

# Disk Station DS109+

Speedy 1-bay SATA NAS Server for Small-and-Medium Business Users



## Key Features

- High Speed  
50+ MB/Sec RAID 5 Write  
51+ MB/Sec RAID 5 Read
- Windows + Mac + Linux
- Power Saving (12W~21W)

## Shipped with Disk Station Manager 2.1 that provides:

- AJAX-Based Management Interface
- Windows ADS Support
- Encrypted Network Backup
- Encrypted FTP with Hack Prevention
- Business Mail Server
- Corporate Surveillance
- Schedule Power On/Off

And more...

**Synology Disk Station DS109+ offers PC server equivalent performance for efficient data sharing and backup. Its high performance coupled with sophisticated Synology Disk Station Manager 2.1 provides an ideal solution for cross platform sharing, secure server backup, Windows ADS integration, business mail server, and corporate surveillance.**

### Management & Backup

When User Home is enabled, Synology Disk Station DS109+ automatically creates a home folder for every user account to provide each user with a private space to store data. This eliminates the need for the administrator to repeatedly create shared folders and user accounts.

Synology Network Backup allows users to back up files from one to another Synology Disk Station or any rsync-compatible server. The Local Backup allows backups to external hard drives via USB or eSATA, both providing flexible scheduling options.

### Secure File Sharing

Synology File Station 2 simplifies file management with a web browser by introducing Windows-style user's interface and advanced features including drag-n-drop, sub-folder privilege settings, multiple files upload and download, and remote unzip features.

HTTPS provides a secure way for Internet access. When it's enabled, connections to the web-based Web Station, Photo Station 3, File Station 2, Surveillance Station 2, and Audio Station are all secured with SSL/TLS.

FTP service over SSL/TLS encryption ensures file sharing at a high security level. Unicode, write-only and sophisticated bandwidth management are also supported.

### Office Applications

Synology Mail Station add-on provides a one step installation and enables Synology Disk Station DS109+ to be a mail server that supports Outlook-like Web mail, SMTP, POP3, and IMAP.

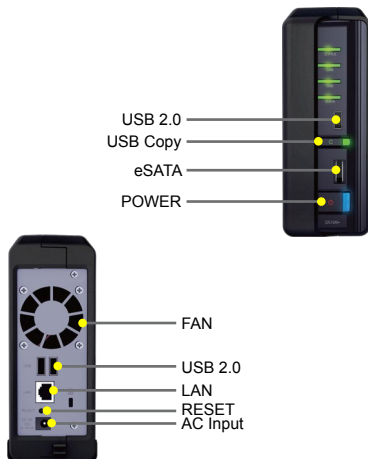
Synology Surveillance Station 2 enables Synology Disk Station DS109+ to be an economical network video recording (NVR) solution. Over 130 popular IP cameras of varying brand names are supported.

### Eco Friendly

Synology Disk Station is designed and developed perpetually with the concept of energy saving. Compared with its average PC counterparts, Synology Disk Station DS109+ consumes a relatively low amount of power and hibernates when not in use. This not only helps to save energy but also extends the lifespan of the hard disk.

Additionally, all Synology products are produced with RoHS compliant parts and packed with recyclable packing materials. Synology recognizes its responsibility as a global citizen and is continually working to reduce the environmental impact of the products we create.

## CONNECTIONS & BUTTONS



## Technical Specifications

### Hardware

- CPU: 1.06GHz, 64bit@DDR533, with floating point
- RAM Size: 512 MB
- Internal HDD<sup>(1)</sup>: 1X 3.5" SATA(II) or 1X 2.5" SATA/SSD using Synology 2.5" Disk Holder Type A
- External HDD Interface: 3X USB 2.0 ports, 1X eSATA port
- Size: 160mm X 218mm X 63mm
- Weight: 0.81kg
- LAN: 1X Gigabit
- Fan: 1X (50mmX50mm)
- Noise Level<sup>(2)</sup>: 25 dB(A)
- Power Recovery
- AC Input Power Voltage: 100V to 240V
- Power Frequency: 50Hz to 60Hz, Single Phase
- Max HDD Support (Internal HDD): 2TB
- Max Supported IP Camera #: 10
- 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
- Maximum Operating Altitude: 10,000 feet

### Power Consumption<sup>(3)</sup>

- 21 W (Access); 12 W (Hibernation)

### Certification

- FCC Class B, CE Class B, BSMI Class B

### Networking Protocols

- CIFS
- AFP (3.1)
- FTP
- NFS
- Telnet/SSH

### Security

- FTP over SSL/TLS (explicit)
- FTP Auto-Block
- Encrypted Network Backup
- Encrypted rsync
- HTTPS Connection

### File System

- EXT3
- FAT (External Disk Only)
- NTFS (External Disk Read Only)

### File Sharing

- Max User Accounts: 2,048
- Max Groups: 256
- Max Shared Folder: 256
- Max Concurrent Connections (SAMB, FTP, AFP): 256

### Utilities

- Synology Assistant
- Synology Data Replicator 3
- Synology Download Redirector

- Add Printer Wizard

### Applications

- Surveillance Station 2
- Photo Station 3
- File Station 2
- Audio Station
- Web Station
- PHP/MySQL
- Download Station 2
- iTunes Server

### Packages

- Mail Station
- SqueezeCenter
- Weblizer

### UPnP Multimedia Service Support

- Sony PS3, Microsoft Xbox360
- Audio Format: AAC, FLAC, M4A, MP3, Ogg Vorbis, WAV, WMA, WMA VBR, WMA PRO, WMA Lossless
- Video Format: ASF, AVI, DAT, DivX, MP4, MPEG1, MPEG2, MPEG4, VOB, WMV, XviD
- Image Format: BMP, JPG (jpe, jpeg), GIF, ICO, PNG, PSD, TIF (tiff), UFO
- Playlist Format: WPL, M3U
- Subtitle: srt, psb, smi, ass, ssa, sub, idx, ifo

### iTunes Server Support

- Audio Format: MP3, M4A, M4P, WAV<sup>(4)</sup>, AIF<sup>(4)</sup>
- Playlist Format: M3U, WPL

### Audio Station Support

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

### Photo Station 3 Support

- Video Format: ASF, AVI, MPEG1, MPEG4, WMV, XviD, DivX, FLV, DAT<sup>(5)</sup>, MP4<sup>(5)</sup>, MPEG2<sup>(5)</sup>, RM<sup>(5)</sup>, RMVB<sup>(5)</sup>, VOB<sup>(5)</sup>
- Image Format: BMP, JPG (jpe, jpeg), GIF

### Management

- AJAX-based Management UI
- BitTorrent Port Range Setup
- BitTorrent DHT Support
- CIFS Recycle Bin
- Download Station Bandwidth control
- Download Station Port Range Setup
- Editable HTTP Error Page
- Email Alert Message
- Email Notification for New User
- Package Management
- External HDD Hibernation
- Scheduled Power On/Off
- Firmware Upgrade
- FTP passive port range
- Hide-able Shared Folder
- Internal HDD Hibernation
- Removable Default Shared Folder

- Ez-Internet
- PPPoE
- UPS Management (Over USB 2.0)
- User Quota
- Web-based Download Station

### Backup Solutions

- Network Backup
- Local Backup
- Desktop Backup (using Synology Data Replicator 3)
- 3rd-Party Backup Support

### Supported Clients

- Windows 2000 onward
- Mac OS X 10.3 onward
- Linux

### Printer Support<sup>(6)</sup>

- Max Printer #: 2
- Supported Protocols: LPR, CIFS, AppleTalk

### Languages

- English, Danish, Dutch, Norwegian, Swedish, German, French, Italian, Polish, Russian, Spanish, Korean, Traditional Chinese, Simplified Chinese, Hungarian, Turkish, Portuguese Brazil, Portuguese European

### Environment

- RoHS Compliant

### Package Content

- DS109+ Main Unit
- Installation CD
- Welcome Note
- Assembling Kit
- AC Power Adapter
- AC Power Cord
- 2M RJ-45 LAN Cable

(1) Hard drive not included.

(2) Fan only. Measured at 2300~6200RPM, varied among models. More details about dB(A) value, check <http://www.quietnoise.com/facts.htm>

(3) Measured with 1 Seagate 750GB ST3750640NS hard drive. The figures could vary on different environments.

(4) The music can be streamed, but the metadata (ex: title, album) may not be indexed on the iTunes.

(5) User can click and download the file, but not play it in Photo Station 3 as compressed Flash video.

(6) For Mac users, DS109+ supports PostScript USB printers only.

## Networking



## SYNOLOGY INC.

Synology Inc., founded in April 2000 by a duo experienced in system designing and marketing, is a dedicated Network Attached Storage (NAS) products provider located in the Taipei city, Taiwan. With a staunch and united team organization, Synology creates and brings forth NAS servers of originality, Synology Disk Station, for the global market. Under the breezy yet conscientious team work, Synology embodies the spirit of vitality, creativity, specialty, and versatility, implanting a new breath into the staid NAS business. With our sustained and substantial investment in research and development, Synology is pursuing the laurels of contemporary NAS industry on an international scale.

Synology NAS Servers are designed to fulfill its customers' need of security, performance, energy saving, and functionality on a broad range around the globe from prosumers to corporations. Moreover, to practice commitment made to its widespread customers and to provide every possible means of satisfactory services, Synology is using its best endeavors to the establishment a fully developed customer support and service team. Having a vision beyond the visible, Synology Disk Station signifies -Value.

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