

# GAP-245P-W9

## 2U Rugged Workstation - Front I/O - Front Power Supply 14<sup>th</sup>/13<sup>th</sup> 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.

<b>2U</b> PLATFORM	<b>450 MM</b> DEPTH	<b>1</b> CPU	<b>192GB</b> RAM	<b>3</b> SSD	<b>2</b> I/O BOARDS
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GAP-245P-W9 workstations feature 14<sup>th</sup>/13<sup>th</sup> 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-245P-W9 are designed for 19" rackmounting and have a 2U chassis with a depth of 450mm. The design, featuring front-mounted I/O ports and power supply, strategically positions all I/O interfaces at the front of the chassis, ideal for 'front-only' installations.

The GAP-245P-W9 offers versatile storage options, including support for three on board M.2 NVMe SSD and either up to one 2.5" SAS SSD or two U.2 NVMe SSD or three 2.5" SATA removable SSD.

Furthermore it can accommodate two full height PCIe cards.

Additional boards can be provided with a dedicated retainer kit for an optimal protection against shocks and vibrations also during transport.

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.

# Technical Specifications



## System

<b>CPU</b>	14 <sup>th</sup> /13 <sup>th</sup> Gen Intel® Core™ i9/i7/i5/i3 Processors, Single Socket LGA-1700 supported, Up to 125W TDP
<b>Memory</b>	192GB Unbuffered ECC/non-ECC UDIMM, DDR5-4400MT/s, 4 DIMM Slots
<b>Chipset</b>	Intel® W680
<b>Graphics</b>	1 Aspeed AST2600 BMC port
<b>Network Connectivity</b>	1x RJ45 Dedicated IPMI LAN port 1x RJ45 Gigabit Ethernet LAN ports 1x RJ45 2.5 Gigabit Ethernet LAN port
<b>Storage</b>	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
<b>TPM</b>	1x TPM Header
<b>Motherboard I/O shield</b>	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)
<b>Expansion slots</b>	1x PCIe x16 (top position - Dual slot card) and 1x PCIe x4 (bottom position)
<b>Operative Systems</b>	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
<b>IPMI</b>	IPMI2.0, SPM, Watchdog; SNMP and e-mail alarms and notifications
<b>Remote Monitoring</b>	Monitoring, control, and management functions (fan speed, temperature, voltage, redundant power failure, power consumption, disk health, RAID health, and memory health)
<b>Power Supply</b>	
<b>Power Supply</b>	AC Redundant Power Supply - Optional Single DC Redundant Power Supply - Optional Single

## Mechanical

<b>Dimensions</b>	483 x 88 x 450 mm (W x H x D)
<b>Material</b>	Aluminum with surface passivation treatment
<b>Colour</b>	Black / RAL 9005 - Powder Coating
<b>Mounting</b>	2U 19" rackmount chassis Optional Telescopic slides
<b>Configuration</b>	Front I/O - Front Power Supply
<b>Front Panel Leds / Buttons / Connectors</b>	Led Power ON and SSD functionality; Power ON / OFF and System Reset
<b>Fans</b>	4x removable PWM fans

## Environmental - (Design to meet)

<b>Operating Temperatures</b>	0°C to +50°C MIL-STD-810H, Method 501.7 & 502.7 -20°C to +60°C (depending on configuration)
<b>Storage Temperature</b>	-40°C to +70°C MIL-STD-810H, Method 501.7 & 502.7
<b>Humidity</b>	5% – 95% non-condensing MIL-STD-810H 507.6
<b>Operating Vibrations</b>	MIL-STD-167-1A, Type I
<b>Not Operating Vibrations</b>	1.17 Grms, 5-500 Hz MIL-STD-810H, Method 514.8
<b>Operating Shocks</b>	20g / 11ms – half sine MIL-STD-810G, Method 516.7
<b>EMC</b>	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.