GAP-151F - G6 Series
1U RUGGED SERVER

Intel® Xeon® Scalable Processors

Front I/O - Rear Power Supply





1U	510 mm	1-2	3TB	3+1	2
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-151F G6 rugged servers feature single or dual socket Intel® Xeon® Scalable Processors (Skylake-SP / Cascade Lake-SP) supporting up to 28 cores and 56 thread, up to 38.5 MB cache, Intel® Ultra Path Interconnect, Intel® AVX-512, up to six memory channels and up to 48 PCIe 3.0 lanes. The integrated IPMI services support monitoring, control, and management functions sending alarm notifications in case of critical events.

GAP-151F are designed for 19" rackmounting and have a 1U chassis with a depth of 510mm.
The front I/O and rear power supply layout includes three removable SSDs, an internal SSD and an optional slim DVD.
GAP-151F rugged servers can host up to two PCIe cards.
In case additional boards are needed they can be provided with dedicated fixings for an optimal protection against 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

- 1U Rugged Server - 510mm depth
- Single or Dual Processor
- Intel® Xeon® Scalable Processors
- Front I/O connectors
- Rear Power Input
- Redundant AC or DC Power Supply
- Up to 3 x removable 2.5" SSD + 1 x internal 2.5" SSD
- Up to 2 PCIe boards
- Optional Conformal Coating
- MIL-STD-810G
- Optional MIL-STD-461

Technical Specifications

System

Processor	Intel® Xeon® Scalable Processors Family - dual socket P (LGA 3647)
Memory	Up to 3TB 3DS ECC RDIMM, DDR4-2933MHz Up to 3TB 3DS ECC LRDIMM, DDR4-2933MHz
Chipset	Intel® C621
Network	2 x RJ45 Gigabit Ethernet 1 x RJ45 dedicated IPMI
Storage	2.5" SATA Disk - RAID 0, 1, 5, 10
TPM	1 TPM Header
Motherboard I/O	Available at the front: 1 x VGA, 2 x USB 3.0, 2 x GbE, 1 x IPMI
Expansion slots	2 x PCIe - Bracket Full Height
Operative Systems	Windows® 8.1, Windows® 10 IoT Enterprise 2016, Windows® Server 2008 R2, Windows® Server 2012 R2, Linux, VmWare
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	100/240 Redundant VAC 18-36 Single or Redundant VDC 36-72 Single or Redundant VDC

Mechanical

Dimensions	483 x 44,45 x 510 mm
Construction	Aluminum with surface passivation treatment
Colour	Silver / RAL9007
Mounting	1U 19" rackmount chassis Optional telescopic slides
Configuration	Front I/O and Rear Power Supply
Front Panel	Led Power ON and HDD/SSD functionality; Power ON / OFF and System Reset
Drive Bay	1 x slim 5.25"; 2 x 3.5" bay + 1 x internal ODD 2.5"

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.