



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

Certificate No:
MRA000004W

In accordance with Article 10.1 of EU Regulation 391/2009

This Certificate is issued to

Lenovo (United States) Inc
Morrisville, NC, USA

for

Computers and Programmable Logic Controllers

with type designation(s)

ThinkEdge SE360 V2 - 7DAM-series

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.

Temperature [°C]: -25°C to 70°C

Vibration: ±1.0 mm / 0.7 g

EMC: All locations including bridge and deck zone

IP Code: IP30

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 **2030-02-18**.

Issued at **Høvik** on **2025-02-19**

DNV local unit: **Certification & Inspection Services**

for **DNV**

Approval Engineer: **Nikolai Arntzen**

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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.

Product description

The ThinkEdge SE360 V2 models with marine certificated configuration come with region-specific preconfigured model number.

The preconfigured model number is in the format 7DAMXXXXYY, where XXXX is the random number for manufacturing and YY is the geographic code. X and Y could be alphanumeric or blank.

7DAMA00ZAP, 7DAMA014AP, 7DAMA00YBR, 7DAMA013BR, 7DAMA00YLA, 7DAMA012LA, 7DAMA010EA, 7DAMA015EA, 7DAMA00YNA, 7DAMA011NA, 7DAMA016CN and 7DAMA017CN.

Part	Specification
Processor	Intel Xeon D-2752TER with 12 cores
Memory	Up to 4x 32GB TruDDR4 3200 MHz (2Rx4 1.2V) RDIMM Extended Temperature
M.2 Drive	• M.2 boot drives – Up to two NVMe M.2 Extended Temperature drives • M.2 storage drives – Up to eight NVMe M.2 Extended Temperature drives
Integrated functions and I/O connectors	Lenovo XClarity Controller (XCC) • Front I/O connectors – One XCC system management port connects to a systems-management network. – Two USB 3.2 Gen 1 (5 Gbps) Type-A connectors – One USB 3.2 Gen 1 (5 Gbps) Type-C connector with display support – One USB 2.0 Type-C connector with Lenovo XClarity Controller management – Two 2.5GbE RJ-45 connectors – Four 1GbE RJ-45 connectors (1GbE I/O module board) or – Four 10GbE SFP28 connectors (10GbE I/O module board) • Rear I/O connector – One RJ-45 RS-232 serial console connector
Storage controller	Intel VROC NVMe RAID
System fan	Two 80 mm x 80 mm x 56 mm dual-rotor fans with rear-to-front air flow direction
Electrical input	Single 500W (230V/115V) AC power source input
Minimal configuration for debugging	• One DRAM memory module in DIMM slot 1 • AC power source input • One 2280 NVMe M.2 drive in Slot 1 on the I/O module board • Two system fans
Operating systems	• Microsoft Windows Server 2019 or higher • Microsoft Azure Local • VMware ESXi 7.0.U3 or higher • Red Hat Enterprise Linux 8.6 or higher • SUSE Linux Enterprise Server 15 SP4 or higher • Ubuntu Server 20.04 LTS 64-bit or higher
Reference: Lenovo OSIG website	

Tested firmware versions:

UEFI/BIOS Firmware: 5.10

XCC/BMC Firmware: 5.10

Compass safe distances:

Units with power supply 240V/50Hz

Standard: 60 cm

Steering: 35 cm

Units with power supply 100V/60Hz

Standard: 75 cm

Steering: 35 cm

Manufactured by

(Lenovo USA) for Lenovo Manufacturing Kft

K-sped körút 28.

Üllő 2225

Hungary



Job Id: 262.4-000320-1
Certificate No: MRA000004W

Lenovo Systems Technology Co., Ltd

5Floor, No. 1 Plant
Lenovo Innovation Park,
Lidu Road, Loucun Community, Xinhua Street
Guangming District, Shenzhen, Guangdong
China

(Lenovo USA) for Lenovo Mexico

Plant #1:	Plant #2:
Boulevard Escobedo No 316,	Boulevard Escobedo No 318,
Apodaca Technology Park,	Apodaca Technology Park,
Apodaca, Nuevo Leon	Apodaca, Nuevo Leon
C.P. 66600	C.P. 66627
Mexico	Mexico

Application/Limitation

This approval covers hardware and firmware. This excludes application software and hardware designed for specific applications subject to classification. System software and application software are subject to additional separate approval, according to UR E22 and the rules of the classing RO (FAT and on-board review / tests).

Type Approval documentation

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings

Other Conditions

EU Mutual Recognition Technical Requirements for "Computers and programmable logic controllers" version 0.9 have been verified for all product listed under Product description.

Applicable tests according to IACS Unified Requirements E10 rev. 9 have been verified. 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:	-25°C and 70°C	D
Vibration:	±1 mm / 0.7 g	A
EMC:	All locations including bridge and deck zones	B
Enclosure:	IP30 (IP-ratings according to IEC 60529)	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.

END OF 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)).