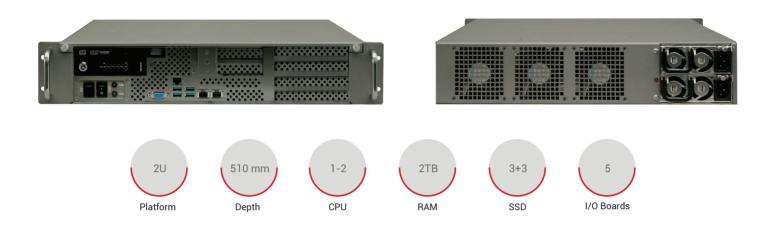
## **GAP-251F - G5 Series** 2U RUGGED SERVER



Intel<sup>®</sup> Xeon<sup>®</sup> Broadwell-EP Front I/O - Rear Power Supply



GAP is a line of rugged servers and workstations with aluminum construction, designed for applications that require a robust and qualified MIL-GRADE device, suitable for operating in critical environments.

GAP-251F G5 series series rugged server features single or dual socket Intel<sup>®</sup> Xeon<sup>®</sup> E5 v4 (Broadwell-EP) supporting up to 22 cores (44 threads with Hyper-Threading Technology), up to 55 MB of L3 cache per CPU, 2400MHz DDR4 up to 2TB and 40 PCIe lanes. The integrated IPMI services support monitoring, control, and management functions and provides for alarm notifications in case of critical events.

GAP-251F is designed for 19" rackmounting and has a 2U chassis with 510mm depth.

The front I/O and rear power supply layout includes three removable SSD, three internal SSD and an optional slim DVD. GAP-251F rugged servers can host up to two low profile PCIe cards and two standard PCIe cards and one dual slot PCIe card.

The additional boards are equipped with dedicated fixing systems to ensure optimal operation even in the presence of shock and vibration or during transport.

GAP servers are qualified according to MIL-STD-810G for temperature, shock and vibration and can optionally conform to MIL-STD-461 for EMI /EMC. Upon request, the integrated devices, complete with I / O cards, can be subjected to specific profiles of thermal or mechanical stress. Versions with MIL grade connectors on I/O ports and power input are available.

All units are delivered with their inventory list to ensure configuration control and reproducibility over time.

## FEATURES

- 2U Rugged Server 510mm depth
- Single or Dual Processor
- E5 Series Intel<sup>®</sup> Xeon<sup>®</sup> processors Broadwell-EP
- Front I/O connectors
- Rear Power Input
- Redundant AC or DC Power Supply
- Up to 3 removable 2.5" SSD + 3 x internal 2.5" SSD
- Optional DVD
- Up to 5 PCIe boards
- Optional Conformal Coating
- MIL-STD-810G
- Optional MIL-STD-461



## **Technical Specifications**

| Processor       Intel <sup>®</sup> Xoon <sup>®</sup> ES-2600 V4/X (up to 1480 TDP) dual socket R3 (LGA 2011) - Up to 22 cores         Memory       Up to TTB 3DS ECC HDIMM, DDM-2400MH2         Chipet       Intel <sup>®</sup> 617         Network       2 K 2456 Gigabit Etheres         Storage       2 K 2456 Gigabit Etheres         Method       1 FM Heade         Mothodard I/O       Value on the frant: 1 x VGA, 4 x USB 30, 2 x GEc, 1 x IPM         Apparison slots       2 X PCIe - Bracket FUI Height         Strenge Systems       Value System Site Site Site Site Site Site Site Site  | System                           |  |
|---|----------------------------------|--|
| Memory       Up to 2TB 3DS ECC LADIMM, DDR4-2400MHz         Chipset       Intel <sup>1</sup> G512         Network       2 x R.44 Gigabit Ethernet<br>1 x R.44 Gigabit Ethernet<br>1 x R.44 Gigabit Ethernet<br>1 x R.44 Gigabit Ethernet<br>2 x FCIe - Star A Disk - RAID 0, 1, 5, 10         TPM       1 TPM Header         Motherboard I/O       Available on the front: 1 x VGA; 4 x USB 3.0, 2 x GbE, 1 x IPM1         Expansion slots       3 x FCIe - Bracket TPM IHeight<br>2 x FCIe - Bracket TPM IPM6         Operative Systems       Windows <sup>*</sup> 7, Windows <sup>*</sup> 8.1, Windows <sup>*</sup> 10 IoT Enterprise 2016, Windows <sup>*</sup> Server 2012 R2, Linux         IPM       DSPM, Watchhoog, SNMP and e-mail alarms and notifications         Monitoring       Motivitring, control, and management functions (fina speed, temperature, voltage, redundant power failure, power consumption,<br>disk heath, raid health, and memory health)         Power Supply       -         Power Supply       -         Motioning       483 x 88 x 510 mm         Construction       Aluminum with surface passivation treatment         Colour       Silver         Notating       12 U 19" rackmount chassis<br>Telescopic sildes optional         Configuration       Font I/O and Rear Power Supply         Font I/O and Rear Power Supply       Sindard: 0"C / 450"C         Font I/O and Rear Power Supply       Sindard: 0"C / 450"C </th <th>Processor</th> <th>Intel<sup>®</sup> Xeon<sup>®</sup> E5-2600 v4/v3 (up to 145W TDP) dual socket R3 (LGA 2011) - Up to 22 cores</th>  | Processor                        | Intel <sup>®</sup> Xeon <sup>®</sup> E5-2600 v4/v3 (up to 145W TDP) dual socket R3 (LGA 2011) - Up to 22 cores   |
| Network       2 × RJ45 Gigabit Ethernet<br>1 x RJ45 Gedicated IPMI         Storage       2 × SJA1 Diak - RAD 0, 1, 5, 10         TPM       1 TPM Header         Motherboard I/O       Available on the front: 1 x VGA, 4 x USB 3.0, 2 x GbE, 1 x IPMI         Expansion slots       3 × PCIe - Bracket Full Height<br>2 x PCIe - Bracket Full Height<br>2 x PCIe - Bracket Full Height<br>2 x PCIe - Bracket Full Meight<br>2 | Memory                           |  |
| Network       1 x PL45 dedicated IPMI         Storage       2.5" SATA Disk - RAID 0, 1, 5, 10         TPM       1 TPM Header         Motherboard I/0       Available on the front 1 x VGA, 4 x USB 3.0, 2 x GbE, 1 x IPMI         Expansion slots       3 x PCe - Bracket LOW profile         Operative Systems       Windows <sup>*</sup> 7, Windows <sup>*</sup> 8 1, Windows <sup>*</sup> 10 IoT Enterprise 2015, Windows <sup>*</sup> Server 2012 R2, Linux         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       100/240 Redundant VDC 38-72 Single or Redundant VDC 38-72  | Chipset                          | Intel <sup>®</sup> C612  |
| TPM     1 TPM Header       Motherboard I/O     Available on the front: 1 x VGA; 4 x USB 3.0, 2 x GbE, 1 x IPMI       Expansion slots     3 x PCIe - Bracket Full Height<br>2 x PCIe - Bracket Full Height<br>2 x PCIe - Bracket Full Height<br>2 x PCIe - Bracket Euro profile       Operative Systems     Windows <sup>*</sup> 7, Windows <sup>*</sup> 8.1, Windows <sup>*</sup> 10 IoT Enterprise 2016, Windows <sup>*</sup> Server 2008 R2, Windows <sup>*</sup> Server 2012 R2, Linux       IPMI     IPMI2.0, SPM, Watchdog; SNMP and e-mail alarms and notifications       Monitoring     Monitoring, ontrol, and management functions (fan speed, temperature, voltage, redundant power failure, power consumption,<br>disk health, and hearth, and memory health)       Power Supply     100/240 Redundant VAC<br>36-72 Single or Redundant VDC<br>36-72 Single or Redundant VDC<br>36-72 Single or Redundant VDC<br>36-72 Single or Redundant VDC       Montoring     100/240 Redundant VDC<br>36-72 Single or Redundant VDC<br>36-72 Single or Redundant VDC       Montoring     2U 19" rackmount chasis<br>Telescopic Sildes optional       Colour     Silver       Mounting     Telescopic Sildes optional       Configuration     Front I/O and Rear Power Supply       Front Panel     Led: Led Power ON and HDD/SSD functionality, Switch: Power ON / OFF and System Reset       Drive Bay     1 x slim 5.25", 1 x 3.5" bay + 1 x internal bay x 3 ODD 2.5"       Environmental - (Design to meet)     Storaget Cy +60°C (depending on the configurations)  | Network                          |  |
| Motherboard I/0       Available on the front: 1 x VGA, 4 x USB 3.0, 2 x GbE, 1 x IPMI         Expansion slots       3 x PCIe - Bracket Full Height<br>2 x PCIe - Bracket Low profile         Operative Systems       Windows <sup>®</sup> 8.1, Windows <sup>®</sup> 10 IoT Enterprise 2016, Windows <sup>®</sup> Server 2008 R2, Windows <sup>®</sup> Server 2012 R2, Linux         IPM       PMI2.0, SPM, Watchdog; SNMP and e-mail alarms and notifications         Monitoring       Monitoring, control, and management functions (fan speed, temperature, voltage, redundant power failure, power consumption,<br>disk health, and health, and memory health)         Power Supply       100/240 Redundant VAC<br>18-36 Single or Redundant VDC<br>36-72 Single or Redundant VDC         Power Supply       100/240 Redundant VDC<br>36-72 Single or Redundant VDC         Construction       Aluminum with surface passivation treatment         Colour       Silver         Mounting       2U 19' rackmount chassis<br>relescopic sildes optional         Configuration       Font I// and Rear Power Supply         Front Panel       Led: Led Power ON and HDD/SSD functionality: Switch: Power ON / OFF and System Reset         Drive Bay       1 x slim 5.25'; 1 x 3.5' bay + 1 x internal bay x 3 0DD 2.5''         Environmental - (Design to meet<br>Centerdice - 20°C / +60°C (depending on the configurations)         Operative Temperature       Standard: 0°C / +50°C<br>Endedice - 20°C / +60°C (depending on the configurations)         Operative T   | Storage                          | 2.5" SATA Disk - RAID 0, 1, 5, 10  |
| Expansion slots     3 x PCle - Bracket Low profile       Operative Systems     Windows* 7, Windows* 81, Windows* 10 IoT Enterprise 2016, Windows* Server 2008 R2, Windows* Server 2012 R2, Linux       IPMI     IPMI20, 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     100/240 Redundant VAC<br>38-72 Single or Redundant VDC<br>38-72 Single or Redundant VDC       Mechanical     Montoring       Dimensions     483 x 88 x 510 mm       Colour     Silver       Mounting     2U 19' rackmount chasis<br>Telescopic slides optional       Configuration     Front I/O and Rear Power Supply       Front Panel     Led: Led Power ON and HDD/SSD functionality; Switch: Power ON / OFF and System Reset       Drive Bay     1 x slim 5.25°; 1 x 3.5° bay + 1 x internal bay x 3 0DD 2.5°       Environmental - (Design to meet)     Standard: 0°C / +60°C       Operative Temperature     240°C / +60°C       Operative Temperature     Standard: 0°C / +60°C       Standard: 0°C / +60°C     Cepending on the configurations)       Operative Humidity     8% to 95% non-condensed (depending on the configurations)       Storage Temperature     -40°C / +70°C   | ТРМ                              | 1 TPM Header   |
| Expansion stots       2 x PCIe - Bracket Low profile         Operative Systems       Windows <sup>®</sup> 1. Windows <sup>®</sup> 10 IoT Enterprise 2016, Windows <sup>®</sup> Server 2008 R2, Windows <sup>®</sup> Server 2012 R2, Linux         IPMI       IPMI2.0, SPM, Watchdog; SNMP and e-mail alarms and notifications         Monitoring       Windows <sup>®</sup> and management functions (fan speed, temperature, voltage, redundant power failure, power consumption, disk health, raid health, and memory health)         Power Supply       100/240 Redundant VAC         Power Supply       100/240 Redundant VDC         Signed and Society       26.5 Single or Redundant VDC         Society       36.72 Single or Redundant VDC         Silver       20.02         Dotation       Aluminum with surface passivation treatment         Colour       Silver         Monthing       Telescopic slides optional         Configuration       Front I/O and Rear Power Supply         Front Panel       Led. Led Power ON and HDD/SDS functionality, Switch: Power ON / OFF and System Reset         Drive Bay       1 x sim 525°; 1 x 3.5° bay + 1 x internal bay x 3 ODD 2.5°         Power Supply       Site off c. 20° (/ + 50°C         Eternded:       20° (/ + 70°C         Operative Temperature       Site off c. 1 C. 9106 (depending on the configurations)         Storage Temperature  | Motherboard I/O                  | Available on the front: 1 x VGA; 4 x USB 3.0, 2 x GbE, 1 x IPMI  |
| 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, and memory health)         Power Supply       100/240 Redundant VAC         Power Supply       18-36 Single or Redundant VDC 36-72 Single or Redundant VDC 36-72 Single or Redundant VDC         Mechanical       Dimensions       483 x 88 x 510 mm         Construction       Aluminum with surface passivation treatment       Colour         Silver       Silver       Silver         Mounting       Telescopic slides optional       Construction       Aluminum with surface passivation treatment         Configuration       Front I/O and Rear Power Supply       Silver       Silver         Mounting       Telescopic slides optional       Construction       A silve 525°; 1 x 3.5° bay + 1 x internal bay x 3 0DD 2.5°         Environmental - (Design to meet)       Silver       Silver       Silver         Operative Temperature       Standard: 0°C / +50°C Extended: -20°C / +60°C (depending on the configurations)       Social Silver         Operative Temperature       -40°C / +70°C       Silver       Silver       Source         Operative Temperature       -40°C / +70°C       Silver       <  | Expansion slots                  |  |
| Monitoring       Monitoring, control, and management functions (fan speed, temperature, voltage, redundant power failure, power consumption, disk health, raid health, and memory health)         Power Supply       100/240 Redundant VAC<br>18-36 Single or Redundant VDC<br>36-72 Single or Redundant VDC         Mechanical       Mechanical         Dimensions       483 x 88 x 510 mm         Construction       Aluminum with surface passivation treatment         Colour       Silver         Monitoring       20 19" rackmount chassis<br>Telescopic soltional       Construction         Configuration       Front I/O and Rear Power Supply       Power ON / OFF and System Reset         Drive Bay       1 x slim 5.25", 1 x 3.5" bay + 1 x internal bay x 3 ODD 2.5"       Soltion (C)         Operative Temperature       Standard: 0"C / +50"C<br>Extended: -20"C / +60"C (depending on the configurations)       Stange       Telescopic Site Site Site Site Site Site Site Site   | Operative Systems                | Windows <sup>®</sup> 7, Windows <sup>®</sup> 8.1, Windows <sup>®</sup> 10 IoT Enterprise 2016, Windows <sup>®</sup> Server 2008 R2, Windows <sup>®</sup> Server 2012 R2, Linux |
| Monitoring     disk health, raid health, and memory health)       Power Supply       Power Supply       Bower Supply       100/240 Redundant VDC<br>36-72 Single or Redundant VDC<br>36-72 Single or Redundant VDC       Mechanical       Dimensions     483 x 88 x 510 mm       Construction     Aluminum with surface passivation treatment       Colour     Silver       Mounting     2U 19" rackmount chassis<br>Telescopic slides optional       Configuration     Front I/O and Rear Power Supply       Front Panel     Led: Led Power ON and HDD/SSD functionality; Switch: Power ON / OFF and System Reset       Drive Bay     1 x slim 525"; 1 x 3.5" bay + 1 x internal bay x 3 ODD 2.5"       Environmental - (Design to meet)     Standard: 0"C / +50"C<br>Extended: -20"C / +60"C (depending on the configurations)       Operative Temperature     Standard: 0"C / +50"C<br>Extended: -20"C / +60"C (depending on the configurations)       Storage Temperature     -40"C / +70"C       Vibrations     ML-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axes       Operative Shock     ML -STD-810G Proc. I Method 516.7 - 13g / 11ms - half sine       Transport Shock     ML-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtooth       Catifications     Directive 2014/35/UE-LVD / Directive 2014/30/UE-EMC <th>IPMI</th> <th>IPMI2.0, SPM, Watchdog; SNMP and e-mail alarms and notifications</th>  | IPMI                             | IPMI2.0, SPM, Watchdog; SNMP and e-mail alarms and notifications   |
| Power Supply     100/240 Redundant VAC<br>18-36 Single or Redundant VDC<br>36-72 Single or Redundant VDC       Mechanical       Dimensions     483 x 88 x 510 mm       Construction     Aluminum with surface passivation treatment       Colour     Silver       Mounting     20 19" rackmount chassis<br>Telescopic slides optional       Configuration     Front I/O and Rear Power Supply       Front Panel     Led: Led Power ON and HDD/SSD functionality; Switch: Power ON / OFF and System Reset       Drive Bay     1 x slim 5.25"; 1 x 3.5" bay + 1 x internal bay x 3 ODD 2.5"       Environmental - (Design to meet)     Environmental - (Design to meet)       Operative Temperature     Standard: 0"C / +50"C<br>Extended: -20"C / +60"C (depending on the configurations)       Operative Temperature     Standard: 0"C / +50"C<br>Extended: -20"C / +60"C (depending on the configurations)       Operative Temperature     Standard: 0"C / +50"C<br>Extended: -20"C / +60"C (depending on the configurations)       Storage Temperature     -40"C / +70"C       Vibrations     ML-STD-810G, Method 516.7, - 15g / 11ms - half sine       Transport shock     ML-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtooth       Comperative 2014/35/UE-LVD / Directive 2014/30/UE-EMC     Directive 2014/35/UE-LVD / Directive 2014/30/UE-EMC  | Monitoring                       |  |
| Power Supply     18-36 Single or Redundant VDC       Ser72 Single or Redundant VDC       Mechanical       Dimensions     483 x 88 x 510 mm       Construction     Aluminum with surface passivation treatment       Colour     Silver       Mounting     20 19" rackmount chassis<br>Telescopic sides optional       Configuration     Front / O and Rear Power Supply       Front Panel     Led: Led Power ON and HDD/SSD functionality; Switch: Power ON / OFF and System Reset       Drive Bay     1 x slim 5.25", 1 x 3.5" bay + 1 x internal bay x 3 ODD 2.5"       Environmental - (Design to meet)     Extended: .20°C / +50°C<br>Extended: .20°C / +60°C (depending on the configurations)       Operative Temperature     S% to 95% non-condensed (depending on the configurations)       Operative Shock     MIL-STD-810G, Method 514.7, Cat 4 - Proc. 1 - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axes       Operative Shock     MIL-STD-810G Proc. II Method 516.7 - 15g / 11ms - half sine       Tansport shock     MIL-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtooth  | Power Supply                     |  |
| Dimensions483 x 88 x 510 mmConstructionAluminum with surface passivation treatmentColourSilverMounting2U 19" rackmount chassis<br>Telescopic slides optionalConfigurationFront I/O and Rear Power SupplyFront PanelLed: Led Power ON and HDD/SSD functionality; Switch: Power ON / OFF and System ResetDrive Bay1 x slim 5.25"; 1 x 3.5" bay + 1 x internal bay x 3 ODD 2.5"Environmental - (Design to meet)Operative TemperatureStandard: 0"C / +50"C<br>Extended: -20"C / +60"C (depending on the configurations)Operative TemperatureStandard: 0"C / +50"C<br>Extended: -20"C / +60"C (depending on the configurations)Storage Temperature-40°C / +70"CVibrationsMIL-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axesOperative ShockMIL-STD-810G Proc. I Method 516.7 - 15g / 11ms - half sineTransport shockMIL-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtoothCartificationsDirective 2014/35/UE-LVD / Directive 2014/30/UE-EMC  | Power Supply                     | 18-36 Single or Redundant VDC  |
| ConstructionAluminum with surface passivation treatmentColourSilverMounting20 19" rackmount chassis<br>Telescopic slides optionalConfigurationFront I/O and Rear Power SupplyFront PanelLed: Led Power ON and HDD/SSD functionality; Switch: Power ON / OFF and System ResetDrive Bay1 x slim 5.25"; 1 x 3.5" bay + 1 x internal bay x 3 ODD 2.5"Environmental - (Design to meet)Operative TemperatureStandard: 0°C / +50°C<br>Extended: -20°C / +60°C (depending on the configurations)Operative TemperatureStandard: 0°C / +50°C<br>Extended: -20°C / +60°C (depending on the configurations)Storage Temperature-40°C / +70°CVibrationsMIL-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axesOperative ShockMIL-STD-810G Proc. I Method 516.7 - 15g / 11ms - half sineTransport shockMIL-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtoothCertificationsDirective 2014/35/UE-LVD / Directive 2014/30/UE-EMC   | Mechanical                       |  |
| ColourSilverMounting2U 19" rackmount chassis<br>Telescopic slides optionalConfigurationFront I/O and Rear Power SupplyFront PanelLed: Led Power ON and HDD/SSD functionality; Switch: Power ON / OFF and System ResetDrive Bay1 x slim 5.25"; 1 x 3.5" bay + 1 x internal bay x 3 ODD 2.5"Environmental - (Design to meet)Operative TemperatureStandard: 0"C / +50"C<br>Extended: -20°C / +60"C (depending on the configurations)Operative Humidity8% to 95% non-condensed (depending on the configurations)Storage Temperature-40°C / +70°CVibrationsMIL-STD-810G, Method 514.7, Cat 4 - Proc. 1 - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axesOperative ShockMIL-STD-810G Proc. I Method 516.7 - 15g / 11ms - half sineTransport shockMIL-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtoothCertificationsDirective 2014/35/UE-LVD / Directive 2014/30/UE-EMC  | Dimensions                       | 483 x 88 x 510 mm  |
| Mounting2U 19" rackmount chassis<br>Telescopic slides optionalMounting2U 19" rackmount chassis<br>Telescopic slides optionalConfigurationFront I/O and Rear Power SupplyFront PanelLed: Led Power ON and HDD/SSD functionality; Switch: Power ON / OFF and System ResetDrive Bay1 x slim 5.25"; 1 x 3.5" bay + 1 x internal bay x 3 ODD 2.5"Environmental - (Design to meet)Operative TemperatureStandard: 0°C / +50°C<br>Extended: -20°C / +60°C (depending on the configurations)Operative Humidity8% to 95% non-condensed (depending on the configurations)Storage Temperature-40°C / +70°CVibrationsMIL-STD-810G, Method 514.7, Cat 4 - Proc. 1 - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axesOperative ShockMIL-STD-810G Proc. 1 Method 516.7 - 15g / 11ms - half sineTransport shockMIL-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtoothCertificationsDirective 2014/35/UE-LVD / Directive 2014/30/UE-EMC  | Construction                     | Aluminum with surface passivation treatment  |
| MountingTelescopic slides optionalConfigurationFront I/O and Rear Power SupplyFront PanelLed: Led Power ON and HDD/SSD functionality; Switch: Power ON / OFF and System ResetDrive Bay1 x slim 5.25"; 1 x 3.5" bay + 1 x internal bay x 3 ODD 2.5"Environmental - (Design to meet)Operative TemperatureStandard: 0°C / +50°C<br>Extended: -20°C / +60°C (depending on the configurations)Operative TemperatureStandard: 0°C / +50°C<br>Extended: -20°C / +60°C (depending on the configurations)Storage Temperature-40°C / +70°CVibrationsMIL-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axesOperative ShockMIL-STD-810G Proc. I Method 516.7 - 15g / 11ms - half sineTensport shockMIL-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtoothCertificationsDirective 2014/35/UE-LVD / Directive 2014/30/UE-EMC   | Colour                           | Silver   |
| Front PanelLed: Led Power ON and HDD/SSD functionality; Switch: Power ON / OFF and System ResetDrive Bay1 x slim 5.25"; 1 x 3.5" bay + 1 x internal bay x 3 ODD 2.5"Environmental - (Design to meet)Operative TemperatureStandard: 0°C / +50°C<br>Extended: -20°C / +60°C (depending on the configurations)Operative Humidity8% to 95% non-condensed (depending on the configurations)Storage Temperature-40°C / +70°CVibrationsMIL-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axesOperative ShockMIL-STD-810G Proc. I Method 516.7 - 15g / 11ms - half sineTransport shockMIL-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtoothCertificationsDirective 2014/35/UE-LVD / Directive 2014/30/UE-EMC  | Mounting                         |  |
| Drive Bay     1 x slim 5.25"; 1 x 3.5" bay + 1 x internal bay x 3 ODD 2.5"       Environmental - (Design to meet)       Operative Temperature     Standard: 0°C / +50°C<br>Extended: -20°C / +60°C (depending on the configurations)       Operative Humidity     8% to 95% non-condensed (depending on the configurations)       Storage Temperature     -40°C / +70°C       Vibrations     MIL-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axes       Operative 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       Directive 2014/35/UE-LVD / Directive 2014/30/UE-EMC  | Configuration                    | Front I/O and Rear Power Supply  |
| Environmental - (Design to meet)       Standard: 0°C / +50°C<br>Extended: -20°C / +60°C (depending on the configurations)       Operative Temperature     Standard: 0°C / +50°C<br>Extended: -20°C / +60°C (depending on the configurations)       Operative Humidity     8% to 95% non-condensed (depending on the configurations)       Storage Temperature     -40°C / +70°C       Vibrations     MIL-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axes       Operative 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   | Front Panel                      | Led: Led Power ON and HDD/SSD functionality; Switch: Power ON / OFF and System Reset   |
| Operative TemperatureStandard: 0°C / +50°C<br>Extended: -20°C / +60°C (depending on the configurations)Operative Humidity8% to 95% non-condensed (depending on the configurations)Storage Temperature-40°C / +70°CVibrationsMIL-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axesOperative ShockMIL-STD-810G Proc. I Method 516.7 - 15g / 11ms - half sineTransport shockMIL-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtoothCertificationsDirective 2014/35/UE-LVD / Directive 2014/30/UE-EMC  | Drive Bay                        | 1 x slim 5.25"; 1 x 3.5" bay + 1 x internal bay x 3 ODD 2.5"   |
| Operative TemperatureStandard: 0°C / +50°C<br>Extended: -20°C / +60°C (depending on the configurations)Operative Humidity8% to 95% non-condensed (depending on the configurations)Storage Temperature-40°C / +70°CVibrationsMIL-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axesOperative ShockMIL-STD-810G Proc. I Method 516.7 - 15g / 11ms - half sineTransport shockMIL-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtoothCertificationsDirective 2014/35/UE-LVD / Directive 2014/30/UE-EMC  | Environmental - (Design to meet) |  |
| Storage Temperature     -40°C / +70°C       Vibrations     MIL-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axes       Operative 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       Directive 2014/35/UE-LVD / Directive 2014/30/UE-EMC  |                                  | Standard: 0°C / +50°C  |
| Vibrations     MIL-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axes       Operative 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   | Operative Humidity               | 8% to 95% non-condensed (depending on the configurations)  |
| Operative 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       Directive 2014/35/UE-LVD / Directive 2014/30/UE-EMC  | Storage Temperature              | -40°C / +70°C  |
| Transport shock   MIL-STD-810G Proc. II Method 516.7 - 30g / 9ms sawtooth     Directive 2014/35/UE-LVD / Directive 2014/30/UE-EMC   | Vibrations                       | MIL-STD-810G, Method 514.7, Cat 4 - Proc. I - 2.24 Grms, 5-500 Hz 60 min/axis for 3 axes   |
| Certifications Directive 2014/35/UE-LVD / Directive 2014/30/UE-EMC  | Operative 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                   |  |

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.