



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 1.72PB¹ 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.

¹ When using Seagate 18TB drives



Specifications	
Controller Specifications	
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 ¹
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
Chassis Specifications	
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
Power Requirements	
Input Power Requirements	200VAC-240VAC, 50Hz/60Hz
Max Power Output per PSU	3200W
Environmental Requirements	
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 ²	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 ³	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
Standards/Approvals	
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)

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

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

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

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