Intel® NUC Kit NUC5i3RYHSN

User Guide

October 2018

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Contents

Revision History

Date	Revision	Description
October 2018	1.0	Initial release.
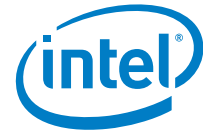
1.0   Introduction

This User Guide provides step-by-step installation instructions for these products:

- Intel® NUC Kit NUC5i3RYHSN

1.1   Before You Begin

⚠ **CAUTIONS**

The steps in this guide assume you're familiar with computer terminology and with the safety practices and regulatory compliance required for using and modifying computer equipment.

Disconnect the computer from its power source and from any network before performing any of the steps described in this guide.

Failure to disconnect power, telecommunications links, or networks before you open the computer or perform any procedures can result in personal injury or equipment damage. Some circuitry on the board can continue to operate even though the front panel power button is off.

Follow these guidelines before you begin:
- Always follow the steps in each procedure in the correct order.
- Create a log to record information about your computer, such as model, serial numbers, installed options, and configuration information.
- Electrostatic discharge (ESD) can damage components. Perform the procedures described in this chapter only at an ESD workstation using an antistatic wrist strap and a conductive foam pad. If such a station isn't available, you can provide some ESD protection by wearing an antistatic wrist strap and attaching it to a metal part of the computer chassis.

1.2   Installation Precautions

When you install and test the Intel NUC, observe all warnings and cautions in the installation instructions.

To avoid injury, be careful of:
- Sharp pins on connectors
- Sharp pins on circuit boards

- Rough edges and sharp corners on the chassis
- Hot components (such as SSDs, processors, voltage regulators, and heat sinks)
- Damage to wires that could cause a short circuit

Observe all warnings and cautions that instruct you to refer computer servicing to qualified technical personnel.

1.3   Observe Safety and Regulatory Requirements

If you don't follow these instructions, you increase your safety risk and the possibility of noncompliance with regional laws and regulations.

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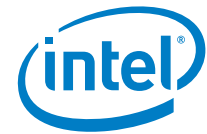
2.0   Open the Chassis

Unscrew the four corner screws on the bottom of the chassis and lift the cover.

3.0   *Upgrade System Memory*

Intel NUC Kits NUC5i3RYHSN have two 204-pin DDR4 SO-DIMM memory slots
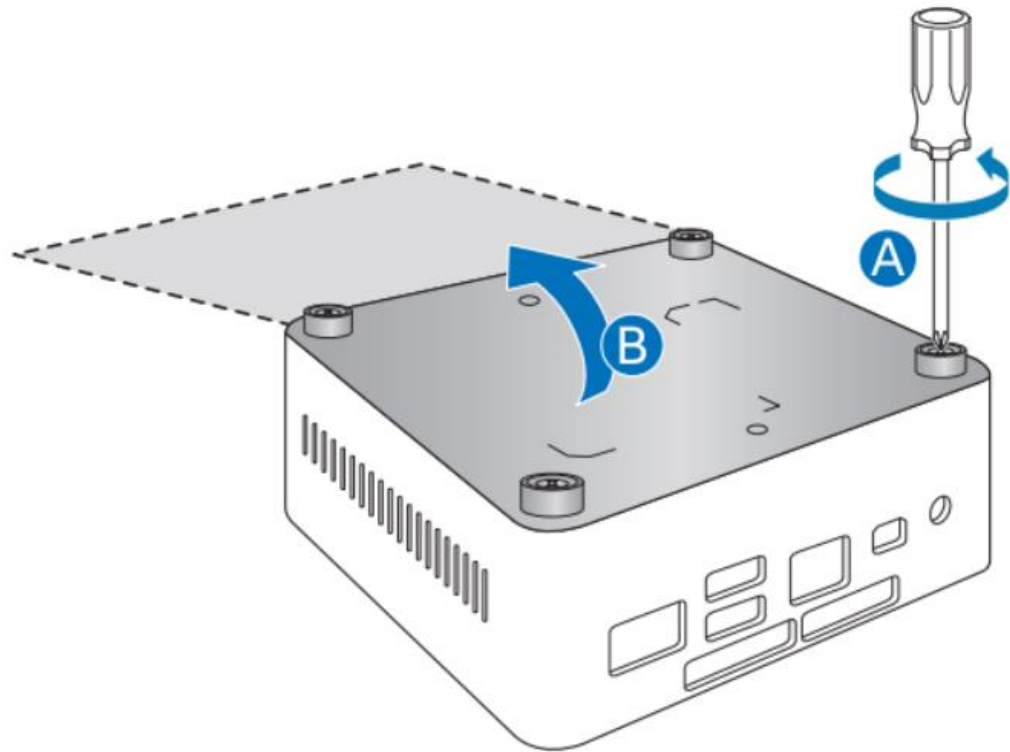
Pre-installed with 4 GB 1600 MHz SDRAM SO-DIMM (1.35V)

To upgrade memory, be sure to select memory modules that meet these requirements:

- 1.35V low voltage memory
- 1600 MHz SO-DIMMs
- Non-ECC

Find compatible system memory modules at the Intel® Product Compatibility Tool:

- NUC5i3RYHSN

NOTE	If you plan to install only one memory module, install it in the lower memory socket.

3.1   Upgrade to Different Memory

1. Observe the precautions in "Before You Begin" in Section 1.1.
2. Turn off all peripheral devices connected to the computer.
3. Turn off the computer and disconnect the power cord.
4. Remove the computer's bottom chassis cover.
5. Remove the pre-installed memory module
   a. Gently spread the retaining clips at each end of the memory socket, which causes the module to pop out of the socket (C).
   b. Holding the module by the edges, lift it away from the socket, and store it in an anti-static package.
6. Install the new memory module
   a. Align the small space at the bottom edge of the memory module with the key in the socket.
   b. Insert the bottom edge of the module at a 45 degree angle into the socket (A).
   c. When the module is inserted, push down on the outer edges of the module until the retaining clips snap into place (B). Make sure the clips are firmly in place (C).
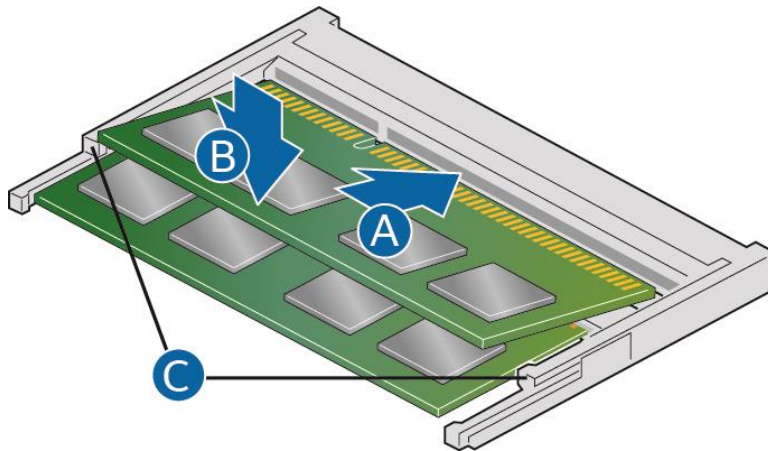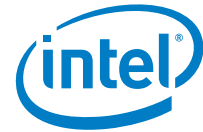
3.2   Install Additional Memory

1. Observe the precautions in "Before You Begin" in Section 1.1.
2. Turn off all peripheral devices connected to the computer.
3. Turn off the computer and disconnect the power cord.
4. Remove the computer's bottom chassis cover.
5. Install the additional module:
    a. Align the small space at the bottom edge of the memory module with the key on the socket.
    b. Insert the bottom edge of the module at a 45 degree angle into the socket (A).
    c. When the module is inserted, push down on the outer edges of the module until the retaining clips snap into place (B). Make sure the clips are firmly in place (C).
6. Reinstall and reconnect any parts you removed or disconnected to reach the memory sockets.
7. Replace the computer's cover and reconnect the power cord.
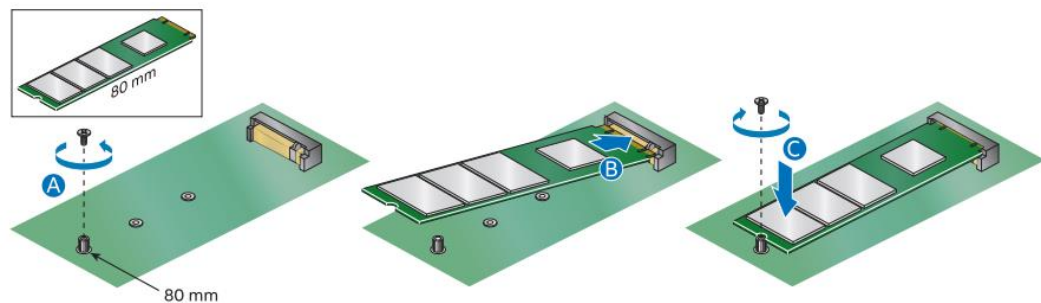
4.0   Change the M.2 SSD

Intel NUC Kits NUC5i3RYHSN support 80mm, 60mm and 42mm SSDs.

Find compatible M.2 SSDs in the Intel Product Compatibility Tool:
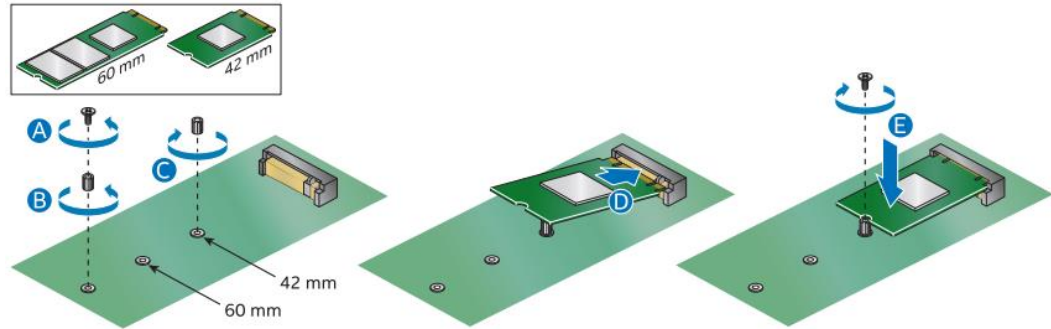
- NUC5i3RYHSN

To install a 80mm M.2 SSD:

1. Remove the small silver screw from the 80mm metal standoff on the motherboard (A).
2. Align the small notch at the bottom edge of the M.2 card with the key in the connector.
3. Insert the bottom edge of the M.2 card into the connector (B).
4. Secure the card to the standoff with the small silver screw (C).

To install a 60mm or 42mm M.2 SSD:

1. Remove the small silver screw from the metal standoff on the motherboard (A).
2. Move the standoff (B) from the 80mm position to either the 60mm or 42mm position (C).
3. Align the small notch at the bottom edge of the M.2 card with the key in the connector.
4. Insert the bottom edge of the M.2 card into the connector (D).
5. Secure the card to the standoff with the small silver screw (E).

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Install a 2.5" SSD or Hard Drive

Intel NUC Kits NUC5i3RYHSN support an additional 2.5" Solid State Drive (SSD) or Hard Disk Drive (HDD).

Find compatible 2.5" drives in the Intel Product Compatibility Tool:

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1. Unscrew the four screws holding the current drive in the bay.
2. Remove the pre-installed drive from the drive bay.
3. Slide the new 2.5" drive into the drive bay, ensuring the SATA connectors are fully seated into the connectors of the SATA daughter card (A).


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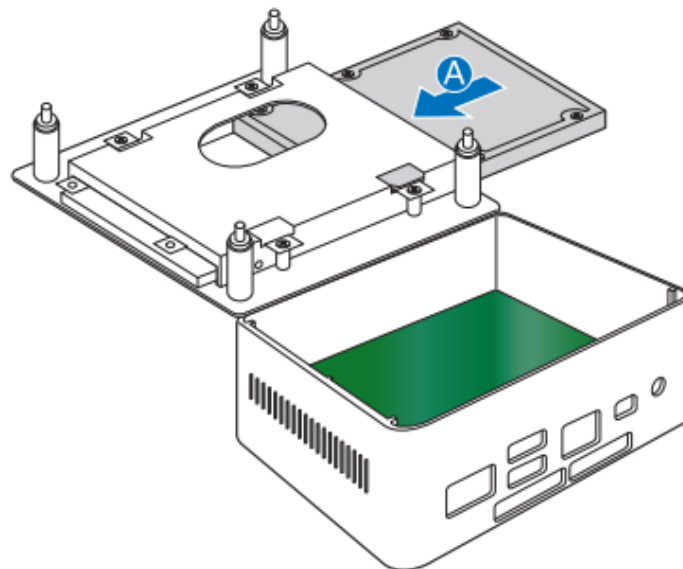
4. Secure the drive into the drive bay with the four screws that were used in step 1. Set the drive bay bracket down inside the chassis (B).

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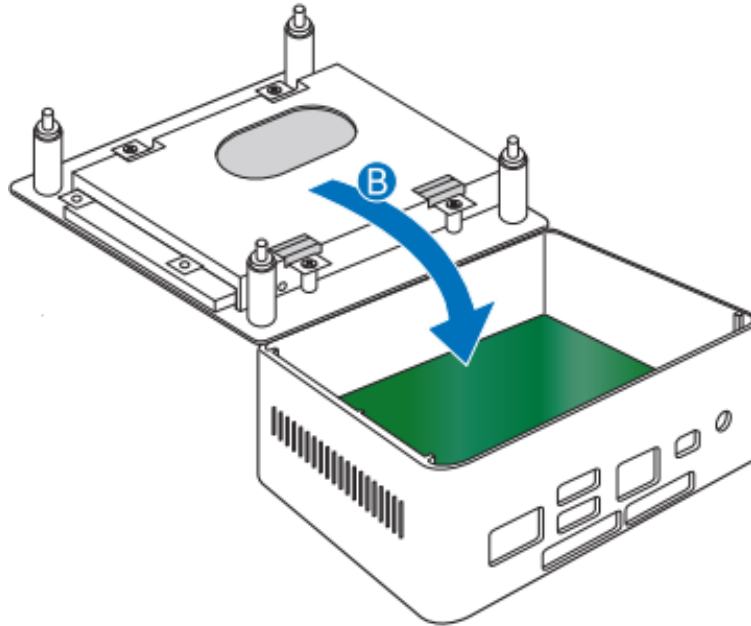
5.0   Close the Chassis

After all components have been installed, close the Intel NUC chassis. Intel recommends this be done by hand with a screwdriver to avoid over-tightening and possibly damaging the screws.

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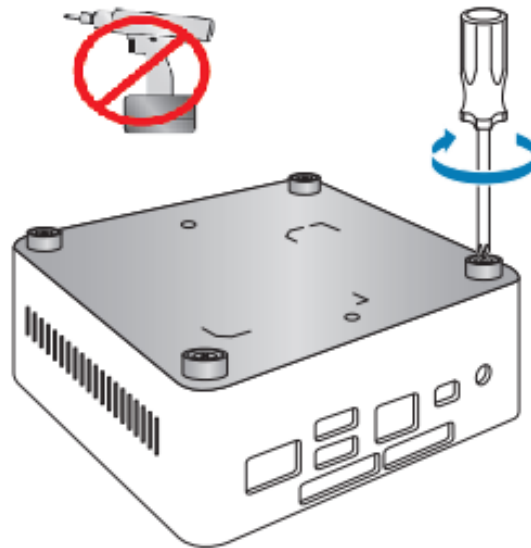
6.0 Use the VESA Bracket (Optional)

Follow these instructions to attach and use the VESA mount bracket:

1. Using the four small black screws that were included in the box, attach the VESA bracket to the back of the monitor or TV.
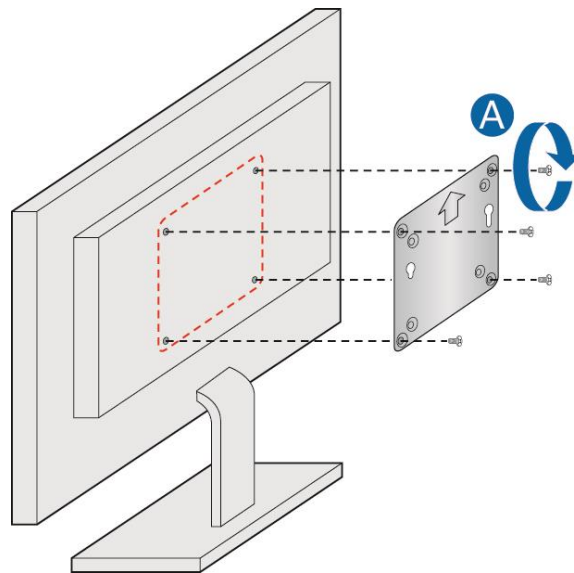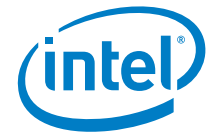

2. Attach the two slightly larger black screws to the bottom chassis cover of the Intel NUC.

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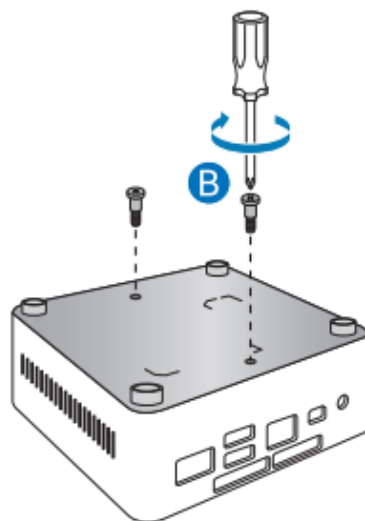
3. Slide the Intel NUC onto the VESA mount bracket.

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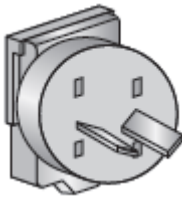User Guide – October 2018
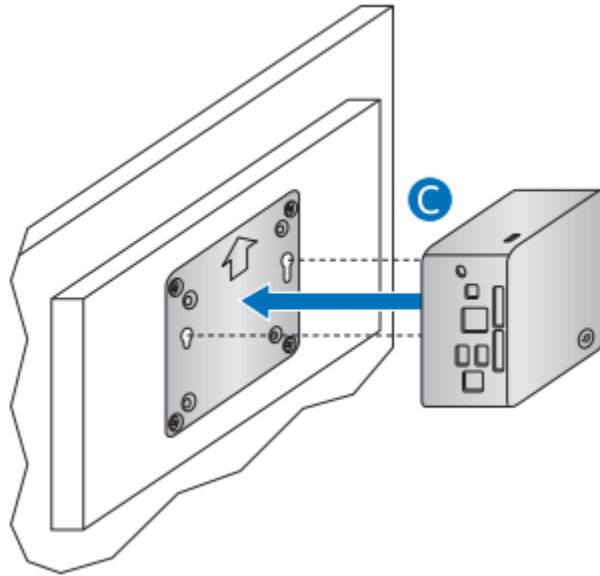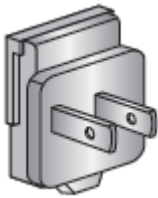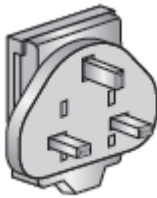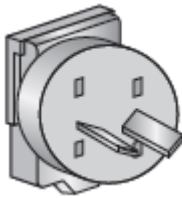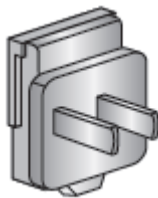
7.0   Connect Power

Country-specific power plug attachments are included in the box.
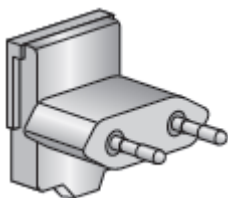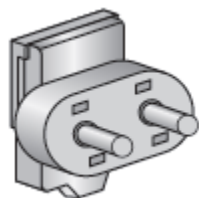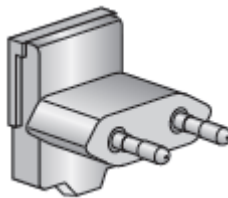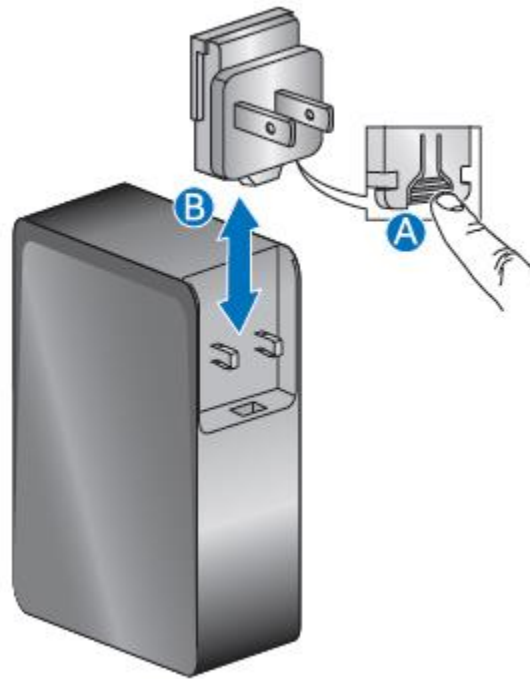1. Choose the attachment for your region.

Plug				
Code	US	UK	ARG	AUS
Country	United States	United Kingdom	Argentina	Australia

Plug				
Code	CHN	EU	IND	KOR
Country	China	European Union	India	South Korea

2. Slide the attachment (B) onto the power plug, locking it into place (A).

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3. Connect AC power.

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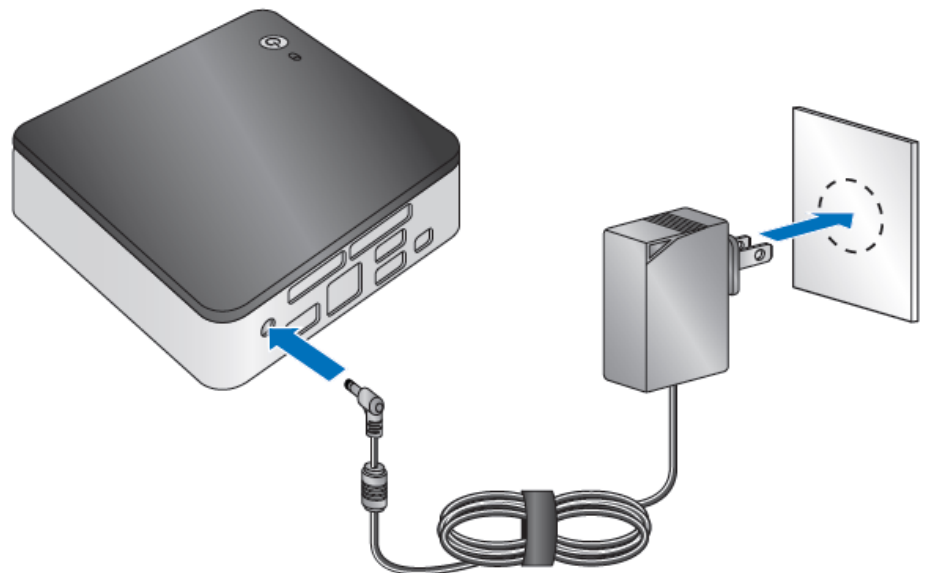
8.0   *Install an Operating System*

See Supported Operating Systems for a list of Intel-validated Windows* operating systems.

The Intel Product Compatibility Tool lists versions of Linux* that have been reported as compatible by Intel NUC owners. If you need assistance with Linux on your Intel NUC, check the distribution's website and forums for peer assistance.

Refer to Operating System Installation for system requirements and installation steps.

9.0 *Install the Latest Device Drivers and Software*

Here are the options for keeping device drivers current:

- Allow the Intel® Driver & Support Assistant (Intel® DSA) to detect out-of-date drivers
- Manually download drivers, BIOS, and software from Download Center:
  - NUC6i5SYH

The following device drivers and software are available.
- Intel® Chipset Device Software
- Intel® HD Graphics
- Intel® Management Engine
- Intel® Gigabit Ethernet
- Intel® Wireless
- Intel® Bluetooth
- Realtek* High Definition Audio
- ITE Tech* Consumer Infrared
- Intel® Rapid Storage Technology
- Near Field Communication (NFC) GPIO