



Confirmation of Product Type Approval

Company Name: MARINER SYSTEMS UK LTD

Address: OAKLANDS PARK WOKINGHAM RG41 2FD United Kingdom

Product: Computer System

Model(s): HP Z4 G5 Workstation

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	24-00T2542382-PDA	12-AUG-2024	11-AUG-2029
Manufacturing Assessment (MA)	20-4451837	13-OCT-2020	04-NOV-2025
Product Quality Assurance (PQA)	NA	NA	NA

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3 - Type Approved, unit certification not required

Intended Service

Navigation, Control, Loading and General Purpose Applications on ABS Classed Vessels and Offshore Facilities in accordance with the listed ABS Rules and International Standards.

Description

The HP Z4 G5 Workstation main components:

- 1) Processor (CPU) All Intel Xeon processors up to and including 4.0Ghz (4.8GHz turbo) frequency, 37.5MB cache, 20 cores.
- 2) Memory up to 512 GB DDR5 4800 DIMM ECC Reg Memory (16GB/32GB)
- 3) Storage 1TB SATA 3.5" Ent HDD (7200 rpm), 2TB SATA 3.5" Ent HDD (7200 rpm), 4TB SATA 3.5" Ent HDD (7200 rpm), 8TB SATA 3.5" Ent HDD (7200 rpm), 512GB Z Turbo TLC/ Opal2 TLC SSD, 1TB Z Turbo TLC/ Opal2 TLC SSD, 2TB Z Turbo TLC/ Opal2 TLC SSD, 4TB Z Turbo TLC/ Opal2 TLC SSD, Z Turbo Drive Dual Pro PCIe-4x4 NVMe Carrier, Z Turbo Drive Dual Pro PCIe-4x16 NVMe Carrier, Z Turbo Drive Dual Pro 512GB/1TB TLC SSD, Z Turbo Drive Quad Pro 512GB/1TB TLC SSD
- 4) Optical Drive HP 9.5mm Slim DVD-ROM Drive, HP 9.5mm Slim SuperMulti DVD Writer
- 5) Graphics Card: NVIDIA T400 4GB, NVIDIA T1000 4GB, NVIDIA T1000/T1000E 8GB, AMD Radeon RX 6400 4GB, AMD Radeon Pro W6600 8GB
- 6) Network Interface Card Integrated 1GbE RJ-45 LAN port, HP Flex 1GbE Single Port NIC, Intel I225-T1 Single Port 2.5GbE NIC, Intel i350-T2 Dual Port 1GbE NIC, Intel i350-T4 4-Port 1GbE NIC, Intel X550-T2 Dual Port 10GbE NIC, Allied Telesis AT-2911T/2-901 Dual Port 1GbE NIC
- 7) Keyboard HP 320K Wired Keyboard

8) Mouse HP Wired 320M Mouse, HP 125 Wired Mouse

9) Miscellaneous Intel VROC NVMe SSD Standard Controller Module, HP SD 4 Card Reader, HP Serial Port, HP Serial+PS/2 Port, HP Entry FIO Module, HP Premium FIO Module, HP Fan & Front Card Guide Kit, HP Memory Cooling Solution, HP miniDP-to-DP Adapter

10) Operating system Windows 11 Pro for Workstations, Windows 11 Pro for Workstations (downgraded to Windows 10 Pro), Ubuntu Linux 22.04, HP Linux Ready, Red Hat Enterprise Linux

The HP Z4 G5 Workstation is to be installed and used in conjunction with Mariner Kit tested for the specific model

Ratings

Rated Voltage: 100-240 VAC

Rated Line Frequency: 50Hz-60Hz

Operating Temperature: 5°C to 40°C (40° to 104°F)

Service Restrictions

1) Unit Certification is not required for this product.

2) If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

3) Test and approval for this product are for hardware only and no functionality is covered in this PDA. Where this product is used as a part of computer-based system category II or III, each application/configuration is to be specifically approved.

4) The use of product is permitted in spaces that are environmentally controlled.

Comments

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes, Drawings and Documentation

Drawing No. HP Z4 G5 DoC, HP Z4 G5 Workstation Declaration of Conformity, Revision: -, Pages: 0

Drawing No. MS3110_A, MS3110 Assembly Drawing, Revision: -, Pages: 0

Drawing No. Component Options, HP Z4 G5 Workstation Component Options Apr 24, Revision: -, Pages: 0

Drawing No. UKAS Schedule, UKAS Schedule of Accreditation Issue 26, Revision: -, Pages: 0

Drawing No. HP Z4 G5 QuickSpec, HP Z4 G5 Workstation QuickSpec v22, Revision: -, Pages: 0

Drawing No. TL24010, TL24010 HP Z4 G5 Workstation A Test Report, Revision: -, Pages: 0

Drawing No. RF 1010-MST-A, RF 1010-MST-A Datasheet, Revision: -, Pages: 0

Drawing No. TL24009, TL24009 HP Z4 G5 Workstation B Test Report, Revision: -, Pages: 0

Drawing No. ISO 9001, ISO 9001 Certificate, Revision: -, Pages: 0

Drawing No. MS3120_A, MS3120 Assembly Drawing, Revision: -, Pages: 0

Drawing No. Test Requirements, Marine Type Approval Test Requirements Issue 17, Revision: -, Pages: 0

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 11/Aug/2029 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

ABS Rules

Rules for Conditions of Classification, Part I - 2024 – 1A-1-4/7.7, 1A-1-A3, 1A-1-A4, which covers the following:

2024 Marine Vessels Rules: 4-8-3/1.7, 4-8-3/1.17, 4-9-9/13.1, 4-9-9/15.7 Table 1

Rules for Conditions of Classification, Part I - 2024 – Offshore Units and Structures 1B-1-4/9.7, 1B-1-A2, 1B-1-A3, which covers the following:

2024 Rules for Building and Classing Mobile Offshore Units: 6-1-1/9

International Standards

IACS UR E10 rev. 9: 2023

IEC 60945 Ed. 4.0: 2002

EU-MED Standards

NA

National Standards

NA

Government Standards

NA

Other Standards

NA



A handwritten signature in blue ink, appearing to read 'James J. Walsh', is written over a faint circular stamp.

Corporate ABS Programs
American Bureau of Shipping

Print Date and Time: 14-Aug-2024 4:36

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.