Certificate No: **2610301546598034**
TL Project No: **26-0197**

TYPE APPROVAL CERTIFICATE

This is to certify that the

Maritime Multi Computer

Manufacturer : **HATTELAND TECHNOLOGY**

Address : **Eikeskogvegen 52, 5570 Aksdal, Norway**

Product Type : **Series X MMC Compact**

Reference Rule : **TL Rules, Part E, Chapter 105 - Naval Ship Technology, Electrical Installations, 01.01.2022**

TL Rules, Part B, Chapter 5, Electric , 01.01.2024

IEC 60945(Ed. 4) Incl. Corr. I 2008 -Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results , 10.11.2005

IACS UR E10 Rev.9 , 09.08.2023

Subject to the conditions referred to in the following pages, this certificate is valid until **08.11.2031**
Surveyor: **İbrahim Evren DAL**

Issued at **İstanbul** on **09.11.2026**

This document is electronically signed and does not require a manual signature

Click here for the verification website

Emrah SÖĞÜTÇÜ
New Building Division Manager
TÜRK LOYDU

Expire Date of Previous Certificate:

For Information Only

This certificate is subject to terms and conditions described below:
Any significant change in design or construction may render this Certificate invalid. Certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. This certificate is not valid for products without marking above mentioned. The manufacturer should notify TÜRK LOYDU of any modifications or changes to equipment in order to obtain valid certificate. This certificate shows that tested specimens as representative of the product complies of the TÜRK LOYDU rules, and relevant international instruments that apply to it.

Product	**: Maritime Multi Computer**
Type of Product	**: Series X MMC Compact**
Product Description	**: Series X Maritime Multi Computers is panel computers. The type approval covers the following computer type:** **HD 08T30 MMC / 24666165-XX**
Approval No / Date	**: PAE-EPAS/025851/26-0197/MY , 28.08.2026** **PAE-EPAS/025900/26-0197/MY , 03.09.2026**
Ingress protection (IP) rating	**: IP67 front, IP67 rear**
Documentation	**: - EMC Test Report, Report Number and Date: 240913002T / 2024.10.08, issued by: CAL-TECH Technology Corp. for Type Number: 24666165 Series 1** **- Enviromental Test Report, Report Number and Date: 240913002T / 2024.10.08, issued by: CAL-TECH Technology Corp. for Type Number: 24666165 Series 1** **- EMC Test Report, Report Number and Date: 240707001T / 2024.10.04, issued by: CAL-TECH Technology Corp. for Type Number: 24666165 Series 3,4** **- Enviromental Test Report, Report Number and Date: 240707001T / 2024.10.04, issued by: CAL-TECH Technology Corp. for Type Number: 24666165 Series 3,4** **- Performance Test Report issued by Hatteland Technology, Date: 30.10.2026**
Performed Tests	**: Quality Audit** **Control according to approved drawing** **Performance test** **Review of environmental test reports** **- Vibration test** **- High voltage test** **- Insulation measurement test** **- Damp and Dry heat test** **- Shock resistance test** **- Cold test** **- IP degree test** **- Low temprature test** **Review of EMC/EMI test reports** **- Conducted emission** **- Radiated emission** **- Conducted Radio Frequency Immunity** **- Conducted Audio Frequency Immunity** **- Radiated Electromagnetic Field Immunity** **- Fast Low Energy Transients/Burst** **- Slow High Energy Transients/Surge** **- Electrostatic Discharge** **- Power-Frequency Magnetic Field** **- Power Supply Variations/Extreme Power Supply** **- Power Failure**
Test Place	**: Hatteland Technology Eikeskogvegen 52, 5570 Aksdal, Norway**
Last Inspection Date	**: 30.10.2026**
Others	**: 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)**
Application/Limitation	**: The Type Approval covers all hardware listed under product description. The computer are intended for use in control, monitoring, alarm, and safety functions subject to classification requirements.**

For Information Only

Approval Conditions	**: - This certificate does not cover cyber resilience.** **- The customer is required to notify TL of any design changes.**

For Information Only