GAP-345F-S9

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



- 3U - 19" rackmount - 450mm
- Front I/O - Rear Power Supply version
- Dual Socket Platform
- Up to 4TB DDR5 / RAM
- Up to 9 hot swap SSDs
- 6x 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-345F-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-345F-S9 are designed for 19" rackmounting and have a 3U chassis with a depth of 450mm.
The front 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 six 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

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), CPU TDP supports up to 270W TDP
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: 2x PCIe 5.0 x4 NVMe M.2 slots M-Key 2280 and 22110 form factors Removable: Up to 6x U.2 NVMe SSDs or Up to 9x 2.5" SATA SSDs
TPM	1x TPM Header
Motherboard I/O shield	2x 10 GbE LAN, 1x BMC LAN, 4x USB 3.0, VGA, COM (available on the front panel)
Expansion slots	4x PCIe 5.0 x16 slots - 4x FHFL 2x PCIe 5.0 x8 slots - 1x FHFL + 1x FHHL
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 132 x 450 mm (W x H x D)
Material	Alluminum with surface passivation treatment
Colour	Black / RAL 9005 - Powder Coating
Mounting	3U 19" rackmount chassis - Optional Telescopic slides
Configuration	Front I/O - Rear Power Supply
Front Panel Leds / Buttons/ Connectors	Power On/Off button with LED Reset button with LED
Fans	3x 92mm removable heavy duty fans
Environmental Features	
Operating Temperature	0°C to +50°C MIL-STD-810H, Method 501.7 & 502.7
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 1
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-LVDC Directive 2014/30/UE-EMC Directive 2011/65/UE – RoHS Regulation EC No 1907/2006 MIL-STD-461G (on request)