



# ASUS NUCIOALA0RV

## Product Specification

Revision 1.0

Regulatory Model: NUCIOALA0RV

*February 2025*

# Revision History

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Revision	Revision History	Date
1.0	First Release	February 2025

## Disclaimer

This product specification applies only to the standard ASUS NUCIOALAORV.

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# Preface

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This Product Specification specifies the layout, components, and connectors for the ASUS NUCIOALA0RV.

## Intended Audience

This document is intended to provide technical information about ASUS NUCIOAL and its components to the vendors, system integrators, and other engineers and technicians who need this level of information. It is specifically *not* intended for general audiences.

## What This Document Contains

Chapter	Description
1	A description of the NUCIOALA0RV features
2	A technical description of the NUCIOALA0RV

## Typographical Conventions

This section contains information about the conventions used in this specification. Not all of these symbols and abbreviations appear in all specifications of this type.

## Notes, Cautions, and Warnings



### **NOTE**

*Notes call attention to important information.*



### **CAUTION**

*Cautions are included to help you avoid damaging hardware or losing data.*

## 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.
*	This symbol is used to indicate third-party brands and names that are the property of their respective owners.

# Specification Changes or Clarifications

The table below indicates the Specification Changes or Specification Clarifications that apply to the ASUS NUCIOALA0RV.

## Specification Changes or Clarifications

Date	Type of Change	Description of Changes or Clarifications

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# 1 Product Description

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## 1.1 Overview

The ASUS NUCIOALA0RV is a Component-on-Module architecture optimized for integrated designs. The ASUS NUCIOALA0RV requires a NUC14RVH to operate.



### NOTE

ASUS NUCIOALA0RV has been certified for use as a component in Information Technology Equipment in certain countries. The system integrator is responsible for testing and acquiring any additional country-specific regulatory approvals, including all system-wide certifications.

## 1.2 Feature Summary

Table 1 summarizes the major features of the ASUS NUCIOALA0RV.

**Table 1. Feature Summary**

<b>Communication</b>	Gigabit (10/100/1000/2500 Mbps) LAN subsystem using the Intel® i226-V Gigabit Ethernet Controller
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#### To find information about...

ASUS NUC Warranty Information

Intel Ethernet Technology

Intel Technologies

#### Visit this World Wide Web site:

<http://www.intel.com/NUCWarranty>

<http://www.intel.com/ethernet>

<http://www.intel.com/technology>

## 2 Technical Reference

### 2.1 Add-In Card M.2 Connector

The NUCIOALAORV is an add-in card that is connected to the NUC via an onboard connector through an included 30 pin ribbon cable. Table 2 shows the connector pinout.



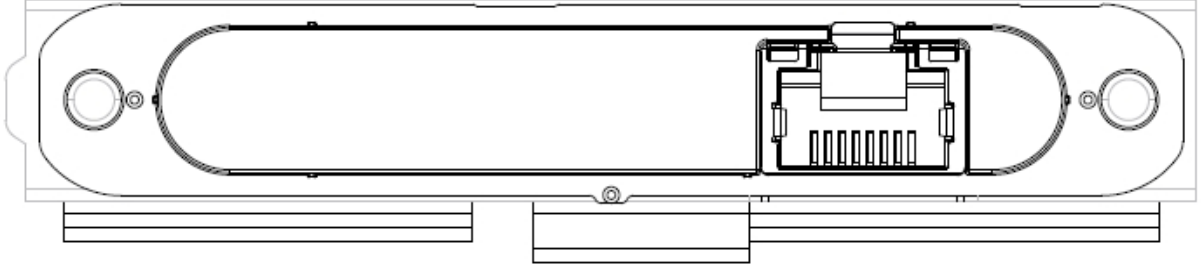
Figure 1. M.2 Connector

Table 2. Connector Ribbon Cable Pinout

Pin	Signal Name	Pin	Signal Name
1	GND	16	CON_MDI2+
2	USB IN	17	CON_MDI1-
3	USB IN	18	CON_MDI1+
4	GND	19	CON_MDI0-
5	USB2_IN3_PWR_EN	20	CON_MDI0+
6	OVCUR1	21	LAN_ACT#
7	DM1_DB	22	GND LAN
8	DP1_DB	23	+3P3V_DB
9	GND	24	GND
10	LAN LED 1	25	DM2_DB
11	LAN LED 2	26	DP2_DB
12	GND LAN	27	GND
13	CON_MDI3-	28	USB IN
14	CON_MDI3+	29	USB IN
15	CON_MDI2-	30	GND

## 2.2 Mechanical

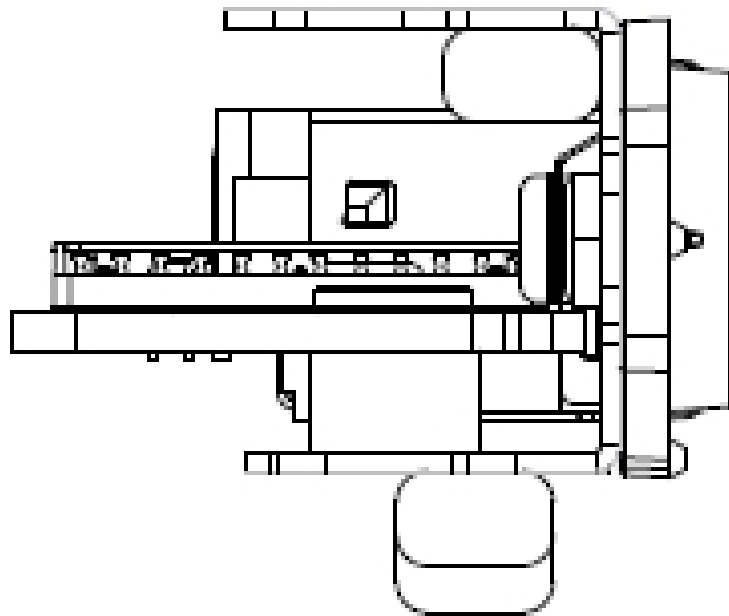
The following figures illustrate the mechanical form factor for the NUCIOALAORV.



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**Figure 2. Add-in Card IO**

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**Figure 3. Left**

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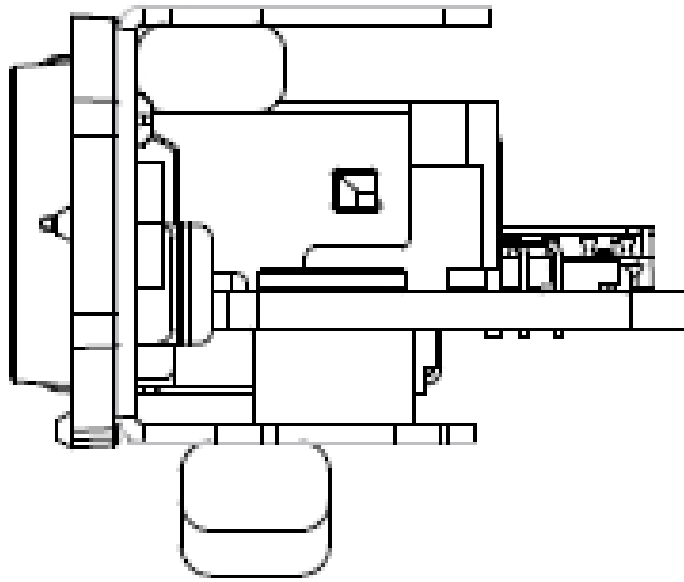


Figure 4. Right

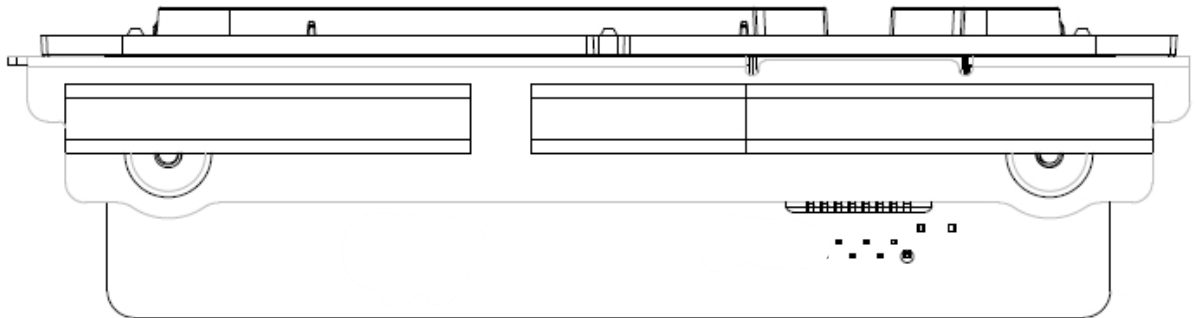


Figure 5. Top

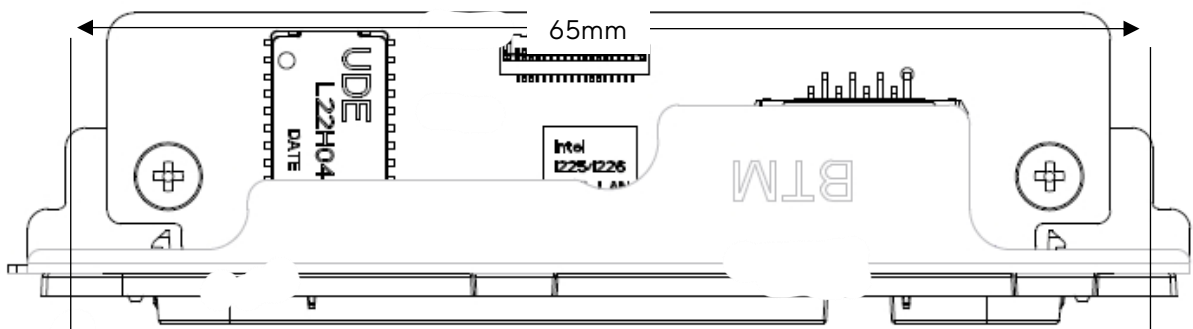


Figure 6. Bottom (Showing Connector)

## **2.3 Environmental**

For Environmental specifications, please refer to the environmental spec of the selected NUC device.