# GAP-247R-S9

## Rugged Edge Server with dual 6th Gen Intel® Xeon® Processors



- 2U - 19" rackmount - 470mm
- Rear I/O - Rear Power Supply version
- Dual Socket Platform
- Up to 4TB DDR5 / RAM
- Up to 9 hot swap SSDs
- 2x PCIe expansion slots

**GAP is a product family of rugged aluminium Servers and Workstations designed for edge applications that require a robust MIL-grade certified computing platform, suitable for operations in critical environments.**

**GAP-247R-S9 rugged edge servers** are equipped with dual-socket 6th Gen Intel® Xeon® Scalable Processors, featuring a modular architecture optimized for performance and efficiency in edge computing applications. With integrated AI acceleration and advanced security features, these processors enable reliable execution of complex workloads with enhanced responsiveness.
Purpose-built for demanding edge environments, these servers combine robust computing capabilities with a design optimized for space-constrained and mission-critical deployments.
Integrated IPMI services provide comprehensive monitoring, control, and management, including real-time alarm notifications in the event of critical system events.

**GAP-247R-S9** are designed for 19" rackmounting and have a 2U chassis chassis with a depth of 470mm.
The rear I/O and rear power supply configuration offers versatile storage options, including two internal M.2 NVME slots and either up to six removable U.2 NVMe SSDs or up to nine removable 2.5" SATA SSDs.
Moreover, this rugged server can accommodate up to two 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.

Built to meet MIL-STD-810F standards for temperature and shock resistance, as well as MIL-STD-167-1A standards for vibration tolerance, GAP rugged edge servers ensure reliable operation under the challenging conditions often found at the edge. Additionally, they can optionally be configured to comply with MIL-STD-461 standards for EMI/EMC, featuring MIL-grade connectors for either the power input or both 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.

# Technical Specifications

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| **System** | |
| CPU | Dual Intel® Xeon® 6700/6500-Series Processors with P-Cores and Intel® Xeon® 6700-Series Processors with E-Cores (in LGA 4710 Socket E2) with three UPIs (24 GT/s max.) and a thermal design power (TDP) up to 270W. |
| Memory | Up to 4TB Registered DIMM, DDR5 6400MT/s in 16 DIMM slots |
| Chipset | SoC |
| Graphics | 1x Aspeed AST2600 BMC |
| Network Connectivity | 1x Dedicated IPMI LAN port and 2x 10GbE ports supported by Broadcom 57416 |
| Storage | Internal:<br>2x PCIe 5.0 x4 NVMe M.2 slots<br>M-Key 2280 and 22110 form factors<br>Removable:<br>Up to 6x U.2 NVMe SSD or<br>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 x16 - 2x FHFL |
| Operative Systems | Windows® 11 IoT Enterprise, Windows® 10 IoT Enterprise, Windows® Server 2025, Windows® Server 2022, 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 Section** | |
| Power Input | AC or DC Redundant Power Supply - Optional AC Single |
| **Mechanical Features** | |
| Dimensions | 483 x 88 x 470 mm (W x H x D) |
| Material | Alluminum 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<br>Reset button with LED - 2x USB 3.0 |
| Fans | 6x 40mm heavy duty fans |
| **Environmental Features** | |
| Operating Temperature | 0°C to +50°C<br>MIL-STD-810H, Method 501.7 & 502.7 |
| Storage Temperature | -40°C to +70°C MIL-STD-810H<br>Method 501.7 & 502.7 |
| Humidity | 5% - 95% non condensing<br>MIL-STD-810H 507.6 |
| Operating Vibrations | MIL-STD-167-1A<br>Type 1 |
| Not Operating Vibrations | 1.17 Grms, 5-500 Hz<br>MIL-STD-810H, Method 514.8 |
| Operating Shocks | 20g / 11ms – half sine<br>MIL-STD-810G, Method 516.7 |
| EMC | Directive 2014/35/UE-LVDC<br>Directive 2014/30/UE-EMC<br>Directive 2011/65/UE – RoHS<br>Regulation EC No 1907/2006<br>MIL-STD-461G (on request) |