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USER'S MANUAL

ZOTAC
ZBOX
EK51070/EK51060

E SERIES

ZOTAC ZBOX

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.

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Product Specifications

- ❑ **Microprocessor support**
 - ❖ Intel Core i5-7300HQ (quad-core 2.5 GHz, up to 3.5 GHz)
- ❑ **Operating systems:**
 - ❖ Supports Windows 8.1 32/64-bit and Windows 10 32/64-bit
- ❑ **System Memory support**
 - ❖ One Optane memory slot (22/42,22/60,22/80)
 - ❖ Two DDR4-2400/2133 SODIMM slots (Up to 32GB)
- ❑ **Onboard Serial ATA**
 - ❖ SATA 6.0 Gb/s transfer rates
 - ❖ Supports one 2.5-inch SATA HDD or SSD (max 9.5mm height)
- ❑ **Expansion slot**
 - ❖ One M.2 PCIe x4 / SATA SSD slot (22/42,22/60,22/80)
- ❑ **USB Ports**
 - ❖ One USB 3.1 port
 - ❖ One USB 3.1 Type-C port
 - ❖ Four USB 3.0 ports
- ❑ **Onboard Dual LAN**
 - ❖ Supports 10/100/1000 Mbps operation
 - ❖ Supports IEEE 802.3
- ❑ **WiFi/Bluetooth support**
 - ❖ Compliant with IEEE802.11ac standard
 - ❖ High speed wireless connection and enhanced wireless security
 - ❖ Fully qualified Bluetooth v4.2
- ❑ **Onboard Audio**
 - ❖ Stereo analog audio output and Microphone input
- ❑ **Power Management**
 - ❖ Supports ACPI (Advanced Configuration and Power Interface)
- ❑ **Onboard Graphics support**
 - ❖ NVIDIA GeForce GTX 1070 w/ 8GB GDDR5, 256bit for ZBOX-EK51070
 - ❖ NVIDIA GeForce GTX 1060 w/ 3GB GDDR5, 192bit for ZBOX-EK51060
 - ❖ Three DisplayPort 1.4, one HDMI 2.0b, one DL-DVI-D (Max 4 output)
- ❑ **Product Size**
 - ❖ 225mm x 203mm x 128mm

Safety information

Your ZOTAC ZBOX 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 with the provided stand. Never use the system alone without the stand.
- ❖ 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°C and 35°C.

☞ 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. The following illustration displays the package contents of your new ZOTAC ZBOX. If any of the below items is damaged or missed, contact your retailer.

Package contents

- 1 x ZOTAC ZBOX
- 1 x AC Adapter
- 1 x Power Cord
- 2 x Antenna
- 1 x Support DVD
- 1 x USB flash drive with OS drivers
- 1 x OS recovery DVD (for Windows version)
- 1 x User Manual & Warranty Card
- 1 x Quick Start Guide



Getting to know your ZOTAC ZBOX

Front view



Refer to the diagram below to identify the components on this side of the system

1. Power switch

The power switch allows powering ON and OFF the system. The ring LED can be disabled in BIOS setting.

2. 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.

3. USB 3.1 port

The USB 3.1 port supports the SuperSpeed USB 3.1 device. Use this port for USB 3.1 devices for maximum performance with USB 3.1 compatible devices.

4. Microphone jack

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

5. 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.

6. USB 3.1 Type-C port

The type-C USB 3.1 port supports the SuperSpeed USB 3.1 devices. Use this port for USB 3.1 devices for maximum performance with USB 3.1 compatible devices.

Rear view



Refer to the diagram below to identify the components on this side of the system.

1. WiFi antenna connectors

The WiFi antenna connector supports WiFi antenna module.

2. USB 3.0 ports

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

3. DisplayPorts

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

4. 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.

5. DVI port

The DVI port supports connection to digital display devices.

6. LAN ports

The eight-pin RJ-45 LAN ports support standard Ethernet cables for connection to a local network.

7. Power input (DC19.5V)

The supplied power adapter converts AC power to DC power for use with this power port. To prevent damage to the mini-PC, always use the supplied power adapter.

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

Installing Hardware inside ZOTAC ZBOX

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

1. Remove the thumb screws.



2. Gently remove the cover as shown below.



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.

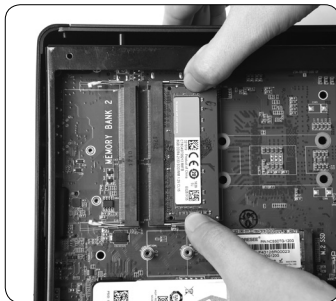


Note:

1. This ZOTAC ZBOX accommodates two DDR4 SO-DIMM memory modules. You must install at least one module in one of the two slots.
2. 8GB memory is pre-installed in Plus and Windows versions.

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.

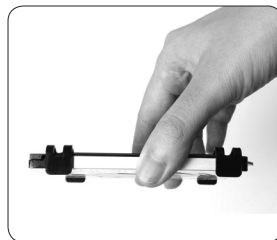
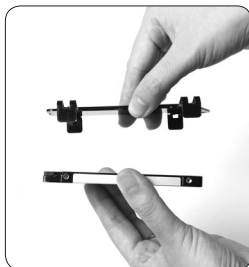


Installing a hard drive

1. Locate the 2.5-inch SATA hard drive and the hard drive bracket.



2. Install the hard drive to the hard drive bracket.



*1 TB 2.5-inch SATA hard drive is pre-installed in Plus and Windows versions.

3. Insert the hard drive into the slot at a 45 degree angle and gently slide into the connector.



4. Secure the installed drive with a thumb screw.



Installing M.2 SSD module

1. Locate the M.2 SSD slot and insert an M.2 SSD module into the slot at a 45 degree angle.



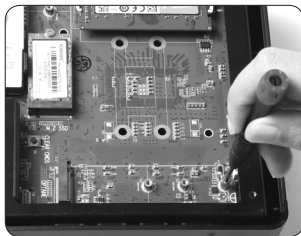
2. Gently press down on the M.2 SSD module, and install the screw.



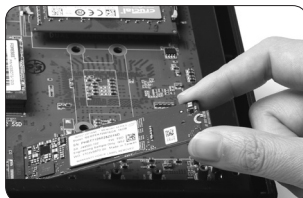
*120GB M.2 SSD is pre-installed in Plus and Windows versions.

Installing Optane memory module

1. Locate the Optane memory slot and remove the screw from the bolt.



2. Insert an Optane memory module into the slot at a 45 degree angle.

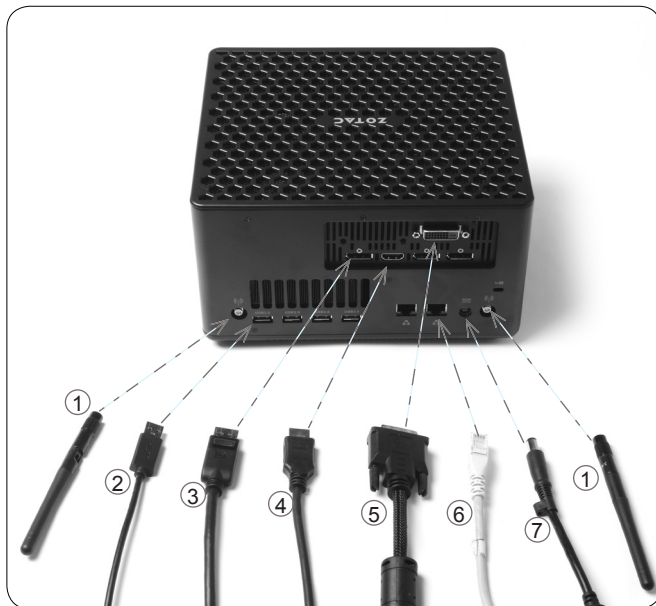


3. Gently press down on the Optane memory module, and install the screw.



Setting up your ZOTAC ZBOX

You need to connect peripherals before using your ZOTAC ZBOX.



1. Connecting WiFi antenna modules

Connect WiFi antenna modules to the WiFi antenna connectors.

2. Connecting to USB 3.0 devices

Connect USB 3.0 devices such as external hard drives, SSDs and flash drives to the USB 3.0 port on the system rear panel.

3. Connecting to DisplayPort displays

Connect the DisplayPort connectors to the DP ports of the monitor or display.

4. Connecting to an HDMI display

Connect one end of an HDMI cable to the HDMI port on the system rear panel and the other end to a HDMI-compatible display such as an HDTV or monitor.

5. Connecting to a DVI display

Connect one end of a DVI cable to an HDTV or monitor, and the other end to the DVI port on the system rear panel.

6. Connecting to network devices

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

7. Turning on the system

Connect two supplied AC adapters 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 is not in use, unplug the power adapter or switch off the AC outlet to save on power consumption.

Installing drivers and software

Installing an operating system

The ZOTAC ZBOX does not ship with an operating system preinstalled. The user must install the operating system before the ZOTAC ZBOX can be used. The following operating systems are supported:

- Windows 8.1 / 10 32/64-bit

Follow the instructions below to install an operating system:

1. Attach external DVD drive via USB 3.0 ports.
2. Insert disk for operating system (Windows or Linux).
3. Wait for the ZOTAC ZBOX to boot from the disk.
4. Follow the onscreen directions to install the operating system.
5. Install system drivers to gain full functionality of the ZOTAC ZBOX hardware and features.

Installing system drivers

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

- Windows 8.1 / 10 32/64-bit

Follow the instructions below to install the system drivers:

1. Insert the ZOTAC ZBOX driver DVD or driver 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 DVD and USB flash drive:
 - Intel Chipset Driver
 - HDA Sound Driver



- NVIDIA Graphics Driver
- Intel Ethernet PCI-E Driver
- Realtek Ethernet PCI-E Driver
- Wireless Network Driver
- Intel Management Engine
- Bluetooth Driver
- CardReader Driver
- USB Charger (optional)

Note: If you want to use high-amperage USB charging for smartphones and tablets, please install the driver USB Charger driver.

- ☞ Each driver must be installed individually to ensure proper operation of the ZOTAC ZBOX.
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

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.

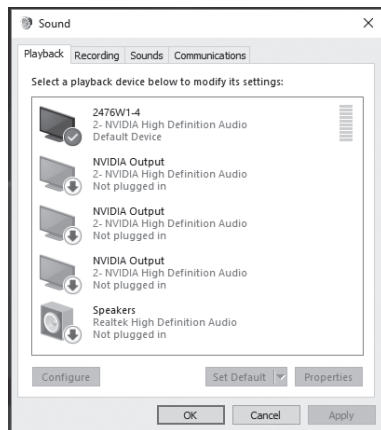
Note 2: Enter the network security key if necessary.



Configuring audio output

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



Intel® Optane™ technology

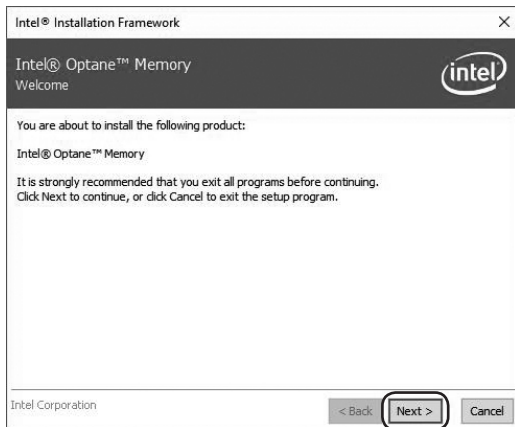
Intel® Optane™ is a new ultra-high-speed memory technology with 3D XPoint™ memory media, compatible with NVMe storage protocol.

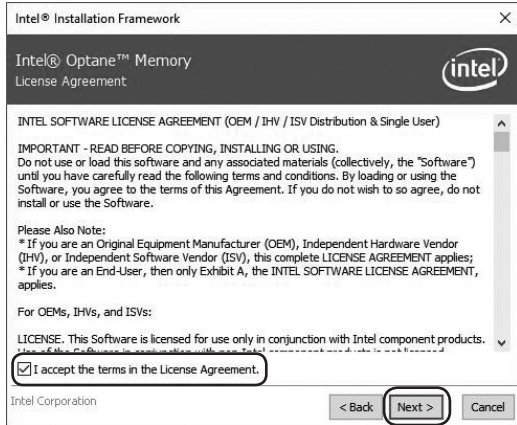
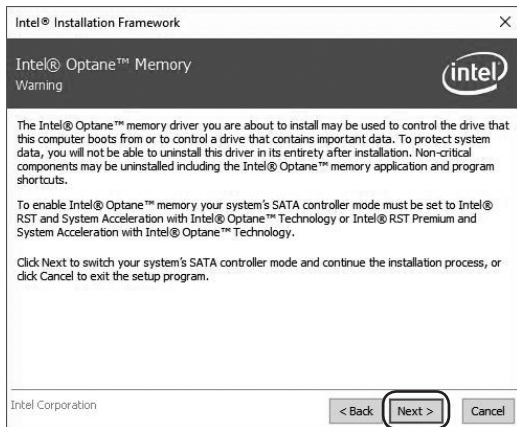
The program SetupOptaneMemory.exe is included in the driver DVD and USB flash drive (X:\OptaneMemory\SetupOptaneMemory.exe).

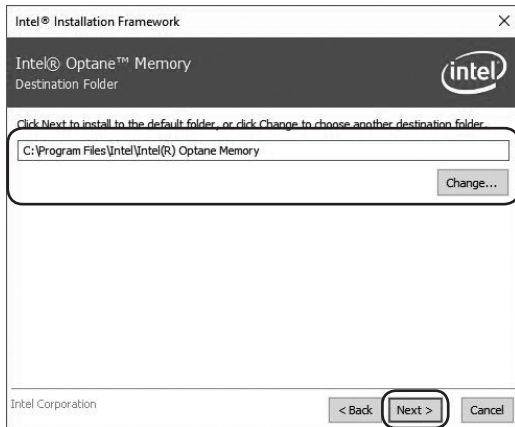
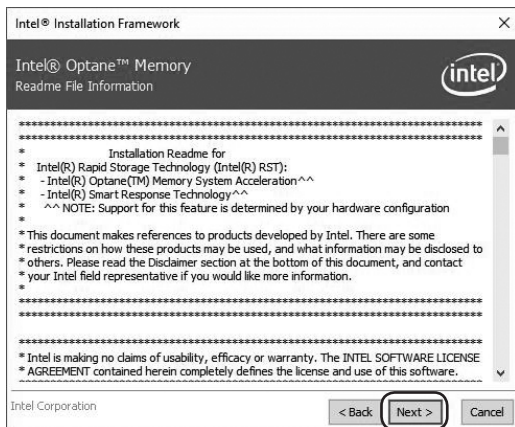
Enabling Intel® Optane™ memory

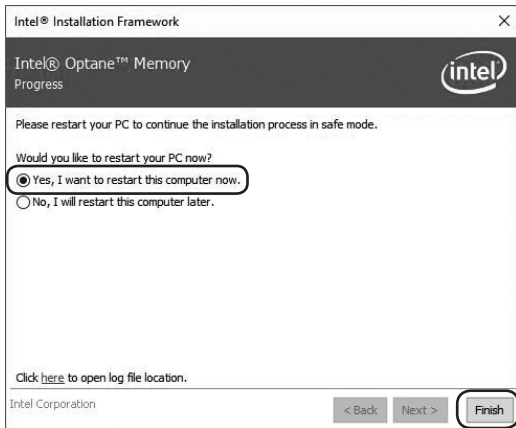
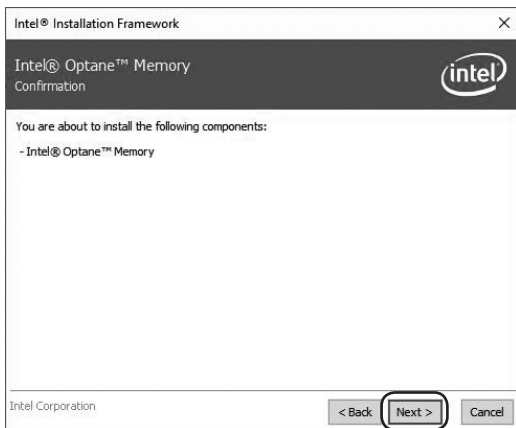
Please follow the recommended procedure to enable Optane memory, as listed below. (X: your driver DVD / USB flash drive letter)

1. Locate and open the file OptaneMemory in the driver DVD / USB flash drive, double-click SetupOptaneMemory.exe to run.
2. Follow the pictures below to complete the installation.

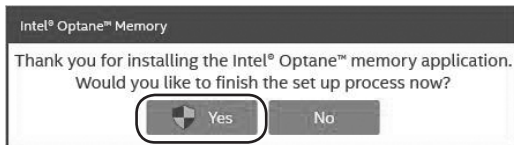




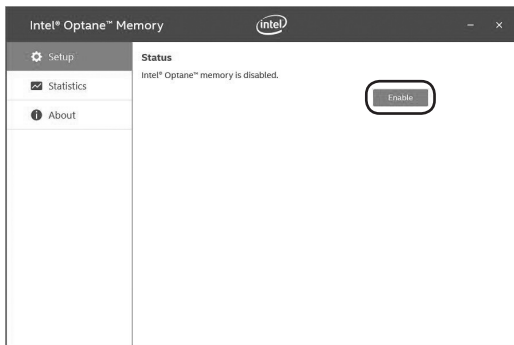


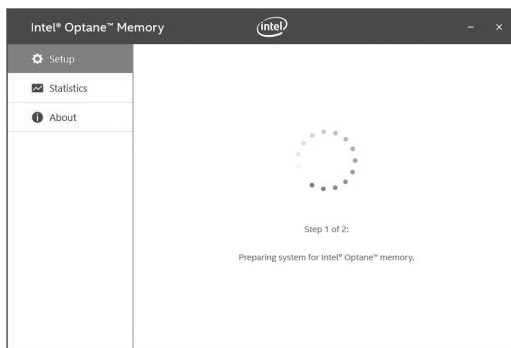
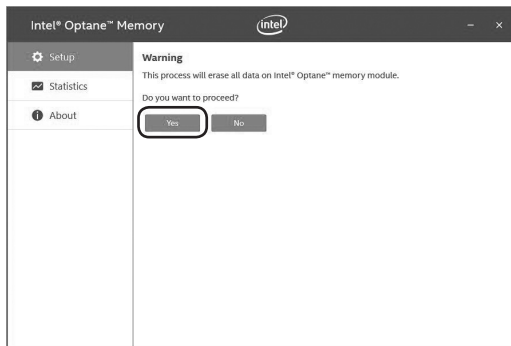


3. Restart the system, the following dialog box will display. Click “Yes”.

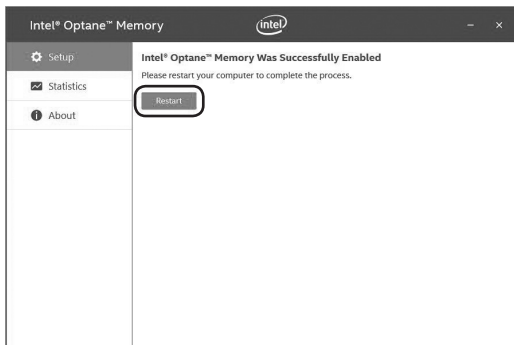


4. When the Intel® Optane™ Memory interface displays, click “Enable”.

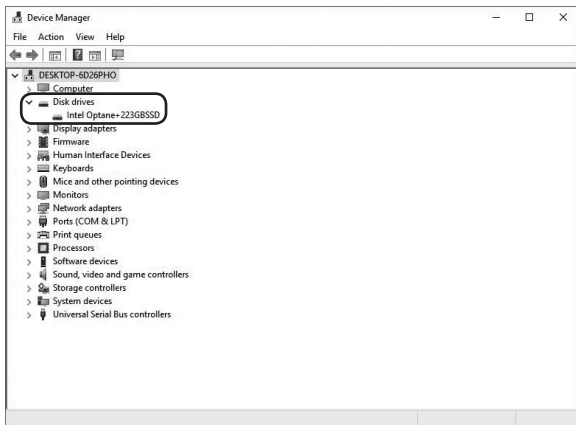




5. Click “Restart” to complete enabling the Optane Memory.

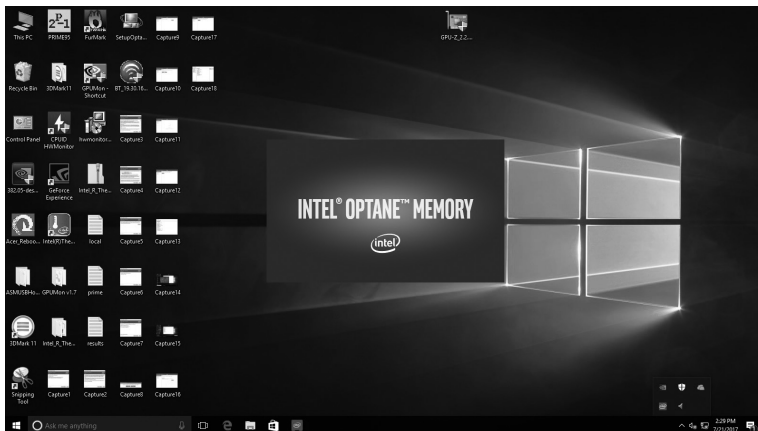


6. When the Optane Memory is successfully enabled, the created Intel® Optane™ information will show in Device Manager > Disk drivers.

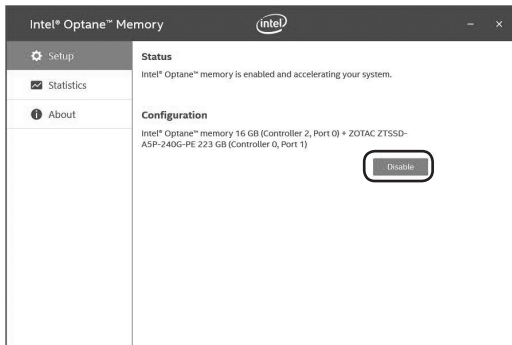


Disabling Intel® Optane™ memory

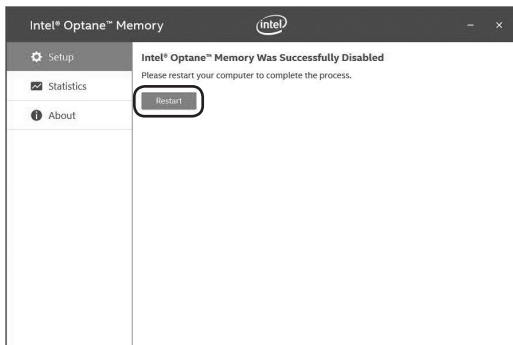
1. Double-click the Intel icon  in the lower right corner of the desktop.



2. When the Intel® Optane™ Memory interface displays, click “Disable”.



3. Click “Restart” to complete disabling the Optane Memory.



4. When the Optane Memory is successfully disabled, the disabled Intel® Optane™ information will show in Device Manager > Disk drivers.

