

MS3070

Mariner Kit for use with HP Z4 G4 Workstation
(Desktop configuration)



The HP Z4 G4 Workstation is marine type approved by numerous major international marine Classification Societies when it is installed in conjunction with our Mariner Kit MS3070.

The MS3070 Mariner Kit ensures compliance and affords protection in the offshore marine environment and has been type tested against IACS Unified Requirement E10 and the relevant sections of IEC60945 (see below right for test details).

This type approved combination of hardware and Mariner Kit can be used as the platform for your critical navigation, control, loading and general purpose applications (please check individual type approval certificates for any restrictions).

**“World leading type approved
computer hardware”**



PRODUCT FEATURES

- ◆ The Z4 G4 is ahead of its time with more standard features than any other single processor HP workstation
- ◆ With multiple configuration options, you can choose the perfect blend of components that meet your performance requirements
- ◆ Save space with a chassis that is 10% smaller than the previous generation
- ◆ Advanced security features come standard on every Z4 G4. Rest assured your device, identity and data are safe with security software like HP Client Security Suite Gen3 and HP Sure Start Gen3 featuring a self-healing BIOS
- ◆ Support your unique user needs with a choice of Windows 10 Pro 64 or Linux® operating systems
- ◆ Run demanding professional apps with the newest generation Intel® Xeon® processors available with up to 14 cores for powerful performance and productivity
- ◆ Get serious about graphics and reach peak productivity with access to a breadth of NVIDIA® and AMD professional graphics from entry to mid-range 3D
- ◆ Up to 256GB DDR4-2666 ECC registered SDRAM
- ◆ Multiple high-speed network connections are easy and speedy with dual embedded 1GbE LAN ports with Thunderbolt™ 3 technology for fast data transfers
- ◆ Two full-height PCIe Gen3 x16 slots; One full-height PCIe Gen3 x8 slot (open-ended); Two full-height PCIe Gen3 x4 slots (open-ended); Two M.2 PCIe Gen 3 x4 slots
- ◆ Four front and six rear USB ports
- ◆ ENERGY STAR® certified and EPEAT® Gold registered configurations available
- ◆ Protected by HP Services, including a 3 years parts, 3 years labour, and 3 years onsite service (3-3-3) standard limited warranty

This Mariner system is type tested against the consolidated 'worst-case' requirements of all the following major international marine Classification Societies:

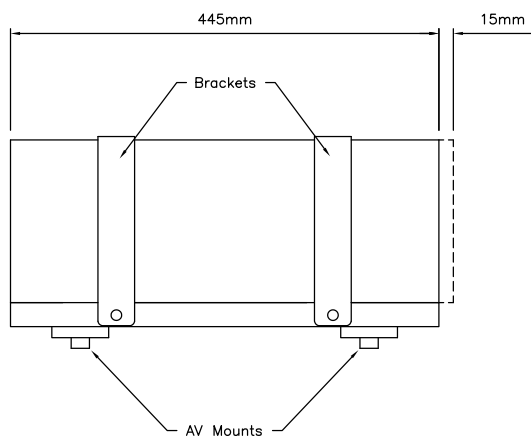
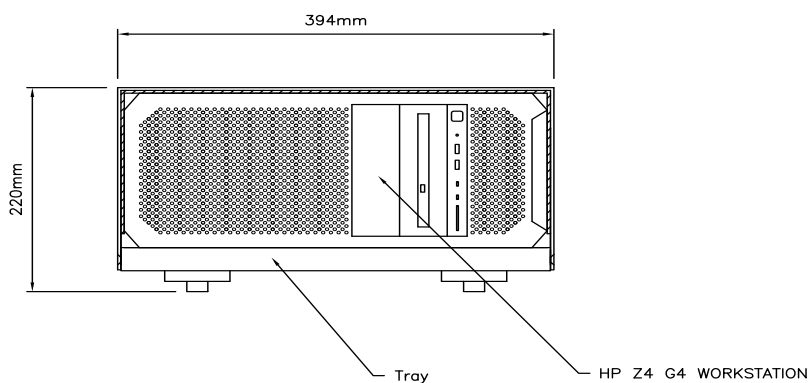
ABS, BV, CCS, DNV GL, KR, LR, NKK, PRS, RINA

Tests included on the test programme are as follows:

- > Vibration, Shock, Static and Dynamic Inclination
- > Dry & Damp Heat, Low Temperature
- > Acoustic Noise, Compass Safe Distance
- > High Voltage, Power Supply Variation & Power Supply Failure
- > Conducted LF & RF, Electromagnetic Field
- > Radiated & Conducted Emissions, Electrostatic Discharge
- > Insulation Resistance, Burst / Fast Transients
- > Surge Immunity, Access to Dangerous Voltages

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OPERATING GUIDELINES

Although all of our solutions are tested against extreme environmental conditions for the purposes of marine type approval, installation should take into account the following guidelines:

- Keep the workstation away from excessive moisture, direct sunlight and the extremes of heat and cold. Wherever possible, ensure that the unit is within the manufacturer's specified operating ranges:

	Operating	Non-Operating
Temperature	+5° to +35°C (+40° to +95°F)	-40° to +60°C (-40° to +140°F)
Humidity	10% to 85% (non-condensing)	10% to 90% (non-condensing)

- Leave at least 10.2 cm (4-inch) clearance on all vented sides of the workstation to permit the required airflow
- Never restrict airflow into the workstation by blocking any vents or air intakes
- If the workstation is to be operated within a separate enclosure, intake and exhaust ventilation must be provided on the enclosure, and the same operating guidelines listed above will still apply

By following these guidelines you will maximise the life of your workstation and minimise service costs.

STATISTICS

Overall Fitted Dimensions	394mm (w) x 220mm (h) x 460mm (d)
Weight (Mariner Kit only)	3.1 kg
Weight (including hardware)	Starting at 13.3 kg (depends upon configuration)
Chipset	Intel® C422
Processor	Intel® Xeon® W processors up to and including 4.0GHz (4.4GHz turbo), 19.25MB cache, 14 cores
Memory	Up to 256 GB DDR4-2666 ECC Registered SDRAM
Hard Drive	300 GB SAS SFF (15,000 rpm); 500 GB to 2 TB 3.5-inch SATA (7,200 rpm); 256 GB to 1 TB SATA SSD; 256 GB to 512 GB Z Turbo Drive M.2 MLC SSD; 256 GB to 512 GB Z Turbo Drive M.2 TLC SSD
Keyboard	HP USB Business Slim Keyboard; HP PS/2 Business Slim Keyboard; HP Smart Card CCID Keyboard
Mouse	HP Optical USB Mouse; HP PS/2 mouse; HP USB Hardened Mouse
Network Card (integrated)	Intel® I219-LM PCIe GbE Controller
Graphics	No integrated graphics; NVIDIA Quadro P400 2GB; NVIDIA Quadro P600 2GB; NVIDIA Quadro P620 2GB; NVIDIA Quadro P1000 4GB; NVIDIA Quadro P2000 5GB; AMD FirePro W2100 2GB; AMD Radeon Pro WX 3100 4GB; AMD Radeon Pro WX 4100 4GB
Optical Storage	HP 9.5mm DVD-ROM; HP 9.5mm DVD Writer; HP 9.5mm Slim Blu Ray Disc Writer
Operating System	Windows 10 Pro 64 for Workstations; Windows 10 Pro 64; Windows 7 Pro 64; HP Linux Ready
Expansion Slot	Two full-height PCIe Gen3 x16 slots; One full-height PCIe Gen3 x8 slot (open-ended); Two full-height PCIe Gen3 x4 slots (open-ended); Two M.2 PCIe Gen 3 x4 slots
Front I/O	Base: 4 x USB 3.1 G1 Type-A (1 charging) ports; Premium: 2 x USB 3.1 G1 Type-A (1 charging) ports; 2 x USB 3.1 G2 Type-C ports; SD Reader (optional)
Rear I/O	6 x USB 3.1 G1 Type-A ports; 2 x 1GbE LAN ports; 1 x Serial port (optional)