ZOTAC ZBOX

USER'S MANUAL
CI669/CI649/CI629 NANO

ZOTAC ZBOX nano
User's Manual

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Every effort has been made to ensure that the contents of this manual are correct and up to date. However, the manufacturer makes no guarantee regarding the accuracy of its contents, and reserves the right to make changes without prior notice.

CAUTION:
Risk of explosion if the battery is replaced with an incorrect type. Batteries should be recycled where possible. Disposal of used batteries must be in accordance with local environmental regulations.

Table of Contents

Product specifications

Processor
  • Intel Core i7-1355U (10-core, 1.7 GHz, up to 5.0 GHz) for ZBOX CI669NANO
  • Intel Core i5-1335U (10-core, 1.3 GHz, up to 4.6 GHz) for ZBOX CI649NANO
  • Intel Core i3-1315U (6-core, 1.2 GHz, up to 4.5 GHz) for ZBOX CI629NANO

Onboard graphics
  • Intel Iris Xe Graphics for ZBOX CI669NANO/ZBOX CI649NANO *(**Note: When using two memory modules, the IRIS XE graphics card will be available. When using one memory module, the UHD graphics card will be available.**)*
  • Intel UHD Graphics for ZBOX CI629NANO
  • HDMI 2.0b (max resolution: 3840x2160 @60Hz)
  • DP 1.4 (max resolution: 4096x2160 @60Hz) outputs

Memory support
  • 2 x DDR5-5200/4800 SODIMM Slot
  • Up to 64 GB of memory

USB ports
  • 4 x USB 3.1 10Gbps
  • 1 x USB 2.0

Storage support
  • SATA 6.0 Gb/s transfer rates
  • Supports one 2.5-inch SATA HDD/SSD (9.5mm max height)
  • One M.2 PCIe x4 SSD slot (22/30, 22/42)

Network support
  • One 2.5G (100/1000/2500 Mbps) LAN, one GLAN (10/100/1000 Mbps)
  • IEEE 802.3 compatible

Wi-Fi support
  • 802.11ax Wi-Fi (dual-band), Bluetooth 5.2

Audio
  • Digital 8 Channel Audio (LPCM/bitstream via HDMI)

Power Supply
  • 20V/65W Power Supply

Operating System support
  • Windows 11 ready

Product Dimensions
  • 204mm x 129mm x 68mm

Safety information
Your ZOTAC ZBOX nano is designed and tested to meet the latest standards of safety for information technology equipment. However, to ensure your safety, it is important that you read the following safety instructions.

Setting up your system
- ❖ Read and follow all instructions in the documentation before operating your system.
- ❖ Do not use this product near water or a heat source such as a radiator.
- ❖ Set up the system on a stable surface.
- ❖ Openings on the chassis are for ventilation. Do not block or cover these openings. Make sure you leave plenty of space around the system for ventilation. Never insert objects of any kind into the ventilation openings.
- ❖ Use this product in environments with ambient temperatures between 0℃ and 35℃.

- ☞ If you use an extension cord, please use the UL listed cord and make sure that the total ampere rating of the devices plugged into the extension cord does not exceed its ampere rating.

Care during use
- ❖ Do not walk on the power cord or allow anything to rest on it.
- ❖ Do not spill water or any other liquids on your system.
- ❖ When the system is turned off, a small amount of electrical current still flows. Always unplug all power, modem, and network cables from the power outlets before cleaning the system.
- ❖ If you encounter the following technical problems with the product, unplug the power cord and contact a qualified service technician or your retailer.
  - ➤ The power cord or plug is damaged.
  - ➤ Liquid has been spilled onto the system.
  - ➤ The system does not function properly even if you follow the operating instructions.
  - ➤ The system was dropped or the cabinet is damaged.

Welcome

Congratulations on your purchase of the ZOTAC ZBOX nano. The following illustration displays the package contents of your new ZOTAC ZBOX nano. If any of the below items are damaged or missing, contact your retailer.

Package contents

- 1 x ZOTAC ZBOX nano
- 1 x VESA mount
- 1 x AC Adapter (optional)
- 1 x Power Cord (optional)
- 1 x Antenna
- 1 x USB flash drive with OS drivers
- 1 x Quick Start Guide
- 1 x Warranty Card

Getting to know your ZOTAC ZBOX nano
Front view

Refer to the diagram below to identify the components on the front of the ZBOX nano

1. Power button

 The power button turns the system ON and OFF.

2. Power LED

The Power LED is always ON when power is on.

3. SATA status LED

The SATA LED blinks when data is being written onto or read from the SATA.

4. Wi-Fi status indicator

 The Wi-Fi LED is always ON when data is being transfered over Wi-Fi.

5. Memory card reader

 The built-in memory card reader reads SD/SDHC/SDXC cards used in devices such as digital cameras, MP3 players, mobile phones and PDAs.

6. Headphone/Audio Out jack

 The stereo headphone jack (3.5mm) is used to connect the system's audio out signal to amplified speakers or headphones.

7. Microphone jack

 The microphone jack is designed to connect a microphone for video conferencing, voice narrations or simple audio recordings.

8. USB 3.1 port

 The USB 3.1 port supports the SuperSpeed USB 3.1 devices and is backwards compatible with USB 3.0/2.0/1.1 devices. Use this port for USB 3.1 devices for maximum performance with USB 3.1 compatible devices.

9. Thunderbolt 4 port

 The Thunderbolt 4 port is compatible with Thunderbolt 4 device such as external graphics, DisplayPort device and USB Type-C device. It is only for 5V/3A power source (output).

Rear view

Refer to the diagram below to identify the components on the back of the system.

1. WiFi antenna connector

The WiFi antenna connector supports the included WiFi antenna.

2. Ethernet port (2.5Gbps)

The eight-pin RJ-45 LAN port supports standard Ethernet cable for connections to local area networks (LAN) with speeds of 100/1000/2500 Mbps.

3. Ethernet port (1Gbps)

The eight-pin RJ-45 LAN port supports standard Ethernet cable for connections to local area networks (LAN) with speeds of 10/100/1000Mbps.

4. USB 3.1 ports

The USB 3.1 port supports the SuperSpeed USB 3.1 devices and is backwards compatible with USB 3.0/2.0/1.1 devices. Use this port for USB 3.1 devices for maximum performance with USB 3.1 compatible devices.

5. USB 2.0 port

The USB (Universal Serial Bus) port is compatible with USB devices such as keyboards, mice, cameras and hard disk drives.

6. DisplayPort

DisplayPort supports both external (box-to-box) and internal (laptop LCD panel) display connections.

7. HDMI port

The HDMI (High Definition Multimedia Interface) port supports a UHD device such as an LCD TV or monitor to allow viewing on a larger external display.

8. Power input (DC20V)

The supplied Type C PD power adapter converts AC power to DC power for use with this jack. Power supplied through this jack supplies power to the PC.

☞ The power adapter may become warm to hot when in use. Do not cover the adapter and keep it away from your body.

Customizing the ZOTAC ZBOX nano

Before installing hardware, please follow the instructions below to remove the cover of your ZOTAC ZBOX nano.

1. Remove the four thumb screws securing the bottom cover into place.

2. Remove the bottom cover.
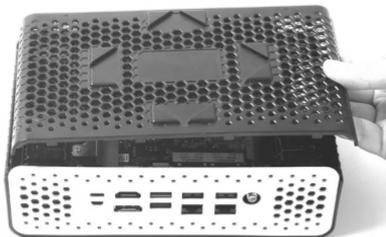
Installing a memory module

1. Locate the SO-DIMM memory slots and insert a SO-DIMM memory module into the slot at a 45 degree angle.

2. Gently press down on the memory module until it locks into place by the arms of the memory slot.

Note: This ZOTAC ZBOX nano accomodates two DDR5 SO-DIMM memory modules. You must install at least one module for the system to function. Windows models include memory pre-installed.

Removing the memory module

1. Locate the SO-DIMM memory slot and gently press the two arms securing the memory module outwards, as shown in the image below, to release the memory module.

2. Remove the memory module from the slot at a 45-degree angle.

Installing a 2.5-inch SATA SSD

1. Locate the SSD bracket, remove the 2 screws, and remove the SSD bracket.

2. Install the SDD bracket to a 2.5-inch SATA SSD with 2 screws.

3. Insert the SSD into the socket and gently slide into the connector.

4. Reinstall the screws of the SSD bracket.

Installing M.2 2242 SSD module

1. Locate the M.2 2242 SSD slot and remove the screw.
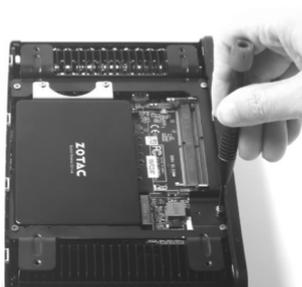
2. Insert an M.2 2242 SSD module into the slot at a 45 degree angle.

3. Gently press down on the M.2 2242 SSD module, and install the screw.

Note:
1. After installing the hard disk drive / SSD and memory module, please remove the corresponding protective film.

for HDD/SSD

for the lower memory slot · for the top memory slot

2. The thermal pad is default for 7mm height HDD / SSD, if you use a 9.5mm hard disk drive / SSD, please make sure to remove the thermal pad for the HDD / SSD.
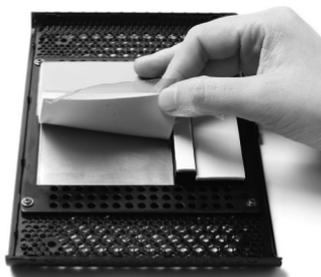
Setting up your ZOTAC ZBOX nano

Please connect your peripherals before using your ZOTAC ZBOX nano

1. Connecting the WiFi antenna

Connect the WiFi antenna to the WiFi antenna connector.

2. Connecting to a network device

Connect one end of a network cable to the LAN port on the system rear panel and the other end to a network hub, switch or router.

3. Connecting to USB 3.1 devices

Connect USB 3.1 devices such as external hard disk drives, SSDs and flash drives to the USB 3.1 port on the system rear panel.

4. Connecting to USB 2.0 devices
Connect USB 2.0 devices such as keyboards, mice, cameras and hard disk drives.

5. Connecting a DisplayPort display
Connect the DisplayPort connector to the DP port of the monitor or display.

6. Connecting to an HDMI display
Connect one end of an HDMI cable to an HDTV or monitor, and the other end to the HDMI port on the system rear panel.

7. Connecting the power adapter and turning on the ZBOX nano
Connect the supplied AC adapter to the DC IN jack on the system rear panel and then press the power switch on the front panel to turn on the system.

☞ When your ZOTAC ZBOX nano is not in use, unplug the power adapter or switch off the AC outlet to conserve power.

Positioning the ZOTAC ZBOX nano

• Do not position the ZOTAC ZBOX nano where the ventilation holes are covered. To guarantee proper use, leave 4 inches (10 cm) of spacing in front of the ventilation holes.
• ZOTAC ZBOX nano mini-PC systems provide ample connectivity in a tiny form factor, please choose connectors and cables in appropriate sizes to avoid interference.

Mounting the ZOTAC ZBOX nano to an LCD monitor

You can attach your ZOTAC ZBOX nano to the back of a VESA75/100 compliant monitor.

1. Secure the VESA mount to the LCD monitor using 4 screws (not included).
Disclaimer: ZOTAC cannot be held liable for damages resulting from an improper installation.

2. Align the ZOTAC ZBOX nano mounting holes to the VESA mount attachment pegs. Attach the ZOTAC ZBOX nano to the VESA mount and gently press down to secure the ZBOX nano to the mount.

3. Connect the ZOTAC ZBOX nano to your LCD monitor with an HDMI/DP cable.

Installing drivers and software

Installing an operating system
Depending on the ZOTAC ZBOX nano model, the system may not ship with an operating system pre-installed. The user must install the operating system before the ZOTAC ZBOX nano can be used. The following operating systems are supported:

　　• Windows 11 Ready

Follow the instructions below to install an operating system:
1. Attach the USB flash drive via USB 3.1 port.
2. Wait for the ZOTAC ZBOX nano to boot from the USB flash drive.
3. Follow the onscreen directions to install the operating system.
4. Install system drivers to gain full functionality of the ZOTAC ZBOX nano hardware and features.

Installing system drivers
Before you can use the full features of the ZOTAC ZBOX nano, the system drivers must be installed. The following types of operating systems are supported by the USB flash drive:

　　• Windows 11 Ready

Follow the instructions below to install the system drivers:

1. Insert the USB flash drive. If autorun is enabled, the driver installation main menu will show up automatically. If autorun is disabled, you may click the file Launch.EXE to bring up the driver installation main menu.
2. The following drivers are available on the USB flash drive:
   • Intel Chipset Driver
   • Intel Graphics Driver
   • Intel I219-Lan Driver
   • Intel Killer Lan Driver

- Wireless Network Driver
- Bluetooth Driver
- Intel Management Engine
- CardReader Driver
- Intel Thunderbolt Driver

☞ Each driver must be installed individually to ensure proper operation of the ZOTAC ZBOX nano.
3. Select the driver you want to install. The driver installer should launch.
4. Follow the onscreen instructions to install the drivers.
5. Restart the system.

Using your ZOTAC ZBOX nano

Configuring a wireless connection

Please follow the instructions below to connect to a wireless network:
1. Double-click the wireless network icon (pic) in the notification area.
2. Select the wireless network you want to connect to from the list and click Connect.
3. After connection is established, you will see "Connected."
    Note 1: For security concerns, Do NOT connect to an unsecured network, otherwise, the transmitted information without encryption might be visible to others.
   Note 2: Enter the network security key if necessary.
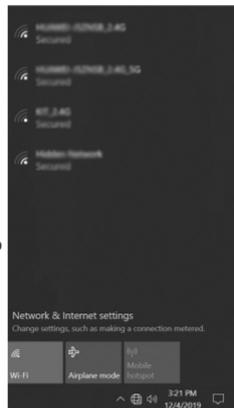
Configuring audio output

Follow the steps below to enable audio output when connecting the ZOTAC ZBOX nano to a TV or receiver via DP/HDMI adapter.

1. Access the Sound settings via the system Control Panel.
2. Under Playback devices, click the display device that corresponds with your audio compatible display.
3. Click the "Set Default" button in the lower right hand corner.
4. Click "OK" to exit the setup.

FCC Compliance Statement

If the device is designed and intended to be sold in the USA or Canada the following statements apply.

The importer in USA is responsible to issue an FCC SDOC for this product.

FCC Class B Compliance Statement

DOC (INDUSTRY CANADA) NOTICES
Notice to Users of Radios and Television:

This class B digital apparatus complies with Canadian ICES-003.

The following statement applies to the products covered in this manual, unless otherwise specified herein. The statement for other products will appear in the accompanying documentation.

NOTE:

This equipment has been tested and found to comply with the limits for a "Class B" digital device, pursuant to Part 15 of the FCC rules and meets all requirements of the Canadian Interference-Causing Equipment Standard ICES-003 for digital apparatus. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in strict accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

ZOTAC is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by ZOTAC. The correction of interferences caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

The use of shielded I/O cables is required when connecting this equipment to any and all optional peripheral or host devices. Failure to do so may violate FCC and ICES rules.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

The transmitters in this device must not be co-located or operated in conjunction with any other antenna or transmitter.

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Users are not authorized to modify this product. Any modifications invalidate the warranty.

This equipment may not be modified, altered, or changed in any way without signed written permission from ZOTAC. Unauthorized modification will void the equipment authorization from the FCC and Industry Canada and the warranty.

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