

# GAP-145R-W8 Series 1U RUGGED WORKSTATION



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

**powerBridge**  
Computer

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**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-145R-W8 workstations feature Intel® Xeon® W-1300 Processors or 10<sup>th</sup>/11<sup>th</sup> 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-145R-W8 are designed for 19" rackmounting and have a 1U chassis with a depth of 450mm.

The rear I/O and rear power supply layout includes three internal M.2 PCIe socket and up to six removable U.2 NVMe SSD or up to nine removable 2.5" SAS/ SATA SSD. GAP-145R-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
- 10<sup>th</sup>/11<sup>th</sup> Gen. Intel® Core™ i9/i7/i5/i3 Processors
- Rear I/O connectors and Rear Power Input
- Redundant AC or DC Power Supply
- 3x M.2 PCIe sockets
- Up to 6x U.2 NVMe SSD or 9x 2.5" SATA/SAS SSD
- Up to 1 PCIe boards
- Optional Conformal Coating
- MIL-STD-810
- Optional MIL-STD-461G

## Technical Specifications

### System

<b>CPU</b>	Intel® Xeon® W-1300; 11 <sup>th</sup> Generation Intel® Core™ i9/i7/i5; 10 <sup>th</sup> Generation Intel® Core™ i9/i7/i5/i3 - Single Socket LGA-1200 (Socket H5) supported; CPU TDP supports up to 125W TDP
<b>Memory</b>	Up to 128GB Unbuffered ECC/non-ECC UDIMM, DDR4-3200MHz, in 4 DIMM slots
<b>Chipset</b>	Intel® W580
<b>Graphics</b>	ASPEED AST2500 BMC
<b>Network Connectivity</b>	1x RJ45 Gigabit Ethernet Intel® Ethernet i225LM 1x RJ45 Gigabit Ethernet Intel® PHY I219LM for AMT/vPro Dedicated LAN for IPMI
<b>Storage</b>	Internal: 1x M.2 PCIe 4.0 x4 2x M.2 PCIe 3.0 x4 Form Factor: 2280/22110; M.2 Key: M-Key Removable: Up to 6x U.2 NVMe SSD or up to 9x 2.5" SAS / SATA SSD
<b>TPM</b>	1x TPM Header
<b>Motherboard I/O shield</b>	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
<b>Expansion slots</b>	1x PCIe x16
<b>Operative Systems</b>	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
<b>IPMI</b>	IPMI 2.0, SPM, Watchdog, SNMP and e-mail alarms and notifications
<b>Remote Monitoring</b>	Checking system functionality (fan speeds, temperature, voltage, power supply, power consumption, disk health, memory health, and RAID health)

### Power Supply

<b>Power Supply</b>	AC Single Power Supply - Optional Redundant with two usable 3.5" drive bays DC Single Power Supply - Optional Redundant with two usable 3.5" drive bays
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### Mechanical

<b>Dimensions</b>	483 x 44 x 450 mm (W x H x D)
<b>Material</b>	Aluminum with surface passivation treatment
<b>Colour</b>	Black / RAL 9005 - Powder Coating
<b>Mounting</b>	1U 19" rackmount chassis Optional Telescopic slides
<b>Configuration</b>	Rear I/O and Power Supply
<b>Front Panel Leds / Buttons</b>	Led Power ON and SSD functionality; Power ON / OFF and System Reset 2x USB 3.0 ports
<b>Drive Bays</b>	3x 3.5" with redundant PSU

### Environmental - (Design to meet)

<b>Operating Temperatures</b>	0°C to +50°C MIL-STD-810H, Method 501.7 & 502.7 -20°C to +60°C (depending on configuration)
<b>Storage Temperature</b>	-40°C to +70°C MIL-STD-810H, Method 501.7 & 502.7
<b>Humidity</b>	5% – 95% non-condensing MIL-STD-810H 507.6
<b>Operating Vibrations</b>	MIL-STD-167-1A, Type I
<b>Not Operating Vibrations</b>	1.17 Grms, 5-500 Hz MIL-STD-810H, Method 514.8
<b>Operating Shocks</b>	20g / 11ms – half sine MIL-STD-810G, Method 516.7
<b>EMC</b>	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.