

OMNINAS - Your Personal Cloud

The Shuttle OMNINAS KD20 is a two-bay network-attached storage (NAS) which is designed to become your hub of multimedia content - letting you easily store and share documents, personal movies and music as well as photos. Not only does it support access from personal computers, the OMNINAS KD20 makes sure you have your files always with you - be it on the go on Android or iOS-based devices or basically from any place in the world.



Dual bay NAS **KD20**



Feature Highlights	
Application	<ul style="list-style-type: none"> Budget-friendly NAS Server for Small Office, Workgroups and Home Use
Design	<ul style="list-style-type: none"> Elegant ID design with solid 2.5mm aluminium for better heat dissipation Dimensions: ca. 17 x 9 x 22.5 cm = 3.4 litres
Low noise	<ul style="list-style-type: none"> Ultra-quiet operation - the fan is activated automatically only under heavy load/temperature
RAID 1 Hot Swap	<ul style="list-style-type: none"> Two 3.5" storage bays Support 2x 4 TB hard disks (or larger) Supports reliable RAID 1 mirroring with hot-swap function
Fast	<ul style="list-style-type: none"> Superior performance: up to 75/55 MB/s read/write [1]
Power-Saving	<ul style="list-style-type: none"> Power saving: only 9W in standby and 15.5W in normal operation
Connectors	<ul style="list-style-type: none"> SD card reader (Auto-Copy & share function) 1x USB 3.0 (Auto-Copy & share function) 2x USB 2.0 Gigabit LAN (RJ45)
Anywhere Access	<ul style="list-style-type: none"> Accessible from local network under Windows, Mac OS X or Linux Accessible via Internet (Notebooks, PCs) Accessible from iOS and Android mobile devices (smart phones or tablets)
Functions	<ul style="list-style-type: none"> Samba Server (SMB file sharing) Supports DLNA/iTunes media server for audio/video streaming Scheduled Backup: NAS to USB, NAS to NAS Scheduled BT downloads without PC Integrated Printer Server
Software	<ul style="list-style-type: none"> ONMINAS Finder (Windows & Mac) Acronis True Image Personal [3]

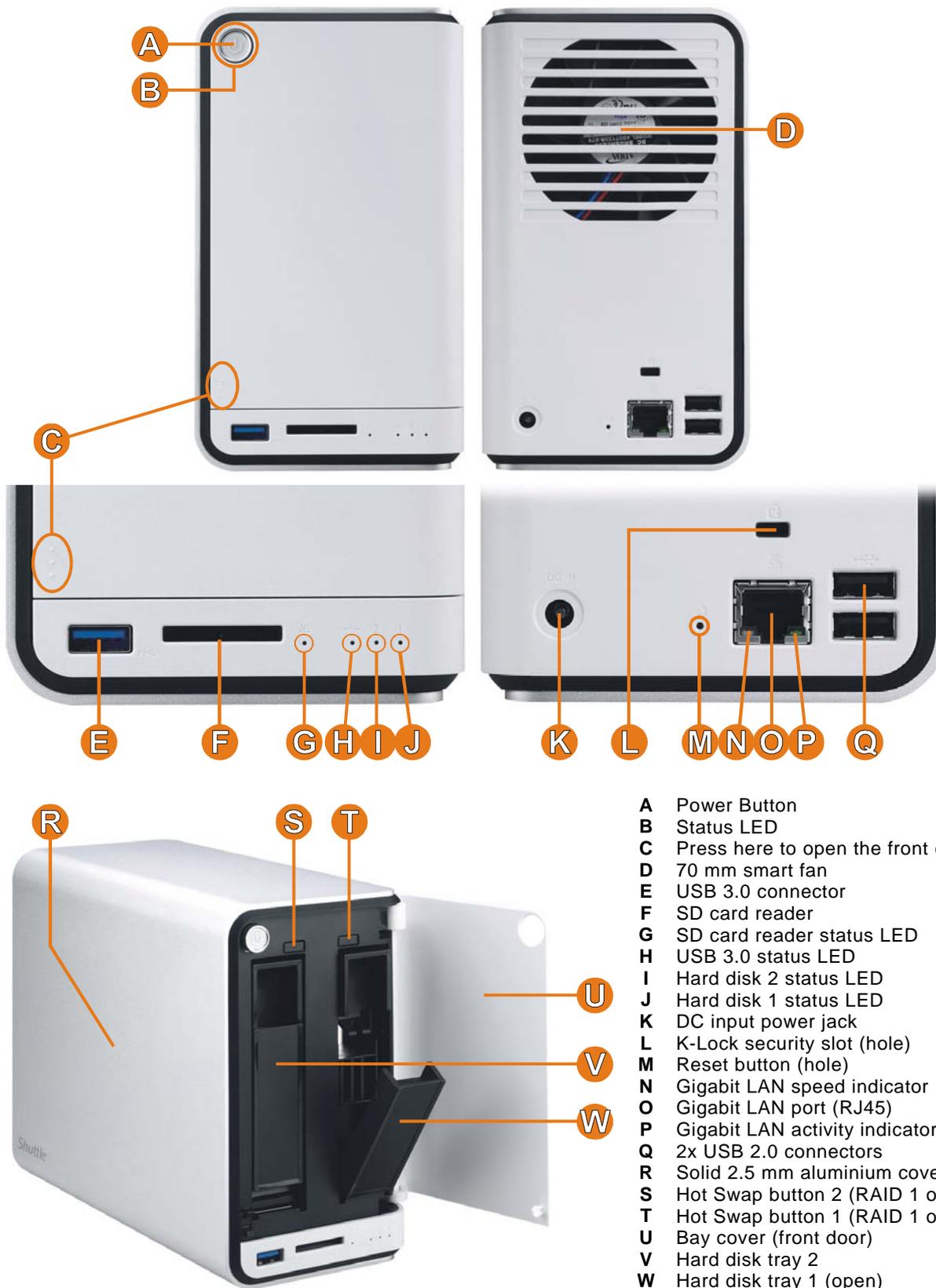
Images for illustration purposes only.



Shuttle Order No: NAS-KD20001

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Shuttle OMNINAS KD20 – Overview



- A Power Button
- B Status LED
- C Press here to open the front door
- D 70 mm smart fan
- E USB 3.0 connector
- F SD card reader
- G SD card reader status LED
- H USB 3.0 status LED
- I Hard disk 2 status LED
- J Hard disk 1 status LED
- K DC input power jack
- L K-Lock security slot (hole)
- M Reset button (hole)
- N Gigabit LAN speed indicator LED
- O Gigabit LAN port (RJ45)
- P Gigabit LAN activity indicator LED
- Q 2x USB 2.0 connectors
- R Solid 2.5 mm aluminium cover
- S Hot Swap button 2 (RAID 1 only)
- T Hot Swap button 1 (RAID 1 only)
- U Bay cover (front door)
- V Hard disk tray 2
- W Hard disk tray 1 (open)

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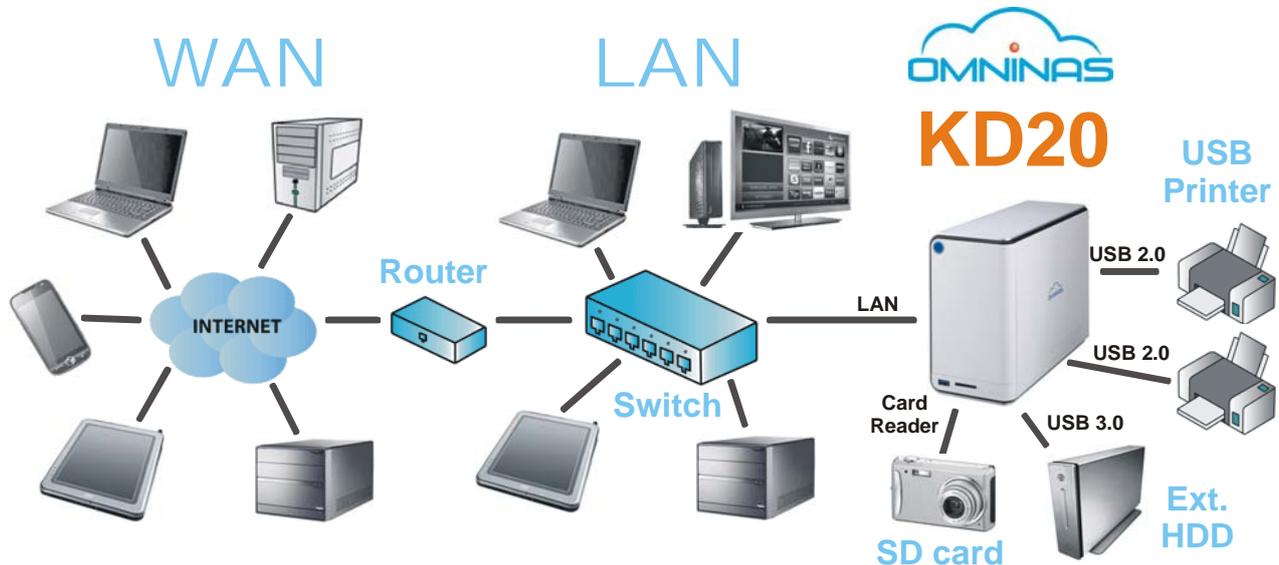
Shuttle OMNINAS KD20 – Applications

Internet (WAN)

Access your Home Cloud with your smartphone, tablet PC, notebook or stationary PC via the internet.

Local Network (LAN)

Access your data, media files, backups and even your USB printer through your local network. Share your external hard disk and auto-copy your photos from the SD card.



Store and Share the Great Moments in Life



With OMNINAS KD20 you can easily store and share documents, personal movies and music as well as photos. Not only does it support access from personal computers, the OMNINAS KD20 makes sure you have your files always with you – basically from any place in the world.



Built-in Media Server

If you want to stream, rather than just store and share audio and video from your file server, OMNINAS KD20 can act as your personal media server and allows you to play multimedia files through XBOX, PS3, or media players on TV.



Built-in print server

With KD20 you can easily share one or more USB printers with all the users in your local network. Connect the USB printers to the USB ports at the back panel of KD20 and share with the OMNINAS_Finder software and you can print from anywhere in the house or office, and the equipment no longer has to be close to your PC.



Share external hard disks and flash memory

The OMNINAS KD20 is also suitable for connecting external USB hard disks and SD flash memory cards, so that you can also share and save files from any PC in your network.



The built-in card reader autcopies your photos and other data

You can enable the auto copy function from the SD card reader or USB 3.0 port by configuring the Auto Copy settings. Once enabled, you can insert a USB storage or SD card from your camera and the it will automatically copy the contents to the designated folder on the OMNINAS KD20. The process finishes with three audible beeps.



Upload and share files from iPhone®, iPad® and Android devices

In the modern world, nothing is as important as reaching your data from anywhere. By using a simple app, you can manage your NAS, upload to, download and stream all of your media and files from iOS and Android device on the go.

Shuttle OMNINAS KD20 – Special Product Features

LAN/Disk Performance



Superior Performance

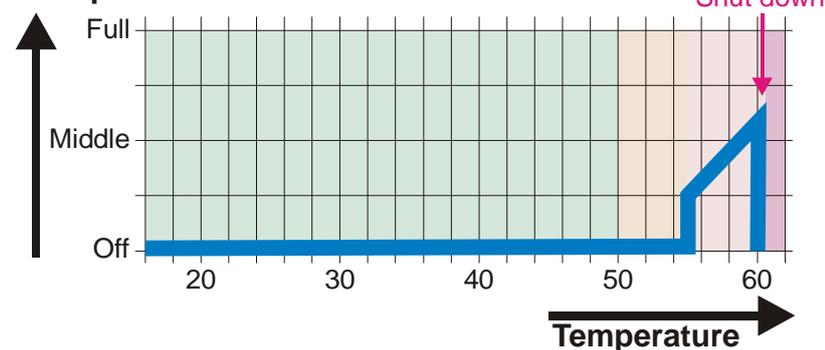
The OMNINAS KD20 provides high stability and delivers excellent performance with top read/write speeds at 75MB/s & 55MB/s while also allowing up to 20 clients to connect to the device at the same time. [1]



Robust aluminium chassis with a clean and modern look

Using a 2.5mm stylish aluminium housing, which is not just to match the design of your home environment, it is also increases the thermal performance of the device.

Fan speed



Reliable, cool and quiet

With the above in mind, the inside temperature doesn't increase easily. The fan will never turn on when the hard disks' temperature is below the threshold value of 55°C [2]. Should the uncommon case of higher temperatures arise, the large 70mm cooling fan starts spinning at a comfortably low speed to keep the system quiet.



Built-in Superspeed USB 3.0 and Card Reader

The OMNINAS KD20 features one USB 3.0 port and two USB 2.0 ports. USB 3.0 achieves a maximum data rate of up to 5.0Gbps (640MBytes/sec) which is ten times faster than USB 2.0. USB 3.0 is fully compatible to USB 2.0. All USB ports support external devices like hard disks, flash drives, printers, digital camera, etc. The memory can be shared across local networks. In addition, the built-in card reader reads your SD cards and shares that data with the NAS swiftly.



Low power consumption

When using the OMNINAS KD20 in a home environment most of the time in idle mode, the average consumption should be more or less 9W only. Based on this value, the annual consumption would amount to approx. 80kWh which would mean just 16 Euros on the power bill (20 Euro ct/kWh). Under normal operation, the KD20 consumes 15.5W, while the max. power consumption is 21W.

Shuttle OMNINAS KD20 Specifications

Chassis	<p>Robust, stylish 2.5 mm sandblasting aluminum combined with acrylic PMMA</p> <p>Dimensions: 170 mm (H) x 90 mm (W) x 225 mm (L) = ca. 3.44 litres</p> <p>Weight: 2.2 kg net (3.1 kg with two hard disks installed) / 2.8 kg gross</p> <p>Kensington Security Slot at the back panel (also called a K-Slot or Kensington lock) as a part of an anti-theft system</p>
Storage Bays	<p>Two storage bays (storage drives not included)</p> <p>Supports 8.9 cm (3.5") drives</p> <p>Easy hard disk installation in two trays</p> <p>Appropriate screws are included</p> <p>Each bay with one hot swap button for RAID 1</p>
Hard disk support and RAID levels	<p>Supports two SATA storage drives each up to 4 TB (or more)</p> <p>Maximum total capacity of 8 TB and beyond</p> <p>Supports 8.9 cm (3.5") drives</p> <p>Raid support: single disk, RAID 0, RAID 1 (hot swap), JBOD</p> <p>Supports hard disk spin-down timer</p> <p>Supports check/format disk, SMART information report, disk usage status report</p> <p>Hard disks must support SMART temperature feature with temperature sensor</p>
Connectors	<p>1x Gigabit LAN (RJ45, rear)</p> <p>1x USB 3.0 (standard A, front), supports Auto-Copy function</p> <p>2x USB 2.0 (type A, rear)</p> <p>All USB ports support external devices like hard disks, flash drives, printers, digital camera, etc. Memory can be shared to local network.</p>
Card Reader	<p>Built-in card reader in the front panel</p> <p>Supports SD, SDHC and SDXC flash memory cards</p> <p>Supports Auto-Copy function</p>
Buttons	<p>Main power button with status LED</p> <p>Two Omni Touch Hot Swap buttons (for HDD1, HDD2)</p> <p>Reset button (hole, rear) for admin password reset</p>
LED Indicators	<p>Status LED: dual colour (access/error: blue/red)</p> <p>HDD1/HDD2 LEDs: dual colour (access/error: blue/red)</p> <p>USB 3.0 LED: single colour (access: blue)</p> <p>Card reader LED: single colour (access: blue)</p> <p>LAN speed LED (10/100 Mbps: green, 1000 Mbps: orange)</p> <p>LAN Activity LED (access/link: blinking green)</p>
Transfer Speed	<p>Read from NAS to workstation: up to 75 MB/s [1]</p> <p>Write from workstation to NAS: up to 55 MB/s [1]</p>

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<p><i>LAN Configuration</i></p>	<p>Supports Static IP or Auto IP by DHCP server</p>
<p><i>Network Services</i></p>	<p>Samba Server (SMB file sharing) Apple File Protocol (AFP) Media Server/DLNA compliant iTunes Server Printer Server (supports USB printers) BT download without PC (scheduled) External device sharing (via USB or card reader) NTP support for scheduled time synchronization</p>
<p><i>APPs for mobile devices</i></p>	<p>Upload and share files from iOS and Android devices. (search for the appropriate "OMNINAS" app) https://play.google.com/store/apps/details?id=com.shuttle.omninas2 http://itunes.apple.com/nz/app/omninas/id543929833</p>
<p><i>System Services</i></p>	<p>Firmware upgrade Time-Zone settings Factory reset function System log report</p>
<p><i>Built-in Backup functions</i></p>	<p>Quick Auto Copy for external storage (USB 3.0 or card reader to NAS) NAS to USB storage backup (scheduled or immediately) NAS to NAS backup (scheduled or immediately)</p>
<p><i>CPU / RAM</i></p>	<p>Processor: PLX NAS 7821, Dual Core ARM 11, 2x 750 MHz DRAM memory size: 256 MB DDR2</p>
<p><i>Operation System</i></p>	<p>Embedded Linux</p>
<p><i>Power Adapter</i></p>	<p>External 65 W AC/DC power adapter (fanless) Input voltage: 100~240 V AC, 50~60 Hz Automatic AC voltage adjustment Input current: max. 1.6 A (1.0 A) for 100 V (240 V) input voltage Output: 19 V DC, max. 3.42 A DC Connector: 5.5/2.5 mm (outer/inner diameter) Dimensions: 108 mm x 30 mm x 46.5 mm (without cable)</p>
<p><i>Cooling fan and temperature control</i></p>	<p>Ultra-quiet 70 mm cooling fan. By default the fan is not activated under normal temperature conditions. The following criteria depicts the system fan behavior dependend on the <u>hard disks temperature</u>: up to 54 °C: fan is off 55~59 °C: fan rotates at low speed 60~61 °C: fan rotates at middle speed 62 °C and above: system shuts down The System also shuts down when the <u>system temperature</u> exceeds 65 °C. [2]</p>

<p><i>Accessories</i></p>	<p>Quick Installation Guide AC Power adapter (65 W) with AC power cord (plug depends on region) Ethernet cable, ca. 150 cm Driver CDROM with NAS finder software (Windows & Mac) and documentation DVD with Acronis True Image Personal Backup Software [3] Screws for hard disk installation</p>
<p><i>System Requirements</i></p>	<p>- Workstation OS: MS Windows XP SP3, Mac OS X 10.4, Apple Safari 3.0, Linux kernel 2.6.x or later - Smart phone OS: iOS 4.2, Android 2.3 or later - Browser: MS Internet Explorer 7.0, Firefox 3.x, Google Chrome, Apple Safari 3.0 or later - Router for Internet connection</p>
<p><i>Power Consumption</i></p>	<p>Standby mode: 9 W Normal operation: 15.5 W Maximum load: 21 W</p>
<p><i>Standby Mode</i></p>	<p>After a certain time of inactivity the system will enter power saving (standby) mode. This time can be set under: Settings - General - Power Saving Time Setting You can select a time from 10 min up to 5h.</p>
<p><i>Environmental Spec</i></p>	<p>Operating temperature range: 5~35 °C (41~95 °F) Relative humidity range: 10~90% (non-condensing)</p>
<p><i>CE Compliance</i></p>	<p>This device is classed as a technical information equipment (ITE) in class B and is intended for use in living room and office. The CE and WEEE marks approve the conformity by the EU-guidelines:</p> <ul style="list-style-type: none"> • EMC - guideline 2004/108/EC, Directive on Electromagnetic Compatibility • LVD - guideline 2006/95/EC, Directive on Low Voltage • ErP - guideline 2009/125/EC, Directive on ecoconception of Energy related Products • RoHS - guideline 2002/95/EC, Directive on Restriction of Hazardous Substances • WEEE - guideline 2002/96/EC, Directive on The Waste Electrical and Electronic Equipment
<p><i>Other Compliance</i></p>	<p>CB (IEC 60950-1:2005 (2nd Edition) FCC</p>

Remarks:

[1] depending on the test environment

[2] the threshold temperatures are subject to change by firmware update.

The KD20's threshold temperature refers to the "Current internal temperature" provided by the SMART monitoring system. This temperature may be much higher than the "operating/ambient temperature" that is also mentioned in the hard disk specification. The KD20 only supports hard disks with SMART monitoring system and temperature sensor which all available SATA hard disks should support.