

# GAP-145F-S8

## 1U Rugged Edge Server- Front I/O and Rear Power Supply Dual Socket 5<sup>th</sup>/4<sup>th</sup> Gen Intel® Xeon® Scalable Processors



**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.

1U PLATFORM	450 MM DEPTH	2 CPU	4TB RAM	UP TO 3 HOT SWAP SSD	2 I/O BOARDS
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GAP-145F-S8 Rugged Edge Servers are powered by dual-socket 5<sup>th</sup> Gen Intel® Xeon® / 4<sup>th</sup> Gen Intel® Xeon® Scalable Processors renowned for their robust architecture with enhanced AI acceleration and advanced security capabilities. Offering improved performance and efficiency, these servers are tailored to meet the demanding requirements of modern computing environments at the Edge. The integrated IPMI services support monitoring, control, and management functions, sending alarm notifications in case of critical events.

GAP-145F-S8 are designed for 19" rackmounting and have a 1U chassis with a depth of 450mm. The front I/O and rear power supply configuration offers versatile storage options, including two on board M.2 NVME SSD and either up to one removable 2.5" SAS SSD, two removable U.2 NVMe SSDs or up to three removable 2.5" SATA SSDs. Moreover, this rugged server can accommodate up to two full-height, half length PCIe x16 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

<b>CPU</b>	5 <sup>th</sup> Gen Intel® Xeon® / 4 <sup>th</sup> Gen Intel® Xeon® Scalable processors, Dual Socket LGA-4677 (Socket E) supported, CPU TDP Up to 270W TDP
<b>Memory</b>	Up to 4TB ECC RDIMM, DDR5-4800MT/s in 16 DIMM slots
<b>Chipset</b>	Intel® C741
<b>Graphics</b>	1 Aspeed AST2600 BMC port
<b>Network Connectivity</b>	1 x Dedicated IPMI LAN port
<b>Storage</b>	Internal: 2 x NVMe M.2, M-Key, 2280 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>	1 x VGA, 2 x USB 3.0, 1 x IPMI; 1 x COM (available on the front panel)
<b>Expansion slots</b>	2x PCIe 5.0 x16 FHHL
<b>Operative Systems</b>	Windows® 11 IoT Enterprise, Windows® 10 IoT Enterprise LTSC, Windows® Server 2022, Windows® Server 2019, Linux
<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>	AC or DC Single Power Supply

## Mechanical

<b>Dimensions</b>	483 x 44 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>	1U 19" rackmount chassis Optional Telescopic slides
<b>Configuration</b>	Front I/O and Rear Power Supply
<b>Front Panel Leds / Buttons / Connectors</b>	Power On/Off button with LED Reset button with LED
<b>Fans</b>	6x Hot Swap 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.