Synology®

Synology DiskStation DS712+
High-performance & Scalable 2-bay All-in-1 NAS Server for SMB Users

Synology® DiskStation DS712+ offers a high-performance, scalable, and full-featured 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 storage capacity with minimal time spent on setup and management. The Synology DS712+ is backed with Synology's 3-year limited warranty.

Highlights
- 180.91MB/sec Reading, 105.59MB/sec Writing[1]
- 2 LAN with Failover and Link Aggregation Support
- Small yet Scalable, up to 7 Drives with Synology DX510[2]
- iSCSI Support as Virtualization Solution
- Running on Synology DiskStation Manager (DSM)

High Performance, High Data Availability
With the Link Aggregation enabled, Synology DS712+ delivers an average 105.59MB/sec writing speed under RAID 1 configuration in a Windows environment, and 180.91MB/sec reading[1]. 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. Businesses need a strong foundation to face mission-critical tasks so the Synology DS712+ delivers high-performance with high data availability ensuring access when it's needed.

Flexible RAID Management
The Synology Hybrid RAID (SHR) automatically builds an optimal RAID volume with data protection based on the hard drives installed, eliminating the need to have hard drives of identical size, while still offering a manual setup option for advanced users.

Multiple Volumes on RAID allows you to create more than one volume on a RAID structure, providing a flexible and efficient way to manage your storage across all available hard drives. When the need arises to expand the volumes, simply allocate more storage space on the UI, and DSM does the rest for you without any service disruption.

iSCSI and Virtualization Ready
With the iSCSI support in DSM, the Synology DS712+ 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.

Small & Affordable Scalability Up to 21TB
When the storage capacity of the Synology DS712+ is nearing its capacity limit, it can easily be expanded with the Synology DX510 expansion enclosure. The Synology DX510 securely connects to the Synology DS712+ via an eSATA cable with specially-designed locking connectors. The Synology DX510 expands the existing storage on the Synology DS712+ up to a maximum 21TB capacity.

Full-featured Business Applications
The Synology DS712+ runs on the renowned operation system, Synology DSM, offering applications and features designed specifically for SMBs. Comprehensive network protocol support assures seamless file sharing across Windows, Mac, and Linux platforms. Windows ADS and LDAP integration allows the Synology DS712+ to quickly and easily fit in an existing business network environment with no need to recreate user accounts.

Directory Server package can turn DS712+ into an LDAP-based directory server within minutes. IT administrators can bind other DiskStations to the directory server. With the same batch of directory user account or directory groups, employees can access all the DiskStations within the service.

Windows ACL support on DS712+ provides much finer-grained access control and efficient privilege settings, allowing IT staffs to set up privileges to files and folders on DS712+ 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.

Internet file access is simplified with the included encrypted FTP server and the web-based file explorer, Synology File Station. HTTPS, the built-in firewall, and IP auto-block support ensure file sharing over the Internet is protected at a high security level.

A wealth of additional features allows the Synology DS712+ to replace several pieces of network hardware. Synology Web Station with support for PHP/MySQL content allows for the hosting of up to 30 websites on a single Synology DS712+. Synology Surveillance Station offers a centralized interface to safeguard the office environments by deploying IP cameras throughout the network. The built-in mail server turns a Synology DS712+ into a dedicated mail service provider and the USB printer sharing capability minimizes businesses' printing cost by sharing printing resources throughout the office.
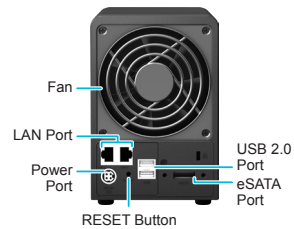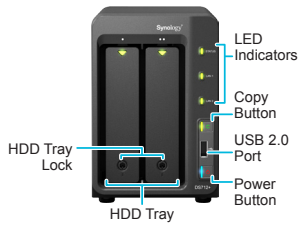
Energy Efficient Design
Synology DiskStations are designed and developed with energy efficiency in mind. Compared with the average PC counterparts, the Synology DS712+ consume relatively low amount of power at 27.5 watts only in operation. The support of Wake on LAN/WAN and scheduled power on and off 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.

DS712+   DX510

CONNECTIONS & BUTTONS

LED Indicators
Copy Button
USB 2.0 Port
Power Button
HDD Tray Lock
HDD Tray

Fan
LAN Port
Power Port
USB 2.0 Port
eSATA Port
RESET Button

Technical Specifications

Hardware

- CPU: 1.8GHz, with floating point
- RAM Size: 1 GB
- Internal HDD[3]: 3.5" or 2.5" SATA(II) X 2
- External HDD Interface: 3X USB ports, 1X eSATA ports
- Size: 157mm X 103.5mm X 232mm
- Weight: 1.69kg
- LAN: 2X Gigabit
- Fan: 1X (92mm X 92mm)

- Wireless Support[4]
- Wake on LAN
- Noise Level[5]: 19.2 dB(A)
- Hot swappable HDD
- Power Recovery
- AC Input Power Voltage: 100V to 240V
- Power Frequency: 50Hz to 60Hz, Single Phase
- Max Internal Capacity: 6TB (2X 3TB hard drives)[6]

- 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: 27.5W (Access); 24.2W (Idle);17.6W (HDD Hibernation)[7]
- Certification: FCC Class B, CE Class B, BSMI Class B

Applications

File Browser / File Station

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

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): 16[8]

Photo 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[9] : 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 BitTorrent Port Range
- BitTorrent / 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[10]: MP3, M4A, M4P, WAV, AIF
- Supported Video Format: M4V, MOV, MP4
- Supported Playlist Format: M3U, WPL

Print Server[11]
- Max Printer #: 2
- Supported Protocols: LPR, CIFS, AppleTalk, AirPrint

Synology Packages
- Mail Station
- Squeezebox Server
- Webalizer
- phpMyAdmin
- Time Backup
- HASP
- VPN Server

iPhone and Android Applications
- DS photo+
- DS audio
- DS cam
- DS file
- DS finder

General Specifications

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

File System
- EXT4
- EXT3 (External Disk Only)
- FAT32 (External Disk Only)
- NTFS (External Disk Only)

Volume Management
- Synology Hybrid RAID
- Max Volume #: 512
- Max iSCSI Target / LUN: 32 / 256
- Volume Type: Basic, JBOD, RAID 0, RAID 1
- RAID Migration: from Basic to RAID 1
- Volume Expansion with DX510

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

Windows Access Control List (ACL) Support

Windows ADS Domain Integration
- Domain Users login via CIFS/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
- USBCopy

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

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

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

Utilities
- Synology Assistant
- Synology Data Replicator

Supported Browsers
- Chrome
- Internet Explorer 7, 8, and 9
- Firefox 3.5 and 3.6
- Safari 4 and 5 (Mac)

Supported Clients
- Windows 2000 onward
- Mac OS X 10.3 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
- DS712+ Main Unit
- Installation DVD

- Welcome Note
- Assembling Kit
- AC Power Adapter (72W)
- AC Power Cord
- 2M RJ-45 LAN Cable X 2

Optional Accessories
- Remote
- Camera License Pack

1. With Link Aggregation enabled. The performance figures could vary on different environments.
2. DS712+ supports up to one Synology DX510, purchased separately.
3. Hard drive not included.
4. Wireless dongles not included. Please check http://www.synology.com/ for supported wireless dongles.
5. 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: 17.2 dB(A); Temperature: 23.6°C; Humidity: 58.2%; More details about dB(A) value, check http://www.memtechacoustical.com/facts.asp

6. The actual capacity will differ according to volume types.
7. Measured with 2 Western Digital 3TB WD30EZRS hard drive. The figures could vary on different environments.

8. 1 free license to install 1 IP camera. Additional licenses can be purchased to expand the license quota.
9. 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.
10. The music in WAV and AIF format can be streamed, but the metadata (ex: title, album) may not be indexed on the iTunes.
11. For Mac users, DS712+ supports PostScript USB printers only.

http://www.synology.com

Headquarters
Synology Inc.
3F-3, No. 106, Chang An W. Rd., Taipei, Taiwan
Tel: +886 2 2552 1814 Fax: +886 2 2552 1824

North & South America
Synology America Corp.
2899 152nd Ave NE, Redmond, WA 98052. USA
Tel: +1 425 818 1587

Synology UK Ltd.
Davy Avenue, Knowlhill,
Milton Keynes, Bucks,
MK5 8PB, UK
Tel: +44 01908 673 709

Networking

External Disk
DS712+
USB Printer
DS712+
Wireless Router
Windows ADS Server
PC / Mac / Linux
PC / Mac / Linux
IP Camera