



# NUC 15 Pro Board

## NUC15CRB

Motherboard User Guide

Regulatory Model: NUC15CRB

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# Contents

- Package Contents ..... 6
- 1. Product Specification**
- 2. Product Introduction**
  - 2.1 Board Layout..... 9
  - 2.2 Front View ..... 10
  - 2.3 Rear View ..... 10

## How This Document is Organized

This guide contains the following parts:

- **Chapter 1: Product Specification**

This chapter provides an overview of the specifications of the motherboard.

- **Chapter 2: Product Introduction**

This chapter provides you with the basic layout of the motherboard.

## Conventions Used in This Guide

To highlight key information in this manual, some text are presented as follows:

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**IMPORTANT!** This message contains vital information that must be followed to complete a task.

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**NOTE:** This message contains additional information and tips that can help complete tasks.

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**WARNING!** This message contains important information that must be followed to keep you safe while performing certain tasks and prevent damage to your NUC system's data and components.

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## Other common notation

#	Used after a signal name to identify an active-low signal (such as USBP0#)
GB	Gigabyte (1,073,741,824 bytes)
GB/s	Gigabytes per second
Gb/s	Gigabits per second
KB	Kilobyte (1024 bytes)
Kb	Kilobit (1024 bits)
kb/s	1000 bits per second
MB	Megabyte (1,048,576 bytes)
MB/s	Megabytes per second
Mb	Megabit (1,048,576 bits)
Mb/s	Megabits per second
TDP	Thermal Design Power
xxh	An address or data value ending with a lowercase h indicates a hexadecimal value.
x.x V	Volts. Voltages are DC unless otherwise specified.
x.x A	Amperes.

## Where to Find More Information

Refer to the following sources for additional information and for product and software updates.

### **ASUS website**

The ASUS website ([www.asus.com](http://www.asus.com)) provides updated information on ASUS hardware and software products.

# Package Contents

Motherboard	1 x NUC15 Pro Motherboard
Documentation	1 x Safety Information guide

**NOTE:**

- The most up-to-date and accurate product specifications are available on [www.asus.com](http://www.asus.com) for download.
- Product and accessory images are for illustrative purposes only. The actual appearance and specifications may vary depending on the model.
- The bundled power adapter may vary depending on the model and the country (or region) of sale.
- Some bundled accessories may vary depending on the model. For details on these accessories, refer to their respective user manuals.
- If the device or its components fail or malfunction during normal and proper use within the warranty period, bring the warranty card to the ASUS Service Center for replacement of the defective components.

# 1. Product Specification

The NUC Board is a small form factor main board for use in embedded systems, custom enclosures, and integrated systems. The board consists of the processor, chipset, memory slot, storage slot, slot for wireless card, integrated heat sink and fan.

**NOTE:** Chassis, RAM, storage, wireless card and operating system are not included.

Regulatory Model	NUC15CRB	
Product Name	NUC 15 Pro Board	
Processor	Intel® Core™ Ultra Processors (Series 2) (Codenamed Arrow Lake H)	Intel® Core™ Processors (Codenamed Raptor Lake Refresh U/H)
Chipset	Integrated	
Graphics	Intel® Arc™ GPU (Core Ultra) Intel® Graphics (Core 3, 5, 7) <small>* Intel® Arc™ GPU requires using 2 x SO-DIMM.</small>	
AC Cord	-	
Memory	2 x SO-DIMM, Up to DDR5-5600 or 2 x CSO-DIMM, Up to DDR5-6400, 48GB*2	
Storage	1 x M.2 2280 PCIe Gen5x4, supports 128GB~8TB NVMe SSD 1 x M.2 2242 PCIe Gen4x4, supports 128GB~2TB NVMe SSD PCIe Gen5x4 only when using Core Ultra otherwise PCIe Gen4x4	
Wireless Network	Intel® Wi-Fi 7 BE201, Bluetooth® 5.4	Intel® Wi-Fi 7 BE202, Bluetooth® 5.4
LAN	1 x Intel® Ethernet Controller 2.5G <small>* Intel® Ethernet Controller included on vPro enabled systems</small>	
Audio	The processor supports four High-Definition audio streams on four digital ports simultaneously. The processor supports the following audio formats over HDMI and DisplayPort: AC-3 Dolby Digital, Dolby Digital Plus, DTS-HD, LPCM, 192 Khz/24 bit, 6 Channel, and Dolby TrueHD, DTS-HD Master Audio.	
TPM	fTPM	
Card Reader	-	
HDMI CEC	Yes, 2 ports on back panel	
Front I/O Ports	1 x USB 20Gbps Type-C® 2 x USB 10Gbps Type-A	

(continued on next page)

Back I/O Ports	2 x Thunderbolt™ 4 Type-C® w/ DisplayPort 2.1 1 x USB 10Gbps Type-A 1 x USB 2.0 Type-A 2 x HDMI 2.1 (TMDS) 1 x RJ45 LAN 1 x DC-in
Side I/O Ports	-
Power Supply	Not included
Dimensions (W x D x H)	107mm x 102mm x 29mm
Weight (grams)	227g (Core Ultra) 195g (Core3)
OS	Windows 11 64-bit Ubuntu 24.04 LTS 64-bit RedHat Enterprise Linux 64-bit

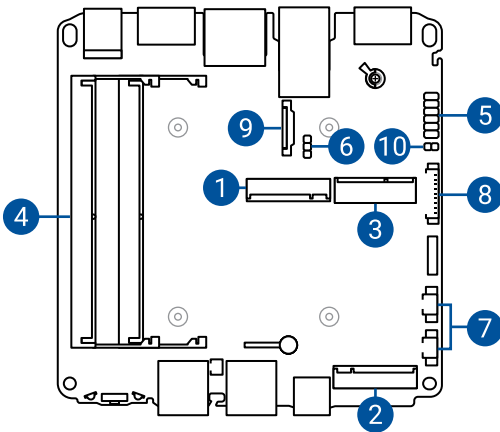


# 2. Product Introduction

## 2.1 Board Layout

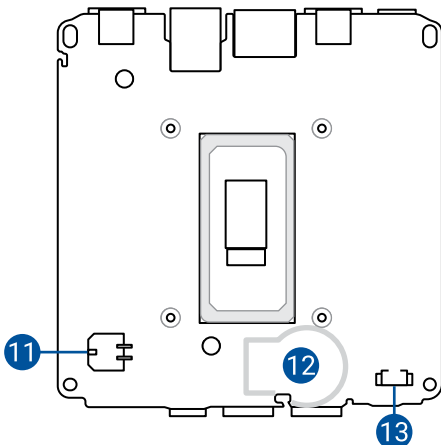
The illustration below shows the location of the major components on the motherboard.

### Top view

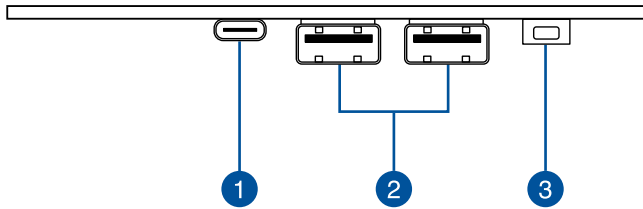


- 1 M.2 2242 module connector (Key Type M) (NVMe only)
- 2 M.2 2280 module connector (Key Type M) (NVMe only)
- 3 M.2 2230 module connector (Key Type E)
- 4 DDR5 CSO-DIMM/SO-DIMM sockets
- 5 Front panel header
- 6 BIOS security jumper
- 7 USB 2.0 headers
- 8 Serial port connectors
- 9 PCIe x1 Custom Solution header
- 10 Intel® Management Engine BIOS Extension (Intel® MEBX) Reset Header
- 11 12-20 V DC 2x2 power connector
- 12 CMOS battery
- 13 CPU fan connector

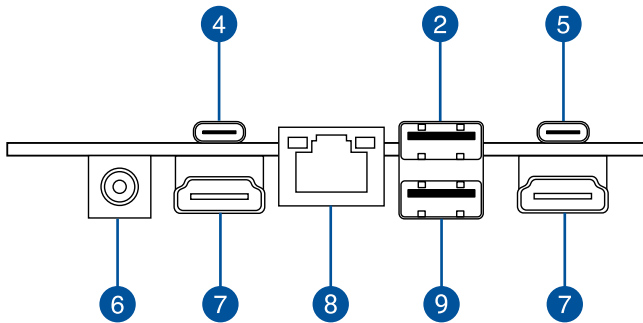
### Bottom view



## 2.2 Front View



## 2.3 Rear View



- |   |  |   |              |
|---|--|---|--------------|
| 1 | USB 20Gbps Type-C® port                            | 6 | Power input  |
| 2 | USB 10Gbps port                                    | 7 | HDMI™ port   |
| 3 | Power button                                       | 8 | LAN Port     |
| 4 | Thunderbolt™ 4 Type-C® port 1 with DisplayPort 2.1 | 9 | USB 2.0 port |
| 5 | Thunderbolt™ 4 Type-C® port 2 with DisplayPort 2.1 |   |              |

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### NOTE:

- Type-C® port power profiles:
    - 5V @ 3A (primary)
    - 5V @ 1.5A (secondary)
  - HDMI max. resolution: 3840 x 2160 @60Hz
  - DisplayPort max. resolution: 5120 x 3200 @60Hz
  - Wired LAN speed is 10/100/1000/2500 Mbps
-

「產品之限用物質含有情況」之相關資訊，請參考下表：

單元	限用物質及其化學符號					
	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr <sup>+6</sup> )	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)
印刷電路板 Printed Circuit Board (PCB)	○	○	○	○	○	○
電子組件 Electronic Component	—	○	○	○	○	○
連接器 Connector	—	○	○	○	○	○
散熱設備 Heat Dissipation Device	—	○	○	○	○	○
備考 1. "○" 係指該項限用物質之百分比含量未超出百分比含量基準值。 備考 2. "—" 係指該項限用物質為排除項目。						

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