



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

Certificate No:
MRA0000016
Revision No:
7

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)

**HD 15T22 MMD, HD 17T22 MMD, HD 19T22 MMD, HD 24T22 MMD, HD 24T23 MMD, HD 26T22 MMD,
HD 27T22 MMD, HD 32T22 MVD, HD 43T22 MVD, HD 55T22 MVD, HD 27T40 xxD, HD 43T40 xxD,
HD 55T40 xxD, HM 20T22 XRD, HM 24T22 xxD, HM 32T22 RMD, HM 55T22 MVD, HM 24T25 XVD**

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**

Intended service

In control, monitoring, and alarm systems subject to classification requirements.

Temperature [°C]: -15°C to 55°C
Vibration: ±1 mm / 0.7 g
EMC: All locations including bridge and deck zone
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 **2027-06-06**.

Issued at **Høvik** on **2023-12-19**

DNV local unit: **Haugesund**

for **DNV**

Approval Engineer: **Ståle Sneen**

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Frederik Tore Elter
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 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.



Form code: MRTA 201

Revision: 2022-12

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Product description

Display Type No.	Description	Power supply options	Compass safe distance	
			Standard	Steering
Series X G2 Maritime Displays:				
HD 15T22 MMD	Maritime Multi Display	115/230VAC – 50/60Hz + 24VDC	145 cm	85 cm
HD 17T22 MMD	Maritime Multi Display	115/230VAC – 50/60Hz + 24VDC	125 cm	85 cm
HD 19T22 MMD	Maritime Multi Display	115/230VAC – 50/60Hz + 24VDC	70 cm	45 cm
HD 24T22 MMD	Maritime Multi Display	115/230VAC – 50/60Hz + 24VDC	140 cm	85 cm
HD 24T23 MMD	Maritime Multi Display	115/230VAC – 50/60Hz + 24VDC	140 cm	85 cm
HD 26T22 MMD	Maritime Multi Display	115/230VAC – 50/60Hz + 24VDC	190 cm	110 cm
HD 27T22 MMD	Maritime Multi Display	115/230VAC – 50/60Hz + 24VDC	190 cm	110 cm
HD 32T22 MVD	Multi Vision Display	115/230VAC – 50/60Hz + 24VDC	240 cm	145 cm
HD 43T22 MVD	Multi Vision Display	115/230VAC – 50/60Hz + 24VDC	155 cm	120 cm
HD 55T22 MVD	Multi Vision Display	115/230VAC – 50/60Hz + 24VDC	500 cm	230 cm
HM 55T22 MVD	Multi Vision Display – Tempest	115/230VAC – 50/60Hz + 24VDC	500 cm	230 cm
HM 20T22 XRD	Xtreme Rugged Display	115/230VAC – 50/60Hz+ 24VDC	70 cm	30 cm
HM 24T22 XRD	Xtreme Rugged Display	115/230VAC – 50/60Hz+ 24VDC	95 cm	70 cm
HM 24T25 XVD ¹⁾	Xtreme Rugged Vision Display – Tempest	115/230VAC – 50/60Hz+ 24VDC	95 cm	70 cm
HM 32T22 RMD	Rugged Marine Display	115/230VAC – 50/60Hz+ 24VDC	195 cm	125 cm
HM 32T22 RMD	Rugged Marine Display – Tempest	115/230VAC – 50/60Hz+ 24VDC	240 cm	145 cm
Series X Military Displays:				
HM 24T22 CMD	MCOTS Marine Display	115/230VAC – 50/60Hz + 24VDC	140 cm	85 cm
Maritime Displays:				
HD 27T40 KMD	Maritime Display	100-240VAC – 50/60Hz	100 cm	80 cm
HD 27T40 MMD	Maritime Display	100-240VAC – 50/60Hz	100 cm	80 cm
HD 43T40 KMD	Maritime Display	100-240VAC – 50/60Hz	240 cm	120 cm
HD 43T40 MVD	Maritime Display	100-240VAC – 50/60Hz + 24 VDC	240 cm	120 cm
HD 55T40 KMD	Maritime Display	100-240VAC – 50/60Hz	240 cm	120 cm
HD 55T40 MVD	Maritime Display	100-240VAC – 50/60Hz + 24 VDC	240 cm	120 cm

1) Types without touch option.

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_DNV20170301AK.DOC- rev1, LET_DNV20180314AK Rev 1, LET_DNV20190715AK Rev 3, LET_DNVGL_20210126-3 Rev 3, LET_DNVGL_20210521-10 HD 27T40 KMD Rev 1, LET_DNV PR200147-1 Rev 1, and LET_DNV20230510-1 Rev 1 listed under Type Approval documentation.

Accessories/Options information are listed in LET_DNV20180314AK Rev 1 and DOC208267-1 Rev 01, listed under Type Approval documentation.

Manufactured by

Hatteland Technology
 Eikeskogvegen 52, 5570 Aksdal, Norway

Application/Limitation

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

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

Type Approval documentation

Marking of product

Manufacturer's name: Hatteland Technology
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 (touch) 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 0.4, dated 2023-01-01, and (all) for Display Monitors, Video Screens, Terminals version 0.6, dated 2023-01-01.

Applicable tests according to IACS Unified Requirements E10 rev. 7 and rev. 8 have been verified. 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 (Class B)
Enclosure: IP22 standalone, IP66 when sealed to console (IP ratings according to IEC 60529)

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.

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;
- 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).

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)).