

# NUC-RPU

13th Generation Intel® Raptor Lake-U Fanless  
Ultra Slim System



## Product Features

- 13th Gen Intel® Core™ i7/i5/i3 (15W) Processors
- 1-Memory Socket (Capacity Max. Up to 32GB DDR5 4800)
- 2-Intel® Ethernet Controller (1GbE, 2.5GbE)
- 3-Expanslot Slot (M.2 Key-E, Key-B, Key-M)
- 8-USB Port(2-USB 2.0, 4-USB3.2 Gen2, 2-USB3.2 Gen1)
- Support dTPM 2.0, iAMT
- Intel® Iris® Xe/ UHD Graphics
- 2-COM Port (RS-232/422/485)
- 2-Audio Jack (Mic-In, Line-Out)
- 4-Display (HDMI 2.0b)
- Support Table Stand, VESA, DIN Rail mount

## Specification

### System Information

|                    |                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor          | Embedded (15W)<br>Intel® Core™ i7-1365UE Processor(Project Base)<br>Intel® Core™ i5-1345UE Processor(Project Base)<br>Intel® Core™ i5-1335UE Processor<br>Intel® Core™ i3-1315UE Processor<br>Non-Embedded (15W)<br>Intel® Core™ i7-1355U Processor(Project Base)<br>Intel® Core™ i5-1335U Processor(Project Base)<br>Intel® Core™ i3-1315U Processor(Project Base) |
| System Memory      | 1 x 262-Pin SO-DIMM Socket (Capacity Max. Up to 32GB DDR5 4800)                                                                                                                                                                                                                                                                                                     |
| BIOS Information   | AMI uEFI BIOS, 256Mbit SPI Flash ROM                                                                                                                                                                                                                                                                                                                                |
| Watchdog Timer     | H/W Reset, 1sec. ~ 65535sec                                                                                                                                                                                                                                                                                                                                         |
| H/W Status Monitor | Monitoring CPU Temperature, Voltage with Auto Throttling Control                                                                                                                                                                                                                                                                                                    |
| TPM                | TPM 2.0                                                                                                                                                                                                                                                                                                                                                             |
| iAMT               | i7-1365UE & i5-1345UE                                                                                                                                                                                                                                                                                                                                               |
| SBC                | NUC-RPU                                                                                                                                                                                                                                                                                                                                                             |

Expansion

|     |                                                                                                                                                                |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| M.2 | 1 x M.2 Key-E 2230 (PCIe, USB 2.0, CNVi)<br>1 x M.2 Key-B 2242/3042/3052 with internal SIM slot (PCIe, SATA, USB 3.0, USB 2.0)<br>1 x M.2 Key-M 2280 (PCIe4x4) |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------|

Storage

|     |                                                                             |
|-----|-----------------------------------------------------------------------------|
| M.2 | 1 x M.2 Key-M 2280 NVMe (PCIe Gen4x4)<br>1 x M.2 Key-B 2242 SSD (SATA Gen3) |
|-----|-----------------------------------------------------------------------------|

Front I/O

|               |                                                                          |
|---------------|--------------------------------------------------------------------------|
| USB           | 2 x USB 2.0                                                              |
| Power Button  | 1 x Power Button with LED                                                |
| COM Port      | 2 x RS-232/422/485 (Control by BIOS setting)                             |
| LED Indicator | 1 x Storage LED (Yellow)<br>1 x LTE LED (Green)<br>1 x Wi-Fi LED (Green) |
| Audio         | 1 x Mic-In<br>1 x Line-Out                                               |

Rear I/O

|             |                                             |
|-------------|---------------------------------------------|
| USB         | 4 x USB 3.2 Gen2<br>2 x USB 3.2 Gen1        |
| LAN Port    | 2-Intel® Ethernet Controller (1GbE, 2.5GbE) |
| HDMI        | 4 x HDMI 2.0b                               |
| AC/DC Input | 1 x Lockable DC Jack                        |

Right I/O

|         |                          |
|---------|--------------------------|
| Antenna | 2 x Covered antenna hole |
|---------|--------------------------|

Left I/O

|         |                          |
|---------|--------------------------|
| Antenna | 2 x Covered antenna hole |
|---------|--------------------------|

Display

|                 |                                |
|-----------------|--------------------------------|
| Graphic Chipset | Intel® 13th Gen CPU integrated |
| Resolution      | HDMI 2.0 4096x2304@60Hz        |

Audio

|             |                 |
|-------------|-----------------|
| Audio Codec | RealTek ALC888S |
|-------------|-----------------|

| Ethernet                   |                                                                                 |
|----------------------------|---------------------------------------------------------------------------------|
| LAN Chipset                | 1 x Intel® Ethernet Connection I219-LM<br>1 x Intel® Ethernet Controller I226-V |
| Power Requirement          |                                                                                 |
| Voltage Input Spec.        | +12Vdc                                                                          |
| Voltage Input Connector    | Lockable DC Jack                                                                |
| ACPI                       | Single power ATX support S0, S3, S4, S5                                         |
| Power Mode                 | AT/ATX (ATX default)                                                            |
| Adapter                    | AC to DC adapter                                                                |
| Software Support           |                                                                                 |
| OS                         | Win10, Win11, Linux                                                             |
| Certification              |                                                                                 |
| Certification Information  | CE FCC Class B                                                                  |
| Mechanical & Environmental |                                                                                 |
| Operating Temp.            | 0°C ~ 50°C (32°F ~ 122°F)                                                       |
| Storage Temp.              | -30~70C° (-22°F ~ 158°F)                                                        |
| Operating Humidity         | 40°C @ 95% Relative Humidity, Non-condensing                                    |
| Dimension (W x L x H)      | 174mm x 125mm x 38.7mm(6.85" x 4.92" x 1.52")                                   |
| Weight                     | 0.85kg                                                                          |
| Vibration Test             | With SSD: 1.5 Grms, IEC60068-2-64, Random, 5~500 Hz, 30 min/axis                |
| Shock Test                 | With SSD: 55Grms, IEC 60068-2-27, IEC 60068-2-27, Half Sine, 11ms               |
| Drop Test                  | ISTA 2A, IEC-60068-2-32 Test:Ed                                                 |
| IP Rating                  | IP40                                                                            |
| Mounting Kit               | Table Stand/Din Rail/VESA                                                       |
| Kensington Lock            | 1 x Kensington Lock                                                             |