Synology RackStation RS3412xs/RS3412RPxs

Ultra-High performance NAS Server Scales up to 100TB for Large Scale Business

Synology® DiskStation RS3412xs/RS34 offers ultra-high performance, scalable and full-featured network attached storage solution for large scale businesses that require an efficient way to centralize data protection, simplify data management, deploy virtualization solutions, and rapidly expand storage capacity with minimal time spent on setup and management. Synology RS3412xs/RS3412RPxs is backed with Synology's 3-year limited warranty.

Highlights

- Ultra-high performance of 1000+ MB/sec throughput and 100,000+ IOPS[1]
- Scale up to 100TB with Synology RX1211/RX1211RP[2]
- Dual 10GbE ports support (with PCI-E add-on card)
- VMware®, Citrix®, Microsoft® Hyper-V® compliance
- CPU Passive Cooling Technology
- Expandable ECC RAM module (up to 6GB)
- Redundant Power Supply Unit (RS3412RPxs only)
- Running on Synology DiskStation Manager (DSM)

Ultra-High Performance

With Link Aggregation, Synology RS3412xs/RS3412RPxs delivers the high performance of over 1000 MB/sec throughput and 100,000 IOPS under RAID 5 configuration[1]. In addition to the default 4 Gigabit ports, dual 10GbE are supported with the add-on PCI Express x8 Gen2 Network Interface Card to maximize the system bandwidth. RS3412xs/RS3412RPxs is able to bring you the ultra-high performance that your data-intensive application demands on the storage system.

High Reliability & Availability

Reliable functioning of commercial systems is of paramount concern to business users that depending on these servers everyday. Synology RS3412xs/RS3412RPxs is now introduced with the fanless CPU heatsink to prevent the single point of failure, with the CPU passive cooling technology RS3412xs/RS3412RPxs achieves the high reliability system design.

The network ports with failover support combining with hot-swappable drives will ensure continual service uptime during drives replacement or unexpected LAN failure. The ECC RAM module on RS3412xs/RS3412RPxs will detect and correct errors that occur during data transmission. Supporting up to 6GB ECC RAM, RS3412xs/RS3412RPxs provides secure data protection and performance to meet the need of large scale businesses for a strong foundation to face mission-critical tasks.

Robust Scalability Up to 100 TB

Synology RS3412xs/RS3412RPxs is also designed to grow with your business and provides the ability to seamlessly expand a single volume up to 100TB on the fly. When the storage capacity of RS3412xs/RS3412RPxs is nearing its limits, it can easily be expanded with Synology RX1211/RX1211RP[2]. It is connected to RS3412xs/RS3412RPxs via an Infiniband cable that carries 12 Gb/s SATA signal to ensure maximum throughput.

Management of the large storage space on RS3412xs/RS3412RPxs 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.

RS3412xs/RS3412RPxs

RX1211/RX1211RP

Unified Storage and Virtualization Ready

Synology RS3412xs/RS3412RPxs runs on the novel operating system, Synology DiskStation Manager (DSM), which integrates file-level and block-level storage in one unified storage system platform providing management simplicity to reduce your total cost of ownership.

Comprehensive network protocol support (CIFS/SMB, AFP and NFS) assures seamless file sharing across Windows®, Mac®, and Linux platforms. iSCSI is also supported as the ideal alternative to SAN solution for business.

Affordable and cost-effective iSCSI allows large scale business to consolidate storage into data center storage arrays while providing hosts with the illusion of locally-attached disks. With the iSCSI support, RS3412xs/RS3412RPxs provides a seamless storage solution for virtualization servers, such as VMware, Citrix, and Hyper-V. RS3412xs/RS3412RPxs is also certified with the latest VMware vSphere® 5, supporting VMFS-5 and extended storage migration capability with better flexibility and higher performance in VMware virtualization platform.

Thin Provisioning is available for file-level iSCSI, enabling administrators to oversubscribe provision and then grow storage space as needed in safety. With Thin Provisioning, users are able to maximize the storage utilization to reduce the total cost of ownership for the storage system.

Full-featured Business Applications

The Synology RS3412xs/RS3412RPxs offers applications and features designed specifically for large scale business. Windows ADS and LDAP integration allows RS3412xs/RS3412RPxs to quickly and easily fit in an existing business network environment without recreating user accounts. Windows ACL support on RS3412xs/RS3412RPxs provides much finer-grained access control and efficient privilege settings, allowing IT staffs to set up privileges to files and folders on RS3412xs/RS3412RPxs through their familiar Windows user interface.

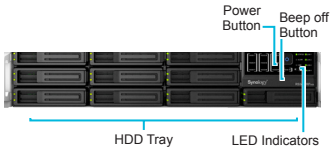
The built-in backup application is provided for backing up data in the RS3412xs/RS3412RPxs to another Synology NAS, expansion unit, any rsync server via an encrypted transmission. It is even possible to back up from RS3412xs/RS3412RPxs to the cloud with the Amazon® S3 support. Shared Folder Sync is also available in DSM for implementing disaster recovery plans. With Shared Folder Sync, RS3412xs/RS3412RPxs is able to replicate data to another DiskStation within the Intranet or across the Internet, helping to reduce the risk of business interruption.

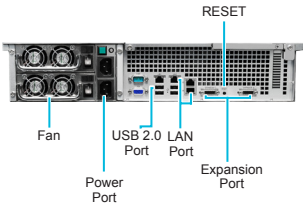
Energy Efficient Design

Synology RS3412xs/RS3412RPxs is designed and developed with energy efficiency in mind. Compared with the average storage server counterparts, RS3412xs/RS3412RPxs consumes a relatively low amount of power and have the hard drives hibernate when not in use.

All Synology products are produced with RoHS compliant parts and packed with recyclable packing materials. Synology acknowledges the responsibility as a global citizen to continually work to reduce the environmental impact of every product produced.

CONNECTIONS & BUTTONS





Technical Specifications

Hardware

- CPU: Dual Core 3.1GHz, with floating point
- RAM Size: ECC RAM 2GB
- Internal HDD[1]: 10X 3.5" SATA(II) or 10X 2.5" SATA/SSD
- External HDD Interface: 4X USB ports
- Expansion Interface: 2X Expansion port
- Rail Kit: Synology 2U Rail Kit Sliding (optional)
- Size: (H X W X D)
  - RS3412xs: 88mm X 445mm X 570mm
  - RS3412RPxs: 88mm X 445mm X 570mm
- Weight:
  - RS3412xs: 12.77kg
  - RS3412RPxs: 14.87kg
- LAN: 4X Gigabit (optional 10 GbE X2 add-on card is supported)
- Fan: 4X (80mm X 80mm)
- Wireless Support (wireless dongles not included)
- Wake on LAN
- Noise Level:
  - RS3412xs: 41.0 dB
  - RS3412RPxs: 41.8 dB
- Hot Swappable HDD
- Power Recovery
- Redundant Power Supply: RS3412RPxs only
- AC Input Power Voltage: 100V to 240V
- Power Frequency: 50Hz to 60Hz, Single Phase
- Max Internal Capacity: 30TB (10X 3TB hard drives)[4]
- Operating Temperature: 5°C to 35°C (40°F to 95°F)
- Storage Temperature: -10°C to 70°C (15°F to 155°F)
- Relative Humidity: 5% to 95% RH
- Max Operating Altitude: 10,000 feet
- Power Consumption[5]: 115.5W (Access); 57.2W (HDD Hibernation)
- Certification: FCC Class A, CE Class A
- 3-year Limited Warranty

Applications

File Browser
- Virtual Drive
- Remote Folder

File Station

FTP Server
- Bandwidth Control
- Custom FTP Passive Port Range
- Anonymous FTP
- Transfer Log

Mail Server
- Supported Mail Server Protocol : POP3, SMTP, IMAP

Web Station
- Virtual Host (up to 30 websites)
- PHP/MySQL®
- Alternative HTTP Error Page
- 3rd-Party Applications Support

Surveillance Station
- Default IP cam #: 1
- MAX IP cam # (licenses required): 50 (1 free license to install 1 IP camera. Additional licenses can be purchased to expand the license quota.)

Photo Station
- Facebook Integration
- Supported Image Format: BMP, JPG (jpe, jpeg), GIF, RAW (arw, srf, sr2, dcr, k25, kdc, cr2, crw, nef, mrw, ptx, pef, raf, 3fr, erf, mef, mos, orf, rw2, dng, x3f)
- Supported Video Format[6]: 3G2, 3GP, ASF, AVI, DAT, DivX, FLV, M4V, MOV, MP4, MPEG, MPG, QT, WMV, XviD, RM, RMVB, VOB, RV30, RV40, AC3, AMR, WMA3

Download Station
- Supported Download Protocols: BT/HTTP/FTP/NZB/eMule
- Custom BT Port Range
- BT / eMule Bandwidth Control

Audio Station
- Supported Audio Format: (USB Mode) AAC, FLAC, M4A, MP3, Ogg Vorbis, WMA, WMA VBR; (Streaming Mode) MP3, M4A, M4B
- Supported Playlist Format: M3U, WPL
- Internet Radio: SHOUTcast®, Radioio®

DLNA®/UPnP® Media Server
- DLNA Certified
- PS3/Xbox 360® Support
- Supported Audio Format: AAC, FLAC, M4A, MP3, Ogg, Vorbis, PCM, WAV, WMA, WMA VBR, WMA PRO, WMA Lossless
- Supported Video Format: 3GP, 3G2, ASF, AVI, DAT, DivX, DVR-MS, ISO, M2T, M2TS, M4V, MKV, MP4, MPEG1, MPEG2, MPEG4, MTS, MOV, QT, SWF, TP, TRP, TS, VOB, WMV, XviD, RV30, RV40, AC3, AMR, WMA3
- Supported Image Format: BMP, JPG (jpe, jpeg), GIF, ICO, PNG, PSD, TIF (tiff), UFO, RAW (arw, srf, sr2, dcr, k25, kdc, cr2, crw, nef, mrw, ptx, pef, raf, 3fr, erf, mef, mos, orf, rw2, dng, x3f)
- Supported Subtitles Format: srt, psb, smi, ass, ssa, sub, idx, ifo

iTunes® Server
- Supported Audio Format[7]: MP3, M4A, M4P, WAV, AIF
- Supported Video Format: M4V, MOV, MP4
- Supported Playlist Format: M3U, WPL

Printer Server
- Max Printer #: 2
- Printing Protocols: LPR, CIFS, AppleTalk®, Apple AirPrint™, Google Cloud Print™ (For Mac users, RS3412xs/RS3412RPxs supports PostScript USB printers only.)
- Multi Functional Print Server

Synology Packages
- Mail Station 2
- Squeezebox Server™
- Webalizer
- phpMyAdmin
- Time Backup
- VPN Server
- WordPress®
- Syslog Server
- Directory Server
- HiDrive® Backup
- OpenERP
- HASP

iOS® and Android™ Applications
- DS photo+
- DS audio
- DS cam
- DS file
- DS finder

General Specifications

Networking Protocols
- CIFS, AFP, FTP, iSCSI, Telnet, SSH, NFS, SNMP, WebDAV, CalDAV

File System
- EXT4
- EXT3 (External Disk Only)
- FAT (External Disk Only)
- NTFS (External Disk Read Only)

Volume Management
- Synology Hybrid RAID
- Max Volume #: 1024
- Max iSCSI Target #: 64
- Max iSCSI LUN #: 512
- Volume Type: Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 5+Spare, RAID 6, RAID 10
- RAID Migration: from Basic to RAID 1, Basic to RAID 5, Basic to RAID 5+Spare, RAID 1 to RAID 5, RAID 1 to RAID 5+Spare, RAID 5 to RAID 5+Spare, RAID 5 to RAID 6
- Expand RAID 1, RAID 5, RAID 5+Spare or RAID 6 with Larger Hard Drives
- Expand RAID 5, RAID 5+Spare or RAID 6 by Adding a Hard Drive On The Fly
- Volume Expansion with RX1211/RX1211RP

File Sharing Capability
- Max User Account: 4096
- Max Group: 512
- Max Shared Folder: 512
- Max Concurrent Connections (CIFS, FTP, AFP): 1024

Windows Access Control List (ACL) Support

Windows ADS Domain Integration
- Domain Users login via Samba/AFP/FTP/File Station

Backup Solutions
- Network Backup
- Shared Folder Sync
- Local Backup
- Time Backup
- Desktop Backup (using Synology Data Replicator 3 or Apple® Time Machine® backup application)
- 3rd-Party Backup Support

Security
- FTP over SSL/TLS
- IP Auto-Block
- Firewall
- Encrypted Network Backup over Rsync
- HTTPS Connection

Management
- DSM Upgrade
- Email Notification
- SMS Notification
- Customized User Quota
- DDNS Support
- PPPoE
- Resource Monitor
- UPS Management
- Scheduled Power On/Off
- Custom Management UI HTTP/HTTPS Ports

HDD Management
- Deep Sleep for Expansion Unit
- HDD Hibernation
- S.M.A.R.T.
- Dynamic Bad Sector Mapping

Utilities
- Synology Assistant
- Synology Data Replicator

Support Browsers
- Chrome™
- Internet Explorer® 7, 8, and 9
- Firefox®
- Safari® 4 and 5 (Mac)

Supported Clients
- Windows XP onward
- Mac OS X 10.5 onward
- Ubuntu 9.04 onward

Language
- English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svensk, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, 日本語, 한국어, 繁體中文, 简体中文

Environment and Packaging

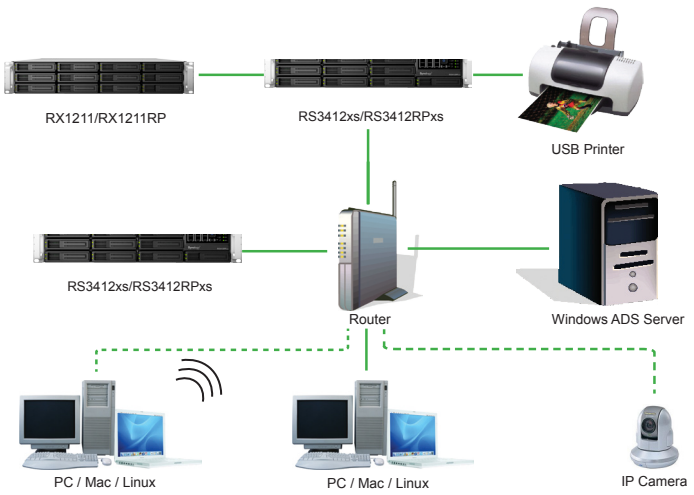
Environment
- RoHS Compliant

Package Content
- RS3412xs/RS3412RPxs Main Unit
- Installation DVD
- Welcome Note
- Assembling Kit
- AC Power Cord
  - RS3412xs: x 1
  - RS3412RPxs: x 2

Optional Accessories
- Remote
- Camera License Pack
- Rail Kit (Synology 2U Rail Kit Sliding)
- Expansion Unit (RX1211/RX1211RP)

1. Tested with dual 10GbE connection with Link Aggregation. The performance figures could vary on different environments.
2. RS3412xs/RS3412RPxs supports up to two Synology RX1211s or RX1211RPs, purchased separately.
3. Hard drive not included.
4. The actual capacity will differ according to volume types.
5. Measured with 10 Western Digital 2TB WD2002FYPS hard drive. The figures could vary on different environments.
6. User can click and download the following video formats: RM, RMVB, VOB, RV30, RV40, AC3, AMR, WMA3, but not able to play it in Photo Station as compressed Flash® video.
7. The music in WAV and AIF format can be streamed, but the metadata (ex: title, album) may not be indexed on the iTunes.

Networking



SYNOLOGY INC.

Founded in 2000, Synology is a young and energetic company dedicated to developing high-performance, reliable, versatile, and environmentally-friendly Network Attached Storage (NAS) products. Our goal is to deliver user-friendly solutions and solid customer service to satisfy the needs of businesses, home offices, individual users and families.

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