



# RackStation RS3413xs+

Synology RackStation RS3413xs+ provides the reliable, superior-performance network attached storage solution for enterprises seeking uninterrupted service with comprehensive business applications. Scalable up to 136 TB, Synology RackStation RS3413xs+ simplifies data management, optimizes virtualization environments, and rapidly expands storage capacity with minimal time investment in setup and maintenance. Synology RS3413xs+ is backed with Synology's 3-year limited warranty.

## Highlights

- Superior performance at 2000+ MB/sec throughput and 200,000+ IOPS
- SSD Cache Technology boosts throughput
- Scale up to 34 HDDs with Synology RX1211
- VMware® vSphere 5 & VAAI certified
- Encryption acceleration with AES New Instructions
- High Availability and Disaster Recovery solutions
- Backed with Synology's 3-year limited warranty

## Superior Performance

RS3413xs+ delivers superior performance at over 2,000 MB/sec throughput and 200,000 IOPS under RAID 5 configuration with link aggregation.<sup>1</sup> Through advanced flash technology, the combination of hard drives and read-optimized SSD cache boosts throughput efficiently while minimizing cost per gigabyte.

In addition to default 4 Gigabit ports, RS3413xs+ supports dual 10GbE with the add-on PCI Express x8 Gen2 Network Interface Card for maximized bandwidth, bringing you the superior performance that data-intensive applications demand of your storage system.

Equipped with 8GB RAM and up to 32GB ECC RAM expansion support, RS3413xs+ ensures data accuracy as well as superior performance to provide a rigorous foundation for the mission-critical tasks of your business.

## Reliability, Availability & Disaster Recovery

System reliability is of paramount importance to businesses which depend upon their commercial servers every day. RS3413xs+ responds to these concerns with wide-ranging availability and redundancy features:

- Synology High Availability Manager ensures seamless transition between clustered servers in the event of server failure with minimal impact to applications.<sup>2</sup>
- Shared Folder Sync replicates data in real-time to another Synology NAS at a remote location for prompt disaster recovery to meet the Recovery Time Objective (RTO) of your business
- Redundant data paths, power supplies, system fans, and network ports with failover support ensure continual service uptime.
- High reliability system design including fan-less CPU heat-sink and passive cooling technology prevents single point of failure.
- ECC RAM modules detect and correct errors during data transmission.



**Figure 1) Reliability, Availability & Disaster Recovery**

Synology High Availability Manager ensures seamless transition between clustered servers in the event of server failure with minimal impact to businesses.

## Robust Scalability

With up to 136 TB of total storage capacity<sup>3</sup>, RS3413xs+ is designed to grow with businesses and provides the ability to seamlessly expand a single volume up to 108TB on the fly.

RS3413xs+ supports up to 34 SATA, or SSD drives for flexible capacity and balanced performance to meet the needs of varying applications and processes. When the storage capacity of RS3413xs+ nears its limit, expansion is easily accomplished with Synology RX1211 via an InfiniBand<sup>®</sup> cable that carries 12 Gb/s SATA signal to maximize data transmission throughput between main server and expansion units.

Management of the large storage space on RS3413xs+ is simple and flexible. Multiple Volumes on RAID allows users to create more than one volume on a RAID structure, providing a flexible and efficient way to manage the storage across all hard drives. When the need for more space arises, the volume could be easily expanded without any service disruption.

## Unified Storage System

By integrating file-level (NAS) and block-level (SAN) storage into one unified storage system, RS3413xs+ enables businesses to cost-effectively manage multi-protocol data and reduce total cost of ownership:

- Comprehensive network protocol support (CIFS/SMB, AFP and NFS) ensures seamless file sharing across Windows<sup>®</sup>, Mac<sup>®</sup>, and Linux<sup>®</sup> platforms.
- Affordable and cost-effective iSCSI allows large scale business to consolidate storage into data center storage arrays.
- Thin provisioning, available for file-level iSCSI LUN, maximizes storage utilization by enabling administrators to oversubscribe provision and grow storage space as needed.

## Virtualization-Ready

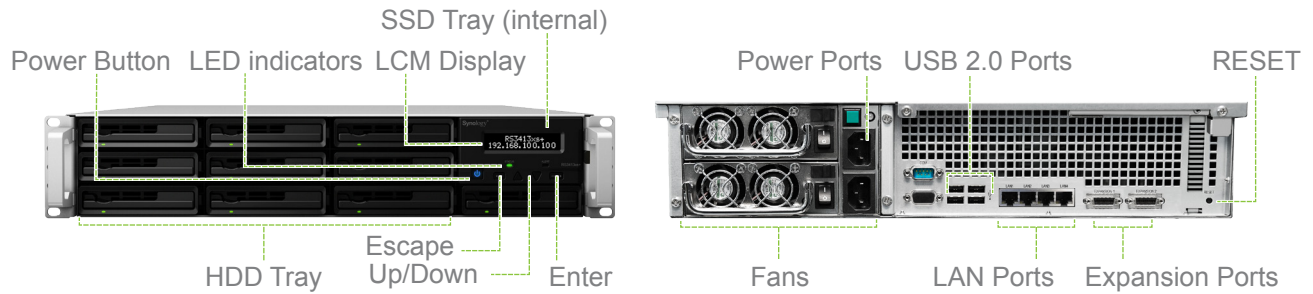
RS3413xs+ provides seamless storage solutions for virtualization environments, including VMware, Citrix<sup>®</sup>, and Hyper-V<sup>®</sup>. VMware vSphere<sup>®</sup> 5 and VAAI integration certified<sup>2</sup>, RS3413xs+ helps offload specific storage operations and optimizes computation power for unparalleled performance and efficiency in VMware environments. As the centralized storage of a virtual environment, RS3413xs+ enables virtual machine migration, allowing movement from server to server whilst eliminating service downtime and disruption to user.

## Comprehensive Business Applications

Powered by the innovative Synology DiskStation Manager (DSM), RS3413xs+ comes fully-equipped with applications and features designed specifically for large-scale business:

- Easy integration with existing business network environments through Windows AD and LDAP directory services without recreating user accounts.
- Windows ACL support provides fine-grained access control and efficient privilege settings, allowing RS3413xs+ to fit seamlessly into current infrastructure.
- Built-in backup applications protect information assets by regularly backing up files and iSCSI LUNs locally and remotely.
- Continuous data protection with snapshots of shared folders allows restoration of previous versions when the need arises.
- Advanced Encryption Standard (AES) on shared folders with hardware acceleration ensures security without compromising access performance.

# Connections & Buttons



## Technical Specifications

### Hardware

CPU Frequency	Quad Core™ 3.3GHz
Hardware Encryption Engine	Yes (AES-NI)
Memory	8GB ECC RAM(Expandable, up to 32GB)
Internal HDD/SSD	3.5" or 2.5" SATA X 10 (hard drives not included)
Max Internal Capacity	40TB (10 X 4TB HDD) (The actual capacity will differ according to volume types)
External Storage Interface	USB 2.0 X 4, SATA expansion port X 2
Size (HxWxD) (mm)	88 X 445 X 570
Weight	15.61 Kg
LAN	Gigabit X 4 (optional 10GbE X 2 add-on card is supported)
Wake on LAN/WAN	Yes
Wireless Support	Yes
Noise Level	54.6 dBA
AC Input Power Voltage	100V to 240V AC
Power Frequency	50 / 60Hz, Single Phase
Operating Temperature	5°C to 35°C (40°F to 95°F)
Storage Temperature	-10°C to 70°C (15 to 155°F)
Relative Humidity	5% to 95% RH
Power Consumption <sup>4</sup>	Access: 144W, HDD Hibernation: 96W

### Applications

File Station	Virtual Drive, Remote Folder
Backup Solutions	Network Backup, Local Backup, Desktop Backup (Window: Synology Data Replicator; Mac: Apple®; Time Machine® backup application); Shared Folder Sync - Max Task Number : 32, Configuration Backup
Mail Server	Supported Mail Server Protocols: POP3, SMTP, IMAP
FTP Server	Bandwidth Control, Custom FTP Passive Port Range, Anonymous FTP, Transfer Log
Web Station	Virtual Host (up to 30 websites), PHP/MySQL®, 3rd-Party Applications Support
Printer Server	Max Printer #: 2, Printing Protocols: LPR, CIFS, IPP, Apple AirPrint™, Google Cloud Print™, Multi Functional Print Server (MFP functions are for Windows PC only)
iOS/Android™ Applications	DS photo+, DS audio, DS cam, DS file, DS finder
Windows Phone Applications	DS finder, DS photo+, DS audio

## Add-on Packages

Surveillance Station	Default IP cam #: 1, MAX IP cam # (licenses required): 70 (with 10 GbE add-on card. One free license to install one IP camera. Additional licenses can be purchased to expand the license quota.)
Directory Server	LDAP Directory Server, Backup and Restore LDAP Database
VPN Server	Maximum Connections: 30, VPN Method: PPTP, OpenVPN™
DHCP Server	Independent DHCP Server on Different Network Interfaces, Multiple Subnets Support, Address Reservation
Syslog Server	SSL Connection, Log Rotation, Email Notification
Mail Station	Webmail Interface for Mail Server, Receiving Mails from Multiple POP3 Mailboxes, Customizable SMTP Server
Antivirus Essential	Full System Scan, Scheduled Scan, White List Customization, Virus Definition Auto Update
Time Backup	Maximum Task Number: 32, Multiple File Versions Retained, Instant File Restoration
Cloud Station	Maximum User Accounts: 64, Retain Historical and Deleted File Versions
DLNA®/UPnP® Media Server	DLNA certified, PS3®/Xbox 360® Support
Download Station	Supported Download Protocols: BT/HTTP/FTP/NZB/eMule Maximum Concurrent Download Tasks : 80
Other Packages	Photo Station, Audio Station, iTunes® Server, 3rd-party packages

## General

Networking Protocols	CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN)
File System	EXT4, EXT3 (External Disk Only), FAT (External Disk Only), NTFS (External Disk Only)
Storage Management	Max File System Size: 108TB, Max Internal Volume #: 1024, Max iSCSI Target #: 128, Max iSCSI LUN#: 512, Supported RAID Type : Synology Hybrid RAID, Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, RAID 10, Hot Spare Supported RAID Type: RAID 5, Synology Expansion Unit Support: RX1211 & RX1211RP
File Sharing Capability	Max User Account: 4096, Max Group: 512, Max Shared Folder: 512, Max Concurrent CIFS/AFP/FTP Connections : 1024
Privilege	Windows Access Control List (ACL)
Virtualization	VMware vSphere 5, Microsoft® Hyper-V, Citrix Ready
Directory Service	Windows AD Integration: Domain Users login via Samba (CIFS)/AFP/FTP/File Station, LDAP Integration
Security	FTP over SSL/TLS, IP Auto-Block, Firewall, Encrypted Network Backup over Rsync, HTTPS Connection
Utilities	Synology Assistant, Synology Data Replicator 3
Supported Clients	Windows XP onward, Mac OS X® 10.5 onward, Ubuntu 9.04 onward
Supported Browsers	Chrome, Internet Explorer®: 8, 9, Firefox®, Safari® (Mac): 5
Language	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svensk, Nederlands, Русский, Polski, Mag Português do Brasil, Português Europeu, Türkçe, Český, 日本語, 한국어, 繁體中文, 简体中文

## Environment and Packaging

Environment	RoHS Compliant
Package Content	RS3413xs+ Main Unit, Installation Disc, Welcome Note, Assembling Kit, AC Power Cord x 2
Optional Accessories	Remote, Camera License Pack, Rail Kit, 4GB ECC RAM Module, Expansion Unit (RX1211/RX1211RP X 2)
Warranty	3 years

\*Model specifications are subject to change without notice. Please refer to [www.synology.com](http://www.synology.com) for the latest information.

1. Tested with dual 10GbE connection with Link Aggregation. The performance figures could vary on different environments.
2. Only available with DSM 4.1 or newer.
3. RS3413xs+ supports up to two Synology RX1211/RX1211RP, purchased separately.
4. Measured with 12 Western Digital® 2TB WD2002FYPS hard drive. The figures could vary on different environments.

## SYNOLOGY INC.

Synology is dedicated to taking full advantage of the latest technologies to bring businesses and home users reliable and affordable ways to centralize data storage, simplify data backup, share and sync files across different platforms, and access data on-the-go. Synology aims to deliver products with forward-thinking features and the best in class customer services.

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