

D-Link Corporation

ShareCenter Pulse

2-Bay Network Storage

DNS-320 A1 (v1.01)

External Product Spec

Version History:

Date	Version	Person	Description
2010/5/20	0.09	Eric Jen	First draft release
2010/8/20	1.00	Eric Jen	First release
2010/9/17	1.01	Eric Jen	Modify device dimensions and weight

I. Product Features:

- Equipped one 10/100/1000 Mbps auto-MDIX Gigabit Ethernet LAN port
- Embedded two SATA II 3.5" HDD interface, support 2TB (or above) HDD
- RAID 0/1 and JBOD supported
- Support Real time clock (RTC)
- Support D-Link Green Ethernet
- Equipped Smart fan speed control
- Multilingual GUI support
- Network Options
 - DHCP Client or Static IP
 - NTP Server
 - Windows 7/ Vista x32/64 PnP-X/LLTD
 - Dynamic DNS
 - Bonjour
- Network File Services
 - Supports Windows XP/ Vista/ 7, Mac OSX 10.5, Linux clients
 - CIFS/SMB for Windows and Mac OS X
 - NFSv2/v3 for Linux and UNIX
 - AFP3.1 for Mac OSX
 - HTTP and HTTP/S for web browsers
- File System
 - EXT 3 for internal HDD
 - FAT32, NTFS (Read only) for USB external Storage
- File System Management
 - Unicode Support for both Samba and FTP server
 - File sharing: Windows/ Mac/ Linux
- FTP server
 - FTP over explicit SSL/TLS mode
 - FTP bandwidth and connection control
 - FTP support FXP
- Disk Management
 - RAID: Standard, JBOD, RAID 0,RAID 1
 - Raid 1 Auto/manual Rebuild
 - RAID migration: Normal to RAID 1
 - Disk Status Monitoring (S.M.A.R.T.)
 - HDD S.M.A.R.T diagnostic
 - Scandisk
 - Reformat HDD
- Folder Management

- Share Folder Level Permission
- Public Folder
- Remote File Sharing
 - Remote file access (AjaXplorer)
 - [Web File Sever*](#)
 - [Smart phone \(iPhone\) access*](#)
- User/Group Management
 - User/group assignment for Network sharing and FTP server
 - Quota for user and group
 - Users can assign to multiple Groups
- Backup Management
 - Schedule Backup from PC to NAS
 - Apple Time Machine support
 - USB one-touch-backup
- Download Management
 - HTTP/FTP schedule download
 - Peer to peer downloader support
- System Management
 - Support Easy Search Utility
 - OS support: Windows XP, Vista, 7
 - Two access modes supported: Open (Share) mode and Account (User) mode, no setup necessary in open mode
 - Support Configuration file save/load
 - System status
 - Email alerts
 - System/FTP Log
 - [Network Recycle bin*](#)
 - [Log system \(syslog server\)*](#)
- Power Management
 - Power Saving (Disk idle spin-down)
 - Schedule power off
 - Support auto power recovery
 - Smart FAN Control
- USB port support:
 - External Storage device
 - Printer Server
 - UPS monitoring
- Media Streaming
 - UPnP AV server
 - Support PS3/Xbox 360

- Support UPnP AV file > 4GB
- [Comply with DLNA 1.5*](#)
- iTunes Server
- Windows Applications
 - Yahoo Widget support
- Web Browsers Supported
 - Internet Explorer 7+
 - Mozilla Firefox 3+
 - Apple Safari 4+
 - [Google Chrome3+*](#)
 - [Opera 10+*](#)

* [means future F/W release](#)

II. Hardware specifications:

2.1 H/W Specifications:

Key Component	Detailed Description
Storage Network Processor	SoC 800MHz
OS	Linux 2.6.x
SDRAM	128MB
NAND Flash	128MB
Hard Disk Bays	Support two standard SATA II drives
Network	Ethernet 10/100/1000 M
Thermal Sensor	Yes
Power Supply	Detachable power supply
Ports	Detailed Description
USB connector	1 USB 2.0 (Type A) connector: USB Host port for USB external storage device, USB printer, and UPS monitoring
Power receptacle	Connect to the power supply

2.2 LED Order:

LED Indicative	Color	Status	Description
Power	Blue	Solid Light	Power is on and device is in a ready state
		Blinking Blue	Booting / Restart
		Light off	Power is off or Power saving mode
HDD1 / HDD2	Blue	Solid Light	HDD is present
		Blinking	HDD is writing/reading
		Light off	Power is off or no hard drive inserted
	Orange	Solid Orange	Hard drive is installed but failed
USB	Blue	Solid Light	USB Storage is connected
		Blinking	USB device is being installed, un-mounted or data is transferring
		Light off	USB Storage is un-mounted, not connected, or system power is off
	Orange	Solid Orange	USB storage is installed but failed to mount the device
LAN (on LAN port)			
Link/ACT (Right)	Green	Solid Light	While connected to LAN port
		Blinking	While transferring data
		Light off	Not connected, power is off
Speed (Left)	Green	Solid Light	While connected to Gigabit Ethernet
		Light off	While connected to Fast Ethernet

2.3 Button:

Button Indicative	Status	Description
Power	Push	Power on
	Push over 5 seconds	Power off
Reset	Push over 5 seconds	Reset configuration to default
USB	Push	Push 1 second for One-touch-copy function, copying the data from external storage to DNS-320
	Push over 5 seconds	Un-mount USB, USB LED will turn off when un-mounted.

III. Software specifications:

OS	Linux 2.6.x
Standards	<ul style="list-style-type: none"> - IEEE 802.3/u/ab - TCP/IP - CIFS/SMB - SATA II - DDR II - USB 2.0 - FTP - FTP over explicit SSL/TLS - DHCP Client - DDNS - NTP - HTTP/HTTPS - LLTD - PnP-X - UPnP AV 1.0 - DLNA HNV1.5*
File system	Internal HDD: EXT 3 External HDD: FAT32, NTFS (Read only)
Network Client Type	<ul style="list-style-type: none"> - Microsoft: XP, Vista, Windows 7 - Linux - Mac OSX 10.5+
Media Type (For DLNA)	<p>For UPnP AV Server</p> <p>Audio Type</p> <ul style="list-style-type: none"> - MP3, WPA, WAV/PCM, WMA, AIF/AIFF, OGG, FLAC, APE, AAC, M4A <p>Video Type</p> <ul style="list-style-type: none"> - VOB, AVI, MPEG2, MP4, MPEG4, WMV9, MOV, MKV, ISO, DIVX, IFO, M2TS <p>Subtitle Type</p> <ul style="list-style-type: none"> - SRT <p>PlayList Type</p> <ul style="list-style-type: none"> - M3U, PLS <p>Photo Type</p> <ul style="list-style-type: none"> - JPG, BMP, GIF, TIF, PNG <p>For iTunes Server</p> <p>Audio Type</p> <ul style="list-style-type: none"> - MP3, M4P, M4A <p>For PS3</p> <p>Audio Type</p> <ul style="list-style-type: none"> - MP3, WAV, WMA <p>Video Type</p> <ul style="list-style-type: none"> - MPEG2, MPEG4, VOB, WMV9 <p>Photo Type</p> <ul style="list-style-type: none"> - JPG, BMP, GIF, TIF, PNG <p>For Xbox360</p> <p>Audio Type</p> <ul style="list-style-type: none"> - MP3, WMA <p>Video Type</p> <ul style="list-style-type: none"> - WMV <p>Photo Type</p> <ul style="list-style-type: none"> - JPG

HDD	<ul style="list-style-type: none"> - Reformat Disk - ScanDisk - S.M.A.R.T.
Two RESET modes	<ul style="list-style-type: none"> - Reset firmware GUI button - Reset by HW reset button (press over 5 seconds)
Drive Management	<ul style="list-style-type: none"> - User/Group Quota management
Device Management	<ul style="list-style-type: none"> - HTTP and HTTPS Web browser - Easy Search utility - E-mail Alert
Power Management	<ul style="list-style-type: none"> + Hard Drive Hibernation + Auto Power Recovery + Schedule Power Off + Smart FAN Control + D-Link Green Ethernet
File sharing	<ul style="list-style-type: none"> - Max. User Account: 64 - Max. Group: 10 - Max. Shared Folder: 64 (without P2P) - Max. Con-current Samba Connection: 64
Multiple language support	<ul style="list-style-type: none"> - Samba: Unicode - FTP Client/ iTunes Server: Unicode , Croatian, Cyrillic (Kyrgyz Republic), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Norwegian, Polish, Portuguese, Romanian, Russian, Simplified Chinese, Slovenian, Spanish, Swedish, Traditional Chinese, Turkish, Korean, Hebrew

IV. ID and Mechanical Design



Dimension

(W x D x H): 146.4 x 115 x 178.5 mm (5.8" x 4.5" x 7.0")

V. Technical Specifications

Standards

- + IEEE 802.3
- + IEEE 802.3u
- + CIFS/SMB
- + AFP
- + DDNS
- + FTP over SSL/TLS, FXP
- + LLTD
- + UPnP AV
- + Bonjour
- + IEEE 802.3ab
- + TCP/IP
- + NFS
- + DHCP Client
- + NTP
- + HTTP/HTTPS
- + PnP -X
- + USB 2.0

Supported Hard Drive Type

- + SATA I/II – Support hard drive capacity up to 2TB
- + 3.5” Internal

Ports

- + 1 10/100/1000 Gigabit Ethernet Port
- + 1 USB 2.0 Host Port
- + Power

LEDs

- + Power
- + USB
- + HDD 1
- + HDD 2

Disk Management

- + Multiple Hard Drive Configurations: RAID 0, RAID 1, JBOD, Standard
- + RAID migration from Non-RAID to RAID 1
- + Hard Drive Format: EXT3
- + Scandisk
- + S.M.A.R.T.

Account Management

- + User account management
- + Group account management
- + User/Group Quota management
- + Network Access management

Download management

- + HTTP/FTP schedule download
- + Peer to peer (P2P) downloader

Backup Management

- + Schedule Backup from PC to NAS
- + Apple Time Machine support
- + USB one-touch-copy

Device Management

- + Internet Explorer 7+, Mozilla Firefox 3+ or Apple Safari 4+
- + Easy Search Utility
- + E-Mail Alerts
- + System/FTP log
- + Yahoo! Widget

Power Management

- + Power Saving mode
- + Auto Power Recovery
- + Schedule Power off
- + Smart Fan control

Remote File Sharing

- + Remote File Access (AjaXplorer)

File Sharing

- + Max. User Account: 64 users
- + Max. Group: 10 groups
- + Max. Shared Folder: 64 folders (without BT)
- + Max. Con-current Samba Connection: 64 connections

Power Supply

- + External Power Supply
- + DC 12V/4A Switching

Power Consumption

- + Normal mode: 15.7W
- + Sleep mode: 8.2W

Temperature

- + Operating: 0° - 40° C (32° - 104° F)
- + Storage: -20° - 70° C (-4° - 158° F)

Operating Humidity

- + 5% ~ 90% (Non-condensing)

Dimensions

- + Item (W x D x H): 146.4 x 115 x 178.5 mm (5.8" x 4.5" x 7.0")
- + Packaging (W x D x H): 278 x 208 x 184 mm (8.2" x 10.9" x 7.2")

Weight

- + Item: 0.85kg (1.87 lbs)
- + Packaging: 1.93kg (4.246 lbs)

Multilingual Support:

- + Samba: Unicode
- + FTP Server: Unicode, Korean, Turkish, Croatian, Cyrillic (Kyrgyz Republic), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Norwegian, Polish, Portuguese, Romanian, Russian, Simplified Chinese, Slovenian, Spanish, Swedish, Traditional Chinese, Turkish, Korean, Hebrew