# Synology

# Synology RackStation RS812

Feature-rich 4-bay NAS Server for Workgroups and Offices



Synology RackStation RS812 offers an affordable and full-featured network attached storage solution, specifically designed for small business and workgroup users who need to share and protect data cost-effectively, while increasing productivity with comprehensive office applications. Running on DiskStation Manager (DSM) operating system, it delivers ease of use and variety of features.

#### Highlights

- Optimal Price/Performance Ratio
- 2 LAN with Failover and Link Aggregation Support
- Scale up to 8 Drives with Synology RX410
- VMware®, Citrix®, Microsoft® Hyper-V® compliance
- Power-saving with only 37 Watts in Operation
- Affordable Total Cost of Ownership
- Running on Synology DiskStation Manager (DSM)

### **Optimal Price/Performance Ratio**

Synology RS812 delivers an average 50.6 MB/sec writing speed under RAID 5 configuration in a Windows® environment, and 109.7 MB/sec reading<sup>1</sup>. 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. Synology RS812 provides a reliable solution for data sharing with an easy to use interface, and comprehensive office applications, including a complete backup solution making it one of the best values in 4-bay rackmount NAS devices available today.

### **Robust & Affordable Scalability Up to 24 TB**

When the storage capacity of the Synology RS812 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 via an eSATA cable with specially-designed locking connectors. The Synology RX410 expands the existing storage on the Synology RS812 up to a maximum 24 TB capacity.

## **Cross Platform File Sharing**

Synology RS812 offers comprehensive network protocol support, assuring seamless file sharing across Windows<sup>®</sup>, Mac<sup>®</sup>, and Linux<sup>®</sup> platforms. Windows<sup>®</sup> ADS and LDAP integration allows the Synology RS812 to quickly and easily fit into an existing business network environment with no need to recreate user accounts on the Synology RS812. Internet file access is simplified by the encrypted FTP server and the web-based file explorer, Synology File Station. HTTPS, firewall, and IP auto-block support ensure file sharing over the Internet is protected at a high security level.

For users who are always on the move, Synology provides a handy app, DS file for the users of iPhone®, iPad® and Android™ phones. Anything stored on Synology RS812 can now be accessed remotely using DS file via the Internet.

### **iSCSI** and Virtualization Ready

With the iSCSI support in DSM, the Synology RS812 provides a seamless storage solution for virtualization servers, such as VMware<sup>®</sup>, Citrix<sup>®</sup> and Hyper-V<sup>®</sup>. It is the ideal alternative to SAN solution for businesses. 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.

### **Complete Backup Solutions**

Synology RS812 offers a centralized backup target to consolidate fragmented and unstructured data across a network. PC users can back up their data to Synology RS812 using Synology Data Replicator software, and Mac OS X<sup>®</sup> users enjoy native Apple<sup>®</sup> Time Machine<sup>®</sup> integration.

A web-based backup wizard is provided for backing up data in Synology RS812 to another Synology DiskStation or any rsync server via an encrypted protocol, or to an external hard drive via USB connection. In addition, backing up to the cloud using Amazon S3<sup>®</sup> service is supported. The addon package, Time Backup, keeps DiskStation data in multiple versions, so IT administrators could easily keep track of them and restore to previous version whenever required.

#### **Rich Office Applications**

Synology RS812 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 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 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.

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

### **Energy Efficient Design**

Synology RackStations are designed and developed with energy efficiency in mind. Compared with the average PC counterparts, Synology RS812 consumes only 37 watts in operation. 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.

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?: 37W (Access); 14W (HDD Hibernation) Noise Level?: 22.6 dB(A) Certification: FCC Class A, BSMI Class A

iTunes<sup>®</sup> Server • Supported Audio Format: MP3, M4A, M4P, WAV, AIF (The

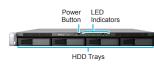
music in WAV and AIF format can be streamed, but the

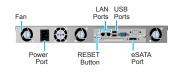
metadata (ex: title, album) may not be indexed on the

• Supported Haylist Orinat: Mod, WFE
Printer Server
• Max Printer #: 2
• Printing Protocols: LPR, CIFS, AppleTalk\* AirPrint\*\* (For
Mac\* users, RSB12 supports PostScript USB printers only)
• Multi Functional Print Server

Supported Video Format: M4V, MOV, MP4
 Supported Playlist Format: M3U, WPL

#### **CONNECTIONS & BUTTONS**





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#### **Technical Specifications**

- Hardware CPU Frequency: 1.6 GHz

- CPU Frequency: 1.6 GHz
   Hardware Encryption Engine
   RAM Size: DDR3 512M8
   Internal HDD/S5D: 3.5" or 2.5" SATA(II) 4X (hard drives
   not included)
   Max Internal Capacity: 12TB (4X 3TB hard drives) (The
   actual capacity differs according to volume types.)
   External HDD Interface: 2X USB ports, 1X eSATA port
   Rail Kit: Synology 1U Rail Kit Siding / Synology 1U Rail Kit
   Fixed (Rail Kit not included)

#### Applications

- 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): 12 (1 free license to install 1 IP camera. Additional licenses can be purchased to expand the license quota.)
- Photo Station

- noto Station 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,
- **General Specifications**

Networking Protocols

CIFS, AFP, FTP, iSCSI, Telnet, SSH, NFS, SNMP, WebDAV

- File System EXT4 EXT3 (External Disk Only) FAT (External Disk Only) NTFS (External Disk Only)
- Volume Management Synology Hybrid RAID Max Volume #: 256
- Max Volume #: 256
  Max Volume Size: 16TB
  Max iSCSI Target #: 10
  Max iSCSI LUN #: 256

- 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 5
   Expand RAID 5, RAID 5, Spare, RAID 5 to RAID 5
   Expand RAID 5, Spare, RAID 5+Spare or RAID 6 with Larger Hard Drives
- Larger Hard Drives
- Expand RAID 5 by Adding a Hard Drive On The Fly
- File Sharing Capability

  Max User Account #: 2048
- Max Group #: 256
  Max Shared Folder #: 256

Environment
RoHS Compliant

The performance figures could vary on different environments. Measured with 4 Western Digital\* 3TB WD30E2RS hard drives. The figures could vary on different environments.

#### Networking



PC / Mac\* / Linux

PC / Mac<sup>®</sup> / Linux®

iTunes®.)

Synology Packages

phpMyAdmin Time Backup

VPN Server
 Directory Serve

DS photo+
DS audio
DS cam
DS file
DS finder

Mail Station
 Logitech® Media Server
 Webalizer

iPhone<sup>®</sup>/Android<sup>™</sup> Applications

- Custom Management UI HTTP/HTTPS Ports

- HDD Management HDD Hibernation S.M.A.R.T. Dynamic Bad Sector Mapping
- Utilities
- Synology Assistant Synology Data Replicator
- Support Browsers

  Internet Explorer<sup>®</sup> 7/8/9
  Firefox<sup>®</sup> 3.5/3.6/4/5
- Safari<sup>®</sup> 4/5 (Mac<sup>®</sup>)
  Chrome<sup>®</sup>

- Supported Clients

  Windows® 2000 onward
  Mac OS X® 10.3 onward
  Ubuntu 9.04 onward
- Language
- English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svensk, Nederlands, Русский, Polski, Magyar, Portugués do Brasil, Portugués Europeu, Türkçe, Český, 日本語, 한국어, 繁體中文, 简体中文

#### Camera License Pack

- Expansion Unit (RX410)
   Rail Kit (Synology 1U Rail Kit Sliding / Synology 1U Rail Kit Fixed)
- Assembling Kit
  AC Power Cord

Size (H X W X D): 44mm X 430.5mm X 457.5mm

Size (H X W X D): 44mm X 430.5mm X 457.5mm
 Weight: 6.9kg
 LAN: 2X Gigabit
 Link Aggreation
 Wireless Support (wireless dongles not included)
 Hots wappable HDD
 Fan: 3X (40mm X 40mm)
 Power Recovery

Power Recovery AC Input Power Voltage: 100V to 240V Power Frequency: 50Hz to 60Hz, Single Phase

Photo Station as compressed Flash® video.)

Download Station

Audio Station

WMA Lossless

Custom BT Port BT / eMule Bandwidth Control

RV30, RV40, AC3, AMR, WMA3, but not able to play it in

Supported Download Protocols: BT/HTTP/FTP/NZB/eMule

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

DLNA\*/UPnP\* Media Server PS3\*/Xbox 360\* Support Supported Audio Format: AAC, FLAC, M4A, MP3, Ogg, Vorbis, PCM, WAV, WMA, WMA VBR, WMA PRO,

Supported Video Format: 3GP, 3G2, ASF, AVI, DAT, DivX, DVR-MS, ISO, M2T, M2TS, M4V, MKV, MP4, MPEG1, MPEG2,

DVR-NAS, ISO, M2T, M2TS, M4Y, MKV, MP4, MPEG1, MPEG2 MPEG4, MTS, MOV, QT, SWF, TP, TRP, TS, VOB, WMV, XiVD, RY30, 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, mw, ptx, pef, raf, 3fr, erf, mef, mos, orf, rw2, dng, x3f) Supported Subtities Format: srt, nef, mef, mos, orf, rw2,

Supported Subtitles Format: srt, psb, smi, ass, ssa, sub, idx, ifo

Max Concurrent Connections # (SAMBA, FTP, AFP): 256

Backup Solutions • Network Backup • Local Backup Desktop Backup (using Synology Data Replicator or Apple\* Time Machine\* backup application) Ded Dowto Devlare Growerse

Windows® ADS Domain Integration

Domain Users login via Samba/AFP/FTP/File Station

Optional Accessories Remote

Welcome Note

3rd-Party Backup Support

Management - DSM Upgrade - Email Notification - SMS Notification - Customized User Quota - DDNS Support - PPPoE - Recourse Maniter

PPPOE
 Resource Monitor
 UPS Management
 Scheduled Power On/Off

Encrypted Network Backup over Rsync
 HTTPS Connection

• FTP over SSL/TLS • IP Auto-Block

Firewall

- Fully loaded with Seagate<sup>®</sup> 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: 17.2 dB(A); Temperature: 23.6°C; Humidity: 58.2%; More details about dB(A) value, check http://www.memtechacousti com/facts.asp







# **Environment and Packaging**

Package Content

- 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 RS812 Main Unit Installation Disc is to deliver user-friendly solutions and solid customer service to satisfy the needs of businesses, home offices, individual users and families.