GAP-145F-W8 Series
1U RUGGED WORKSTATION

Intel® Xeon® W-1300 Processor, 10th/11th Gen. Intel® Core™ i9/i7/i5/i3 Processors - Rocket Lake
Front I/O and Rear Power supply





1U	450 mm	1	128GB	3	1
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-W8 workstations feature Intel® Xeon® W-1300 Processors or 10th/11th Generation Intel® Core™ i9/i7/i5/i3 Processors supporting up to 8 Cores (16 thread with Hyper-Threading), 16MB Smart Cache, up to 128GB DDR4 memory with ECC Memory support and up to 20 PCIe 4.0 lanes. The integrated IPMI services support monitoring, control, and management functions sending alarm notifications in case of critical events.

GAP-145F-W8 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 internal M.2 PCIe socket and up to two removable U.2 NVMe SSD or up to three removable 2.5" SAS/ SATA SSD.
GAP-145F-W8 rugged workstations can host one full height PCIe card.
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 series workstations are designed to meet MIL-STD-810 for temperature and shocks, MIL-STD-167-1A for vibrations. Optionally, they can conform to MIL-STD-461G 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 Workstation - 450mm depth
- Intel® Xeon® W-1300 Processors
- 10th/11th Gen. Intel® Core™ i9/i7/i5/i3 Processors
- Front I/O connectors and Rear Power Input
- Single AC or DC Power Supply
- 3x M.2 PCIe sockets
- Up to 2x U.2 NVMe SSD or 3x 2.5" SATA/SAS SSD + 1x Internal 2.5" SSD
- Removable fans
- Up to 1 PCIe boards
- Optional Conformal Coating
- MIL-STD-810
- Optional MIL-STD-461G

Technical Specifications

System

CPU	Intel® Xeon® W-1300; 11th Generation Intel® Core™ i9/i7/i5; 10th Generation Intel® Core™ i9/i7/i5/i3 - Single Socket LGA-1200 (Socket H5) supported; CPU TDP supports up to 125W TDP
Memory	Up to 128GB Unbuffered ECC/non-ECC UDIMM, DDR4-3200MHz, in 4 DIMM slots
Chipset	Intel® W580
Graphics	ASPEED AST2500 BMC
Network Connectivity	1x RJ45 Gigabit Ethernet Intel® Ethernet i225LM 1x RJ45 Gigabit Ethernet Intel® PHY I219LM for AMT/vPro Dedicated LAN for IPMI
Storage	Internal: 1x M.2 PCIe 4.0 x4 2x M.2 PCIe 3.0 x4 Form Factor: 2280/22110; M.2 Key: M-Key 1x 2.5" SATA / SAS SSD Removable: Up to 2x U.2 NVMe SSD or up to 3x 2.5" SAS / SATA SSD
TPM	1x TPM Header
Motherboard I/O shield	1x DP port, 1x HDMI, 1x VGA, 1x DVI-D, 1x GbE LAN, 1x 2.5GHz GbE LAN, 1x IPMI, 4x USB 3.2, 1x USB-C, Audio
Expansion slots	1x PCIe x16
Operative Systems	Microsoft Windows 10 IOT Enterprise; Microsoft Windows 11 IOT Enterprise; Microsoft Windows Server 2022; Debian Linux 11 (64-bit); Ubuntu Linux 18.04 LTS Server Edition (64-bit); Ubuntu Linux 20.04 LTS Server Edition (64-bit); Red Hat® Enterprise Linux® 8 Server
IPMI	IPMI 2.0, SPM, Watchdog, SNMP and e-mail alarms and notifications
Remote Monitoring	Checking system functionality (fan speeds, temperature, voltage, power supply, power consumption, disk health, memory health, and RAID health)

Power Supply

Power Supply	AC Single Power Supply DC Single Power Supply

Mechanical

Dimensions	483 x 44 x 450 mm (W x H x D)
Material	Aluminum with surface passivation treatment
Colour	Black / RAL 9005 - Powder Coating
Mounting	1U 19" rackmount chassis Optional Telescopic slides
Configuration	Front I/O - Rear Power Supply
Front Panel Leds / Buttons	Led Power ON and SSD functionality; Power ON / OFF and System Reset
Drive Bays	1x 3.5" + 1x 2.5" internal drive bay
Fans	6x 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.