GAP-235PL-W9

2U Rugged Workstation - Front I/O - Front Power Supply - LP Boards
14th/13th Gen Intel® Core™ i9/i7/i5/i3 Processors

GAP is a product family of rugged aluminium servers and workstations designed for applications that require robust and qualified MIL-GRADE equipment, suitable for operations in critical environments.

2U	356 MM	1	192GB	3	5
Platform	Depth	CPU	RAM	SSD	I/O Boards

GAP-235PL-W9 series workstations feature 14th/13th Gen. Intel® Core™ i9/i7/i5/i3 Processors, harnessing state-of-the-art computing innovations to deliver exceptional performance, improved energy efficiency, and robust support for advanced AI capabilities and high-speed connectivity. The integrated IPMI services support monitoring, control, and management functions sending alarm notifications in case of critical events.

GAP-235PL-W9 are designed for 19" rack mounting and have a 2U chassis with a depth of 355mm. The front I/O and power supply configuration offers versatile storage options, including three on board M.2 NVME SSD and either up to one removable 2.5" SAS SSD, two removable U.2 NVMe SSD or up to three removable 2.5" SATA

SSDs. In addition, the GAP-245RL-W9 rugged workstation can host up to four low profile PCIe cards and one low profile PCI board and come equipped with rear removable fans.

GAP series workstations are designed to meet MIL-STD-810 for temperature and shocks, MIL-STD-167-1A for vibrations. Optionally, they can conform to MIL-STD-461G for EMI /EMC.
The I/O connectors and the power supply input can be provided with MIL-GRADE connectors upon request.

All units are delivered with their inventory list to ensure configuration control and reproducibility over time. Upon request, all server configurations can run specific thermal or mechanical environmental stress test.

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Technical Specifications

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System

CPU	14th/13th Gen Intel® Core™ i9/i7/i5/i3 Processors, Single Socket LGA-1700 supported, Up to 125W TDP
Memory	192GB Unbuffered ECC/non-ECC UDIMM, DDR5-4400MT/s, 4 DIMM Slots
Chipset	Intel® W680
Graphics	1 Aspeed AST2600 BMC port
Network Connectivity	1x RJ45 GbE Intel® Ethernet i225LM 1x RJ45 GbE Intel® PHY I219LM for AMT/vPro Dedicated LAN for IPMI
Storage	Internal: 3 x M.2 PCIe 4.0 x4 Form Factor: 2280; M.2 Key: M-Key (RAID 0, 1, 5) Removable: Up to 1x 2.5" SAS SSD or Up to 2x U.2 NVMe SSD or Up to 3x 2.5" SATA SSD
TPM	1x TPM Header
Motherboard I/O shield	3x USB 3.2, 1x USB 3.2 Type C; 2 x GbE, 1x IPMI LAN, Audio, HDMI, DVI-D, DP, VGA (available on the front panel)
Expansion slots	2 x PCIe 5.0 x16 slots (16/NA or 8/8) 2 x PCIe 3.0 x4 1 x 5V PCI 32bit
Operative Systems	Windows® 11 IoT Enterprise, Windows® 10 IoT Enterprise, Windows® Server 2022, Debian Linux 11 (64-bit); Ubuntu Linux 18.04 LTS Server Edition (64-bit); Ubuntu Linux 20.04 LTS Server Edition (64-bit); Red Hat® Enterprise Linux® 8 Server
IPMI	IPMI2.0, SPM, Watchdog; SNMP and e-mail alarms and notifications
Remote Monitoring	Monitoring, control, and management functions (fan speed, temperature, voltage, redundant power failure, power consumption, disk health, RAID health, and memory health)

Power Supply

Power Supply	AC Single Power Supply DC Single Power Supply

Mechanical

Dimensions	483 x 88 x 356 mm (W x H x D)
Material	Aluminum with surface passivation treatment
Colour	Black / RAL 9005 - Powder Coating
Mounting	2U 19" rackmount chassis Optional Telescopic slides
Configuration	Front I/O - Front Power Supply
Front Panel Leds / Buttons / Connectors	Power On/Off button with LED Reset button with LED
Fans	4x removable PWM fans

Environmental - (Design to meet)

Operating Temperatures	0°C to +50°C MIL-STD-810H, Method 501.7 & 502.7 -20°C to +60°C (depending on configuration)
Storage Temperature	-40°C to +70°C MIL-STD-810H, Method 501.7 & 502.7
Humidity	5% – 95% non-condensing MIL-STD-810H 507.6
Operating Vibrations	MIL-STD-167-1A, Type I
Not Operating Vibrations	1.17 Grms, 5-500 Hz MIL-STD-810H, Method 514.8
Operating Shocks	20g / 11ms – half sine MIL-STD-810G, Method 516.7
EMC	Directive 2014/35/UE-LVD | Directive 2014/30/UE-EMC | Directive 2011/65/UE - RoHS Regulation EC No 1907/2006 | MIL-STD-461G (on request)

GAP servers and workstations are designed in accordance with the environmental specifications indicated. Some parameters depend on the configuration. Equipment may be subjected to dedicated test profiles.