

# EUROPEAN UNION RECOGNISED ORGANISATION (EU RO) MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE

Certificate No:  
**MRA0000006**  
Revision No:  
**2**

In accordance with Article 10.1 of EU Regulation 391/2009

This Certificate is issued to

**Hatteland Technology AS**  
**Aksdal, Norway**

for

**Touch Screen i.e. a Display Monitor or a Video Screen that is also an Input Device**

with type designation(s)

**Maritime Multi Displays and Standard Displays – Series X**

The product is found to comply with

**EU RO Mutual Recognition Technical Requirements for Touch Screen i.e. a Display Monitor or a Video Screen that is also an Input Device**  
**IEC 60945 Ed. 4 (2002-08) Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results**

Intended service

**Touch display for alarm and monitoring systems subject to classification.**

**Temperature [°C]: -15°C to 55°C**

**Vibration: ±1 mm / 0.7 g**

**EMC: All locations including bridge and open deck**

**IP Code: IP22 standalone, IP66 when sealed to console**

## This is to certify:

that the Product referred to herein has been inspected for the Manufacturer, pursuant to the relevant requirements of the European Union Recognised Organisation Mutual Recognition procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements.

This Certificate is valid until **2025-08-31**.

Issued at **Høvik** on **2020-09-18**

DNV GL local station: **Haugesund**

for **DNV GL**

Approval Engineer: **Ståle Sneen**

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**Marta Alonso Pontes**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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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## Product description

Maritime Multi Displays and Standard Displays – Series X, comprising the following models:

Type	Description	Power supply options	Standard compass safe distance	Steering compass safe distance
HD 12T21 MMD	MMD Series X	115/230VAC - 50/60Hz + 24VDC	125 cm	75 cm
HD 15T21 MMD	MMD Series X	115/230VAC - 50/60Hz + 24VDC	125 cm	75 cm
HD 17T21 MMD	MMD Series X	115/230VAC - 50/60Hz + 24VDC	125 cm	75 cm
HD 19T21 MMD	MMD Series X	115/230VAC - 50/60Hz + 24VDC	125 cm	75 cm
HD 24T21 MMD	MMD Series X	115/230VAC - 50/60Hz + 24VDC	70 cm	45 cm
HD 26T21 MMD	MMD Series X	115/230VAC - 50/60Hz + 24VDC	130 cm	70 cm
HD 08T21 STD	STD Series X Compact	24VDC	45 cm	30 cm
HD 13T21 STD	STD Series X Compact	24VDC	45 cm	30 cm
HD 12T21 STD	STD Series X	115/230VAC - 50/60Hz + 24VDC	125 cm	75 cm
HD 15T21 STD	STD Series X	115/230VAC - 50/60Hz + 24VDC	55 cm	40 cm
HD 17T21 STD	STD Series X	115/230VAC - 50/60Hz + 24VDC	80 cm	50 cm
HD 19T21 STD	STD Series X	115/230VAC - 50/60Hz + 24VDC	125 cm	75 cm
HD 24T21 STD	STD Series X	115/230VAC - 50/60Hz + 24VDC	125 cm	75 cm
HD 26T21 STD	STD Series X	115/230VAC - 50/60Hz + 24VDC	125 cm	80 cm

The type approved configurations are described by the respective data sheets listed under Type Approval documentation.

Overview of tested firmware versions and revision history up to date of issue of this certificate are listed in Hatteland Technology's Firmware Statement No. LET\_DNV20150402AK.DOC-Rev 1, LET\_DNV20170301AK.DOC-Rev 1 and LET\_DNVGL20200907AK Rev 1 listed under Type Approval documentation.

Series X Brackets (optional accessories):

Bracket Type No.	Displays of Equivalent Size
HD TMB SX1-A1	Series X sizes 12" and 15"
HD TMB SX1-B1	Series X sizes 17" and 19"
HD TMB SX1-C1	Series X sizes 24" and 26"

## Manufactured by

Hatteland Technology  
 Eikeskogvegen 52, 5570 Akksdal, Norway

## Application/Limitation

The Type Approval covers all hardware listed under Product description. The displays are intended for use in alarm and monitoring systems subject to classification.

EMC in the range 2 GHz to 6 GHz according to IACS Unified Requirements E10 Rev.7 has not been documented. EMC up to 6 GHz must additionally be documented for installation on ships contracted for construction on or after 2022-01-01.

The dimming function is programmable and needs to be verified through functional testing when used in a system subject to classification

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## Type Approval documentation

### Marking of product

Manufacturer's name: Hatteland Technology AS  
Type No.: Main type as listed under product description + 7 characters to describe the options  
Unique serial No.  
Date of manufacture: YYYYMMDD  
Power supply ratings: Input voltage as listed under product description + power rating (W)

### Other conditions

The monitors have been verified for compliance with EU RO Mutual Recognition Technical Requirements for Touch Screen i.e. a display monitor or a video screen that is also an input device version 0.2, dated 2020-04-28, and for Display Monitors, Video Screens, Terminals version 0.4, dated 2019-07. Applicable tests for protected equipment according to IEC 60945 (Fourth edition - 2002) including Corrigendum 1 have additionally been verified.

#### Environmental test parameters

Temperature: -15°C and 55°C  
Vibration: ±1 mm / 0.7 g  
EMC: All locations including bridge and open deck  
Enclosure: IP22 standalone, IP66 when sealed to console (IP ratings according to IEC 60529)

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### **Periodical assessment**

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed annually and at renewal of this certificate.

END OF CERTIFICATE

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## **Generic Statement for EU RO MR Type Approval Certificate**

When a product is presented with this EU RO MR Type Approval Certificate for given application, its acceptability with regards to the limitations stated in the certificate conditions defined in 1b, 1c and 1d of the applied Technical Requirement will be evaluated by the EU RO in charge of classing the ship or being in charge of the unit/system certification.

In accordance with Article 10 of Regulation (EC) No 391/2009 of the European Parliament and of the Council of 23 April 2009 "on common rules and standards for ship inspection and survey organizations", the following organizations, recognized by the EU on this date, have agreed on the technical and procedural conditions under which they will mutually recognize this certificate:

- American Bureau of Shipping (ABS);
- Bureau Veritas (BV);
- China Classification Society (CCS);
- Croatian Register of Shipping (CRS);
- DNV GL;
- Indian Register of Shipping (IRS);
- Korean Register (KR);
- Lloyd's Register Group Ltd. (LR);
- Nippon Kaiji Kyokai General Incorporated Foundation (ClassNK);
- Polish Register of Shipping (PRS);
- RINA Services S.p.A. (RINA);
- Russian Maritime Register of Shipping (RS).

The scheme for the mutual recognition of class certificates for materials, equipment and components laid down by Article 10(1) of Regulation (EC) No 391/2009 is only enforceable within the Union in respect of ships flying the flag of a Member State. As far as foreign vessels are concerned, the acceptance of relevant certificates remains at the discretion of relevant non-EU flag States in the exercise of their exclusive jurisdiction, notably under the United Nations Convention on the Law of the Sea (UNCLOS). (In accordance with COMMISSION IMPLEMENTING REGULATION (EU) No 1355/2014 amending Regulation (EC) No 391/2009 - recital (25)).