



# Synology DiskStation DS3612xs

Ultra-High performance NAS Server Scales up to 100TB for Large Scale Business

Synology® DiskStation DS3612xs offers ultra-high performance, scalable and full-featured network attached storage solution for large scale businesses that require an efficient way to centralize data protection, simplify data management, deploy virtualization solutions, and rapidly expand storage capacity with minimal time spent on setup and management. Synology DS3612xs is backed with Synology's 3-year limited warranty.

#### Highlights

- Ultra-high performance of 1000+ MB/sec throughput and 100,000+ IOPS1
- Scale up to 100TB with Synology DX1211<sup>2</sup>
- Dual 10GbE ports support (with PCI-E add-on card)
- VMware®, Citrix®, Microsoft® Hyper-V® compliance
- CPU Passive Cooling Technology & System Fan Redundancy
- Expandable ECC RAM module (up to 6GB)
- Running on Synology DiskStation Manager (DSM)

## **Ultra-High Performance**

With Link Aggregation, Synology DS3612xs delivers the high performance of over 1000 MB/sec throughput and 100,000 IOPS under RAID 5 configuration<sup>1</sup>. In addition to the default 4 Gigabit ports, dual 10GbE are supported with the add-on PCI Express x8 Gen2 Network Interface Card to maximize the system bandwidth. DS3612xs is able to bring you the ultrahigh performance that your data-intensive application demands on the storage system.

#### **High Reliability & Availability**

Reliable functioning of commercial systems is of paramount concern to business users that depending on these servers everyday. Synology DS3612xs is now introduced with the fanless CPU heatsink to prevent the single point of failure, with the CPU passive cooling technology DS3612xs achieves the high reliability system design. When system detects fan failure, 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.

The network ports with failover support combining with hot-swappable drives will ensure continual service uptime during drives replacement or unexpected LAN failure. The ECC RAM module on DS3612xs will detect and correct errors that occur during data transmission. Supporting up to 6GB ECC RAM, DS3612xs provides secure data protection and performance to meet the need of large scale businesses for a strong foundation to face mission-critical tasks.

## **Robust Scalability Up to 100 TB**

Synology DS3612xs is also designed to grow with your business and provides the ability to seamlessly expand a single volume up to 100TB on the fly. When the storage capacity of DS3612xs is nearing its limits, it can easily be expanded with Synology DX1211². It is connected to DS3612xs via an Infiniband cable that carries 12 Gb/s SATA signal to ensure maximum throughput.

Management of the large storage space on DS3612xs is simple and flexible. Multiple Volumes on RAID allows users to create more than one volume on a RAID structure, providing a flexible and efficient way to manage the storage across all hard drives. When the need for more space arises, the volume could be easily expanded without any service disruption.





## **Unified Storage and Virtualization Ready**

Synology DS3612xs runs on the novel operating system, Synology DiskStation Manager (DSM), which integrates file-level and block-level storage in one unified storage system platform providing management simplicity to reduce your total cost of ownership.

Comprehensive network protocol support (CIFS/SMB, AFP and NFS) assures seamless file sharing across Windows®, Mac®, and Linux platforms. iSCSI is also supported as the ideal alternative to SAN solution for business.

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. With the iSCSI support, DS3612xs provides a seamless storage solution for virtualization servers, such as VMware, Citrix, and Hyper-V. DS3612xs is also certified with the latest VMware vSphere® 5, supporting VMFS-5 and extended storage migration capability with better flexibility and higher performance in VMware virtualization platform.

Thin Provisioning is available for file-level iSCSI, enabling administrators to oversubscribe provision and then grow storage space as needed in safety. With Thin Provisioning, users are able to maximize the storage utilization to reduce the total cost of ownership for the storage system.

### **Full-featured Business Applications**

The Synology DS3612xs offers applications and features designed specifically for large scale business. Windows ADS and LDAP integration allows DS3612xs to quickly and easily fit in an existing business network environment without recreating user accounts. Windows ACL support on DS3612xs provides much finer-grained access control and efficient privilege settings, allowing IT staffs to set up privileges to files and folders on DS3612xs through their familiar Windows user interface.

The built-in backup application is provided for backing up data in the DS3612xs to another Synology NAS, expansion unit, any rsync server via an encrypted transmission. It is even possible to back up from DS3612xs to the cloud with the Amazon® S3 support. Shared Folder Sync is also available in DSM for implementing disaster recovery plans. With Shared Folder Sync, DS3612xs is able to replicate data to another DiskStation within the Intranet or across the Internet, helping to reduce the risk of business interruption.

## **Energy Efficient Design**

Synology DS3612xs is designed and developed with energy efficiency in mind. Compared with the average storage server counterparts, DS3612xs consumes a relatively low amount of power and have the hard drives hibernate when not in use.

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: 6,500 feet
Power Consumption: 132 W (Access); 57.2 W (HDD Hibernation)
Certification: FCC Class B, CE Class B, BSMI Class B
3-year Limited Warranty

Max Printer #: 2
 LPR, CIFS, AppleTalk®, Apple AirPrint™, Google Cloud Print™

(For Mac users, DS3612xs supports PostScript USB printers

· Supported Playlist Format: M3U, WPL

Multi Functional Print Server

Multi Functional Print Se
Synology Packages
 Mail Station 2
 Logitech\* Media Server
 Webalizer
 phpMyAdmin
 Time Backup
 VPN Server
 WordPress\*
 Surfor Searcer
 Surfor Searcer

Syslog Server Directory Server HiDrive® Backup

OpenERPHASP

DS photo+
 DS audio

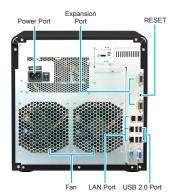
DS finder

Printer Server

only.)

#### **CONNECTIONS & BUTTONS**





# 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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### **Technical Specifications**

#### Hardware

- CPU: Intel Core i3<sup>TM</sup> Dual Core 3.1GHz, with floating point RAM Size: ECC RAM 2GB
  Internal HDD<sup>1</sup>: 12X 3.5" SATA(II) or 12X 2.5" SATA/SSD
  External HDD Interface: 4X USB ports
  Expansion Interface: 2X Expansion port
  Size (H X W X D): 310 mm X 300 mm X 340mm Size (H.X.W.X.D): 310 mm X.340 mm X.340mm
   Weight: 10.53 kg
   LAN: 4X Gigabit (10 GbE X2 add-on card is supported)
   Link Aggregation

# Applications

File Browser

Virtual Drive

Remote Folder

#### File Station

#### FTP Server

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

#### Mail Server

Supported Mail Server Protocol : POP3, SMTP, IMAP

## Web Station

- 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): 50 (1 free license to install
  1 IP camera. Additional licenses can be purchased to expano
  the license quota.)

File System
• EXT4

**General Specifications** 

EXT3 (External Disk Only)

Volume Management
- Synology Hybrid RAID
- Max Volume #: 1024

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

- Photo Station

  Facebook Integration

  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, rvv2, dng, x8f)

  Supported Video Format\*: 3G2, 3GP, ASF, AVI, DAT, DivX, FLV,

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

Max Volume #: 1024
Max ISCSI Target #: 64
Max ISCSI LIW #: 512
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. 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 1, RAID 5, RAID 5+Spare or RAID 6 by Adding a Hard Drive On The Fly
Volume Expansion with DX1211
File Sharing Capability
File Sharing Capability

File Sharing Capability

• Max User Account: 4096

• Max Group: 512

• Max Shared Folder: 512

• Max Concurrent Connections (CIFS, FTP, AFP): 1024

Tested with dual 10GbE connection with Link Aggregation. The performance figures could vary on different environments.
 DS3612xs supports up to two Synology DX1211, purchased

**Environment and Packaging** 

#### M4V, MOV, MP4, MPEG, MPG, OT, WMV, XviD, RM, RMVB, VOB. RV30, RV40, AC3, AMR, WMA3

#### **Download Station**

Supported Download Protocols: BT/HTTP/FTP/NZB/eMule
 Custom BT Port
 BT / eMule Bandwidth Control

Fan: 120mm X 120mm X2
Wireless Support (wireless dongles not included)
Wake on LAN
Noise Level: 2.94 dB(A)
Hot Swappable HDD
Power Recovery
A.C Input Power Voltage: 100V to 240V
Power frecovery: 50Hz to 60Hz, Single Phase
Max Internal Capacity: 36TB (12X 3TB hard drives)\*

#### Audio Station

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

#### DLNA/UPnP Media Server

- DLNA/UPnP Media Server
  DLNA Certified
  PS3/Kbox 360° Support
  Supported Audio Format: AAC, FLAC, M4A, MP3, Ogg, Vorbis,
  PCM, WAV, WMA, WMA VBR, WMA PRO, WMA Lossless
  Supported Video Format 367, 362, ASF, ANJ, DAT, DINX, DVR-MS, ISO, MZT, MZT, M4V, MKW, MP4, MPEG1, MPEG3, MPEG4,
  MTS, MOV, OT, SWF, TP, TRP, TS, VOB, WMV, XviD, RV30, RV40,
  AC3, AMR, WMA3
- A.S., Amik, WinAs. 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, rv2, dng, x3f) Supported Subtitles Format: srt, psb, smi, ass, ssa, sub, idx, ifo

- iTunes\* Server
   Supported Audio Format<sup>2</sup>: MP3, M4A, M4P, WAV, AIF
   Supported Video Format: M4V, MOV, MP4

# Windows Access Control List (ACL) Support Windows ADS Domain Integration Domain Users login via Samba/AFP/FTP/File Station

## **Backup Solutions**

- 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
  FIP over SSL/TLS
  FIP over SSL/TLS
  FIP Auto-Block
  Firewall
  Encrypted Network Backup over Rsync
  HTTPS Connection

- Management
  DSM Upgrade
  Email Notification
  SMS Notification
  Customized User Quota
- DDNS Support
   PPPoE
   Resource Monitor
   UPS Managemen

# Installation Disc Welcome Note

Assembling Kit
 AC Power Cord X2

- The actual capacity will differ according to volume types.
   Measured with 12 Western Digital 2TB WD20027PS hard drive. The figures could vary on different environments.
   Guser can click and download the following video formats: RM, RMMS, VOB, RV30, RV40, RC3, AMR, WMA3, but not able to play it

iPhone/Android Applications

· 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, and 9
- Firefox<sup>e</sup> Safari® 4 and 5 (Mac)

## Supported Clients Windows XP onward

- Mac OS X 10.5 onward
- Ubuntu 9.04 onward

#### Language

Language - English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svensk, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, 日本語、한국어, 紫體中文, 简体中文

# Optional Accessories - Remote

- Remote
   Camera License Pack
   Expansion Unit (DX1211)

# in Photo Station as compressed Flash® video. The music in WAV and AIF format can be streamed, but the metadata (ex: title, album) may not be indexed on the iTunes

## Networking

Hard drive not included.

Environment
RoHS Compliant

Package Content
DS3612xs Main Unit

