GAP-235PL - S7 Series
2U RUGGED SERVER

3rd Gen Intel® Xeon® Scalable Processors
Front I/O - Front Power Supply - Low Profile Boards

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2U	355 mm	2	2TB	3	4
Platform	Depth	CPU	RAM	SSD	I/O Boards

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

GAP-235PL S7 rugged servers feature dual socket 3rd Gen Intel® Xeon® Scalable Processors (Ice Lake), a balanced architecture that delivers built-in AI acceleration and advanced security capabilities, up to 64 lanes PCI Express Gen 4 per socket to enable higher I/O bandwidth per core, and +7% higher socket-to-socket bandwidth. The integrated IPMI services support monitoring, control, and management functions sending alarm notifications in case of critical events.

GAP-235PL are designed for 19" rackmounting and have a 2U chassis with a depth of 355mm.
The front I/O and power supply input layout includes up to three removable SSDs and an optional slim DVD.
GAP-235PL rugged servers can host four low profile PCIe cards and feature rear removable fans.

GAP servers are designed to meet MIL-STD-810F for temperature and shocks, MIL-STD-167-1A for vibrations. Optionally, they can conform to MIL-STD-461 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.

FEATURES

- 2U Rugged Server - 355mm depth
- Dual Socket Motherboard
- 3rd Gen Intel® Xeon® Scalable Processors
- Front I/O connectors and font Power Input
- Removable fans
- AC or DC Power Supply
- Up to 2 x U.2 NVME SSD or 3 x 2.5" SATA / SAS SSD
- Up to 4 Low Profile PCIe boards
- Optional Conformal Coating
- MIL-STD-810G
- Optional MIL-STD-461

Technical Specifications

System

Processor	3rd Gen Intel® Xeon® Scalable processors Dual Socket LGA-4189 (Socket P+) max 270W TDP
Memory	Up to 2TB ECC RDIMM, DDR4-3200MHz; 8 DIMM slots
Chipset	Intel® C621A
Graphics	ASPEED AST2600 BMC
Network	1x Dedicated IPMI LAN port 2x 10GbE with RJ45 connectors
Storage	Internal: 2x M.2 NVMe; M-Key, 2280/22110 2x Disk on Module Removable: Up to 2x U.2 NVMe SSD or up to 3x 2.5" SATA / SAS SSD
TPM	1x TPM Header
Motherboard I/O	Available on the front: 1x VGA, 4x USB 3.0, 2x 10GbE; 1x IPMI
Expansion slots	4x PCIe 4.0 x16 Low Profile cards
Operative Systems	Windows® 10 IoT Enterprise 64bit, Windows® Server 2016 64bit; Windows® Server 2019 64bit; RHEL 8.4 64bit; Ubuntu 20.04.2 LTS SVR 64bit; CentOS 7.9 64bit
IPMI	IPMI2.0, SPM, Watchdog; SNMP and e-mail alarms and notifications
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 Single Power Supply DC Single Power Supply

Mechanical

Dimensions	483 x 88 x 355 mm
Construction	Aluminum with surface passivation treatment
Colour	Black / RAL 9005 - Powder Coating
Mounting	2U 19" rackmount chassis Optional telescopic slides
Configuration	Front I/O and Power Supply
Front Panel	Led Power ON and SSD functionality; Power ON / OFF and System Reset
Drive Bay	1x slim 5.25" ; 1x 3.5" bay
Fans	4 x removable 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.