GAP-247RL-S8

2U Rugged Server- Rear I/O & Rear Power supply
Dual Socket 5th/4th Gen Intel® Xeon® Scalable Processors

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

2U Platform	470 mm Depth	2 CPU	4TB RAM	UP TO 9 Hot Swap SSD	6 I/O Boards

GAP-247RL-S8 rugged servers are powered by dual-socket 5th Gen Intel® Xeon® / 4th Gen Intel® Xeon® Scalable processors known for their robust architecture with enhanced AI acceleration and advanced security capabilities. Offering improved performance and efficiency, they are tailored to meet the demanding requirements of modern computing environments, making them an ideal choice for mission-critical tasks and high-performance applications.

GAP-247RL-S8 are designed for 19" rackmounting and features a 2U chassis with a depth of 470mm. The rear I/O and rear power supply configuration offers versatile storage options, including two on board M.2 NVME SSD and either up to three removable 2.5" SAS SSD, six removable U.2 NVMe SSDs or up to nine removable 2.5" SATA SSDs. The GAP-247RL-S8 rugged servers can accommodate up to six low-profile PCIe cards.

For enhanced protection against shocks and vibrations, additional boards can be supplied with a dedicated retainer kit, ensuring optimal safety even during transport.

GAP servers are designed to meet MIL-STD-810F standards for temperature and shocks, as well as MIL-STD-167-1A standards for vibrations. Additionally, they can optionally conform to MIL-STD-461 standards for EMI/EMC. Upon request, MIL-GRADE connectors can be provided for the I/O connectors and power supply inputs.

All units are shipped with an inventory list to guarantee configuration control and reproducibility over time. Additionally, upon request, all server configurations can undergo specific thermal or mechanical environmental stress tests.

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Technical Specifications

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System

CPU	5th Gen Intel® Xeon® / 4th Gen Intel® Xeon® Scalable processors, Dual Socket LGA-4677 (Socket E) supported, CPU TDP Up to 270W TDP
Memory	Up to 4TB ECC RDIMM, DDR5-4800MHz, 16 DIMM slots
Chipset	Intel® C741
Graphics	1 Aspeed AST2600 BMC port
Network Connectivity	1x Dedicated IPMI LAN port 2x 10GbE with RJ45 connectors
Storage	Internal: 2x M.2 NVMe PCIe 4.0 x2; M-Key, 2280/22110 2x SATA Disk on Module (RAID 0,1) Removable: Up to 3x 2.5" SAS SSD or Up to 6x U.2 NVMe SSD or Up to 9x 2.5" SATA SSD
TPM	1x TPM Header
Motherboard I/O shield	2x 10 GbE LAN, 1x BMC LAN, 4x USB 3.0, VGA; COM (available on the rear panel)
Expansion slots	2x PCIe 5.0 x8, 4x PCIe 5.0 x16
Operative Systems	Windows® 11 IoT Enterprise, Windows® 10 IoT Enterprise LTSC, Windows® Server 2022, Windows® Server 2019, Linux
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 or DC Redundant Power Supply - Optional AC Single

Mechanical

Dimensions	483 x 88 x 470 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	Rear I/O - Rear Power Supply
Front Panel Leds / Buttons / Connectors	Power On/Off button with LED Reset button with LED 2x USB 3.0
Fans	6x internal 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.

GAP-247RL-S8 - Rev.1