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# Datasheet

## **ADVANTECH**

UNO-2271G

Industrial Embedded IoT Gateway with Intel® Atom™ BayTrail Prozessor E3815/E3825

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# UNO-2271G

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

NEW



### 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 application
- 32GB eMMC storage onboard

### Introduction

Advantech's new generation UNO-2000 series of Embedded Automation Computers are highly ruggedized fanless and modular design. New UNO-2000 series including pocket, small, and regular-size form-factors with indicated market segments in terms of different kinds of smart factory application categories such as Equipment Connectivity (EC), Process Visualization (PV), Environment Management (EM), and Dispatch Management (DM) solution. New UNO enables smart factory and fulfill all application. The modular design of UNO-2271G features optimized I/O, offers three different configurations and also reserves flexibility of supporting Advantech's iDoor technology via second expansion stack. It provides flexible and time-to-market support in 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

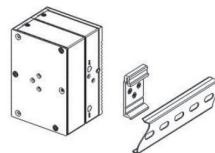
- LAN Ports** 2 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000Base-T Fast Ethernet
- USB Ports** 1 x USB 3.0 for UNO-2271G-E21AE/E021AE  
3 x USB 2.0 and 1 x USB 3.0 for UNO-2271G-E22AE/E022AE  
1 x USB 3.0 for UNO-2271G-E23AE/E023AE
- Displays** 1 x HDMI, supports 1920 x 1080 @ 60Hz
- Power Connector** 1 x 2 Pins, Terminal Block

#### Environment

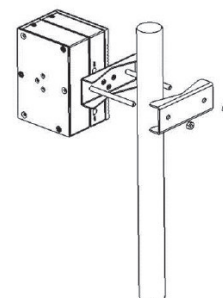
- Operating Temperature** 0 ~ 50°C (32 ~ 122°F) @ 5 ~ 85% RH with 0.7 m/s airflow
- Storage Temperature** -20 ~ 70°C (-4 ~ 158°F)
- Relative Humidity** 10 ~ 95% RH @ 40°C, non-condensing
- Shock Protection** Operating, IEC 60068-2-27, 50G, half sine, 11 ms
- Vibration Protection** Operating, IEC 60068-2-64, 2 Grms, random, 5 ~ 500 Hz, 1hr/axis (mSATA)
- Ingress Protection** IP30

### Installation Scenario

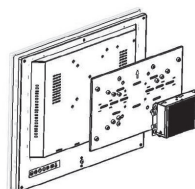
#### DIN-rail Mount Illustration



#### Pole Mount Illustration



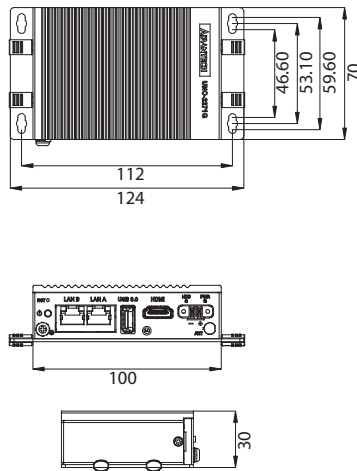
#### VESA Mount Illustration



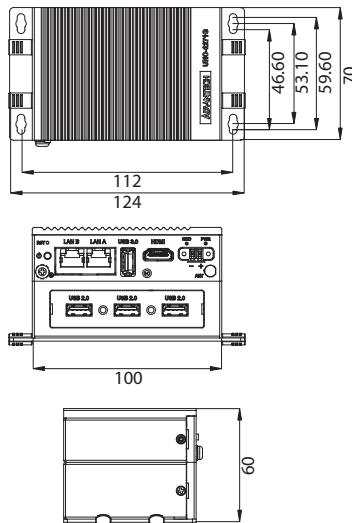
## Dimensions

Unit: mm

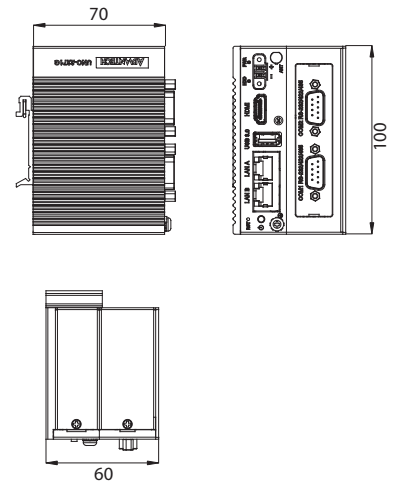
**UNO-2271G-E21AE**



**UNO-2271G-E22AE**

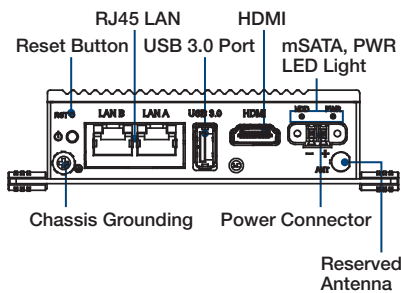


**UNO-2271G-E23AE**

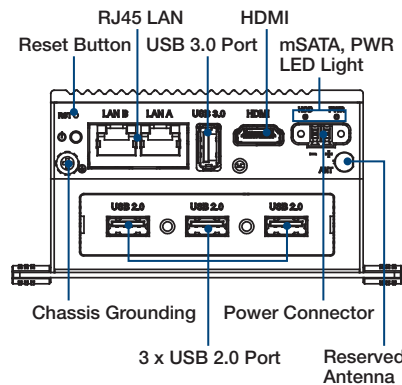


## Front I/O View

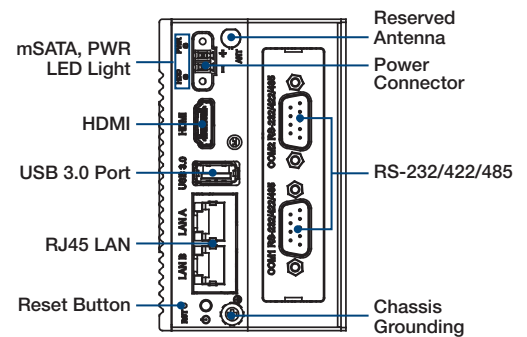
**UNO-2271G-E21AE**



**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

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