

# UNO-2271G V2

Edge IoT Gateway with 2 x GbE,  
2 x USB 3.2, 1 x mPCIe, HDMI, eMMC

## Preliminary



## Features

- Intel® Celeron® Dual core N6210/ Pentium® Quad core N6415/ Atom® Quad core x6413E processor with 4GB/8GB DDR4 onboard memory
- Compact, robust, fanless and cable-free system with high stability
- Modular design offer optimized basic unit with 2 x GbE, 2 x USB 3.2 Gen1, 1 x HDMI 1.4
- Optional second stack for increasing functionality including POE, COM, wireless connectivity or iDoor expansion
- Built-in TPM2.0 for hardware-based security
- Support Win10, Ubuntu Classic and Ubuntu Core 20

## Introduction

Advantech's new generation UNO-2000 series of embedded automation computers are highly ruggedized, fanless, and modular designs. New UNO-2000 series includes pocket, small, and regular-sized form-factors for different kinds of smart factory applications such as Equipment Connectivity (EC), Process Visualization (PV), Environment Management (EM), and Dispatch Management (DM). The modular design of UNO- 2271G features optimized I/O and offers three different 2nd stack expansion modules. UNO-2000 series provide flexible and time-to-market support for a variety of applications.

## Specifications

### General

- Certification** CE, FCC, UL, CCC, BSMI
- Dimensions (W x D x H)** 100 x 70 x 30 mm (3.9" x 2.8" x 1.2")
- Form Factor** Pocket Size
- Enclosure** Aluminum Housing
- Mounting** Stand, Wall, VESA (Optional), DIN-rail (Optional), Pole (Optional)
- Weight (Net)** 0.5 kg (1.1lbs)
- Power Requirement** 10 ~ 30V<sub>DC</sub>
- Power Consumption** 12W (Typical), 30W (Max)
- OS Support** Windows10 LTSC, Ubuntu 20.04, Ubuntu Core 20

### System Hardware

- BIOS** AMI EFI X64
- Watchdog Timer** Programmable 255 levels timer interval, from 1 to 255 sec (TBD)
- Processor** Intel® Celeron® Dual core N6210, 1.2GHz  
Intel® Pentium® Quad core N6415, 1.2GHz  
Intel® Atom® Quad core x6413E, 1.5GHz
- Memory** Onboard 4GB/8G DDR4 2666 MHz
- Graphics Engine** Intel® UHD Graphics
- Ethernet** 2 x i211-AT
- LED Indicators** LEDs for Power, RUN (Programmable), LAN (Active, Status)
- Storage** Onboard 32GB eMMC (upgradeable up to 256GB by project)  
Option mSATA shared with mPCIe slot
- Expansion** 1 x Full-size mPCIe slot (SATA/PCIe/USB2.0 signal)
- Hardware Security** TPM2.0 (TPM2.0 Library Reversion 1.38)

### I/O Interfaces

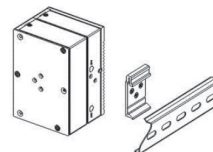
- LAN Ports** 2 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000BASE-T Fast Ethernet
- USB Ports** 2 x USB 3.2 GEN1
- Displays** 1 x HDMI (1920 x 1080 @60Hz)
- Power Connector** 1 x 2 Pins, Terminal Block

### Environment

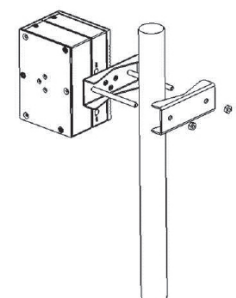
- Operating Temperature** -20 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH with 0.7 m/s airflow
- Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- Relative Humidity** 10 ~ 95% RH @ 40°C, non-condensing
- Shock Protection** Operating, IEC 60068-2-27, 50G, half sine, 11 ms
- Vibration Protection** Operating, IEC 60068-2-64, 2 Grms, random, 5 ~ 500 Hz, 1hr/axis (mSATA)
- Ingress Protection** IP30

## Installation Scenario

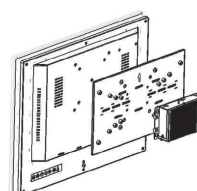
### DIN-rail Mount Illustration



### Pole Mount Illustration

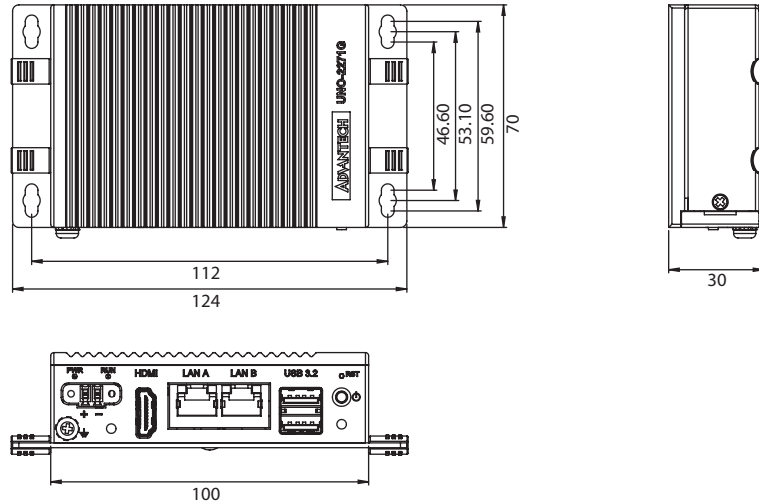


### VESA Mount Illustration

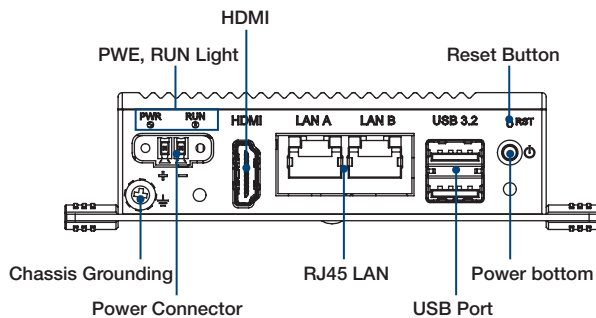


## Dimensions

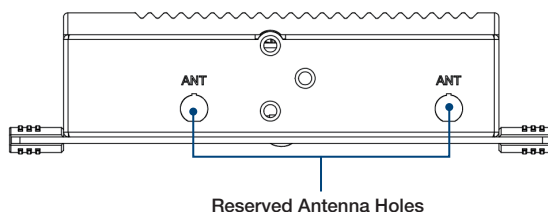
Unit: mm



## Front I/O View



## Rear I/O View



## Ordering Information

- UNO-2271G-N221AU Intel® Celeron® Dual core N6210, 4G RAM with 2 x GbE, 2 x USB, 1 x mPCIe, HDMI, 32G eMMC, for US
- UNO-2271G-N221AE Intel® Celeron® Dual core N6210, 4G RAM with 2 x GbE, 2 x USB, 1 x mPCIe, HDMI, 32G eMMC
- UNO-2271G-N231AU Intel® Pentium® Quad core N6415, 8G RAM with 2 x GbE, 2 x USB, 1 x mPCIe, HDMI, 32G eMMC, for US
- UNO-2271G-E231AE Intel® Atom® Quad core x6413E, 8G RAM with 2 x GbE, 2 x USB, 1 x mPCIe, HDMI, 64G eMMC

## Embedded O/S

- TBD

## Optional Accessories

### Adapters & Power cords

- PWR-247-DE 60W AC to DC UNO series power adapter
- 1702002600 Power Cable US Plug 1.8 M
- 1702002605 Power Cable EU Plug 1.8 M
- 1702031801 Power Cable UK Plug 1.8 M
- 1700000596 Power Cable China/Australia Plug 1.8 M

### Mounting Kits

- UNO-2271G-DMKAE UNO-2271G DIN RAIL Mount Kit
- UNO-2000G-VMKAE UNO-2000 VESA Mount Kit
- UNO-2000G-PMKAE UNO-2000 Pole Mount Kit

### Others

- UNO-2000-LKAE Cable lockable kit 10 units/per pack

### Wi-Fi mPCIe module & antenna

- EWM-W157H01E Wifi 802.11 a/b/g/n/ac, w/ Bluetooth 4.0
- 9656EWMG00E (Half-size to full size mPCIe bracket)
- 1750006043 Coaxial cable for antenna
- 1750008717-01 Antenna L=10.9 cm 50 Ohm

### LTE mPCIe module & antenna

- 968AD00589 Quectel EG25G LTE Module Cat. 4, Mini-PCIe with Sim Holder
- 1750007990-01 Antenna 4G/LTE full band L=11 cm 50 Ohm
- 1750006264 Antenna SMA(F)/MHF 15cm cable

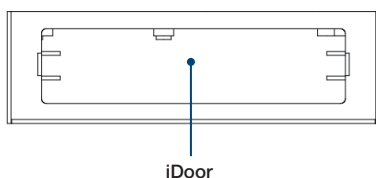
# Extended Module

## UNO-2271G-EKBE

2<sup>nd</sup> stack expansion module for support 1 x iDOOR



### Front I/O View



### Specifications

| General               |                                     |
|-----------------------|-------------------------------------|
| Ports                 | 1 x iDOOR (Chassis only)            |
| Dimensions            | 100 x 70 x 30 mm                    |
| Weight                | 100g                                |
| Environment           |                                     |
| Operating Temperature | Depends on iDoor module used inside |

### Ordering Information

| P/N            | Description                                 |
|----------------|---------------------------------------------|
| UNO-2271G-EKBE | UNO-2271G 2nd stack extension kit for iDoor |

### Optional iDoor Modules

| P/N            | Description                                              |
|----------------|----------------------------------------------------------|
| 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-2300MR-AE  | MR4A16B, MRAM, 2 MByte, mPCIe                            |
| PCM-26D2CA-AE  | 2-port isolated CANBus mPCIe, CANopen, DB9               |
| PCM-27D24DI-AE | 24-channel isolated digital I/O with counter mPCIe, DB37 |
| PCM-24R2GL-AE  | 2-port Gigabit Ethernet, mPCIe, RJ45                     |
| PCM-23U1DG-CE  | USB Slot w/ Lock for USB Dongle                          |

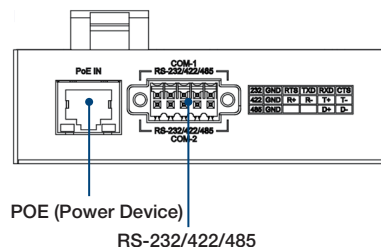
Contact Advantech for more compatible iDoor solutions

## UNO-2271G-RP1EA

2<sup>nd</sup> stack expansion module for support 2 x COM, 1 x POE (PD), M.2 B Key



### Front I/O View



### Specifications

| General               |                                                                               |
|-----------------------|-------------------------------------------------------------------------------|
| I/O Ports             | 2 x COM (RS-232/422/485), Terminal block<br>1 x POE+ (802.3at) (power device) |
| Expansion             | 1 x M.2 B Key (SATA, USB3.0 signal for LTE)                                   |
| Sim slot              | 1 x nano SIM Slot                                                             |
| Dimensions            | 100 x 70 x 30 mm                                                              |
| Weight                | 120g                                                                          |
| Environment           |                                                                               |
| Operating Temperature | -20~ 60 °C                                                                    |

### Ordering Information

| P/N             | Description                                             |
|-----------------|---------------------------------------------------------|
| UNO-2271G-RP1EA | UNO-2271G-N2 2nd stack with 2 x COM, 1 x POE, M.2 B Key |

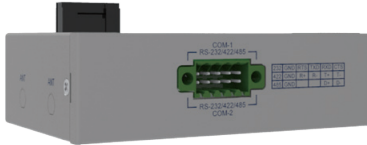
### Optional Accessories

#### LTE M.2 B key module & antenna

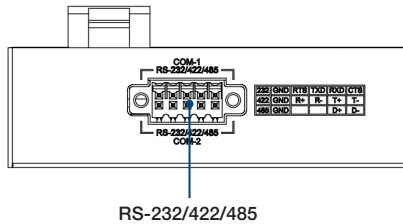
| P/N           | Description                                            |
|---------------|--------------------------------------------------------|
| 968AD00590    | Quectel EM06-E LTE Cat-6 M.2 module (EMEA/Brazil/APAC) |
| 1750008644-01 | 150mm SMA cable                                        |
| 1750008303-01 | Antenna                                                |

## UNO-2271G-RS2EA

2<sup>nd</sup> stack expansion module for support 2 x COM,  
1 x M.2 B key, 1 x M.2 E key



### Front I/O View



### Specifications

| General               |                                                                                              |
|-----------------------|----------------------------------------------------------------------------------------------|
| I/O Ports             | 2 x COM (RS-232/422/485), Terminal block                                                     |
| Expansion             | 1 x M.2 B Key (SATA/ USB 3.0 signal for LTE)<br>1 x M.2 E key (PCIe/USB 2.0 signal for WiFi) |
| Sim slot              | 1 x nano SIM Slot                                                                            |
| Dimensions            | 100 x 70 x 30 mm                                                                             |
| Weight                | 120g                                                                                         |
| Environment           |                                                                                              |
| Operating Temperature | -20~ 60 °C                                                                                   |

### Ordering Information

| P/N             | Description                                      |
|-----------------|--------------------------------------------------|
| UNO-2271G-RS2EA | UNO-2271G-N2 2nd stack with 2 x COM, M.2 B+E Key |

### Optional Accessories

#### Wi-Fi M.2 A-E key wireless kit

| P/N        | Description                                                                            |
|------------|----------------------------------------------------------------------------------------|
| EWM-W192K1 | Wi-Fi kit includes Intel AC9260 module (WIFI 802.11AC+BT), 2 x SMA cables and antennas |

#### LTE M.2 B key module & antenna

| P/N           | Description                                            |
|---------------|--------------------------------------------------------|
| 968AD00590    | Quectel EM06-E LTE Cat-6 M.2 module (EMEA/Brazil/APAC) |
| 1750008644-01 | 150mm SMA cable                                        |
| 1750008303-01 | Antenna                                                |

#### AT&T/Verizon-certified LTE kit for North America

| P/N                | Description                                                                                           |
|--------------------|-------------------------------------------------------------------------------------------------------|
| C-PCM-24S24G-227-2 | LTE kit includes MultiTech LTE Cat.4 modem, M.2 B key 3042 adapter board, 2 x SMA cables and antennas |