NAS SERVER

Highest RAID Security Level

DS559

intel Atom inside™

NVIDIA. ION™

Dual-Core **1.8** GHz CPU
Dual Support

1GB DDRII
Memory

1GB SATA DOM
Flash Memory

Environment Friendly
Power-saving
Intelligent Temperature Control Program

NAS MENU
(DISK SPACE INFO)

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Function Diagram

Wired IP Camera
Speaker
Router
Digital Media Adapter
dlna UPnP
Console
TV
Printer
MP3
Photos
Install Inside
Home Theater

Raid Level Migration
Complex RAID
Volume Recovery
Hot Spare Function
Windows A.D. Domain Integration
iSCSI Target

Email Notification
Remote power on or off
Software & Firmware upgrade
Personal Website
Support Jumbo Frame up to 9000

Business Applications

iSCSI Initiator | PPPoE | DDNS | Web Blog | Web Album | Apache Sever | Printer Server | Cross Platform Sharing | Support Windows ADS | iSCSI Target | PHP MYSQL

Multimedia Sharing

UPnP Media Server | iTunes Server | Multimedia Sharing Server

Backup & Security Solution

Time Machine | RAID 0/1/5/5+ /6/6+ | Online RAID Migration

System Management

SMS | HDD P.O.I.S Server | HDD Power Management | HOT Swappable | Wake on LAN | HDD S.M.A.R.P.

File Download & Sharing

FTP Server | Samba Server | File Server
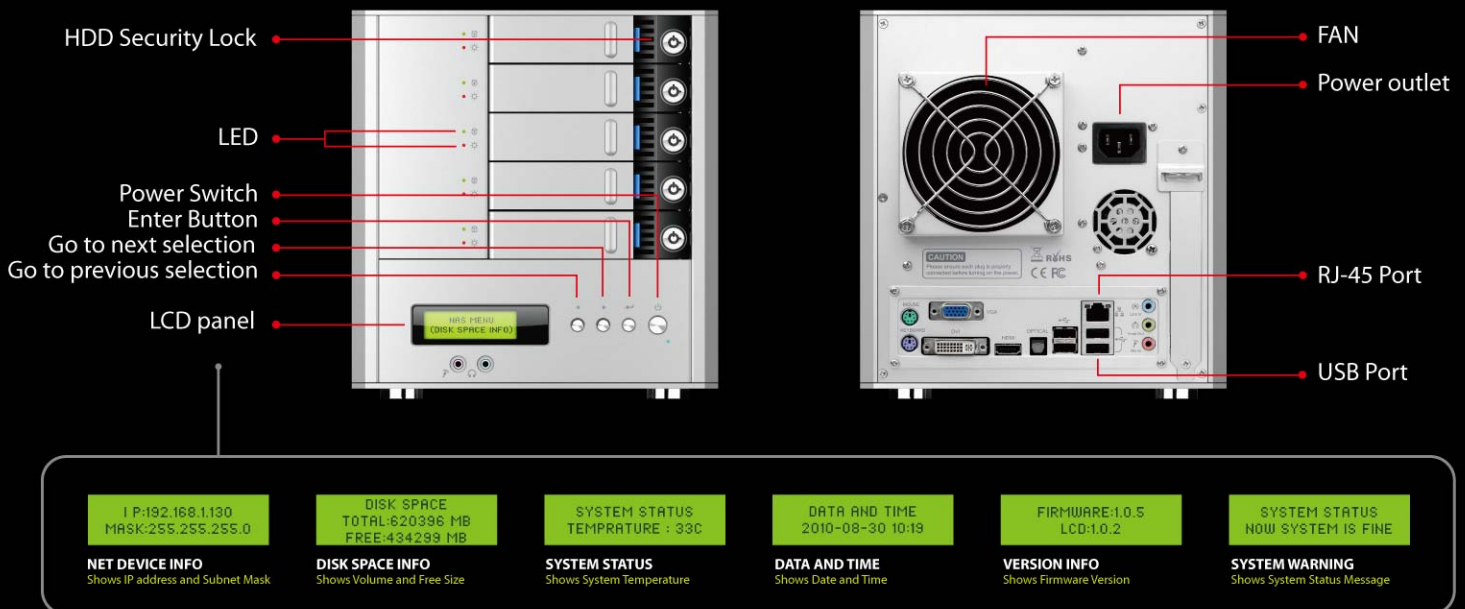
Surveillance Center

Surveillance | NVR

Highest RAID Security Level

Multi-Bay NAS Series is a 2.5 inch or 3.5 inch SATA HDD 5 Bay Network Attached Storage. Supported by Intel Atom processor for high performance data access abilities with advanced RAID protection by RAID 0/ 1/ 5/ 5+ Hot Spare/ 6/ 6+ Hot Spare, the expandable capacity of RAID 1/5/6 to supply maximum flexibility for users to manage disk volumes. The powerful NAS also provides iSCSI Target functions for powerful business users.

The iSCSI feature is used to facilitate data transfers over intranets and to manage storage over long distances. The users can setup partial volume for iSCSI Target to access and manage by iSCSI initiator. The Multi-Bay NAS supports file sharing across multi platforms and provides rich functions for business purposes such as SAMBA Server, FTP Server, File Server, DFS Server, Printer Server, Web Server and Windows Active Directory.

HDD Security Lock

LED

Power Switch
Enter Button
Go to next selection
Go to previous selection

LCD panel

FAN
Power outlet

RJ-45 Port

USB Port

IP:192.168.1.130 MASK:255.255.255.0	DISK SPACE TOTAL:620396 MB FREE:434299 MB	SYSTEM STATUS TEMPRATURE : 33C	DATA AND TIME 2010-08-30 10:19	FIRMWARE:1.0.5 LCD:1.0.2	SYSTEM STATUS NOW SYSTEM IS FINE
NET DEVICE INFO Shows IP address and Subnet Mask	**DISK SPACE INFO** Shows Volume and Free Size	**SYSTEM STATUS** Shows System Temperature	**DATA AND TIME** Shows Date and Time	**VERSION INFO** Shows Firmware Version	**SYSTEM WARNING** Shows System Status Message

Hardware Specification

Chipset Solution
Intel Atom 330 (1.6GHz / Dual Core)
Intel Atom D510 (1.66GHz / Dual Core)
Intel Atom D525 (1.8GHz / Dual Core)
NVIDIA ION MCP7A-ION

RAM / Flash Size
DDR2 1GB / SATA DOM 1GB

LAN Interface
Data Transfer Rates: 10/100/1000 Mbps
Connector Type: RJ-45 *1 port

Internal Hard Drives
Number of Drives: 2/3/4/5
Max. Single Partition: 2TB
Max. Volume Capacity: 10TB

Upgrade Disk Configuration

Disk Configuration	Upgrade
Simple	RAID 1
RAID 1	RAID 5
RAID 5	RAID 6

Interface

Standard Compliance: USB 2.0 / VGA / DVI / HDMI
Connector Type: USB Host A * 4 ports
Device: works with USB Printer
Supports USB printer server function

Software Specification

File System Management
EXT3

Language
English, Traditional Chinese, Simplified Chinese
(Other language available with OEM order)

System Tools
System Firmware upgrades
Software update
Reset system setting
Display log file

Protocol Support
Networking: TCP/IP
File Sharing: SAMBA, FTP
Management: HTTP

User Management

Maximum user accounts: 3072
Maximum user groups: 256
Maximum shared folder: 256
Maximum concurrent connections: 256

OS Supported (for Client PC)
Microsoft Windows 98SE/NT/2000/XP/2003/Vista/7
Linux Redhat/Fedora/SUSE/Ubuntu
Mac OS X

Windows AD Domain Integration
ADS Support
Domain users login via Samba/AFP/FTP

Hard Disk Management
Support Raid Simple/0/1/5/5+/6/6+
Support Hot Spare

Software Specification

Multi-Bay NAS X 1	RJ-45 Cable X 1
CD X 1	Key X 4
User Manual X 1	AC Power Cord X 1

Business Applications

iSCSI Initiator
With iSCSI Initiator, the other NAS with iSCSI Target function can be connected with and the virtual disk may used by initiator.

PPPoE
When the NAS connects to an ADSL directly, the account information can directly setup in the NAS. Therefore, NAS can easily connect to the Internet.

DDNS
Dynamic Domain Name Server helps dynamic IP address to correspond a domain name. (DynDNS is supported).

Web Blog
Collect all your diaries, articles, and memories to your local HDD without capacity limitation. Also, you can create your own template and revise program to make a unique blog on the Internet.

Web Album
Photo sharing with visitor rights administration. No maximum capacity limitation, the bigger hard disk drive, the more space for you to use. Support one time photos upload to web album without upload one by one.

Apache Sever
Easy build your WWW website based on Linux platform,more stable, more flexible.

Printer Server
Users can share printer device over the network without duplicating investment by simply connecting a USB printer and enabling its sharing function.

Cross Platform Sharing (PC & Mac)
Support Windows, Mac, Linux, and Unix It is specially designed for sharing files across Windows, Mac, Linux and Unix platforms for all kinds of computer users.

Support Windows ADS
Windows ADS (Active Directory Service) saves not only server manager's time and effort in creating duplicated groups and accounts, but also lowers the maintenance cost by centralized management.

iSCSI Target
With iSCSI Target, a network storage server supply spaces for iSCSI initiator to connect.

PHP MySQL
PHP is a programming language for HTML and MySQL is a multithread database program. Users can use PHP with MySQL and apache
server to build their own websites.

Multimedia Sharing

UPnP Media Server
It is an Info-Media Storage Center which works well with DLNA (Digital Living Network Alliance) compliant media players. Users can listen to music and Internet Radios on Hi-Fi system. More importantly, they can even play their videos and photos on TV.

iTunes Server
All MP3 music can be collectively stored and streamed to Windows PC or Mac. Simply turn on the iTunes and enjoy music around your home network.

Multimedia Sharing Server
By uploading multimedia files like movies, music and photos, users can easily manage and share the files around the world via a web-based browser.

System Management

SMS
When the NAS suffer system error, the NAS will send a message to a user via Short Message Service.

HDD Power On In Sequence
The hard disk drives are power on in sequence after the power button is triggered. Besides, When the HDD connects with SATA connector, the HDD is delayed power up to prevent damage H.D.D. and increase the life time of H.D.D.

HDD Power Management
The unused HDD can be turned off by click power button from web page.

Hot Swappable
User can install or replace hard disk drive without turn off NAS.

Wake On LAN
Search tool supply Wake On LAN function for user to turn on NAS without push power button.

HDD S.M.A.R.T
The HDD "Self-Monitoring, Analysis and Reporting Technology" is automatically monitor hard disk drive and report error to user.

File Download & Sharing

FTP Server
It simplifies the data sharing around the world. Users can manage the access authority of the FTP server and share their files with friends or customers easily in just a few steps.

SAMBA Server
Samba is a strong network service for file and print sharing that works on the majority of operating systems available today. When well implemented by the administrator, it's faster and more secure than the native file sharing services available on Microsoft Windows machines.

File Server
It makes users to create their own File Server easily. It allows server manager to create user ID and password, and define the authority and quota for each user. All data are well-protected and stored.

Backup & Security Solution

Time Machine
Multi Bay NAS support Time Machine function for MAC OS X 10.5 plus. The user is only need to enable this function from web page and the MAC is going to backup music, photo, film and document to NAS every hour. The users can recovery from any backup file from list.

RAID 0/1/5/5+/6/6+
Different Raid level supplies different function, for example, raid 0 is speed up and raid 1 is most safe method to store data.
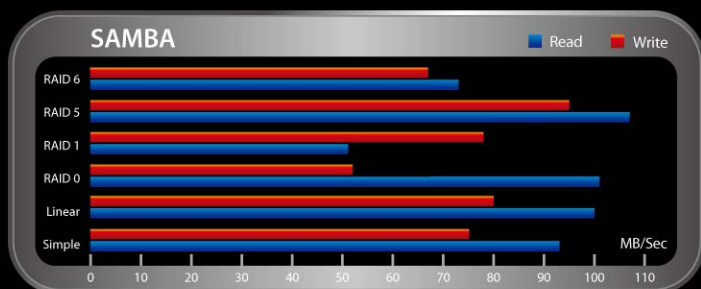
Online RAID Migration
Upgrade Raid level when the new hard disk drives are installed in the NAS.
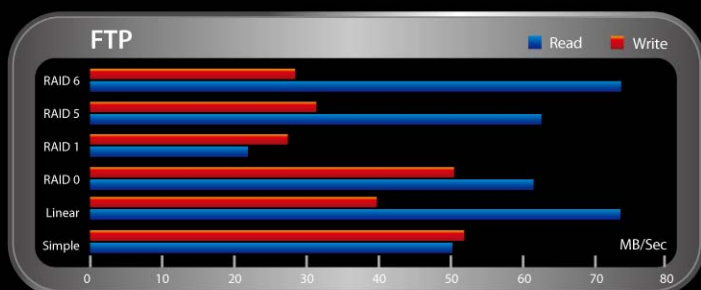
Outstanding Read/Write Performance

SAMBA Access

PC : Intel (R) Core i3 CPU 530 @2.93GHz RAM 4G
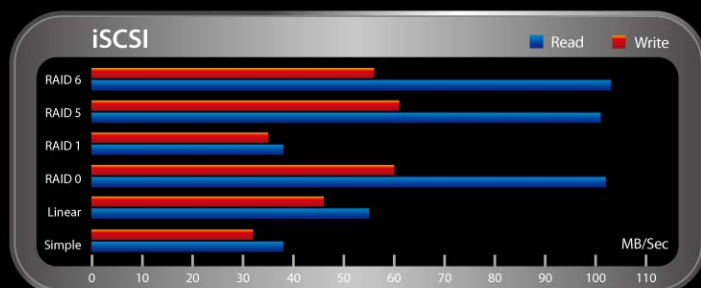OS : Windows 7 64bit

SAMBA — Read / Write

RAID 6	
RAID 5	
RAID 1	
RAID 0	
Linear	
Simple	

0 10 20 30 40 50 60 70 80 90 100 110 — MB/Sec

FTP Access

PC : Intel (R) Pentium(R) Dual CPU E2180 2G , RAM 2G
OS : Microsoft Windows XP Professional

FTP — Read / Write

RAID 6	
RAID 5	
RAID 1	
RAID 0	
Linear	
Simple	

0 10 20 30 40 50 60 70 80 — MB/Sec

iSCSI Access

PC : Intel(R) Core i3 CPU 530 @2.93GHz RAM 4G
OS : Windows 7 64bit

iSCSI — Read / Write

RAID 6	
RAID 5	
RAID 1	
RAID 0	
Linear	
Simple	

0 10 20 30 40 50 60 70 80 90 100 110 — MB/Sec

DFS

The user is able to access other share folders located on different servers from Multi-bay NAS. The user is only need login to Multi-bay NAS and no need to memorizes other accounts and passwords.
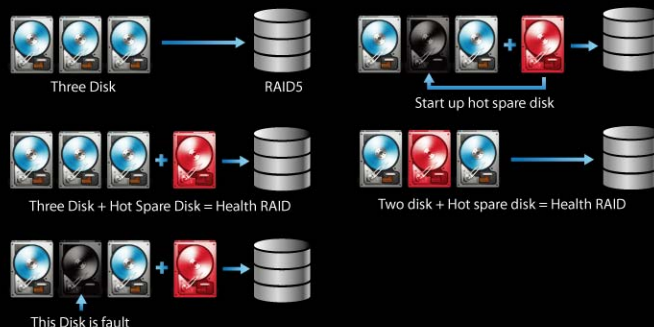
Data Protection Mechanism

Hot Spare

When a hard disk drive is detected with error, the hot spare HDD will replace the problem HDD in RAID Level.

RAID 5 ADD Hot Spare Disk Process

Three Disk → RAID5

Start up hot spare disk

Three Disk + Hot Spare Disk = Health RAID

Two disk + Hot spare disk = Health RAID

This Disk is fault

Recovery Volume

The user is able to recovery deleted volume before format the volume.

Recover Volume Process

Create

Delete

Recover

Complex RAID

A RAID 5 Array composed by three 1TB H.D.DS

Add two 2TB disks into NAS and expand the volumne

1TB 1TB 1TB + 1TB 1TB / 1TB 1TB

Additional unused space

1TB 1TB 1TB 1TB 1TB / 1TB 1TB 1TB

RAID 5 (4TB Visible with distributed parity drive)

Additional unused space may be created as Simple, RAID 0, RAID 1, Linear by adding new volume for Complex RAID. 100% of all hard drives capacity may be used to the fullest potential.

NAS SERVER
Enterprise Edition Series

DS359

DS459

DS559