UNO-2272G

Intel® Atom™/Celeron® Palm-Size Automation Computer with 1 x GbE, 2 x mPCIe, VGA/HDMI

NEW

Features

- Intel® Atom™ N2800/J1900 processors with 2GB DDR3/DDR3L memory
- 1 x GbE, 3 x USB 2.0/3.0, 1 x COM, 1 x VGA or HDMI, audio
- Compact with fanless design
- Rubber stopper design with captive screws
- 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 MRAM by iDoor technology

iDoor ⊖ ⒸⒸⒸ C E FCC RoHS COMPLIANT 2002/95/EC cULus LISTED E180881 I.T.E.

Introduction

Advantech's UNO-2000 series of Embedded Automation Computers are fanless, with a highly ruggedized embedded operating system (Linux-Embedded). The series also includes iDoor technology which supports automation feature extensions such as industry fieldbus communication, Wi-Fi/3G, Digital I/O, including palm, small, and regular-size form-factors with indicated market segments in terms of entry, value, and performance product positioning. Both entry and value Embedded Automation Computers feature specific functions and they are suitable for data gateway, concentrator and data server applications. The performance model can shorten your development time and offer multiple networking interfaces to fulfill a diverse range of requirements.

Specifications

General

- **Certification**   CE, FCC, UL, CCC, BSMI
- **Dimensions (W x D x H)**   157 x 88 x 50 mm (6.2" x 3.5" x 2.0")
- **Form Factor**   Palm Size
- **Enclosure**   Aluminum Housing
- **Mounting**   Stand, Wall, VESA (Optional), DIN-rail (Optional)
- **Weight (Net)**   0.8 kg (1.76 lbs)
- **Power Requirement** $24V_{DC} \pm 20\%$
- **Power Consumption**   14W (Typical), 45.3W (Max)
- **OS Support**   UNO-2272G-N2AE: Microsoft® Windows 7, Advantech Linux
  UNO-2272G-J2AE: Microsoft® Windows 7, Windows 10, Advantech Linux

System Hardware

- **BIOS**   AMI EFI64 Mbit
- **Watchdog Timer**   Programmable 256 levels timer interval, from 1 to 255 sec
- **Processor**   Intel Atom Dual Core N2800 1.86 GHz
  Intel Celeron Quad Core J1900 2.0 GHz
- **System Chip**   Intel Atom SoC integrated
- **Memory**   Built-in 2GB DDR3 1066 MHz for UNO-2272G-N2AE
  Built-in 2GB DDR3L 1333 MHz for UNO-2272G-J2AE, up to 8GB
- **Graphics Engine**   Intel® HD Graphics
- **Ethernet**   Intel 82583V GbE, 802.10av, IEEE1588/802.1AS, 803.3az for UNO-2272G-N2AE
  Intel i210 GbE, 802.10av, IEEE1588/802.1AS, 803.3az for UNO-2272G-J2AE
- **LED Indicators**   LEDs for Power, HDD, LAN ((Active, Status)
- **Storage**   1 x half-size mSATA for UNO-2272G-J2AE
  1 x full-size mSATA for UNO-2272G-N2AE
  Supports HDD/SSD by project
- **Expansion**   1 x Full-size mPCIe slot, 1 x Half-size mPCIe slot for UNO-2272G-N2AE
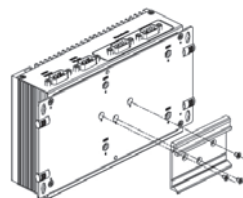 2 x Full-size mPCIe slot for UNO-2272G-J2AE

I/O Interfaces

- **Serial Ports**   1 x RS-232, DB9, 50 ~ 115.2kbps for UNO-2272G-N2AE
  1 x RS-232 (RS-422/485 by BIOS option), DB9, 50 ~ 115.2kbps for UNO-2272G-J2AE
- **LAN Ports**   1 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000BASE-T Fast Ethernet
- **USB Ports**   3 x USB 2.0 for UNO-2272G-N2AE
  2 x USB 2.0 and 1 x USB 3.0 for UNO-2272G-J2AE
- **Displays**   1 x VGA, supports 1920 x 1080 @ 60Hz 24bpp for UNO-2272G-N2AE
  1 x HDMI, supports 1920 x 1080 @ 60Hz for UNO-2272G-J2AE
- **Audio**   Line-Out
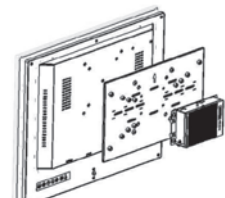- **Power Connector**   1 x 2 Pins, Terminal Block

Environment

- **Operating Temperature**   - 20 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH with 0.7 m/s airflow for UNO-2272G-N2AE
  -10 ~ 55°C (14 ~ 131) @ 5 ~ 85% RH with 0.7 m/s airflow for UNO-2272G-J2AE
- **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)
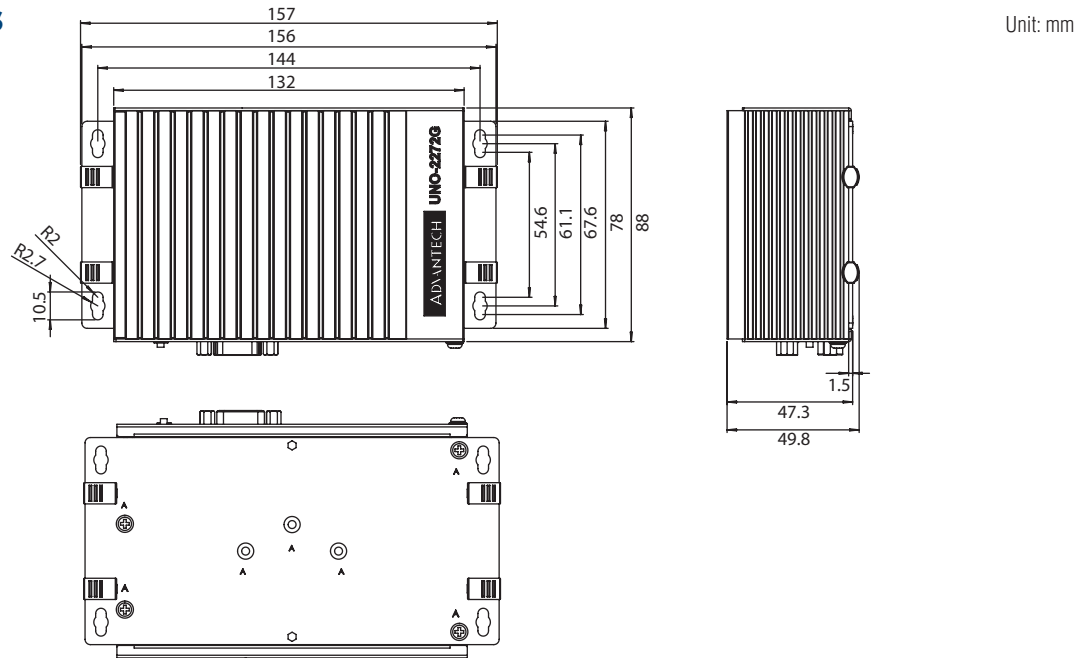- **Ingress Protection**   IP40

Installation Scenario

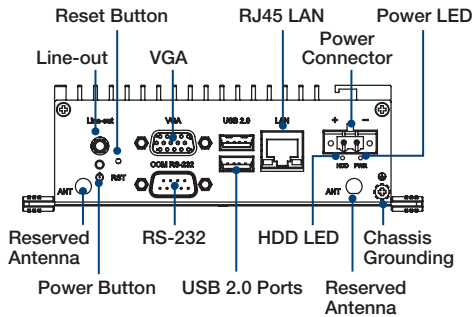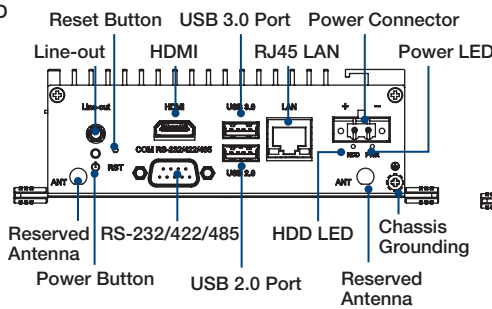### DIN-rail Mount Illustration

VESA Mount Illustration

Dimensions

Unit: mm

Front I/O View

UNO-2272G-N2AE

Reset Button
Line-out
VGA
RJ45 LAN
Power Connector
Power LED
Reserved Antenna
RS-232
HDD LED
Chassis Grounding
Power Button
USB 2.0 Ports
Reserved Antenna

UNO-2272G-J2AE

Reset Button
USB 3.0 Port
Power Connector
Line-out
HDMI
RJ45 LAN
Power LED
Reserved Antenna
RS-232/422/485
HDD LED
Chassis Grounding
Power Button
USB 2.0 Port
Reserved Antenna

Rear I/O View

USB 2.0 Port
iDoor Expansion Slot
Rubber Stopper
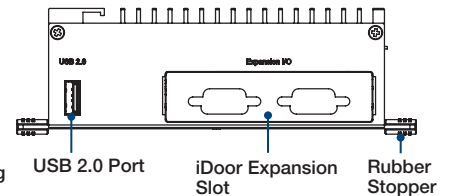
Ordering Information

- **UNO-2272G-N2AE**   Intel Atom N2800 1.86GHz, 2GB, 1xLANs, 2xmPCIe
- **UNO-2272G-J2AE**   Intel Celeron J1900 2.0GHz, 2GB, 1xLANs, 2xmPCIe

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

- **96PSA-A60W24T2**   60WC 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-2000G-DMKAE**   UNO-2000 DIN Rail Kit
- **UNO-2000G-VMKAE**   UNO-2000 VESA Mount Kit

Embedded O/S

UNO-2272G-N2AE

- **2070013798**   WEC7 MUI V4.00 B044 image
- **2070013098**   WES7P X86 MUI. V4.12 B001 image

UNO-2272G-J2AE

- **20703WE7PS0000**   WES7P x64MUI v4.18 B008 image
- **2070014984**   WES7P X86 MUI V4.16 B004 image
- **2070014957**   WIN10ENT 2016LTSB v6.01 B023 image
- **2070014939**   WEC7 MUI V4.02 B088 image