# RackStation RS1619xs+

**Brand:** Synology

**Product Code:** RS1619xs+

**Availability:** 10 **Weight:** 8.16kg

**Dimensions:** 44.00mm x 480.00mm x

518.60mm

Price: 154,405.00EGP



Synology 4 Bay Rackstation RS1619xs+

#### **Description**

## Fast storage with outstanding computing power

RS1619xs+ is a high-performance and scalable 1U rackmount NAS designed with upgradable memory and M.2 SSD cache configuration to meet the needs of modern businesses that require a flexible, reliable, and efficient storage solution.



CPU

Quad-core up to 2.7GHz



RAM options

8GB DDR4 UDIMM, up to 64GB



## High Performance

1,523 MB/s sequential reading, 162,097 iSCSI random read IOPS



Scalability

Up to 16 drives with one RX1217/RX1217RP

## Variable options to boost system computing performance

Equipped with a PCIe 3.0 slot, RS1619xs+ supports installing a 10GbE/25GbE NIC for fast data transmission. Built-in M.2 2280 SSD cache slots further benefit IO-intensive tasks, such as virtualization or mail server deployment.

#### M.2 SSD support

Dual M.2 2280 slots supporting NVMe/SATA SSDs

## 10GbE/25GbE support

optional high-speed network capacity for bandwidth-intensive environments



# 5-year warranty

At Synology, we are committed to product innovation and quality. Synology guarantees a robust and reliable data management experience with a 5-year limited warranty, providing responsive technical support and hardware replacement services to maximize your return on investment.

## Complete iSCSI and virtualization solutions

Synology iSCSI storage supports most virtualization solutions such as VMware vSphere, Microsoft Hyper-V, Citrix Xen Server, and OpenStack Cinder to enhance work efficiency. You can run and manage multiple virtual machines on Windows, Linux, or DSM using Virtual Machine Manager.









#### Next-generation file system for better data protection

The Btrfs file system introduces advanced storage technologies and optimized snapshots to prevent data corruption and reduce maintenance overhead. While ensuring high-level data integrity, it also offers flexible, efficient data protection and recovery tools.

Flexible Shared Folder/User Quota System provides comprehensive quota control on all user accounts and shared folders

Snapshot Replication provides schedulable and storage capacity-saving data protection with 1,024 shared folder backups and 65,000 system-wide snapshots

File or folder level data restoration makes data recovery fast and flexible

Automatic file self-healing detects and recovers corrupted files without user intervention



## **Ultimate Backup Solution**

RS1619xs+ integrates various backup applications into an intuitive user interface, offering durable storage technologies to safeguard your valuable data on any device.



## **Active Backup for Business**

Centralize backup tasks for VMware, Windows, and file servers. Restore whatever you want fast and reliably when needed.



#### **Hyper Backup**

Comprehensively back up your data to a local shared folder, an external device, another Synology NAS, an rsync server, or a public cloud to ensure data safety.



#### **Drive Package**

Safeguard your computer with Synology Drive Client. Effortlessly perform real-time data backups and point-in-time file recovery.





#### **Active Backup for Microsoft 365 / Google Workspace**

Protect corporate data stored on the cloud. On-premise backup solution with a centralized dashboard. Optimize storage efficiency with single instancing and block-level deduplication technology.

Microsoft 365 Google Workspace

## **Digital asset protection**

Powered by Synology DiskStation Manager (DSM), Synology NAS offers advanced security measures to protect against sudden data loss and potential security holes.

#### **Security Advisor**

Analyze system settings, password strength and network preferences, and remove any possible malware.

#### **AppArmor**

A kernel-level enhancement that blocks malicious programs from accessing unauthorized system resources.

#### **AES 256-bit encryption**

Encrypt shared folders and network data transmission to avoid unauthorized data access.

#### 2-step verification

Prevent others from logging in to your DSM by generating a six-digit one-time password (OTP) on your mobile device.

# Powered by Synology DiskStation Manager

DSM UI
Award-winning operating system with an intuitive user interface and powerful capabilities.
Public Cloud Integration
Back up and synchronize data easily between public cloud accounts and your NAS.

**Synology High Availability** 

Seamless transition between clustered servers in the event of a server failure to minimize the impact on applications.
Snapshot Replication
Schedulable and instantaneous data protection of shared folders and iSCSI LUNs for quick disaster recovery.
Virtual Machine Manager
Run various operating systems in isolated sandboxes. Seamlessly clone, store, and migrate virtual machines.

#### **Security**

Shield your Synology NAS from the most sophisticated threats with industry-leading security solutions.

#### **Software**

**DSM Specifications** 

Storage Management

Maximum Single Volume Size

- 1 PB (64 GB memory required, for RAID 6 groups only)
- 200 TB (32 GB memory required)
- 108 TB

Maximum Internal Volume 256

Number

SSD Read/Write

Cache (Determining cache

size)

SSD TRIM RAID Group

Supported RAID Type

- RAID F1
- Basic
- JBOD
- RAID 0
- RAID 1
- RAID 5
- RAID 6
- RAID 10

#### **RAID Migration**

Volume Expansion with Larger HDDs

Volume Expansion by Adding a HDD

Global Hot Spare Supported RAID Type

Notes

- Basic to RAID 1
- Basic to RAID 5
- RAID 1 to RAID 5
- RAID 5 to RAID 6
- RAID F1
- RAID 1
- RAID 5
- RAID 6
- RAID 10
- RAID F1
- JBOD
- RAID 5
- RAID 6 (with Expansion Unit)
- RAID F1
- RAID 1
- RAID 5
- RAID 6 (with Expansion Unit)
- RAID 10 (with Expansion Unit)
- Usable capacity for each volume will be lower than the maximum volume size and is dependent on the filesystem and the amount of system metadata stored.
- When Peta Volume is enabled, validated services and packages are required. Please refer to this article for more information on limitations.
- Actual maximum storage pool and volume sizes depend on drive sizes used, the number of drive bays available, and

the RAID configuration.

• Volumes over 108 TB require 32 GB of memory or more.

**Internal Drives** File System

• Btrfs • ext4

**External Drives** 

• Btrfs

• ext4

• ext3

• FAT

NTFS

• HFS+

• exFAT

Notes exFAT Access can be

installed for free from

Package Center in DSM 7.0.

In DSM 6.2 or earlier versions, exFAT Access needs to be purchased in

Package Center.

File Services

• SMB

• AFP

• NFS

• FTP

• WebDAV

• Rsync

Maximum Concurrent 2,000

SMB/AFP/FTP Connections

Maximum Concurrent 10,000

SMB/AFP/FTP Connections

(with RAM expansion)

Windows Access Control

List (ACL) Integration

NFS Kerberos Authentication

Notes

• Regarding data concerning tests with RAM expansion, all memory slots are installed with the maximum capacity of supported RAM.

File Protocol

- During testing, the maximum number of SSDs supported by this model is installed in a RAID 5 configuration.
- The testing standard was based on the maximum number of concurrent connections supported by this model. During the testing, 25% of the connections were used to transfer files concurrently. The transfer process guaranteed that the connections were not interrupted; the minimum transfer speed was not

guaranteed.

Account & Shared Folder	Maximum Local User Accounts	16,000
	Maximum Local Groups	512
	Maximum Shared Folder	512
	Maximum Shared Folder	32
	Sync Tasks	
Hybrid Share	Maximum Hybrid Share	15
	Folders	
Hyper Backup	Folder and Package Backup	
	Entire System Backup	

Notes Full-system backup requires

DSM 7.2 or later.

<u>High Availability</u> Synology High Availability

<u>Log Center</u> Syslog Events per Second 3,000

Virtualization VMware ESXi 6.5 and VAAI

Windows Server 2016 Windows Server 2019 Windows Server 2022

Citrix Ready

	OpenStack			
General Specifications	Supported Protocols	SMB1 (CIFS), SMB2, SMB3, NFSv3, NFSv4, NFSv4.1, NFS Kerberized sessions, iSCSI, Fibre Channel, HTTP, HTTPs, FTP, SNMP, LDAP, CalDAV		
	Supported Browsers	<ul><li>Chrome</li><li>Firefox</li><li>Edge</li><li>Safari</li></ul>		
	Supported Language	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svenska, Nederlands, ???????, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, ?eský, ???????, ???, ???, ????, ????		
	Notes	For an updated list of supported browser versions, check the <u>DSM Technical</u> <u>Specifications</u> .		
Add-on Packages view the c				
Central Management System				
Synology Chat	Suggested Users Notes	Models with expandable memory are tested with their maximum supported memory.		
Download Station	Maximum Concurrent Download Tasks	80		
SAN Manager	Maximum iSCSI Target Number	256		
	Maximum LUN LUN Clone/Snapshot, Windows ODX	512		
	Notes	iSCSI Manager has been renamed to SAN Manager in DSM 7.0.		
Synology MailPlus /	Free Email Accounts	5 (Additional accounts		

#### MailPlus Server

Suggested Users Notes

# require purchase of licenses)

5,000

- Suggested users is derived from testing in an environment with 20% heavy users (each with 20,000 prepopulated emails and receiving 240 emails per day) and 80% light users (each receiving an average of 20 emails per day). Learn more
- The performance of the mail system will slightly decrease in high-availability mode due to data synchronization between the two servers.
- Functions that were enabled in all of the tests above: antispam, anti-virus, DNSBL, greylist, content scan, full-text search (English only).
- Models with expandable memory are tested with their maximum supported memory. To estimate the RAM requirement for your NAS, please read this article

Media Server **Synology Photos** 

**DLNA** Compliance **Facial Recognition Object Recognition** 

**Snapshot Replication** 

Maximum Snapshots per 1,024 **Surveillance Station** 

Shared Folder Maximum of System Snapshots Default Licenses

Suggested Maximum IP

Cameras and Total FPS

(H.264)

Suggested Maximum IP Cameras and Total FPS (H.265)

Notes

65,536

2 (Additional cameras require purchase of licenses)

- 1080p: 75 channels, 1050 FPS
- 3M: 60 channels, 600 FPS
- 5M: 40 channels, 400 FPS
- 4K: 28 channels, 280 FPS
- 1080p: 75 channels, 2250 FPS
- 3M: 75 channels, 1125 FPS
- 5M: 70 channels, 700 FPS
- 4K: 49 channels, 490 FPS
- Performance figures are obtained from testing conducted with the device fully populated with drives, with their default memory configuration, and under a continuous recording setup. Actual system capabilities may vary based on configuration, drive performance, enabled features, and the presence of additional workloads.
- Use <u>NVR Selector</u> to quickly find a suitable model based on your

- requirements.
- The number of streams that can be viewed simultaneously is twice the suggested maximum number of cameras. For example, if the suggested maximum number of cameras for a model is 10 under H.264, 1080p, the model can support up to 20 streams of the same specification at the same time.

**Synology Drive** 

Recommended Number of Concurrent Sync Clients

Recommended Number of Hosted Files

**Notes** 

1,800 (the number of connections that can be maintained when the recommended number of hosted files was reached) 50,000,000 (applies to files indexed or hosted by Synology Drive. For file access through other standard protocols, refer to the File Services section above)

- Exceeding the recommended numbers above will not block application operations, but may result in longer response time.
- Utilizing SSD cache can significantly improve performance.
- Models with expandable memory are tested with their maximum supported

memory.

 Btrfs file system and non-encrypted shared folders were used during the aforementioned testing.

**Synology Office** 

Suggested Users Notes

7,000

- Suggested users is derived from testing in an environment with 60% idle users (each logging in and viewing documents) and 40% active users (each executing random actions at intervals of 20 to 40 seconds) operating within documents, each document having 30 users. Learn more
- Models with expandable memory are tested with their maximum supported memory.
- Client performance may affect maximum simultaneous editing users. Client PCs used for testing: Intel Core i3-3220 / 8GB RAM

Virtual Machine Manager

Recommended Virtual

**Machine Instances** 

Recommended Virtual DSM 8 (including 1 Free License)

Number (Licenses required)

Notes The specifications vary

depending on system

8 (Learn more)

configuration and memory

size.

VPN Server Maximum Connections

60

#### **Specification**

Specification	
NAS	
CPU Model	Intel Xeon D-1527
CPU Quantity	1
CPU Core	4
CPU Architecture	64-bit
CPU Frequency	2.2 (base) / 2.7 (turbo) GHz
Hardware Encryption	Yes
Engine	
Memory	8 GB DDR4 ECC UDIMM
Drive Bays	4
Hot Swappable Drive	Yes
RJ-45 1GbE LAN Port	4
USB 3.2 Gen 1 Port	2
System Fan	40 mm x 40 mm x 2 pcs
Power Supply Unit /	150 watts
Adapter	
Total Memory Slots	4
Maximum Memory	64 GB (16 GB x 4)
Capacity	
Expansion Port	1
PCIe Expansion	1 x Gen3 x8 slot (x8 link)
Form Factor (RU)	1U
Redundant Power Supply	Yes

# **Product Gallery**