Synology

Synology RackStation RS812+/RS812RP+
High-performance & Scalable 4-bay Rackmounted NAS Server for SMB Users

Synology® RackStation RS812+/RS812RP+ offers a high-performance, scalable, and full-featured rackmounted network attached storage solution that meets the needs of small and medium-sized businesses that require an efficient way to centralize data protection, simplify data management, and rapidly scale up storage capacity with minimal time spent on setup and management. The Synology RS812+/RS812RP+ is backed with Synology's 3-year limited warranty.

Highlights:
- Average 205.67 MB/sec Reading, 176.37 MB/sec Writing[1]
- 2 LAN with Failover and Link Aggregation Support
- Fast Motherboard Swapping Design
- CPU Passive Cooling Technology & System Fan Redundancy
- Scale up to 8 Drives with Synology RX410
- Windows® ADS and ACL Support
- VMware® / Citrix® / Hyper-V® Compliance
- Running on Synology DiskStation Manager (DSM)

Experience High Performance Data Throughput
With the Link Aggregation enabled, Synology RS812+/RS812RP+ delivers an average 176.37 MB/sec writing speed under RAID 5 configuration in a Windows environment, and 205.67 MB/sec reading[1]. Synology RS812+/RS812RP+ bring you the high performance that your data-intensive applications demand for a storage system, and offer the ability to scale the storage capacity.

High Reliability for Critical Business Applications
Businesses need a strong foundation to face mission-critical tasks. Synology RS812+/RS812RP+ deliver high data availability to ensure access when it's needed. The 2 LAN with failover support and hot-swappable drives will ensure continual service uptime should the drives need replacement or the unexpected LAN failure.

In the event of a hardware failure, the RS812+/RS812RP+ is made for easy maintenance without removing from the rack. The motherboard inside is made for easy access and replacement. No additional system re-configuring is needed, and RS812+/RS812RP+ can be brought back on the line with your existing data.

CPU is the heart of any system, and RS812+/RS812RP+ incorporates a passive cooling structure to avoid the dependency of a dedicated processor cooling fan, and mitigate any critical point of failure. When system detects fan fails, the built-in redundancy mechanism will spin up the functional fan(s) to properly ventilate the system, and support continuous operations until the replacement fan arrives. Therefore, potential system damages are minimized and system availability is maximized.

Fit to Business Environment
Windows ADS integration allows the Synology RS812+/RS812RP+ to quickly and easily fit in an existing business network environment with no need to recreate users' accounts on the Synology RS812+/RS812RP+. The User Home feature minimizes the administrator's effort in creating a private shared folder for a large amount of users.

Windows ACL support on RS812+/RS812RP+ provides much finer-grained access control and efficient privilege settings, allowing IT staffs to set up privileges to files and folders on RS812+/RS812RP+ through their familiar Windows user interface. The privileges set on Windows ACL will be applied to all access entries, including AFP, FTP, File Station, NFS and WebDAV. The secure privilege offers IT staff peace of mind, no worries about any loopholes.

Robust & Affordable Scalability Up to 24 TB
When the storage capacity of the Synology RS812+/RS812RP+ is nearing its capacity limit, it can easily be expanded with the Synology RX410 expansion enclosure. The Synology RX410 securely connects to the Synology RS812+/RS812RP+ via an eSATA cable with specially-designed locking connectors. The Synology RX410 expands the existing storage on the Synology RS812+/RS812RP+ up to a maximum 24 TB capacity.

Rich Business Applications
Synology RS812+/RS812RP+ runs on the award-winning operating system, Synology DiskStation Manager (DSM), which offers comprehensive applications and features designed specifically for office and business workgroups.

Web Station with PHP/MySQL® support allows a single Synology RS812+/RS812RP+ to host up to 30 websites and numerous 3rd party web applications, such as Content Management, Customer Relationship Management & e-Commerce system. The built-in mail server turns Synology RS812+/RS812RP+ into a dedicated mail service provider, while the add-on package, Mail Station 2, provides a webmail interface for users to access emails stored on Synology RS812+/RS812RP+.

Synology Surveillance Station offers a centralized interface to manage IP cameras deployed in your office or home, allowing users traveling miles away to safeguard the environment by watching live views, recording events, and taking snapshots with a computer or mobile device.

A wealth of add-on packages allows the Synology RS812+/RS812RP+ to replace several pieces of network hardware. VPN Server offers an easy VPN solution that turns your Synology RS812+/RS812RP+ into a VPN server, providing a secure way of connecting to a private LAN at a remote location. Directory Server allows Synology RS812+/RS812RP+ to host LDAP service with centralized access control, authentication, and account management, further enhancing your office management efficiency.

iSCSI and Virtualization Ready
With the iSCSI support in DiskStation Manager (DSM), the Synology RS812+/RS812RP+ provides a seamless storage solution for virtualization servers, such as VMware, Hyper-V, and Citrix. It is the ideal alternative to SAN solution for businesses. Affordable and cost-effective, iSCSI allows SMB users to consolidate storage into data center storage arrays while providing hosts with the illusion of locally-attached disks.

Energy Efficient Design
Synology DiskStations are designed and developed with energy efficiency in mind. Compared with the average PC counterparts, the Synology RS812+/RS812RP+ consume relatively low amount of power at 46.2 watts only in operation. The support of Wake on LAN/WAN and scheduled power on and off can further reduce power consumption and operation cost. HDD hibernation or Deep Sleep mode can be configured to take effect automatically when the system has been inactive for a specified period of time. This not only saves energy but also extends the lifespan of the hard disks.

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.
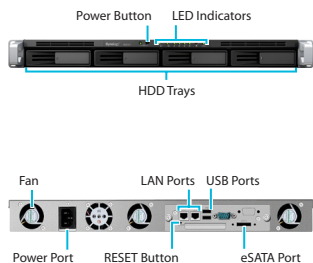
RS812+/RS812RP+

RX410

CONNECTIONS & BUTTONS

Power Button   LED Indicators

HDD Trays

Fan   LAN Ports   USB Ports

Power Port   RESET Button   eSATA Port

Technical Specifications

Hardware

- CPU Frequency: 2.13 GHz, with floating point
- RAM Size: DDR3 1GB (scalable up to 3GB)
- Internal HDD : 4X 3.5" or 4X 2.5" SATA(II) HDD/SSD (hard drives not included)
- External HDD Interface: 2X USB ports, 1X eSATA port
- Rail Kit: Synology 1U Rail Kit Sliding / Synology 1U Rail Kit Fixed (Rail Kit not included)
- Size (H X W X D):
  - RS812+: 44mm X 430.5mm X 457.5mm
  - RS812RP+: 44mm X 430.5mm X 570.5mm
- Weight:
  - RS812+: 7.1Kg

- RS812RP+: 9.42Kg
- LAN: 2X Gigabit
- Fan: 3X (40mm X 40mm)
- Link Aggregation
- Wake on LAN
- Noise Level[2]:
  - RS812+: 25.1 dB(A)
  - RS812RP+: 52.6 dB(A)
- Wireless Support (wireless dongles not included)
- Hot Swappable HDD
- Redundant Power Supply: RS812RP+ only
- Power Recovery

- AC Input Power Voltage: 100V to 240V
- Power Frequency: 50Hz to 60Hz, Single Phase
- Max Internal Capacity: 12TB (4X 3TB hard drives) (The actual capacity differs according to volume types.)
- 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[3]: 46.2W (Access); 42.9W (HDD Hibernation)
- Certification: FCC Class A, CE Class A, BSMI Class A

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): 20 (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: 3G2, 3GP, ASF, AVI, DAT, DivX, FLV,

M4V, MOV, MP4, MPEG, MPG, QT, WMV, XviD, RM, RMVB, VOB, RV30, RV40, AC3, AMR, WMA3 (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.)

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, RMVB
- Supported Image Format: BMP, JPG (jpe, jpeg), GIF, ICO, PNG, PSD, TIF (tiff), UFO
- Supported Subtitles Format: srt, psb, smi, ass, ssa, sub, idx, ifo

iTunes® Server
- Supported Audio Format: MP3, M4A, M4P, WAV, AIF (The music in

WAV and AIF format can be streamed, but the metadata (ex: title, album) may not be indexed on the iTunes.)
- Supported Video Format: M4V, MOV, MP4
- Supported Playlist Format: M3U, WPL

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

Synology Packages
- Mail Station 2
- Logitech® Media 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 #: 512
- Max iSCSI Target #: 32
- Max iSCSI LUN #: 256
- 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 RX410

File Sharing Capability
- Max User Account: 2048
- Max Groups: 256
- Max Shared Folders: 256
- Max Concurrent Connections (CIFS, FTP, AFP): 512

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 Update
- 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® 7/8/9
- Firefox®
- Safari® 4/5 (Mac)

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

Supported Mobile Devices (Photo Station, File Station)
- iPhone OS 2.2.1 onward
- Android OS 1.5 onward
- Windows Mobile (IE Mobile or Opera 9.0 onward)
- Symbian™ OS 9.1, S60 3rd Edition 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
- RS812+/RS812RP+ Main Unit
- Installation DVD

- Welcome Note
- Assembling Kit
- AC Power Cord
  - RS812+: X1
  - RS812RP+: X2

Optional Accessories
- Remote
- Camera License Pack
- 2GB RAM Module
- Expansion Unit (RX410)
- Rail Kit (Synology 1U Rail Kit Sliding / Synology 1U Rail Kit Fixed)

1. The performance figures could vary on different environments.
2. Fully loaded with Seagate® ST31000520AS hard drive(s) in operation; Two G.R.A.S. Type 40AE microphones, each set up at

1 meter away from the DiskStation front and rear; Background noise: 17.0 dB(A); Temperature: 22.0°C; Humidity: 64.4%; More details about dB(A) value, check http://www.memtechacoustical.

com/facts.asp

3. Measured with 4 Western Digital® 3TB WD30EZRS hard drives. The figures could vary on different environments.

Networking

External Disk

RS812+/RS812RP+

USB Printer

RS812+/RS812RP+

Wireless Router

Windows ADS Server

PC / Mac / Linux®

PC / Mac / Linux

IP Camera

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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