

Kumulus S 5U84

Powered by Seagate

DATA SHEET

Scalable. Efficient. Intelligent.

kloudStor Kumulus S 5U84 is the industry's ultra-dense, intelligent solution for maximum capacity and performance at an exceptionally low TCO.



Key Advantages

Maximum Capacity and Consistent High Performance.

Up to 1.1PB of data in a single 5U enclosure with throughputs reaching 7GB/s sequential read, and 5.5GB/s sequential write and up to 99.999% high availability. Easily expand to accommodate data proliferation with three additional Kumulus S 5U84 systems for a total capacity of 2PB.

Cost-Optimized Architecture.

This flexible solution is perfect for businesses with demanding streaming environments that require high read and write throughput, while still needing considerable storage space. Built to ensure all space is used to its maximum potential, application access to data is virtually instantaneous, ensuring IT and end users can work efficiently.

Easy to Set Up, Maintain, and Expand.

All system components—the enclosure, the controller, the firmware, and the drives—are developed and optimized by our engineers to work together seamlessly. This reduces support calls and eliminates technical learning curves. Modular architecture makes components interchangeable between systems, and upgrades are simple due to common FRUs, PCMs, controllers, and software.

Get Data to Applications Fast and Protect Valuable Assets.

This system is full of features that enable applications to access data with up to a 99.999% availability design. Parallel architecture, multi-core processing, data replication, and fast streaming make access to data unfettered, while exclusive data protection technology delivers fast drive rebuilds that virtually eliminate system downtime.

Build In Security at the Foundation of the Data Life Cycle.

Protect the most valuable business assets with cybersecurity features and intelligent firmware—such as SFTP, SED support, and administrator access controls—that provide built-in security measures for reliable and safe file access, transfer, and management.

Product Highlights

- Expand a data center seamlessly with single enclosures that host up to 1.1PB of data
- Seamlessly expand to 336 drives as business grows
- Efficiently manage hot and cold data with real-time data tiering option
- Deliver unfettered data access with dual redundant controllers capable of achieving up to 7GB/s sequential read, 5.5GB/s sequential write performance
- Rebuild drives faster than ever and reduce downtime with ADAPT data protection technology
- Opt for replication and snapshot features to meet critical enterprise requirements



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Specification	
3000-Series Controller Performance	3.5 GB/s read throughput 3 GB/s write throughput
4000-Series Controller Performance	Up to 320,000 IOPS 7GB/s read throughput 5.5GB/s write throughput
5000-Series Controller Performance	Up to 600,000 IOPS 7GB/s read throughput 5.5GB/s write throughput
Expansion BODs	Maximum of 3x 5U84 EBOD
Advanced Features	Thin provisioning Snapshots Asynchronous replication
High-Availability Features	Redundant hot-swap controllers Redundant hot-swap devices, fans, power Dual power cords Hot standby spare Automatic failover Multi-path support
Device Support	NL-SAS HDD, SAS HDD, SAS SSD, SATA SSD
Data Protection	ADAPT RAID levels supported: 0, 1, 3, 5, 6, 10, and 50
System Configuration	Up to 84 drives per chassis 1176TB max capacity per chassis (based on 14TB HDDs)
Physical	Height: 222.3mm / 8.75 in Width: 444.5mm / 17.5 in Depth: 981mm / 38.63 in Width w/ear mounts: 483mm / 19.01 in RBOD weight: 82kg / 180 lb RBOD weight (with drives): 135kg / 298 lb EBOD weight: 80kg / 175 lb EBOD weight (with drives): 130kg / 287 lb
Hosts	
External Ports	Up to 8 per system
Fibre Channel Models	Host speed: 16Gb/s, 8Gb/s Fibre Channel Interface type: SFP+
iSCSI Models	Host speed: 10Gb/s, 1Gb/s iSCSI Interface type: SFP+
System Configuration	
System Memory	Up to 32GB per system
Volumes per System	1,024
Cache	Mirrored cache: Yes Supercapacitor cache backup: Yes Cache backup to flash: Yes – nonvolatile
Management	
Interface Types	10/100/1000 Ethernet, Mini USB
Protocols Supported	SNMP, SSL, SSH, SMTTP, HTTP(S)
Management Consoles	Web GUI, CLI
Management Software	Storage management console Remote diagnostics Nondisruptive updates Volume expansion
Power Requirements—AC Input	
Input Power Requirements	100V-200V AC 50Hz/60Hz (346W maximum continuous)
Heat Dissipation	1181 BTUs/hour Gold-rated power supplies
Environmental/Temperature Ranges	
Operating/Nonoperating Temperature	RBOD: 5°C to 35°C (41°F to 95°F), EBOD: 5°C to 40°C (41°F to 104°F) / -40°C to +70°C (-40°F to +158°F)
Operating/Nonoperating Humidity	20% to 80% noncondensing / 5% to 100% noncondensing
Operating/Nonoperating Shock	5.0 Gs, 10ms, half sine pulses (Y-axis) / 30.0 Gs, 10ms, half sine pulses
Operating/Nonoperating Vibration	0.21 Gs rms 5Hz to 500Hz random / 1.04 Gs rms 2Hz to 200Hz random
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)
Emissions (EMC)	FCC CFR 47 Part 15 Subpart B Class A (United States) ICES/NMB-003 Class A (Canada) EN 55032 Class A, EN 55024, 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/KN 35 (S. Korea) CNS 13438 Class A (Taiwan)
Harmonics	EN 61000-3-2 (EU)
Flicker	EN 61000-3-3 (EU)
Immunity	EN 55024 (EU) KN 24/KN 35 (S. Korea)
Environmental Standards	The RoHS Directive (2011/65/EU) The WEEE Directive (2012/19/EU) The REACH Directive (EC/1907/2006) The Batteries Directive (2006/66/EC)
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)