

# UNO-2372G

## Small-size Modular Embedded Box PC with Intel® Atom™ E3845/Celeron® J1900/J3455

**NEW**



Single-stack

Double-stack



### Features

- Intel Atom® E3845, Celeron® J1900/J3455 quad-core processor with 4G DDR3L memory
- Compact, robust, fanless and cable-free system with high stability
- Modular design with optional SSD/ NVME/ Wi-Fi/Bluetooth/cellular scalability
- Microsoft Azure IoT Edge and Amazon AWS IoT Greengrass certified

### Introduction

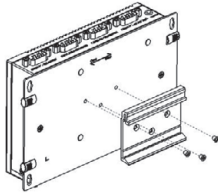
Advantech's new generation UNO-2000 series of Embedded Automation Computers are a highly ruggedized fanless and modular design. The incredible modularity of UNO-2372G offers numerous performance and cost-saving advantages, including elimination of unnecessary features and expenses, accelerated production and delivery, rapid deployment and integration, reduced system downtime and maintenance costs, and support for future upgrades and expansion. The UNO-2372G's modular design features optimized I/O and an optional second expansion stack that support Advantech's iDoor technology. This allows the platform functionalities to be easily extended and customized with the integration of various iDoor modules, including industrial Fieldbus, wireless communication, I/O and peripheral module, to provide purpose-built, future-proof solutions that satisfy specific application requirements.

### Specifications

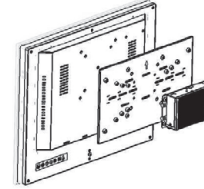
|                      |                        |   |   |  |
|----------------------|------------------------|---|---|--|
| System Hardware      | Processor              | Intel® Atom Quad Core E3845 1.9GHz  | Intel® Celeron® Quad Core J1900, 2GHz                                 | Intel® Celeron® Quad Core J3455 1.5 GHz (max. turbo 2.3 GHz) |
|                      | Memory                 | Built-in 4GB DDR3L 1333MHz (Up to 8GB)  |   | Built-in 4 GB DDR3L, 1866 MHz (Up to 8 GB)                   |
|                      | Graphics Engine        | Intel HD Graphics   |   | Intel HD Graphics 500  |
|                      | Ethernet               | Intel® i210/ Realtek i8119i GbE, 802.1Qav, 802.1AS, 802.3az   |   |  |
|                      | Hardware Security      | TPM2.0 (Optional)   |   |  |
|                      | Storage                | 1 x mSATA shared with mPCIe socket<br>1 x 2.5" SATA HDD drive bay (Max. height 9.5 mm)  |   |  |
|                      | Expansion              | 2 x Full size mPCIe slots   |   |  |
|                      | Bios                   | AMI UEFI (64 Mbit)  |   |  |
|                      | Watchdog Timer         | Programmable timer with 255 intervals (1 ~ 255 sec)   |   |  |
|                      | LED Indicators         | Power, RTC battery, LAN (active, status), and HDD   |   |  |
| I/O Interfaces       | Serial Ports           | 4 x RS-232/422/485, DB9, 50 ~ 115.2kbps   |   |  |
|                      | LAN Ports              | 2 x RJ45, 10/100/1000 Mbps IEEE 802.1u<br>1000BASE-T Fast Ethernet  |   |  |
|                      | USB Ports              | 1 x USB 3.0, 3 x USB 2.0  | 4 x USB 3.0   |  |
|                      | Displays               | 1 x HDMI 1.4 (1920x1080@60Hz)<br>1 x DP 1.1 (2560x1600@60Hz)  | 1 x HDMI 1.4b (3840 x 2160 @30 Hz)<br>1 x DP 1.2 (3840 x 2160 @60 Hz) |  |
|                      | Power Connector        | 1 x 2-Pin, Terminal Block   |   |  |
| General              | Certification          | CE, FCC, UL, CCC, BSMI  |   |  |
|                      | Dimensions (W x D x H) | Single stack: 150 x 105 x 35mm<br>Double Stack: 150 x 105 x 65mm  |   |  |
|                      | Form Factor            | Small Size  |   |  |
|                      | Enclosure              | Aluminum Housing  |   |  |
|                      | Mounting               | Stand, wall, VESA (optional), DIN rail (optional)   |   |  |
|                      | Weight(Net)            | Single-stack model: 0.8 kg (1.8 lb)<br>Double-stack model: 1.0 kg (2.2 lb)  |   |  |
|                      | Power Requirement      | 10 ~ 36 V <sub>DC</sub>   |   |  |
|                      | Power Consumption      | 30W (Typical), 42W (Max)  | 18.36W (typical)  |  |
|                      | OS support             | Microsoft® Windows 7, Windows 10, Advantech Linux (Ubuntu 18.04/20.04)  |   | Microsoft® Windows 10, Advantech Linux (Ubuntu 18.04/20.04)  |
|                      | Environment            | Operating Temperature   | -20 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH with 0.7m/s airflow              |  |
| Storage Temperature  |                        | -40 ~ 85 °C/-40 ~ 185 °F  |   |  |
| Relative Humidity    |                        | 10 ~ 95% RH @ 40°C, non-condensing  |   |  |
| Shock Protection     |                        | Operating, IEC 60068-2-27, 50G, half sine, 11ms   |   |  |
| Vibration Protection |                        | Operating, IEC 60068-2-64, 2Grms, random, 5 ~ 500Hz, 1hr/axis (mSATA)<br>Operating, IEC 60068-2-64, 0.75Grms, random, 5 ~ 500Hz, 1hr/axis (HDD) |   |  |
| Ingress Protection   |                        | IP40  |   |  |

## Installation Scenario

DIN-rail Mount Illustration

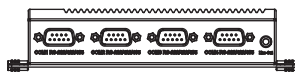


VESA Mount Illustration

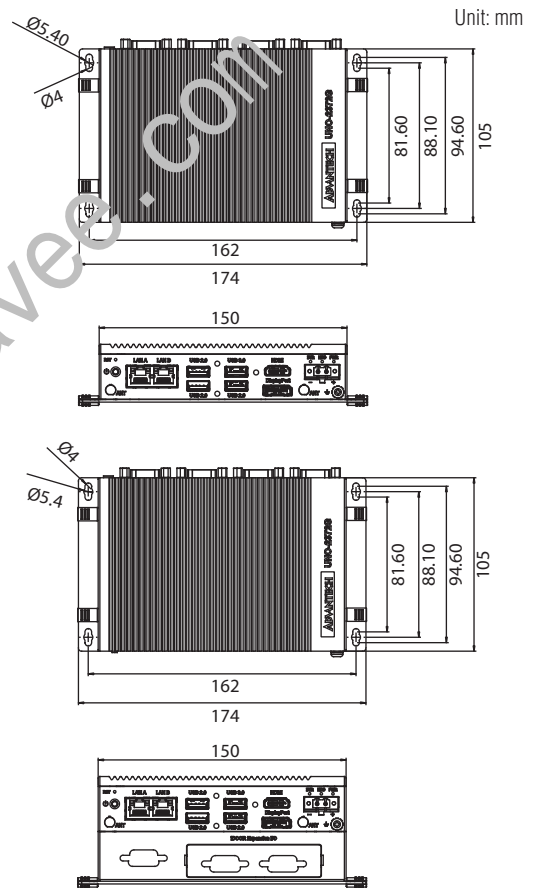
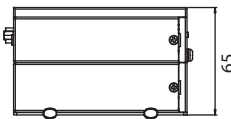
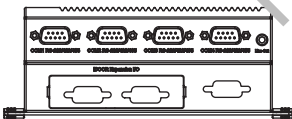


## Dimensions

Single Stack

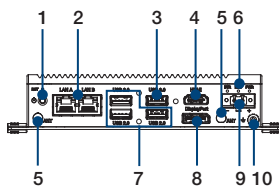


Double stack

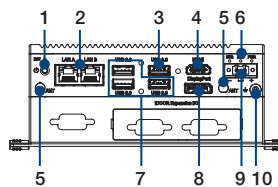


## Front I/O View

Single Stack



Double stack

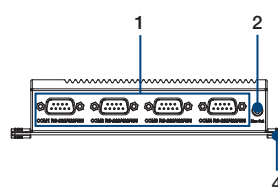


1. Power Button
2. RJ45 LAN
3. USB
4. HDMI
5. Reserved Antenna

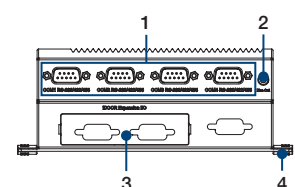
6. BTR, HDD & PWR LED Lights
7. USB
8. DisplayPort
9. Power Connector
10. Chassis Grounding

## Rear I/O View

Single Stack



Double stack



1. RS-232/422/485
2. Line Out

3. iDoor Expansion Slot
4. Rubber Stopper

## Ordering Information

| Ordering Part Number | CPU              | iDoor | LAN IC               | TPM 2.0 | Audio    | USB | COM | LAN | Manufacturing site |
|----------------------|------------------|-------|----------------------|---------|----------|-----|-----|-----|--------------------|
| Single Stack         | UNO-2372G-E021BE | X     | Realtek i8119i       | X       | Line Out | 4   | 4   | 2   | Taiwan             |
|                      | UNO-2372G-J021BE |       |                      |         |          |     |     |     | China              |
|                      | UNO-2372G-J121AE |       | Intel® i210          | Yes     |          |     |     |     | China              |
|                      | UNO-2372G-J121AU |       |                      |         |          |     |     |     | Taiwan             |
| Double Stack         | UNO-2372G-E022BE | 2     | Realtek i8119i       | X       | Line Out | 4   | 4   | 2   | Taiwan             |
|                      | UNO-2372G-J022BE |       |                      |         |          |     |     |     | China              |
|                      | UNO-2372G-J122AE |       | Intel® Celeron J3455 | Yes     |          |     |     |     | China              |

\*Below Part Number had been announced end of life

| Ordering Part Number | CPU              | iDoor | LAN IC      | TPM 2.0 | Audio    | USB | COM | LAN | Manufacturing site |
|----------------------|------------------|-------|-------------|---------|----------|-----|-----|-----|--------------------|
| Single Stack         | UNO-2372G-E021AE | X     | Intel® i210 | Yes     | Line Out | 4   | 4   | 2   | Taiwan             |
|                      | UNO-2372G-J021AE |       |             |         |          |     |     |     | China              |
| Double Stack         | UNO-2372G-E022AE | 2     | Intel® i210 | Yes     | Line Out | 4   | 4   | 2   | Taiwan             |
|                      | UNO-2372G-J022AE |       |             |         |          |     |     |     | China              |

## iDoor Modules

Supported by "Double Stack" models. Applied on "Single stack" models with 2nd stack extension kit as well

- **PCM-24D2R2-BE** 2-port isolated RS-232 mPCIe, DB9
- **PCM-24D2R4-BE** 2-port isolated RS-422/485 mPCIe, DB9
- **PCM-24D4R2-BE** 4-port non-isolated RS-232 mPCIe, DB37
- **PCM-24D4R4-BE** 4-port non-isolated RS-422/485 mPCIe, DB37
- **PCM-27D24DI-AE** 24-channel isolated digital I/O with counter mPCIe, DB37
- **PCM-24R1TP-BE** 1-Port Gigabit Ethernet, Intel® i225, mPCIe, RJ45
- **PCM-24S2WF-CE** WiFi 802.11 ac/a/b/g/n 2T2R w/Bluetooth 4.1
- **PCM-24R2GL-AE** 2-port Gigabit Ethernet, mPCIe, RJ45
- **C-PCM-24S24G-4AV-1** MultiTECH iDOOR, LTE Cat 4 (AT&T/Verizon), antenna

Please contact Advantech for all compatible iDoor lists

### UNO-2372G-J0

- **20703WC70S00015** WEC7 MUI V4.02 B117 image
- **20704WE7PS00005** WS7P X64 MUI V4.19 B039 image
- **20703WX9ES00025** WIN10 2019 LTSC v6.05 B016 image
- **20704WX1ES00004** WIN10 2021 LTSC V6.08 B015 image
- **20703LEB1S0113** Image AdvLinuxTu V2.1.3 (Ubuntu 18.04)
- **20704U20DS0005** Image AdvLinuxTu V3.2.2(Ubuntu 20.04)

### UNO-2372G-J1

- **20703WX9ES0030** Img W10 2019 LTSC V6.05 B028
- **20703LEB1S0113** Image AdvLinuxTu V2.1.3 (Ubuntu 18.04)
- **20704U20DS0005** Image AdvLinuxTu V3.2.2(Ubuntu 20.04)

## Optional Accessories

### Operating system

- **96PSA-A60W24T2-3** A/D 100 ~ 240W 60W 24V C14 cord end terminal power adaptor
- **1702002600** Power cable, US plug, 1.8 m (industrial grade)
- **1702002605** Power cable, EU plug, 1.8 m (industrial grade)
- **1702031801** Power cable, UK plug, 1.8 m (industrial grade)
- **1700000596** Power cable, China/Australia plug, 1.8 m (industrial grade)
- **UNO-2000G-DMKAE** UNO-2000 DIN-rail kit
- **UNO-2000G-VMKAE** UNO-2000 VESA mount kit
- **UNO-2000-LKAE** Cable locking kit, 10 units per pack
- **UNO-REPWR-AE** Remote power and reset control kit for UNO (only support on UNO-2372G-J1xxAE)
- **UNO-2372G-VEGA330** UNO-2372G 1st stack bottom plate for VEGA-330

### UNO-2372G-E0

- **20704WE7PS0004** WS7P X64 MUI V4.19 B040 image
- **20703WX9ES0025** WIN10 2019 LTSC v6.05 B016 image
- **20704WX1ES0002** WIN10 2021 LTSC V6.08 B015 image
- **20703LEB1S0113** Image AdvLinuxTu V2.1.3 (Ubuntu 18.04)
- **20704U20DS0005** Image AdvLinuxTu V3.2.2(Ubuntu 20.04)

# Stackable Extension Kits

## UNO-2372G-EKBE

Second stack module for supporting iDoor technology on UNO-2372G-xx21AE



### Specifications

| General               |                          |
|-----------------------|--------------------------|
| Ports                 | 2 x iDOOR (Chassis only) |
| Dimensions            | 150 x 155 x 35 mm        |
| Weight                | 200g                     |
| Environment           |                          |
| Operating Temperature | -20 ~ 60 °C              |

### Ordering Information

| P/N            | Description                          |
|----------------|--------------------------------------|
| UNO-2372G-EKBE | UNO-2372G 2nd stack expansion module |

<https://advavee.com>