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

Certificate No:
MRA000003D

In accordance with Article 10.1 of EU Regulation 391/2009

This Certificate is issued to

Hatteland Technology AS

AKSDAL, **Norway**

for
Computers and Programmable Logic Controllers

with type designation(s)
HTC03, HT20370, HTS31470, HTS41x11, HT B30xx, HT B30xx-MTC, HT D30xx-xxA

The product is found to comply with
EU RO Mutual Recognition Technical Requirements for Computers and Programmable Logic Controllers

Intended service
Computers for control, monitoring, alarm, and safety functions subject to classification requirements. Applicable tests for protected equipment according to IEC 60945 (Fourth edition - 2002) including Corrigendum 1 have additionally been verified.

Temperature [°C]:	**-15°C and 55°C**
Vibration:	**±1 mm / 0.7 g**
EMC:	**Bridge and deck zone**
IP Code:	**IP20**

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 **2026-06-14**.

Issued at **Høvik** on **2021-06-15**
DNV local station: **Haugesund** for **DNV**

Approval Engineer: **Ståle Sneen**

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 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 type approval covers the following computer types:

Type	Description	Power supply options	Compass safe distance	
			Standard	Steering
HTC03	Compact Computer	24V DC / 100/240V AC	150 cm	130 cm
HT20370	Industrial Marine Computer	24V DC / 100/240V AC	150 cm	130 cm
HTS31470	3U Rackmount Marine Server/Computer	100/240V AC	285 cm	180 cm
HTS41x11	4U Rackmount Marine Server/Computer	100/240V AC	300 cm	180 cm
HT B30xx	Compact Fanless Computer	24V DC	30 cm	25 cm
HT B30xx-MTC	Compact Fanless Computer	24V DC	30 cm	25 cm
HT D30xx-xxA	Compact Fanless Computer	24V DC	30 cm	25 cm

Overview of tested firmware versions are listed in LET_DNVGL_20210126-3 listed under Type Approval documentation.

The type approved configurations are described by the respective IEC 60945 & IACS E10 statements 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 computers are intended for use in control, monitoring, alarm, and safety functions subject to classification requirements.

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

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

EU Mutual Recognition Technical Requirements for "Computers and programmable logic controllers" version 0.6 have been verified for all product listed under Product description.

Applicable tests for protected equipment according to IEC 60945 (Fourth edition - 2002) including Corrigendum 1 have additionally been verified for all products listed under Product description.

Environmental test parameters		DNV location classes
Temperature:	-15°C and 55°C	A
Vibration:	±1 mm / 0.7 g	A
EMC:	Bridge and deck zone	B
Enclosure:	IP20	A

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);
- 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)).