Synology®

Synology DiskStation DS1512+
High Performance NAS Server Scales up to 15 Drives for SMB Users

Synology DiskStation DS1512+ 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 DS1512+ is backed with Synology's 3-year limited warranty.

Highlights
- 194.6 MB/sec Writing, 192.4 MB/sec Reading[1]
- Scaling up to 15 Drives with Synology DX510
- Featuring SuperSpeed USB 3.0
- Expandable RAM Module (Up to 3GB)
- 2 LAN with Link Aggregation Support
- Fanless Motherboard & System Fan Redundancy
- VMware®, Citrix®, Microsoft® Hyper-V® Compliance
- Running on Synology DiskStation Manager (DSM)

High Performance, High Data Availability

With the Link Aggregation enabled, Synology DS1512+ delivers an average 194.6 MB/sec writing speed under RAID 5 configuration in a Windows® environment, and 192.4 MB/sec reading. Coming with USB 3.0 support which offers transmission speeds of up to 5 Gbps, namely 10 times faster than USB 2.0, DS1512+ takes less time for data transfer for external hard drives and consumes less power.

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 occurs. The replaceable/redundant system fans and fanless CPU heatsink are introduced in DS1512+, making it even more reliable and silent. Businesses need a strong foundation to face mission-critical tasks so the Synology DS1512+ delivers high-performance with high data availability ensuring access when it's needed.

Robust & Affordable Scalability Up to 45 TB

When the storage capacity of the Synology DS1512+ is nearing its limits, it can easily be expanded with the Synology DX510[2]. The Synology DX510 securely connects to the Synology DS1512+ via an eSATA cable of specially-designed connectors on both ends to ensure maximum throughput. The Synology DX510 can directly expand the existing storage on the Synology DS1512+ to a maximum 45 TB capacity.

iSCSI and Virtualization Ready

With the iSCSI support in DSM, the Synology DS1512+ 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.

Full-featured Business Applications

The Synology DS1512+ 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 DS1512+ to quickly and easily fit in an existing business network environment with no need to recreate user accounts.

Directory Server package can turn DS1512+ 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 accounts or groups, employees can access all the DiskStations with the same user credentials.

Windows ACL support on DS1512+ provides much finer-grained access control and efficient privilege settings, allowing IT staffs to set up privileges to files and folders on DS1512+ 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 DS1512+ 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 DS1512+. 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 DS1512+ into a dedicated mail service provider and the USB printer sharing capability minimizes businesses' printing cost by sharing printing resources throughout the office.
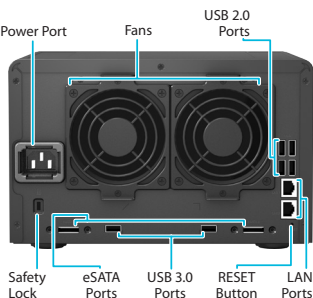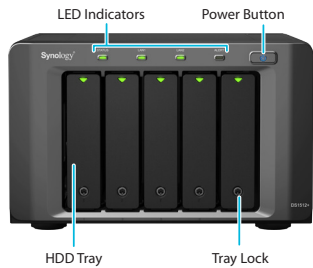
Energy Efficient Design

Synology DiskStation are designed and developed with energy efficiency in mind. Compared with the average PC counterparts, Synology DS1512+ consumes only 50.6 watts in operation. The support of wake on LAN, scheduled power on/off and hard drive hibernation can further reduce power consumption and operation cost.

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

DS1512+

DX510   **DX510**

CONNECTIONS & BUTTONS

LED Indicators   Power Button

HDD Tray   Tray Lock

Power Port   Fans   USB 2.0 Ports

Safety Lock   eSATA Ports   USB 3.0 Ports   RESET Button   LAN Ports

Technical Specifications

Hardware

- CPU: 2.13GHz, with floating point
- RAM Size: 1 GB
- Internal HDD: 3.5" or 2.5" SATA(II) X 5 (Hard drives not included)
- External HDD Interface: 4X USB 2.0 ports, 2X USB 3.0 ports, 2X eSATA ports
- Size: 157mm X 248mm X 233mm
- Weight: 4.25kg
- LAN: 2X Gigabit
- Link Aggregation
- Fan: 2X (80mm X 80mm)

- Wireless Support (wireless dongles not included)
- Wake on LAN
- Noise Level: 25.8 dB(A)[3]
- Hot Swappable HDD
- Power Recovery
- AC Input Power Voltage: 100V to 240V
- Power Frequency: 50Hz to 60Hz, Single Phase
- Max Internal Capacity: 15TB (5X 3TB hard drives) (The actual capacity will differ 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: 50.6W (Access); 44W (Idle);22W (HDD Hibernation)[4]
- Certification: FCC Class B, CE Class B, BSMI Class B
- 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): 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
- 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, DS1512+ supports PostScript USB printers only)
- Multi Functional Print Server

Synology Packages
- Mail Station
- Squeezebox Server™
- Webalizer
- phpMyAdmin
- Time Backup
- VPN Server
- WordPress®
- Syslog Server
- Directory Server
- HiDrive® Backup
- 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)
- 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 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, and RAID 6 by Adding a Hard Drive On The Fly
- Volume Expansion with DX510

File Sharing Capability
- Max User Accounts: 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 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

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

Management
- Auto DSM Update
- 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®
- 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
- DS1512+ Main Unit
- Installation DVD

- Welcome Note
- Assembling Kit
- AC Power Cord
- 2M RJ-45 LAN Cable X 2

Optional Accessories
- Remote
- Camera License Pack
- 2GB RAM Module

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1. With Link Aggregation enabled. The performance figures could vary on different environments.
2. DS1512+ supports up to two Synology DX510, purchased separately.
3. 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
4. Measured with 5 Western Digital® 3TB WD30EZRS hard drive. The figures could vary on different environments.

Networking

External Disk   DS1512+   USB Printer

DS1512+   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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