GAP-145F-SOLO - G6 Series
1U RUGGED SERVER

Intel® Xeon® Scalable Processors - Single socket
Front I/O - Rear Power Supply

1U	450 mm	1	1,5TB	3+3	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-145F-SOLO rugged servers feature single 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-145F-SOLO servers are designed for 19" rackmounting and have a 1U chassis with a depth of 450mm.
The front I/O and rear power supply layout includes three removable SSDs, up to three internal SSDs and a slim DVD.
GAP-145F-SOLO 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 - 450mm depth
- Single Processor
- Intel® Xeon® Scalable Processors
- Front I/O connectors
- Rear Power Input
- AC or DC Power Supply
- Up to 3x removable 2.5" SSD + 3x internal 2.5" SSD
- Up to 2 PCIe boards
- Optional Conformal Coating
- MIL-STD-810G
- Optional MIL-STD-461

Technical Specifications

System

CPU	Intel® Xeon® Scalable Processors Family - single socket P (LGA 3647)
Memory	Up to 1,5TB 3DS ECC RDIMM, DDR4-2933/2666MHz 6 DIMM slots
Chipset	Intel® C622
LAN	2 x RJ45 10 Gigabit Ethernet 1 x RJ45 dedicated IPMI
SATA	10 SATA3 (6Gbps) ports - RAID 0, 1, 5, 10
TPM	1 TPM Header
I/O Shield	Available at the front: 1 x VGA, 2 x USB 3.0, 2 x USB 2.0, 2 x 10 GbE, 1 x IPMI, 1 x COM
Expansion slots	2 x PCI-Express 3.0 x16 2 SuperDOM (Disk on Module) ports with built-in power 1 x M.2 Interface: PCI-E 3.0 x4 and SATA - Form Factor: 2280, 22110 Key: M-Key Double Height Connector
Operative Systems	Windows® 8.1 Enterprise, Windows® 10 IoT Enterprise 2016, Windows® Server 2012 R2; Windows® Server 2016; Windows® Server 2019; 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 450 mm
Construction	Aluminum with surface passivation treatment
Colour	Silver / RAL9007
Mounting	1U 19" rackmount chassis Telescopic slides optional
Configuration	Front I/O and Rear Power Supply
Front Panel	Led Power ON and HDD/SSD functionality; Power ON / OFF and System Reset
Drive Bays	1 x DVD + Up to 3 x 2.5" removable SSD + Up to 3 x internal 2.5" SSD with single PSU Up to 3 x internal 2.5" SSD with redundant PSU

Environmental - (Design to meet)

Operating Temperature	Standard: 0°C / +50°C Extended: -20°C / +60°C (depending on the configurations)
Operating Humidity	8% to 95% non-condensed (depending on the configurations)
Storage Temperature	-40°C / +70°C
Operating Vibration	MIL-STD-167-1A, Type I
Operating Shock	MIL-STD-810G Proc. I Method 516.7 - 15g / 11ms – half sine
Transport shock	MIL-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtooth
Certifications	Directive 2014/35/UE-LVD / Directive 2014/30/UE-EMC Directive 2011/65/UE - RoHS / Regulation (EC) No 1907/2006 - REACH

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.