Jonsbo N3

JONSBO N3 Mini-ITX NAS PC Chassis User Manual

Model: N3 | Brand: JONSBO

1. PRODUCT OVERVIEW

The JONSBO N3 is a compact Mini-ITX PC chassis specifically designed for Network Attached Storage (NAS) applications. It features a robust aluminum and steel plate construction, offering durability and a premium aesthetic. The case is engineered with an innovative dual-compartment structure to optimize cooling and component organization, making it ideal for home office, network storage, and enterprise storage environments.

Figure 1.1: JONSBO N3 Mini-ITX NAS PC Chassis, showcasing its compact design and hot-swappable drive bays.

Product Overview

The N3 shell is made of an integrated aluminum magnesium alloy material, with a delicate sandblasting process on the surface and a strong metallic texture. It adopts an upper and lower compartment structure design. The motherboard compartment supports ITX motherboards and full height expansion cards, as well as MINI tower heat sinks. The front panel ventilation holes are paired with rear window fans to provide a good heat dissipation solution. The hard disk compartment supports 8-bay hard disk installation, and the front Type-C interface is used for high-speed data transmission.

Front panel air inlet detachable grille

Figure 1.2: Overview of the JONSBO N3, highlighting its application in various storage fields.

2. FEATURES

The JONSBO N3 chassis is equipped with a comprehensive set of features designed for high-capacity storage and efficient operation:

- **Drive Bays:** Features 8 hot-swappable 3.5-inch HDD bays and 1 dedicated 2.5-inch SSD bay for flexible storage configurations.

- **Motherboard Compatibility:** Supports Mini-ITX motherboards.

- **Power Supply Support:** Compatible with SFX power supplies up to 105mm in length.

- **CPU Cooler Height:** Accommodates CPU coolers with a maximum height of 130mm.

- **GPU Support:** Supports graphics cards up to 250mm in length, with a height limit of 130mm and thickness within 50mm.

- **Cooling System:** Includes two pre-installed 100mm fans in the HDD compartment for direct heat dissipation. The motherboard compartment supports optional 80mm fans. Features independent cooling channels for optimal thermal performance.

- **Expansion Slots:** Provides 2 PCI expansion slots.

- **Front I/O Ports:** Equipped with 1x USB 3.0, 1x USB 3.2 Gen 2 Type-C (10Gbps), and a combined Audio+Mic (2-in-1) port for convenient connectivity.

- **Dimensions:** Compact size of 233mm (W) x 262mm (D) x 298mm (H).

- **Construction:** Made from 2.0mm aluminum alloy and 1mm steel plate, ensuring durability and a premium feel.

Figure 2.1: Exploded view of the JONSBO N3, illustrating the 8 hot-swappable 3.5-inch drive bays.

CR-1400EVO
Standard Version

Power supply

SFX power supply ≤105mm

Cooling

Support mini tower cooler
Height ≤130mm

Figure 2.2: Visual representation of the N3's capacity to accommodate 8 x 3.5-inch hard drives.

High speed response

2.5-inch bay can adapt to SSD
high-speed hard drives
Extremely fast response for frequent use data

Figure 2.3: Internal view showing the ITX motherboard and drive bay configuration.

Cooling Fan Position

Independent cooling channels for hard drive
and motherboard compartments, and separate
cooling channels without interference.

- Motherboard compartment: 80*25mm *2 (optional)
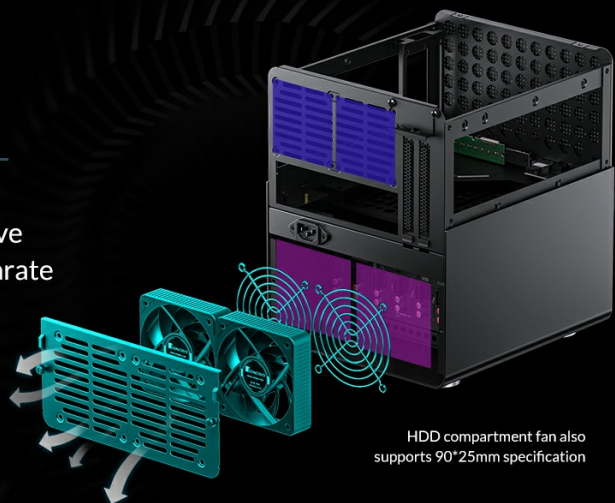- HDD compartment: 100*25mm *2 (standard)

HDD compartment fan also
supports 90*25mm specification

Figure 2.4: Illustration of SFX power supply and CPU cooler height compatibility.

Front Type-C Port

Front USB3.2Gen 2
Type-C (10Gbps) interface
to reduce transmission
waiting time.

USB 3.2 Gen 2 Type-C(10Gbps)

Headphone
Audio 2-in-1

USB3.0 (Rate: 5Gbps)

Read/write indication
for 8 hard drives

Figure 2.5: Diagram showing independent cooling channels and fan positions.

Ventilation Grille

Removable front panel ventilation grill for easy HDD installation and optimised cooling efficiency.

Hot Swap Backplane

Adopts server-grade 10MM gold-plated SAS hot-swap interface

Cooling Fan

Motherboard compartment: 80mm*2 (optional)
HDD compartment: 100mm*2 (standard)

Bottom foot mat*4

Figure 2.6: Rear view highlighting the dual-slot standard PCI-E expansion bits.

Small size

233mm(W) * 262mm(D) * 298mm(H)
Removable unify top cover
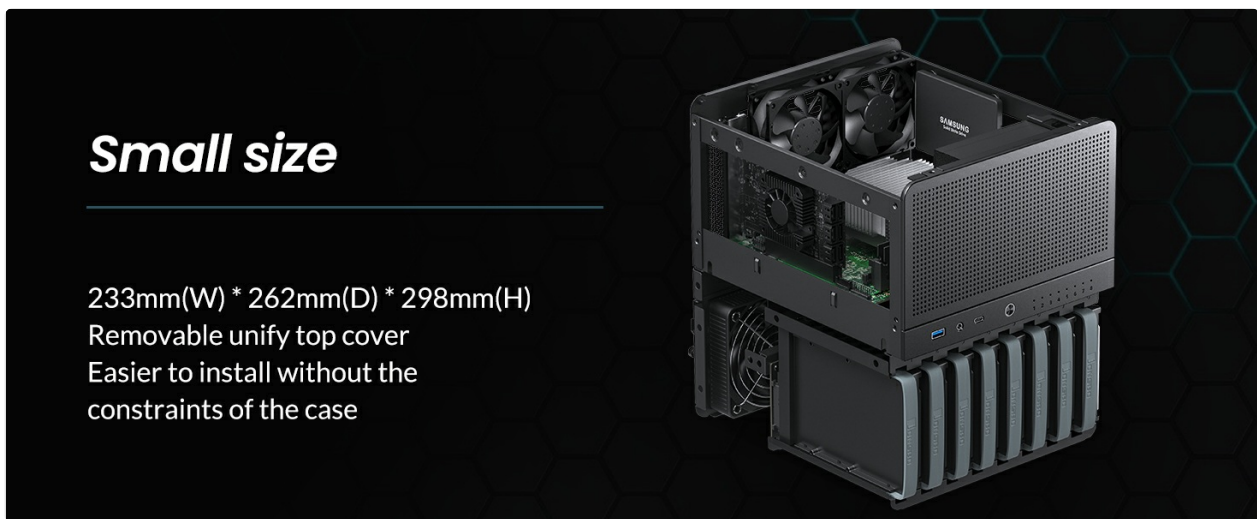Easier to install without the constraints of the case

Figure 2.7: Detail of the front panel, showing the USB 3.2 Gen 2 Type-C port and other I/O.

3. SETUP

Follow these steps to assemble your JONSBO N3 NAS PC chassis:

1. **Preparation:** Ensure you have all necessary components: Mini-ITX motherboard, SFX power supply, CPU, CPU cooler, RAM, 3.5-inch HDDs, 2.5-inch SSD (optional), and any PCI-E expansion cards.

2. **Accessing the Interior:** The N3 features a removable unify top cover. Gently slide or lift the top panel to gain access to the motherboard compartment. The front panel grille is also removable for easier HDD installation.

3. **Motherboard Installation:** Install your Mini-ITX motherboard into the designated compartment. Secure it with the appropriate screws.

4. **CPU and Cooler Installation:** Install your CPU and then the CPU cooler onto the motherboard before securing the motherboard in the case, ensuring it fits within the 130mm height limit.

5. **Power Supply Installation:** Mount the SFX power supply in its designated area. Ensure the power supply's length does not exceed 105mm. Route the necessary cables.

6. **HDD/SSD Installation:** The N3 features hot-swappable drive bays. Slide your 3.5-inch HDDs into the front bays. The 2.5-inch SSD can be mounted in its dedicated bay. Connect the SATA data and power cables to each drive.

7. **PCI-E Card Installation (Optional):** If using a PCI-E expansion card (e.g., GPU, network card), install it

into one of the two available slots. Ensure the card's dimensions are within the specified limits.

8. **Cable Management:** Route all power and data cables neatly to ensure optimal airflow and a clean build. Utilize available tie-down points if present.

9. **Closing the Chassis:** Once all components are installed and cables are managed, reattach the top cover and front panel grille.

Figure 3.1: The front panel can be opened to access the drive bays for installation.
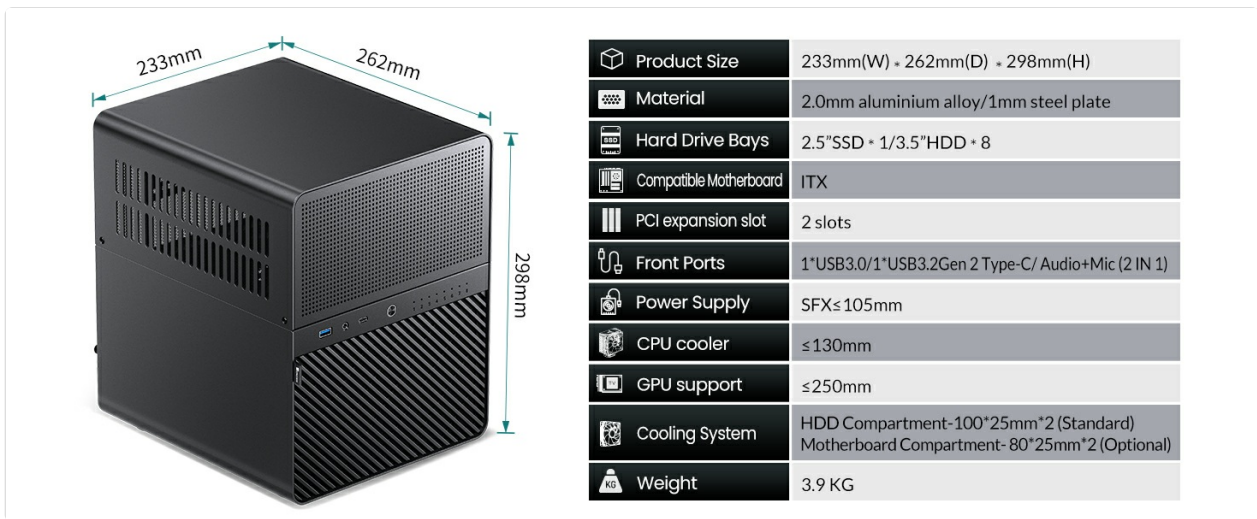
Product Size	233mm(W) * 262mm(D) * 298mm(H)	
Material	2.0mm aluminium alloy/1mm steel plate	
Hard Drive Bays	2.5"SSD * 1/3.5"HDD * 8	
Compatible Motherboard	ITX	
PCI expansion slot	2 slots	
Front Ports	1*USB3.0/1*USB3.2Gen 2 Type-C/ Audio+Mic (2 IN 1)	
Power Supply	SFX≤105mm	
CPU cooler	≤130mm	
GPU support	≤250mm	
Cooling System	HDD Compartment-100*25mm*2 (Standard) Motherboard Compartment- 80*25mm*2 (Optional)	
Weight	3.9 KG	

Figure 3.2: Detail of the hot-swap backplane for easy drive installation and removal.

4. OPERATING

Operating the JONSBO N3 chassis involves basic system interaction and understanding its indicators:

- **Power On/Off:** Use the power button located on the front panel to turn the system on or off.

- **Front Panel Indicators:** The front panel includes indicators for power status and individual HDD activity (1-8). These lights provide visual feedback on your system's operation and drive activity.

- **Hot-Swapping Drives:** The N3 supports hot-swappable 3.5-inch drives. Ensure your operating system and RAID/storage controller support hot-swapping before removing or inserting drives while the system is running. Always follow your OS and controller's guidelines for safe hot-swapping to prevent data loss.

Figure 4.1: Front panel view showing power button, USB ports, and HDD activity indicators.

5. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your JONSBO N3 chassis and its components:

- **Dust Cleaning:** Periodically clean dust from the chassis, especially from the fan grilles and internal components. Use compressed air or a soft brush. The removable front panel grille and fan mounts facilitate easier cleaning.
- **Fan Inspection:** Check the pre-installed 100mm fans in the HDD compartment and any optional 80mm fans for dust buildup or obstruction. Ensure they are spinning freely and quietly.
- **Cable Check:** Occasionally inspect internal cable connections to ensure they are secure and not interfering with airflow.

- **Airflow:** Ensure the case has adequate space around it for proper air intake and exhaust. Avoid placing the chassis in enclosed spaces that restrict airflow.

Figure 5.1: The removable fan assembly for easy cleaning and maintenance.

6. TROUBLESHOOTING

This section addresses common issues you might encounter with your JONSBO N3 chassis:

- **System Not Powering On:**

  - Verify that the power supply is correctly installed and connected to the motherboard and all components.
  - Ensure the power cable is securely plugged into the power supply and the wall outlet.
  - Check the front panel power button connection to the motherboard.

- **Hard Drive Not Detected:**

  - Ensure the HDD is fully seated in its hot-swap bay.
  - Check the SATA data and power connections to the drive and the backplane/motherboard.
  - Verify that the drive is functional by testing it in another system or bay.
  - Confirm that your operating system and storage controller drivers are correctly installed.

- **Excessive Fan Noise:**

  - Inspect fans for dust buildup and clean them as described in the Maintenance section.

- Ensure no cables are obstructing fan blades.
- If the stock fans are consistently loud, consider replacing them with quieter 92mm or 100mm aftermarket fans. Ensure they are connected to motherboard fan headers that allow for speed control (PWM or voltage control).

- **Overheating Issues:**

  - Ensure all case fans are operating correctly and oriented to provide proper airflow (intake/exhaust).
  - Verify that the CPU cooler is properly mounted and its fan is functioning.
  - Check for excessive dust buildup inside the case and clean thoroughly.
  - Ensure the chassis is placed in an area with good ventilation.

7. SPECIFICATIONS

Detailed specifications for the JONSBO N3 Mini-ITX NAS PC Chassis:

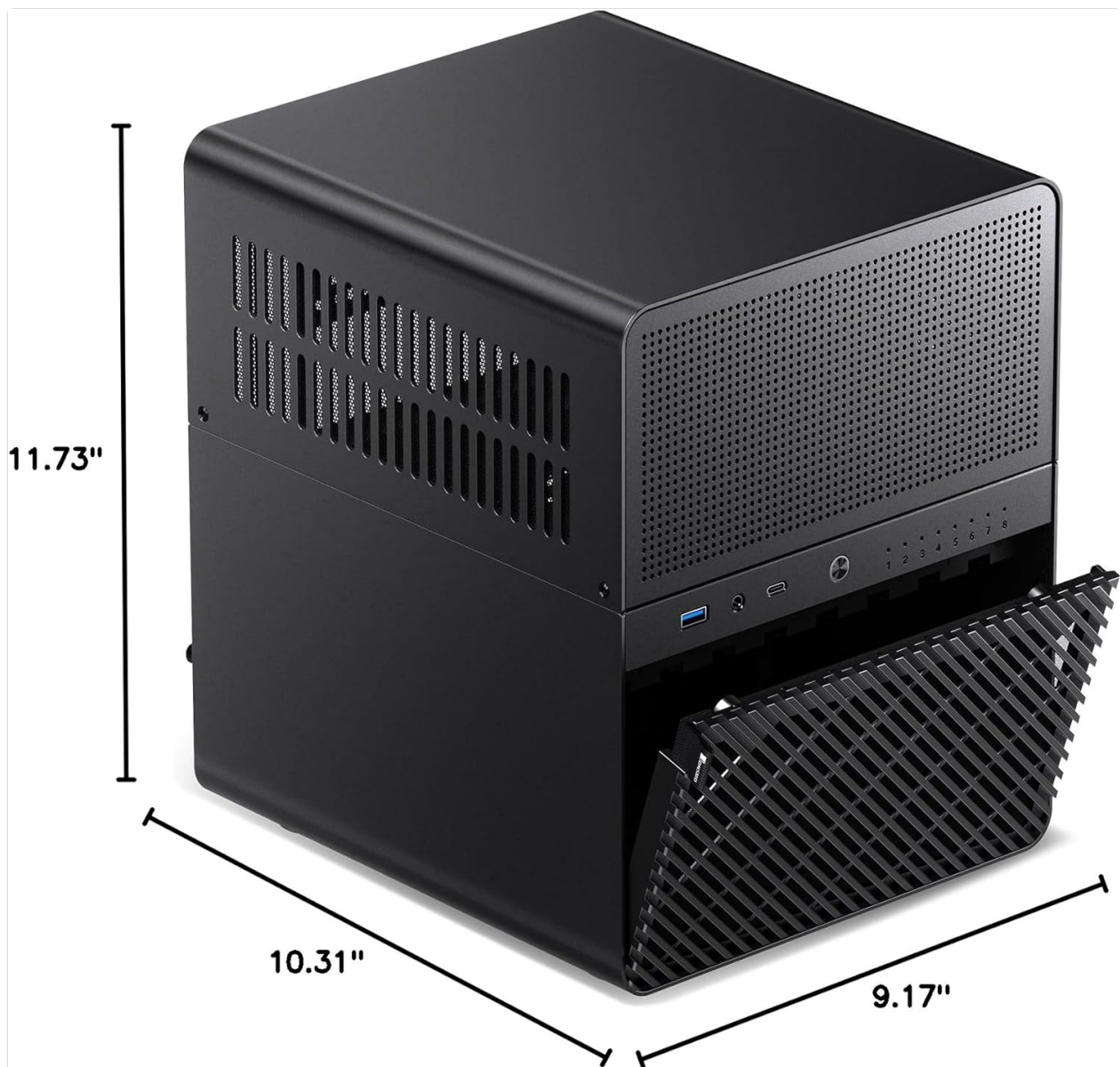| Feature	Specification
Model Name	N3
Brand	Jonsbo
Product Dimensions (L x W x H)	10.31 x 9.17 x 11.73 inches (262mm x 233mm x 298mm)
Item Weight	10.83 pounds (4.91 kg)
Material	Aluminum (2.0mm) and Steel Plate (1mm)
Color	Black
Motherboard Compatibility	Mini ITX
Case Type	Mini-Tower
Drive Bays	8 x 3.5" HDD (hot-swappable) + 1 x 2.5" SSD
PCI Expansion Slots	2 slots
Power Supply Mounting Type	Bottom Mount (SFX, max 105mm length)
CPU Cooler Height Limit	130mm
GPU Length Limit	250mm (Height within 130mm, Thickness within 50mm)
Cooling Method	Air
Standard Fans	2 x 100mm (HDD Compartment)
Optional Fans	2 x 80mm (Motherboard Compartment)
Front Interface	1x USB 3.0, 1x USB 3.2 Gen 2 Type-C, Audio+Mic (2-in-1)

Figure 7.1: Detailed dimensions of the JONSBO N3 chassis.

A big belly canaccommodate

Front 8 x 3.5-inch hard drive bays for high capacity storage, enabling peaceful coexistence between work and life

Figure 7.2: Overview of the N3's compact size and internal structure.

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official JONSBO website or contact your

local retailer. Warranty terms and conditions may vary by region and product. Keep your proof of purchase for warranty claims.

JONSBO Official Website: www.jonsbo.com