GAP-351R-S7 Series
3U RUGGED SERVER

3rd Gen Intel® Xeon® Scalable Processors

Rear I/O - Rear Power Supply





3U	510 mm	2	4TB	14	6
Platform	Depth	CPU	RAM	Hot Swap SSD	I/O Boards

GAP is a family 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-351R-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 4TB DDR4-3200 RAM, 64 lane PCIe Gen 4 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-351R-S7 are designed for 19" rackmounting and have a 3U chassis with a depth of 510mm.
The rear I/O and rear power supply layout includes an internal M.2 NVMe socket and up to eight removable U.2 NVMe SSD or up to fourtheen removable 2.5" SAS/ SATA SSD. Optionally a DVD media is available.
GAP-351R-S7 rugged servers can host up to six full height / full lengh PCIe cards.
In case additional boards are needed they can be provided with dedicated fixings for optimal protection in case of shocks and vibrations also during transport.

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

- 3U Rugged Server - 510mm depth
- Dual Socket Motherboard
- 3rd Gen Intel® Xeon® Scalable Processors
- Rear I/O connectors and rear Power Input
- Redundant AC or DC Power Supply
- Up to 2 x U.2 NVME SSD or 14 x 2.5" SATA / SAS SSD
- Optional DVD
- Up to 6 PCIe boards
- Optional Conformal Coating
- MIL-STD-810G
- Optional MIL-STD-461

Technical Specifications

System

CPU	3rd Gen Intel® Xeon® Scalable processors Dual Socket LGA-4189 (Socket P+) max 270W TDP
Memory	Up to 4TB ECC RDIMM, DDR4-3200MHz; 16 DIMM slots
Chipset	Intel® C621A
Graphics	ASPEED AST2600 BMC
Network Connectivity	1x Dedicated IPMI LAN port 2x GbE with RJ45 connectors (2x 10GbE motherboard version available)
Storage	Internal: 1x M.2 NVMe; M-Key, 2280/22110 2x Disk on Module Removable: Up to 8x U.2 NVMe SSD or up to 14x 2.5" SATA / SAS SSD
TPM	1x TPM Header
Motherboard I/O shield	Available on the rear: 1x VGA, 1x COM, 4x USB 3.2, 2x GbE (10GbE); 1x IPMI
Expansion slots	4x PCIe 4.0 x16 + 2x PCIe 4.0 x8
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
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 Redundant Power Supply - Optional Single DC Redundant Power Supply - Optional Single

Mechanical

Dimensions	483 x 132 x 510 mm (W x H x D)
Material	Aluminum with surface passivation treatment
Colour	Black / RAL 9005 - Powder Coating
Mounting	3U 19" rackmount chassis Optional Telescopic slides
Configuration	Rear I/O and Power Supply
Front Panel Leds / Buttons	Power On/Off button with LED Reset button with LED
Drive Bays	1 x 5.25" + 2 x 3.5"

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.