

Intel NUC8i5BEK1

Intel NUC 8 Mainstream Kit (NUC8i5BEK) User Manual

Model: NUC8i5BEK1

1. INTRODUCTION

The Intel NUC 8 Mainstream Kit (NUC8i5BEK) is a compact, high-performance mini PC designed for a variety of computing tasks. This kit is built with an 8th Generation Intel Core i5 processor and features Intel Iris Plus Graphics 655, offering robust performance for productivity, entertainment, and light gaming. This manual provides essential information for setting up, operating, and maintaining your Intel NUC kit.

Please note that this is a kit and requires additional components such as RAM, storage (M.2 NVMe or SATA SSD), and an operating system to function.

2. PRODUCT OVERVIEW

The Intel NUC 8 Mainstream Kit is designed for easy assembly and integration into various environments. Below are images illustrating the device and its key components.

2.1. Device Appearance



Figure 1: Front view of the Intel NUC 8 Mainstream Kit (NUC8i5BEK). This image displays the compact size and overall design of the mini PC.

2.2. Front Panel Features



Figure 2: Detailed view of the front panel. It includes two USB 3.1 Gen2 Type-A ports (one yellow for charging), a 3.5mm audio jack (headphone/microphone combo), and the power button with an LED indicator. A small SD card slot is also visible on the side.

2.3. Rear Panel Features



Figure 3: Detailed view of the rear panel. This panel features the DC power input (19V), an HDMI port, a Gigabit Ethernet port, two additional USB 3.1 Gen2 Type-A ports, and a USB-C port with Thunderbolt 3 capabilities.

2.4. Internal Access



Figure 4: The Intel NUC with the top lid removed, illustrating access for installing internal components such as RAM and M.2 SSD. This design facilitates user upgrades and customization.

3. SETUP

3.1. Unpacking the Kit

Verify that the following items are included in your package:

- Intel NUC Unit
- 19V Power Adapter
- VESA Mounting Plate
- Manual (this document)

3.2. Required Additional Components

To complete your Intel NUC system, you will need to acquire the following components separately:

- **Memory (RAM):** Dual channel DDR4 2400 SODIMM, up to 32GB maximum.
- **Storage:** M.2 22x42/80 slot for PCIe NVMe or SATA SSD.
- **Operating System:** Compatible with Windows 10 Home or other preferred operating systems.

3.3. Component Installation

Before proceeding, ensure the NUC is disconnected from the power adapter.

1. Carefully remove the bottom cover or top lid of the NUC to access the internal slots. Refer to Figure 4 for visual guidance on accessing the interior.
2. **Install RAM:** Insert the DDR4 SODIMM modules into the memory slots until they click into place.
3. **Install Storage:** Insert the M.2 SSD into its designated slot and secure it with the provided screw.

4. Replace the cover or lid, ensuring it is securely fastened.

3.4. Connecting Peripherals

1. Connect your monitor to the HDMI port on the rear panel (Figure 3).
2. Connect a keyboard and mouse to the available USB ports (front or rear panels).
3. Connect the Ethernet cable to the Gigabit Ethernet port for wired network access, or ensure your wireless network is ready for setup.
4. Plug the 19V power adapter into the DC input on the rear panel, then connect it to a power outlet.

3.5. Initial Power On and OS Installation

1. Press the power button on the front panel (Figure 2). The power LED will illuminate.
2. Follow the on-screen instructions to install your chosen operating system. You may need to boot from a USB drive containing the OS installation media.
3. After OS installation, install the necessary drivers, which can typically be found on the Intel support website for your specific NUC model.

4. OPERATING

Once your Intel NUC is set up and the operating system is installed, you can begin using it for various tasks.

- **General Use:** The NUC is suitable for everyday computing, web browsing, office applications, and media consumption.
- **4K Ultra HD Support:** With Intel Iris Plus Graphics 655, the NUC supports 4K Ultra HD video output, providing a high-quality viewing experience for movies and other content.
- **Audio Features:** Utilize the dual-array front microphones for voice commands and communication, compatible with features like Windows Cortana.
- **Connectivity:** Leverage the multiple USB 3.1 Gen2 ports for high-speed data transfer and peripheral connections. The USB-C port with Thunderbolt 3 offers versatile connectivity for external displays, storage, and other compatible devices.

5. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your Intel NUC.

- **Cleaning:** Periodically clean the exterior of the NUC with a soft, dry cloth. Ensure ventilation grilles are free from dust accumulation to maintain proper airflow. Do not use liquid cleaners directly on the device.
- **Software Updates:** Keep your operating system, drivers, and BIOS updated. Intel regularly releases driver updates to improve performance and stability.
- **Environmental Conditions:** Operate the NUC in a well-ventilated area, away from direct sunlight, excessive heat, and moisture.

6. TROUBLESHOOTING

If you encounter issues with your Intel NUC, consider the following basic troubleshooting steps:

- **No Power:** Ensure the power adapter is securely connected to both the NUC and a working power outlet. Test the outlet with another device.
- **No Display:** Verify that the monitor is properly connected to the NUC's HDMI port and is powered on. Try a

different HDMI cable or monitor if available.

- **System Instability:** Ensure all internal components (RAM, SSD) are correctly seated. Check for and install any pending operating system or driver updates.
- **Overheating:** Ensure the NUC's ventilation grilles are not obstructed. Operate the device in a cool environment.
- **Peripheral Issues:** If a USB device is not recognized, try connecting it to a different USB port or restarting the NUC.

For more advanced troubleshooting or persistent issues, refer to the Intel support website or contact Intel customer support.

7. SPECIFICATIONS

Key technical specifications for the Intel NUC 8 Mainstream Kit (NUC8i5BEK):

Feature	Specification
Processor	8th Generation Intel Core i5-8259U (3.8 GHz)
Graphics	Intel Iris Plus Graphics 655
Memory (RAM)	Dual channel DDR4 2400 SODIMM support, 32GB max
Storage	M.2 22x42/80 slot for PCIe NVMe or SATA SSD
Max Screen Resolution	3840 x 2160 pixels
Wireless Type	802.11a, 802.11b, 802.11g, 802.11n
USB Ports	2x USB 2.0 (internal), Multiple USB 3.1 Gen2 (external), 1x USB-C with Thunderbolt 3
Operating System	Windows 10 Home (or other compatible OS, user-installed)
Item Weight	2.4 pounds
Product Dimensions	6.1 x 5 x 4 inches
Model Number	NUC8i5BEK1

8. WARRANTY AND SUPPORT

For information regarding product warranty, technical support, and additional resources, please visit the official Intel support website. You can find drivers, FAQs, and contact information for customer service there.

Intel Support Website: www.intel.com/support

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question