



DATA SHEET

Efficient. Intelligent. Scalable.  
**Exos AP 4U100**



Seagate® Exos® AP 4U100 has the datasphere's highest density of compute and storage in a single system.



### Product Highlights

- Maximize your investment with this low-TCO compute and high-density integrated storage system
- Retain valuable space with a 4U rack height that offers 96 × 3.5-in drive and 4 × 2.5-in drive capacity
- Leverage dual Intel Xeon Scalable CPUs on each controller
- Deliver maximum data throughput with two 12G SAS redundant application controllers
- Future-proof your data center with support for current and next-generation HDDs and SSDs
- Enable full drive performance in all slots with built-in technology to minimize drive performance degradation

## Key Advantages

**Reduce Data Center Footprint.** The growth of the private cloud means enterprises of all sizes need storage solutions. Dedicated space is often limited and expensive. With the Exos AP 4U100, the data center footprint is dramatically reduced, saving real estate investment and reducing heating and cooling costs. Other storage center racks must house both storage and servers. This system's unique design and precision engineering allow both the intelligent compute of a server and a whopping 1.72PB<sup>1</sup> of data storage.

**Deliver Reliable Building Blocks for the Modern Cloud.** Integrated appliances are more reliable and less costly due to fewer cables and connectors, typically the lowest MTBF components in the system. The Exos AP 4U100 future-proofs our modular data center systems for even greater density with next-generation Seagate media. Upgrading a system is as simple as hot-swapping drives. And because it shares design and multiple FRUs with Exos E 4U106, any data center can easily create an entire serviceable ecosystem. Four optional 4 × 2.5-in carriers give users SSD performance along with HDD capacity.

**Ensure Applications Have Access to Critical Data.** Safeguard your data with dual Intel® Xeon® Scalable CPUs in two controllers per Exos AP 4U100, providing powerful redundancy and multi-node capability. Built-in technology minimizes drive performance degradation due to quantity of drives and cooling elements. The Seagate AcousticShield™ noise attenuator drives performance for both the current generation of Seagate media and future technologies.

**Reduce Cost and Resources With Energy-Efficient Features.** This enclosure is suited for both high-capacity and transaction-dependent environments that demand tighter Service Level Agreement (SLA) requirements and need faster response times for optimal data availability. It meets stringent worldwide requirements for recycling and environmental friendliness, and can help you minimize environmental impact and recognize cost savings through high performance while reducing power consumption with 80 PLUS Platinum certified power supplies and adaptive cooling technology.

**Build In Security at the Foundation of the Data Life Cycle.** PProtect your most valuable business assets with compatible Seagate Secure™ SSDs and hard drives.

<sup>1</sup> When using Seagate 18TB drives



| Specifications                                |  |
|---|--|
| <b>Controller Specifications</b>              |  |
| Controller and Quantity                       | One or two AP-RH-1 controllers, redundancy optional  |
| CPU Type and Quantity Per Controller          | One or two Intel® Xeon® Scalable processors, bronze/silver/gold up to 105W TDP <sup>1</sup>  |
| Memory Type and Quantity Per Controller       | up to 12 standard height DDR4-2666 dimm slots  |
| Internal Boot Drive Per Controller            | Two M.2 SATA or NVMe devices   |
| Onboard I/O                                   | Four 10GbE SFP+ ports (Intel X722 with iWarp RDMA), One 1GbE management port   |
| PCIe Expansion                                | Two low-profile, half-length PCIe gen 3 x16 slots  |
| Storage Infrastructure                        | One storage personality module with a single or dual Broadcom SAS3616 "Mercator"   |
| Inter-Controller Link                         | x8 PCIe  |
| <b>Chassis Specifications</b>                 |  |
| Redundant Path                                | Yes (SAS only)   |
| Host/Expansion I/O Ports                      | Four x4 mini-SAS HD Expansion I/O connectors   |
| Management/Status Reporting                   | Out-of-band CLI via management port and in-band SCSI enclosure services  |
| Device Support                                | 12Gb/s SAS drives and 6Gb/s SATA   |
| Max Drives Per Enclosure                      | 96 x 3.5-in LFF drives and 4 x 2.5-in SFF drives (for a full list of supported drives, please contact your account or sales manager)   |
| Hot-Swappable Components                      | HDDs and SSDs (in chassis data slots), power supply units (PSU), cooling modules, side-plane expanders, and controllers  |
| Physical                                      | Height (with top cover): 176.4mm / 6.95 in   Width (without ears and rails): 441mm / 17.4 in   Depth (with handles, without cables): 1139mm / 44.8 in   Weight 64kg / 140 lb   Weight (with drives): 150kg / 330 lb  |
| <b>Power Requirements</b>                     |  |
| Input Power Requirements                      | 200VAC-240VAC, 50Hz/60Hz   |
| Max Power Output per PSU                      | 3200W  |
| <b>Environmental Requirements</b>             |  |
| Operating/Nonoperating Altitude               | -100m to 3000m (-330 ft to 10,000 ft) / -100m to 12,192m (-330 ft to 40,000 ft)  |
| Operating/Nonoperating Temperature            | ASHRAE A2, 5°C to 35°C (41°F to 95°F), derate 1°C / 300m above 900m, 20°C / hr max rate of change / -40°C to 70°C (-40°F to 158°F)   |
| Operating/Nonoperating Humidity               | -12°C DP minimum, 8% RH to 85% RH, max DP 21°C / 5% to 100% noncondensing  |
| Operating/Nonoperating Shock <sup>2</sup>     | 3 Gs, 11ms (5x pos and neg per axis, except Z, which has 5x pos only) / 15 Gs, 7ms, 10 shock pulses (2x pos and neg per axis, except Z, 2x in pos direction only)  |
| Operating/Nonoperating Vibration <sup>3</sup> | 0.14 Gs rms, 5Hz to 500Hz, 30 min per axis / 0.54 Gs rms (in Z) for 4 hrs, 0.25 Gs rms (in X & Y), 6Hz to 200Hz for 30 mins each   |
| <b>Standards/Approvals</b>                    |  |
| Safety Certifications                         | UL 60950-1 (United States)   CAN/CSA-C22.2 No. 60950-1-07 (Canada)   EN 60950-1 (European Union)   IEC 60950-1 (International)   CCC (China PRC - CCC Power Supplies)   BIS (India - BIS Power Supplies)   |
| Ecodesign                                     | Commission Regulation (EU) 2019/424 (Directive 2009/125/EC)  |
| Emissions (EMC)                               | FCC CFR 47 Part 15 Subpart B Class A (United States)   ICES/NMB-003 Class A (Canada)   EN 55032 Class A, EN 61000-3-2, EN 61000-3-3 (Europe)   AS/NZS CISPR 32 Class A (Australia/New Zealand)   VCCI Class A (Japan)   KN 32 Class A   CNS 13438 Class A (Taiwan) |
| Immunity                                      | EN 55024 (EU)   KN 24/KN 35 (S. Korea)   CISPR 24/CISPR35  |
| Environmental Standards                       | The RoHS Directive (2011/65/EU)   The WEEE Directive (2012/19/EU)   The REACH Directive (EC/1907/2006)   |
| Standard Marks/Approvals                      | Australia/New Zealand (RCM), Canada (cUL/ICES/NMB-003 Class A), China (CCC - PSU only), European Union (CE), Japan (VCCI), South Korea (KC), Taiwan (BSMI), United States (FCC/UL)   |
| Country Approvals                             | Australia/New Zealand (RCM), Canada (cUL/ICES/NMB-003 Class A), China (CCC - PSU only), European Union (CE), Japan (VCCI), South Korea (KC), Taiwan (BSMI), United States (FCC/UL), The Eurasian Economic Union (EAC), India (BIS)                                 |

<sup>1</sup> Standard CPU power is 105W. Consult your Seagate technical team member for details on this topic.

<sup>2</sup> Nonoperating shock measured with 2 shocks per axis X, Y in positive and negative direction and 2 shocks in positive Z axis

<sup>3</sup> Nonoperating vibration measured with chassis mounted on test fixture for 4 hrs in each axis (ISTA 3E)

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