(.2) | SevenCS EC2007 5.22.53.0 |

## Application/Limitation

A second (W)ECDIS of the same type may be used to meet the back-up arrangements as required by SOLAS V 19 2.1.5 as amended.

IMO SN.1/Circ.MSC.1/Circ.1503: ECDIS that is not updated for the latest version of IMO Standards may not meet the chart carriage requirements as set out in SOLAS regulation V/19.2.1.4.

The system supports the display and use of digital chart data in the following formats:
· S-52 Ed. 6.1 and Pres. Lib. 4.0 (IHO)
· S-57 Ed.3.1.1 (IHO)
· S-63 Ed.1.2 (IHO),
· S-64 Ed. 3.0 (IHO).

## Type Examination documentation

| Reference Document | Title |
|---|---|
| MUIPFS99394E | WECDIS User and Installation Manual |
| RET390200707.01E | WECDIS System Test Report in accordance with IEC-62288 |
| RET390200708.01E | WECDIS System Test Report in accordance with IEC-61162 series |
| RET390200709.01E | WECDIS System Test Report in accordance with IEC-61174 |
| RET390200710.01E | WECDIS System Test Report in accordance with IEC-62923 series |
| RPL1907003 | WECDIS System Test Report in accordance with IEC-60945 – Dry Heat |
| RPL1907004 | WECDIS System Test Report in accordance with IEC-60945 – Low Temperature |
| RPL1907007 | WECDIS System Test Report in accordance with IEC-60945 – Damp Heat |
| RPL1905005-R1 | WECDIS System Test Report in accordance with IEC-60945 – Electromagnetic Emission |
| Test Report n.523 | WECDIS System Test Report in accordance with IEC-60945 – Immunity to electromagnetic environent |
| VD1937901GERK | TS-551 Test Report in accordance with IEC-60945 – Vibration |

## Tests carried out

IEC 60945 (2002) incl. IEC 60945 Corr. 1 (2008)
IEC 61162 series:
- IEC 61162-1 Ed.5.0 (2016-08)
- IEC 61162-2 Ed.1.0 (1998-09)
- IEC 61162-450 Ed.2.0 (2018-05)

IEC 61174:2015 Ed. 4.0
IEC 62288 Ed. 2.0 (2014-07)
IEC 62923-1 Ed.1 (2018-08)
IEC 62923-2 Ed.1 (2018-08)

## Marking of product

According to Article 10 of the Council Directive (MED):

- The wheel mark shall be affixed visibly, legibly and indelibly to the product or to its data plate and, where relevant, embedded in its software. Where that is not possible or not warranted on account of the nature of the product, it shall be affixed to the packaging and to the accompanying documents.
- The wheel mark shall be affixed at the end of the production phase.
- The wheel mark shall be followed by the identification number of the notified body, where that body is involved in the production control phase, and by the year in which the mark is affixed.
- The identification number of the notified body shall be affixed by the body itself or, under its instructions, by the manufacturer or the manufacturer's authorised representative.

For specific products, manufacturers may use an appropriate and reliable form of electronic tag instead of, or in addition to, the wheel mark.
END OF CERTIFICATE