



## Features

- Intel® Celeron® Processor J3455/N3350
- Single DRAM Socket, Max. Up to 8GB DDR3 1866MHz
- Rich I/O, 2 x COM, 2 x LAN, 4 x USB3.0, 1 x Audio, 2 x Antenna Mounting
- Triple Display, 2 x HDMI, 1 x DP (DVI-I/VGA Factory Option)
- Expansion Slot, M.2 Key-B, M.2 Key-E
- Fanless Operating from 0°C ~ 60°C
- DC Power Input +12V
- Compact Size, 115mm x 111mm x 58mm
- Supports VESA/Din-Rail Kit
- TPM 2.0 (Factory Option)



3-Display  
HDMI+DP/  
VGA/DVI-I



Compact Size  
115x111x45mm



Rugged  
Design  
5G/55G



-10°C~60°C



No Vents

## Specifications

### System Information

|                    |                                                                                                                        |
|--------------------|------------------------------------------------------------------------------------------------------------------------|
| Processor          | Intel® Celeron® Processor J3455 (2M Cache, up to 2.3 GHz)<br>Intel® Celeron® Processor N3350 (2M Cache, up to 2.4 GHz) |
| System Memory      | 1 x 204-pin SO-DIMM Socket, Max. Up to 8GB DDR3L 1866MHz                                                               |
| BIOS Information   | AMI BIOS, 128Mbit SPI Flash ROM                                                                                        |
| Watchdog Timer     | H/W Reset, 1sec. ~ 65535sec and 1sec. or 1min./step                                                                    |
| H/W Status Monitor | Monitoring CPU Temperature, Voltage with Auto Throttling Control                                                       |
| SBC                | NCM-APL                                                                                                                |

### Expansion

|     |                                                                                                           |
|-----|-----------------------------------------------------------------------------------------------------------|
| M.2 | 1 x M.2 (Key-B, 2242/3042, PCIe, SATA, USB 3.0, USB 2.0, SIM Slot)<br>1 x M.2 (Key-E, 2230, PCIe, USB2.0) |
|-----|-----------------------------------------------------------------------------------------------------------|

### Storage

|               |                                 |
|---------------|---------------------------------|
| M.2           | 1 x M.2 (Key-B, 2242, SATA)     |
| 2.5 Drive Bay | 1 x 2.5" Drive Bay (7 or 9.5mm) |

### Front I/O

|               |                                                         |
|---------------|---------------------------------------------------------|
| USB           | 2 x USB 3.0 (5Gbps)                                     |
| Power Button  | 1 x Power Button                                        |
| LED Indicator | 1 x Power on/off LED & Storage Access LED on front side |
| Audio         | 1 x Audio Jack (Mic-in + Line-Out Combo)                |
| HDMI          | 2 x HDMI 1.4b                                           |

### Rear I/O

|             |                                                 |
|-------------|-------------------------------------------------|
| USB         | 2 x USB 3.0 (5Gbps)                             |
| COM Port    | 1 x RS-232/422/485 (BIOS & Cable)<br>1 x RS-232 |
| LAN Port    | 2 x RJ45                                        |
| DP          | 1 x DP                                          |
| AC/DC Input | 1 x Lockable DC Jack                            |

### Right I/O

|         |                                      |
|---------|--------------------------------------|
| Antenna | 2 x Antenna Mounting with Dust Cover |
|---------|--------------------------------------|

### Display

|                 |                                                                                                                        |
|-----------------|------------------------------------------------------------------------------------------------------------------------|
| Graphic Chipset | Intel® HD Graphics 500                                                                                                 |
| Resolution      | 2 x HDMI 1.4b: Max. Resolution 3840 x 2160@30Hz<br>1 x DP (DVI-I/VGA Factory Option): Max. Resolution 1920 x 1080@60Hz |

### Audio

|             |                 |
|-------------|-----------------|
| Audio Codec | Realtek ALC888S |
|-------------|-----------------|

### Ethernet

|               |                                                 |
|---------------|-------------------------------------------------|
| LAN Chipset   | Realtek RTL8119L                                |
| Specification | 10/100/1000 Base-Tx Gigabit Ethernet Compatible |

### Power Requirement

|            |                                                                    |
|------------|--------------------------------------------------------------------|
| Adapter    | Input: 100 ~ 240Vdc/ 50 ~ 60Hz<br>Output: 12V/5A AC-DC 60W Adapter |
| ACPI       | Single Power ATX Support S0, S3, S4, S5<br>ACPI 5.0 Compliant      |
| Power Mode | AT/ATX (ATX is default setting)                                    |

### Software Support

|    |               |
|----|---------------|
| OS | Win 10, Linux |
|----|---------------|

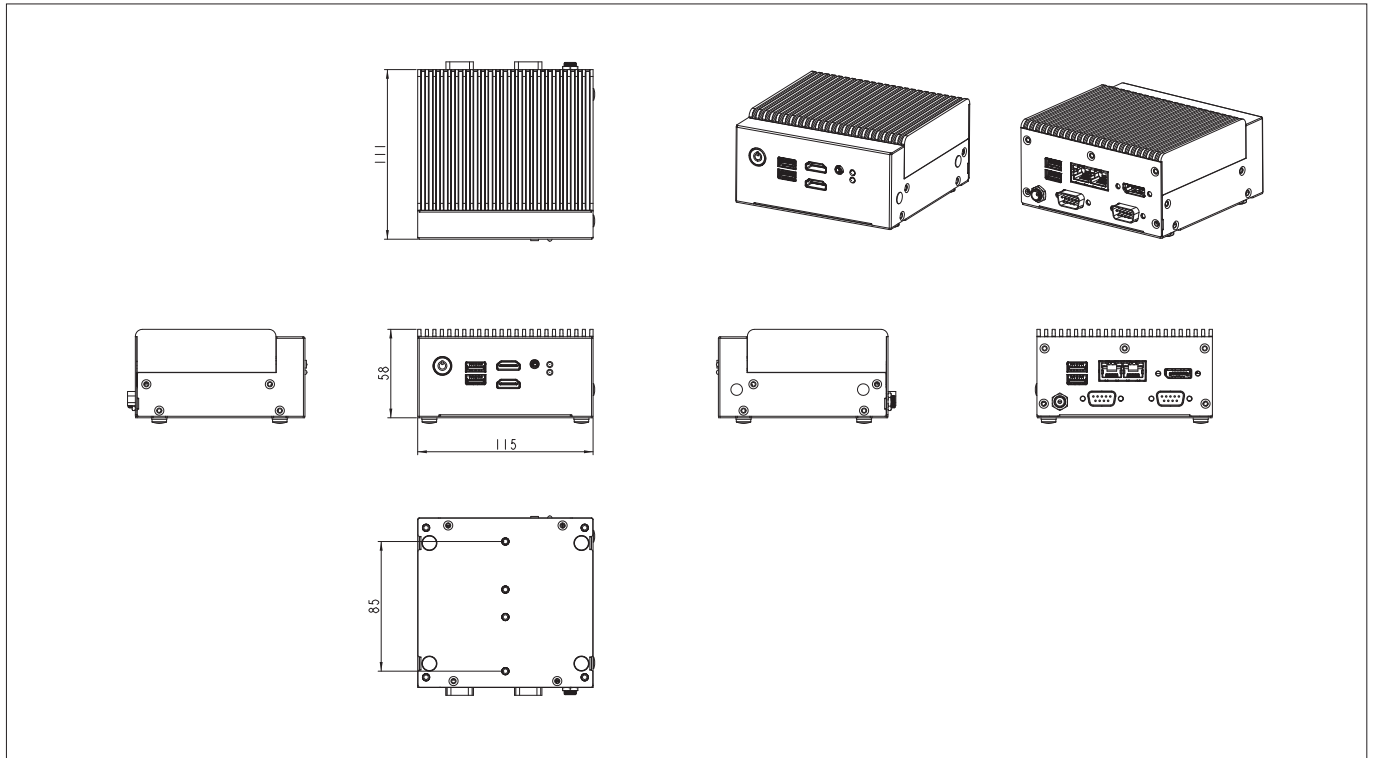
### Certification

|                           |                       |
|---------------------------|-----------------------|
| Certification Information | CE, FCC Class A, UKCA |
|---------------------------|-----------------------|

### Mechanical & Environmental

|                       |                                                                                                                                                                                  |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating Temp.       | With extended temperature peripherals -10°C ~ 50°C (14°F ~ 122°F) with 0.2m/s air flow<br>With extended temperature peripherals -10°C ~ 60°C (14°F ~ 140°F) with 0.5m/s air flow |
| Storage Temp.         | -30~70°C (-22°F ~ 158°F)                                                                                                                                                         |
| Operating Humidity    | 40°C @ 95% Relative Humidity, Non-condensing                                                                                                                                     |
| Dimension (W x L x H) | 115mm x 111mm x 58mm (4.53" x 4.37" x 2.28")                                                                                                                                     |
| Weight                | 0.85KG (1.87lbs)                                                                                                                                                                 |
| Vibration Test        | With SSD: 5Grms, IEC 60068-2-64, Random, 10 ~ 500Hz, 30min/Axis, 3 Axis                                                                                                          |
| Shock Test            | With SDD : 55G, IEC 60068-2-27, Half Sine, 11ms, Z Axis                                                                                                                          |
| Drop Test             | ISTA 2A, IEC-60068-2-32 Test : Ed, 1 Corner, 3 Edges, 6 Faces                                                                                                                    |
| Mounting Kit          | VESA/Din Rail Kit                                                                                                                                                                |

## Mechanical Drawing



## Ordering Information

| P/N              | Processor                       | Memory    | Adapter | Mounting Kit  | I/O Ports (COM/USB/LAN) | Display Output | Audio Port                     | Power Input   | Working Temp. | OS Support             |
|------------------|---------------------------------|-----------|---------|---------------|-------------------------|----------------|--------------------------------|---------------|---------------|------------------------|
| NUC-APL-34-B1-1R | Intel® Celeron® Processor J3455 | 4GB DDR3L | 12V/5A  | VESA/Din Rail | 2/4/2                   | HDMI<br>DP     | Combo Jack (Mic-in + Line-out) | +12~24V DC in | 0°C ~ 50°C    | Windows 10/11<br>Linux |
| NUC-APL-33-B1-1R | Intel® Celeron® Processor N3350 | 4GB DDR3L | 12V/5A  | VESA/Din Rail | 2/4/2                   | HDMI<br>DP     | Combo Jack (Mic-in + Line-out) | +12~24V DC in | 0°C ~ 50°C    | Windows 10/11<br>Linux |

## Packing List

| Item                      | Quantity |
|---------------------------|----------|
| NUC-APL Slim System       | 1        |
| AC/DC Adapter 12V/5A      | 1        |
| Vesa Mount                | 1        |
| Din Rail Kit              | 1        |
| Screw Kit for Peripherals | 1        |

## Optional Items

| Item                                             | P/N          |
|--------------------------------------------------|--------------|
| Power Cord 3P (F)-3P (M) 183cm, USA Type         | E1702031833R |
| Power Cord SL-6+SL-3 183cm, EU Type              | E1702031000R |
| Power Cord 3P (F)-3P (M) 183cm, Japan w/PSE Type | E1702031834R |
| Power Cord QP-026+SL-3 183cm, UK Type            | E170P060380R |
| Power Cord 3P (F)-3P (M) 183cm, Australia Type   | E1702031831R |

## I/O Overview

