



Ideal for Businesses in Need of Rapid Performing, High Capacity Storage

- Equipped with **Intel Haswell Xeon CPU** and **16GB DDR3 ECC RAM**
- **HA System Redundancy** with 10GbE Aggregation
- Massive Expansion Available with Cost-effective **Daisy-Chaining**
- **Real-time Remote Replication** and **System Disaster Recovery**
- Bundled with **Free Acronis® Server Backup** and **Intel® Security**
- **AES-NI** Instruction Set Included for Improved Performance and Security



N16850/N12850

Specifications

Hardware Platform

Processor

- Intel® Xeon® E3-1231 v3 3.4GHz Processor

System Memory

- 16GB DDR3 SDRAM shipped
- Memory Module Pre-installed: 4GB x 4
- Total Memory Slots: 4

Memory Expandable up to

- 32GB

LAN Interface (PCI-e)

- RJ-45x4: Auto MDI/MDI-X
- WOL supported

SAS/SATA Controller (HBA), PCI-e (8-lane)

- LSI HBA card 12G SAS/6G SATA Supported

Available PCI-e Slots

- 8-lane (x1) or 4-lane (x2)
- 1-lane (x1)

Daisy Chain Expansion Port

- Supported

LCM

- Displays system status and information

USB Interface

- USB 2.0 host port x4 (front x2, back x2) (Type A)
- USB 3.0 host port x2 (back x2)

VGA Output

- VGA port (back x1)

Disk Interface

- 12 x SATA/SAS for internal (N12850)
- 16 x SATA/SAS for internal (N16850)

Power Supply

- Redundant power supply 650W or more (80plus)

K/B and Mouse (PS2)

- Supported

Environment

- Temperature:
0°C to 40°C (Operation)
-40°C to 70°C (Non-operation)
- Humidity: 0 ~ 80 % R.H. (Non-condensing)

Chassis

- 2U Rack mount (N12850)

- 3U Rack mount (N16850)

Dimensions (HxWxD)

- 89 x 440 x 662 (mm)/3.5 x 17.3 x 26.06 (in) (N12850)

- 133 x 440 x 662 (mm)/5.24 x 17.3 x 26.06 (in) (N16850)

Weight

- 26.39 (Kgs)/58.18(lb) (N12850)

- 29.38 (Kgs)/64.77(lb) (N16850)

Certificates

- CE/FCC/C-Tick/VCCI/BSMI

- RoHS

- WEEE

- VMware, Citrix

Software Functions

RAID

- RAID Modes: RAID 0, 1, 5, 6, 10, 50, 60 and JBOD
- Auto-rebuild: Supported
- Hot-swap: Supported
- Hot Spare: Supported
- RAID Level Migration: Supported
- RAID Expansion: Supported
- RAID Volume Encryption: AES256bit

Disk

- Power Management: Available spin-down on idle setting
- Bad Block Scanning: Supported
- SMART Info: Supported
- SMART Test: Supported
- Disk Roaming: Supports volume-based roaming to other Thecus NAS (require OSS 64bit)

Network

- Configuration: Fixed IP address, dynamic IP address
- Transport Protocols: TCP/IP/AppleTalk
- File Protocols: SMB/CIFS, HTTP/HTTPS, FTP, NFS v4, AFP
- Link Aggregation: Load balance, Failover, 802.3ad, Balance-XOR, Balance-TLB, Balance-ALB, Broadcast
- TCP/IP: IPv6 & IPv4
- DDNS: Supported
- SSH: Supported
- UPnP: Supported
- UPnP Port forwarding: Supported
- Bonjour: Supported
- VPN Server: Supported
- vLan: Supported

System Status

- System Monitor: Monitoring CPU, memory, network utilization and protocols access user count
- Syslog Management:
 1. Send syslog to assigned location
 2. Act as syslog server to receive log info from other systems

Data Access

- Client OS Support:
Windows XP and after
Windows Server 2003 and after
UNIX/Linux
Mac OS X
- FTP: Built-in FTP server with bandwidth control
- Secure FTP: Built-in secure FTP server with bandwidth control
- TFTP: Users can download and upload files with TFTP programs
- Download Manager:
BT download (via Transmission Module)
NZB download (via NZB Module)
- WebDAV/WebDAV SSL: Supported
- Printer Server (IPP):
 1. Supports USB printers
 2. Supports a wide range of IPP printers

- 3. Client can manage print tasks (list/delete) via web user interface

Data Backup

- Client Incremental Data Backup: Acronis Server Backup
- Client System Disaster Recovery: Acronis Server Backup
- Data Burn:
 1. Create files to ISO image and burn to optical disc
 2. Create files to ISO image
 3. Read ISO image from optical disc and write to NAS
- Mac OS X Time Machine: Supported
- Data Guard: Remote Backup/Local Backup/Folder and iSCSI volume based
- Snapshot: Supported (Btrfs)
- System failover: Supported

Block Level Access

- iSCSI Target/Initiator: Supports Microsoft/Mac OS X/Linux initiators and Thecus NAS targets
- iSCSI Thin Provisioning: Supported
- MPIO: Supported
- MCS: Supported
- Clustering: Supported
- SCS3 Persistent Group Reservation: Supported

Power Management

- Scheduled Power On/Off: Supported

Volume Management

- Multiple RAID: Supported
- Multiple File System Selectable: EXT3/EXT4/XFS/Btrfs

Multimedia Support

- iTunes Server: Supports AAC, MP3 w/ID3 tag and WAV
- Piczza!™ Photo Server (via module):
 1. Supports GIF, JPG (JPEG), BMP and PNG
 2. Supports EXIF display
 3. Supports slide show
- Media Server:
Supports uPnP AV streaming protocol (via module)

User Authentication

- Local User: Supports built-in user accounts
- Local Group: Supports built-in user groups
- Windows ADS: Supported
- LDAP: Supported
- Access Guard: Supports Black & White list/IP Filter

Cloud Backup

- Dropbox: Supported (via module)
- ElephantDriver: Supported (via module)
- Amazon S3: Supported

File System

- Type: Journaling File System
- Language Support: Unicode Support
- Authorization (ACL): "Read", "write", or "deny" privileges to individual users or groups in folders and sub-folders
- User Quota: Supported (exclude btrfs)
- Folder Quota: Supported (Btrfs only)

Administration

- User Interface: Web-based user interface supports English, Traditional Chinese, Simplified Chinese, Japanese, Korean, French, German, Italian, Spanish, Russian, Polish, Portuguese
- Utility Program:
MS Windows Setup Wizard
Supports Windows XP and after
Mac OS X Setup Wizard
- Email Notifications: Sends system messages via email to the system administrator
- SNMP Trap: System information trap out
- Thecus ID/DDNS: Supports One free DDNS registration (e.g. xxx.thecuslink.com)
- P2P Connection:
Mail registration to connect NAS remotely

Mobile Applications (iOS/Android)

- Thecus T-Dashboard™:
Mobile monitoring and administration (via module)
- Thecus T-OnTheGo™:
Upload, download and stream multimedia
- Orbweb.me: Uploading, downloading, streaming multimedia and webcam via P2P connection

Data Security

- Virus Scan: Supports Intel® Security (via module)

Capacity Expansion

- Stackable: Can extend for 5 additional iSCSI volumes from other Thecus NAS
- Daisy Chain: Allowed to daisy chain to an additional 4 sets of Thecus D16000
- Expand through SAS wide port Interface:
 1. Can be configured as multi-independent RAID volume
 2. Can join to existed RAID volume

System Redundancy

- High Availability: Support system level redundancy

Others

- Recycling Bin: Supported
- Web Disk: Supported (via module)
- Web Server: Supported (via module)
- ISO Mount: Supported
- User Access Log: Supported
- User/System Module: Supported
- IP Cam Surveillance:
Supports up to 10 IP cameras (via module)
- Auto Module Installation: Thecus' module server automatically provides the latest modules and updates through the user interface
- UPS: Supported through USB interface
- Disk Wipe: Supported
- Disk Clone: Supported
- Local Display: X-Window via HDMI output

Email: sales@thecus.com

Official Website: www.thecus.com

For Windows NAS: wss.thecus.com

Reseller Center: www.thecus.com/reseller_index.php

NAS App Center: www.thecus.com/sp_app_center.php

 Facebook: www.facebook.com/Thecus

 Forum: forum.thecus.com

 Twitter: twitter.com/Thecus_Storage

 RSS: www.thecus.com/rss_news.php

 YouTube: www.youtube.com/thecusstorage

 Blog: blog.thecus.com

Retail/Reseller Information