

# UNO-2271G

## Intel® Atom™ Pocket-Size Smart Factory Edge Gateway with 2 x GbE, 1 x mPCIe, HDMI, eMMC

NEW



## 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 configurations. It also supports Advantech's iDoor technology via a second expansion stack. 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"), UNO-2271G-E21AE  
100 x 70 x 65 mm (3.9" x 2.8" x 2.6"), UNO-2271G-E22AE and E23AE
- **Form Factor** Pocket Size, same dimension as standard 2.5" SSD/HDD
- **Enclosure** Aluminum Housing
- **Mounting** Stand, Wall, VESA (Optional), DIN-rail (Optional), Pole (Optional)
- **Weight (Net)** 0.5 kg (1.1lbs) for UNO-2271G-E21AE  
0.6 kg (1.2lbs) for UNO-2271G-E22AE and E23AE
- **Power Requirement** 10 ~ 30V<sub>DC</sub>
- **Power Consumption** 12W (Typical), 24W (Max)
- **OS Support** For mSATA storage: Windows7, Windows10 LTSB, Advantech Linux  
For eMMC storage: Advantech embedded customized Windows7 64bits, Windows 10 LTSB, Advantech Linux

### System Hardware

- **BIOS** AMI EFI64 Mbit
- **Watchdog Timer** Programmable 255 levels timer interval, from 1 to 255 sec
- **Processor** Intel Atom E3815 1.46GHz (E3825 support by project)
- **System Chip** Intel Atom SoC integrated
- **Memory** Onboard 4GB DDR3L 1066 MHz
- **Graphics Engine** Intel® HD Graphics
- **Ethernet** Realtek RTL8111E GbE, 802.10av
- **LED Indicators** LEDs for Power, HDD, LAN (Active, Status)
- **Storage** Onboard 32GB eMMC (Option mSATA shared with mPCIe slot)
- **Expansion** 1 x Full-size mPCIe slot

### I/O Interfaces

- **Serial Ports** 2 x RS 232/422/485 for UNO-2271G-E23AE

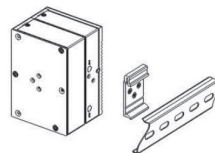
## Features

- Intel® Atom™ E3815/E3825 processor with 4GB DDR3L onboard memory
- 2 x GbE, 1 x USB 3.0, 1 x HDMI, option 2 x RS-232/422/485 or 3 x USB2.0
- Compact fanless design
- Rubber stopper design with internal reserved screws for 2nd layer assembly
- Diverse system I/O and isolated digital I/O by iDoor technology
- Supports Fieldbus protocol by iDoor technology
- 3G/GPS/GPRS/Wi-Fi communication by iDoor technology
- Supports 30+ iDoor combination with four main categories of smart factory applications
- 32GB eMMC storage onboard

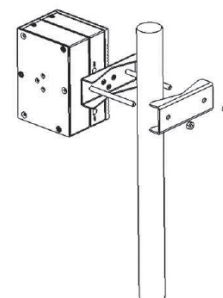
- **LAN Ports** 2 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000BASE-T Fast Ethernet
  - **USB Ports** 1 x USB 3.0 for UNO-2271G-E21AE/E021AE  
3 x USB 2.0 and 1 x USB 3.0 for UNO-2271G-E22AE/E022AE  
1 x USB 3.0 for UNO-2271G-E23AE/E023AE
  - **Displays** 1 x HDMI, supports 1920 x 1080 @ 60Hz
  - **Power Connector** 1 x 2 Pins, Terminal Block
- ### Environment
- **Operating Temperature** 0 ~ 50°C (32 ~ 122°F) @ 5 ~ 85% RH with 0.7 m/s airflow
  - **Storage Temperature** -20 ~ 70°C (-4 ~ 158°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

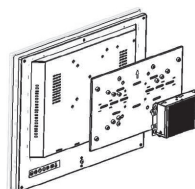
### DIN-rail Mount Illustration



### Pole Mount Illustration



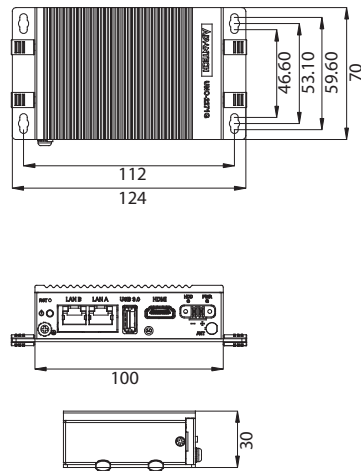
### VESA Mount Illustration



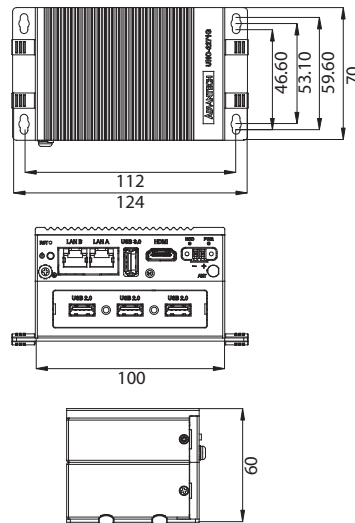
## Dimensions

Unit: mm

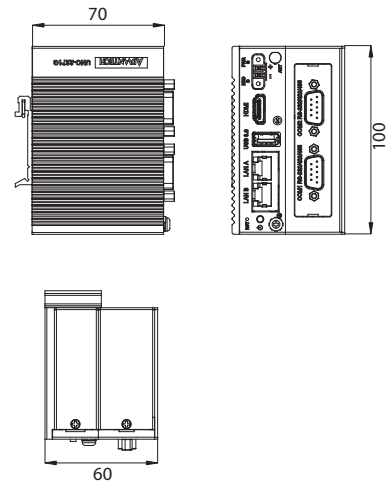
### UNO-2271G-E21AE



### UNO-2271G-E22AE

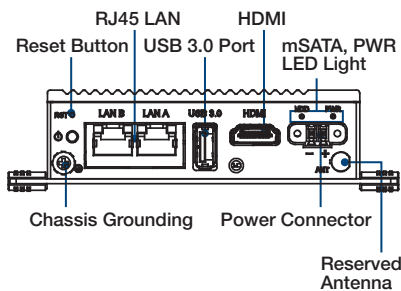


### UNO-2271G-E23AE

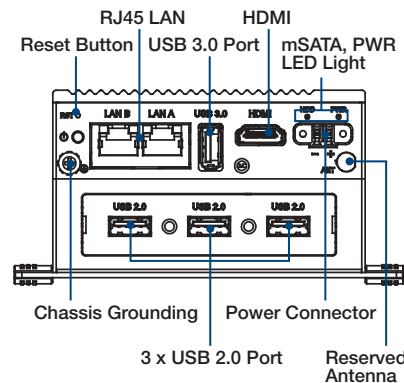


## Front I/O View

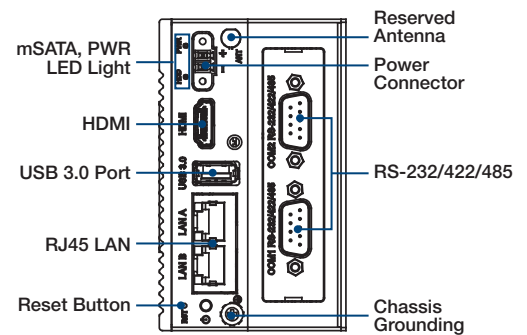
### UNO-2271G-E21AE



### UNO-2271G-E22AE



### UNO-2271G-E23AE



## Ordering Information

- UNO-2271G-E21AE 2271G-Standard, Intel Atom E3815 1.46 GHz, 4GB, 2 x LAN, 1 x mPCIe, 1 x USB3.0
- UNO-2271G-E22AE 2271G-Universal, Intel Atom E3815 1.46 GHz, 4GB, 2 x LAN, 1 x mPCIe, 1 x USB3.0, 3 x USB2.0
- UNO-2271G-E23AE 2271G-DIN RAIL, Intel Atom E3815 1.46GHz, 4GB, 2 x LAN, 1 x mPCIe, 1 x USB3.0, 2 x RS-232/422/485
- UNO-2271G-W1032GE UNO-2271G-E21AE Ready-to-Go Package (Includes Windows 10 LTSB & 60W Adapter)

## iDoor Modules

- PCM-23U1DG-BE Internal locked USB Slot for USB Dongle
- PCM-24R2GL-AE 2-Port Gigabit Ethernet, mPCIe, RJ45
- PCM-24D2R2-BE 2-Port Isolated RS-232 mPCIe, DB9
- PCM-24D4R2-BE 4-Port Non-Isolated RS-232 mPCIe, DB37
- PCM-24S2WF-BE WiFi 802.11 ac/a/b/g/n 2T2R w/Bluetooth 4.1
- PCM-24S33G-AE Wide-Temp 3.75G HSPA and GPS, Redundant SIM Card holder
- PCM-2300MR-AE MR4A16B, MRAM, 2 MByte, mPCIe
- PCM-27D24DI-AE 24-Channel Isolated Digital I/O w/ counter mPCIe, DB37

## Optional Accessories

- PWR-247-CE 60W AC to DC UNO series power adapter (Industrial Grade)
- 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-2271G-EKAE UNO-2271G Expansion Kit for iDoor
- UNO-2271G-R2AE UNO-2271G Expansion Kit of 2 COM ports
- UNO-2271G-U3AE UNO-2271G Expansion Kit of 3 USB2.0 ports
- UNO-2271G-DMKAE UNO-2271G DIN RAIL Kit
- UNO-2000G-VMKAE UNO-2000 VESA Mount Kit
- UNO-2000G-PMKAE UNO-2000 Pole Mount Kit
- UNO-2000-LKAE Cable lockable kit 10 units/per pack

## Embedded O/S

- 2070014803 WIN10 ENT 2016 LTSB V6.01 B014 image
- 2070015327 Advantech Linux (AdvLinuxTu V1.0.3) image
- 20703WE7PS0003 WS7P X64 MUI V4.18 B017 image