

Datasheet

RackStation

# **RS2825RP+**

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RackStation





# Reliable Data Management Solution for Business Workloads

The RS2825RP+ (redundant power) is a versatile and cost-effective 3U 16-bay storage system for central data storage and sharing, endpoint and server backup, surveillance management, and other business applications. Designed for small businesses and remote office deployments, this system features over 3,519/1,790 MB/s sequential read/write performance<sup>1</sup> and up to 560 TB of raw storage<sup>2</sup>, providing ample throughput and storage capacity to power business workloads. • Solid Performance Up to 3,519/1,790 MB/s sequential

read/write throughput<sup>1</sup> supports officewide applications

- On-Demand Expansion
   Scale up to 28 drive bays and 560 TB of raw storage<sup>2</sup> with a Synology RX1225RP expansion unit<sup>3</sup>
- Comprehensive Backups Protect your IT infrastructure with licensefree solutions for backup, replication, and recovery
- Availability Safeguards
   Hot-swappable drives, online volume

expansion, dual power supplies, and highavailability clustering ensure reliability

# **Robust Storage Server for Office Applications**

The 3U 16-bay rackmount RS2825RP+ is designed to help small and medium-sized businesses consolidate their data management onto one system. Built-in data protection solutions and extensive customization options make it an excellent option for all scenarios requiring dependable and cost-efficient data storage.

- Up to **3,519/1,790 MB/s sequential read/write** performance supports large data transfer volumes and enables fast file sharing, syncing, and backup for multiple users
- Supports 16 × 2.5" SATA SSD and 3.5" SATA HDD,<sup>4</sup> expandable to 28 drives for up to 560 TB of raw storage with a Synology RX1225RP expansion unit<sup>3</sup>
- All-flash and hybrid storage support provides flexibility for the use of SATA SSDs as storage volumes or as read/write cache to speed up HDD volumes. Additionally, Synology M.2 NVMe SSDs can be used as cache drives with an optional add-in card<sup>5</sup>
- One built-in 10GbE port and two Gigabit ports can be supplemented with additional 1/10/25GbE ports for increased redundancy or bandwidth via the PCIe 3.0 expansion slot<sup>6</sup>
- Hot-swappable drive trays and online volume management allow for storage management without downtime, while hot-swappable dual power supplies keep services running in case of issues with one power source

# **Built-in Data and Uptime Protection Solutions**

License-free solutions help protect data and configurations on your Synology system, ensure maximum system uptime, and back up and restore all your devices, VMs, and cloud applications.

- Synology High Availability provides fast failover between two identical Synology units to keep services available without interruption
- Snapshot Replication provides schedulable, rapid data protection and restoration with version control, ensuring that all shared folders and LUNs on your Synology system remain safe and available
- Hyper Backup protects your Synology system with full-system backups and backups of shared folders and configurations to multiple destinations with deduplication, integrity checks, compression, and versioning
- Synology Active Backup Suite lets you consolidate protection of Windows clients and servers, Linux endpoints, Synology systems, VMware<sup>®</sup> and Hyper-V<sup>®</sup> VMs, Microsoft 365 and Google Workspace, maximizing storage efficiency with data deduplication technology

# **Advanced Data Security Measures**

Synology offers a multi-layered approach to data security that protects against physical breaches, malicious attacks, and accidental deletions.

- Protect sensitive data against physical data breaches with full-volume encryption
- Safeguard your data against accidental or malicious deletion with **WORM-powered immutable snapshots** and **WriteOnce shared folders**
- Active Insight, Synology's cloud-based fleet monitoring solution, leverages machine learning to detect malware and other malicious activity and automatically creates immutable snapshots to protect your data<sup>7</sup>

# **Collaboration and Communication Hub for Teams**

Synology provides a private cloud solution for on-site and remote workers, as well as home users, to concurrently edit documents, share files, manage emails, send instant messages, manage photos, and more.

- Synology Drive serves as a centralized hub to keep your files labeled and organized for easy access, offering granular file sharing permissions and customizable security features to ensure file safety
- Synology Office enables users to collaborate on documents, spreadsheets, and presentation slides in real time, with support for universal file formats and unlimited file versioning for easy restoration
- Synology Chat brings teams together with one-on-one conversations, group channels, and encrypted private channels
- Synology MailPlus<sup>8</sup> provides a secure, reliable, and private email server with advanced admin tools to simplify troubleshooting and increase server security
- Synology Calendar helps teams keep track of priorities with convenient calendar sharing and scheduling
- Synology Hybrid Share enhances multi-site teamwork with a global hybrid cloud file system which combines the scalability of the cloud with the fast local access provided by Synology systems<sup>9</sup>

# **Reliable Virtualization and Containerization**

Leverage your Synology system as **virtual machine storage**, or as an alternative container or VM host. With certification for VMware<sup>®</sup> vSphere<sup>™</sup>, Microsoft<sup>®</sup> Hyper-V<sup>®</sup>, Citrix<sup>®</sup> XenServer<sup>™</sup>, and OpenStack environments, Synology systems seamlessly integrate with common virtualization and cloud platforms.

- **Synology Storage Console** for VMware or Windows platforms lets you manage VM storage components directly from your hypervisor. VMware VAAI integration and Windows ODX help offload storage operations and speed up data transfers
- Host lightweight containers and VMs with Container Manager and Synology Virtual Machine Manager, a native hypervisor that supports Windows, Linux, and virtual versions of DSM<sup>10</sup>

# **Build a Scalable and Centralized Surveillance System**

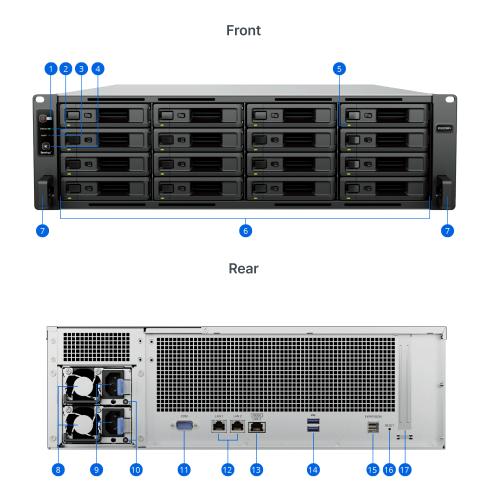
**Synology Surveillance Station** transforms any Synology system into a powerful network video recorder (NVR) for single site surveillance, or it can serve as a central storage repository and management platform for multiple sites.<sup>11</sup>

- 8,700+ supported camera models
- ONVIF support for a broader selection of cameras
- Private, subscription-free storage of recordings
- Access through web browsers, desktop clients, and mobile apps
- Event-based rules to trigger specific actions
- Email, SMS, and push notification options
- Manage up to hundreds of sites centrally using Surveillance Station Centralized Management System (CMS)
- Simultaneous recording to the cloud with C2 Backup for Surveillance for an extra layer of data protection and more convenient sharing<sup>12</sup>

#### Notes:

- 1. Performance figures obtained through internal testing by Synology. Actual performance may vary depending on the testing environment, usage, and configuration. See performance charts for more information.
- 2. Raw capacity calculated using 20 TB drives. Usable storage capacity may vary depending on drives used and RAID configuration.
- 3. Synology RX1225RP expansion unit sold separately.
- 4. Compatible drives are mandatory. Please consult our compatibility list before purchasing hard drives. For more details, please refer to this article.
- 5. Synology Enterprise SATA SSDs or M.2 NVMe SSDs enable SSD caching. M.2 NVMe SSDs can be installed with M2D20 or E10M20-T1 add-in cards. Drives sold separately.
- 6. For the most up-to-date list of compatible NICs, please check our compatibility list.
- 7. Synology Active Insight includes three free licenses. Additional licenses can be added with the purchase of an annual subscription.
- 8. Synology MailPlus includes five email accounts free of charge. Additional email accounts can be added with the purchase of Synology MailPlus License Packs. Learn more
- 9. Hybrid Share requires purchase of an annual or monthly subscription. A free trial is available for each newly registered device.
- 10. Certain advanced features require Virtual Machine Manager Pro. One Virtual DSM license is included. Additional Virtual DSM instances require the purchase of Virtual DSM Licenses.
- 11. Surveillance Station includes two free licenses. Connecting more cameras and devices requires additional licenses. Learn more
- 12. C2 Backup for Surveillance requires purchase of an eligible annual subscription. Each additional channel requires a separate subscription. A free trial is available.

# Hardware Overview



No.	Name	No.	Name
1.	Power button and indicator	10.	PSU indicators
2.	Status indicator	11.	Console port
3.	Alert indicator	12.	1GbE RJ-45 ports
4.	Alarm silence button	13.	10GbE RJ-45 port
5.	Drive status indicator	14.	USB 3.2 Gen 1 ports
6.	Drive trays	15.	Expansion port
7.	Rail kit release tabs	16.	Reset button
8.	PSU fans	17.	PCI Express expansion slot
9.	Power ports		

# **Technical Specifications**

# Hardware

CPU	
CPU Model	AMD Ryzen V1780B
CPU Quantity	1
CPU Architecture	64-bit
CPU Frequency	3.35 (base) / 3.6 (turbo) GHz
Hardware Encryption Engine	Yes
Memory	
System Memory	8 GB DDR4 ECC UDIMM
Memory Module Pre-installed	8 GB (8 GB x 1)
Total Memory Slots	2
Maximum Memory Capacity	32 GB (16 GB x 2)
Notes	Please select Synology memory modules for optimum compatibility and reliability. Synology will not provide complete product warranty or technical support if non-Synology memory modules are used for memory expansion.
Storage	
Drive Bays	16
Maximum Drive Bays with Expansion Unit	28 (RX1225RP x 1)
Drive Type	• 3.5" SATA HDD
	• 2.5" SATA SSD
Hot Swappable Drive	Yes
Notes	Compatible drives are mandatory. Please consult our compatibility list before purchasing hard drives. For more details, please refer to this article.

#### **External Ports**

RJ-45 1GbE LAN Port	2
RJ-45 10GbE LAN Port	1
USB 3.2 Gen 1 Port	2
Expansion Port	1
PCle	
PCIe Expansion	1 x Gen3 ×8 slot (x4 link)
Appearance	
Form Factor (RU)	3U
Size (Height x Width x Depth)	132.3 mm x 482 mm x 656.5 mm
Weight	17.3 kg
Rack Installation Support	4-post 19" rack (Synology Rail Kit - RKS-02)
Notes	The rail kit is sold separately
Others	
System Fan	80 mm x 80 mm x 32 mm x 3 pcs
AC Input Power Voltage	100 V to 240 V AC
Power Frequency	50/60 Hz, Single Phase
Temperature	
Operating Temperature	0°C to 35°C (32°F to 95°F)
Storage Temperature	-20°C to 60°C (-5°F to 140°F)
Relative Humidity	5% to 95% RH
Maximum Operating Altitude	5,000 m

# **General DSM Specifications**

#### Storage Management

Maximum Single Volume Size	• 200 TB (32 GB memory required)
	• 108 TB
Maximum Internal Volume Number	32
SSD Read/Write Cache (Determining cache size)	Yes
Supported RAID Type	Synology Hybrid RAID, Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, RAID 10
Notes	<ul> <li>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.</li> </ul>
	• Volumes over 108 TB require 32 GB of memory or more.
File System	
Internal Drives	Btrfs
External Drives	Btrfs, ext4, ext3, FAT32, NTFS, HFS+, exFAT
File Services	
File Protocol	SMB, AFP, NFS, FTP, WebDAV, Rsync
Maximum Number of SMB Connections (FSCT-Based) with RAM Expansion	560
Windows Access Control List (ACL) Integration	Yes
NFS Kerberos Authentication	Yes
Account & Shared Folder	
Maximum Local User Accounts	1,024
Maximum Local Groups	256
Maximum Shared Folder	256
Maximum Shared Folder Sync Tasks	12

#### Virtualization

VMware ESXi 6.5 and VAAI	Yes	
Windows Server 2022	Yes	
Citrix Ready	Yes	
OpenStack	Yes	

#### Security

Firewall, encryption shared folder, SMB encryption, FTP over SSL/TLS, SFTP, rsync over SSH, login auto block, Let's Encrypt support, HTTPS (customizable cipher suite)

#### **General Specifications**

Supported Protocols	SMB1 (CIFS), SMB2, SMB3, NFSv3, NFSv4, NFSv4.1, NFS Kerberized sessions, iSCSI, HTTP, HTTPs, FTP, SNMP, LDAP, CalDAV
Supported Browsers	Chrome, Firefox, Edge, Safari
Supported Language	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svenska, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, ภาษาไทย, 日本語, 한국 어, 繁體中文, 简体中文
Notes	For an updated list of supported browser versions, check the DSM Technical Specifications.

## **Packages and Applications**

#### **Synology Drive**

Synchronizes files across Windows®, macOS®, Linux®, Android™ and iOS. The built-in cross-platform portal allows access to data anytime and anywhere

Maximum Number of Users	1,000
Maximum Number of Hosted Files	15,000,000 (applies to files indexed or hosted by Synology Drive. For file access through other standard protocols, refer to the File Services section above)

#### **File Station**

Provides virtual drives, remote folders, Windows® ACL editor, compression/extraction of archived files, bandwidth control for specific users/groups, creation of sharing links, and transfer logs

#### Hybrid Share

Efficiently synchronizes files across sites by keeping shared data on Synology C2 Storage and streaming files to Synology NAS worldwide on request. Frequently requested files are cached at each site for low-latency access C2 Storage for Hyper Backup and Hybrid Share requires purchase of an annual or monthly subscription. A free trial is available for each newly registered device.

SAN Manager	
Maximum iSCSI Target Number	64
Maximum LUN	128
LUN Clone/Snapshot, Windows ODX	Yes
Virtual Machine Manager	
Recommended Virtual Machine Instances	8 (Learn more)
Recommended Virtual DSM Number (Licenses required)	8 (including 1 Free License)
Hyper Backup	
Supports local backup, network backu Storage	o, and data backup to other servers and public clouds, including C2
Snapshot Replication	
Snapshot Replication Maximum Snapshots per Shared Folder	256
Maximum Snapshots per Shared	256 4,096
Maximum Snapshots per Shared Folder	
Maximum Snapshots per Shared Folder Maximum of System Snapshots Synology High Availability	
Maximum Snapshots per Shared Folder Maximum of System Snapshots Synology High Availability	4,096
Maximum Snapshots per Shared Folder Maximum of System Snapshots Synology High Availability Reduces service downtime by combinin	4,096
Maximum Snapshots per Shared         Folder         Maximum of System Snapshots         Synology High Availability         Reduces service downtime by combining         Synology Chat	4,096 ng two identical NAS into a high-availability cluster

#### Synology MailPlus / MailPlus Server

A secure, reliable, and private mail solution featuring high-availability, load balancing, security, and filtering options

Free Email Accounts	5 (Additional accounts require purchase of licenses)
Maximum Number of Users	1,100

#### **Surveillance Station**

Default Licenses	2 (Additional cameras require purchase of licenses)	
Suggested Maximum IP Cameras and	• 1080p: 90 channels, 2250 FPS	
Total FPS (H.264)	• 3M: 90 channels, 1500 FPS	
	• 5M: 90 channels, 900 FPS	
	• 4K: 55 channels, 550 FPS	
Suggested Maximum IP Cameras and	• 1080p: 90 channels, 2700 FPS	
Total FPS (H.265)	• 3M: 90 channels, 2250 FPS	
	• 5M: 90 channels, 1500 FPS	
	• 4K: 90 channels, 1080 FPS	

#### **Central Management System**

Provides a single interface to manage and monitor multiple Synology NAS

#### **VPN Server**

**Maximum Connections** 

12

#### Other packages

Additional 3rd-party packages are available in the Package Center

## **Environment & Packaging**

#### **Environment safety**

**RoHS** Compliant

#### **Packaging Content**

- Main Unit X 1
- Accessory Pack X 1
- AC Power Cord X 2

#### **Optional Accessories**

- DDR4 ECC UDIMM: D4EU02-8G/D4EU02-16G
- Expansion Unit: RX1225RP
- Enterprise Series 3.5" SATA HDD: HAT5300 Series
- Plus Series 3.5" SATA HDD: HAT3300 Series
- Enterprise Series 2.5" SATA SSD: SAT5200 Series
- M.2 SSD & 10GbE Combo Adapter Card: E10M20-T1
- M.2 SSD Adapter Card: M2D20
- 25GbE Network Interface Card: E25G30-F2
- 10GbE Network Interface Card: E10G21-F2/E10G30-T2/E10G18-T1
- Rail Kit Sliding: RKS-02

#### Warranty

3-year hardware warranty, extendable to 5 years with EW202 or Extended Warranty Plus

Notes

- The warranty period starts from the purchase date as stated on your purchase receipt. (Learn more)
- Extended Warranty Plus is only available in Europe and North America. EW201/EW202 is only available in Asia, Africa, and Oceania. For exact availability information please visit their respective websites.

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