UNO-2473G
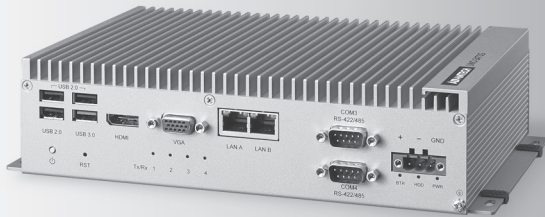
Intel® Atom™/Celeron® J1900 Processor Regular-Size Automation Computer w/ 4 x GbE, 3 x mPCIe, HDMI/VGA
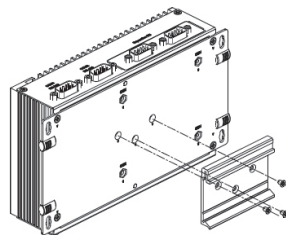
NEW

Features

- 4th Generation Intel® Atom™/Celeron® J1900 Processor up to 1.91/2.42 GHz with 4GB DDR3L Memory
- 4/2 x GbE, 3 x USB 2.0 and 1 x USB 3.0/4 x USB 2.0 and 1 x USB 3.0, 2 x RS-232, 2 x RS-422/485 (E3AE), 2 x RS-232/422/485 (J3AE), 1 x VGA, 1 x HDMI, Audio
- Comprehensive Palm, Small, Regular-size form-factor
- Compact with Fanless Design
- Rubber Stopper Design with Captive Screw
- Diverse system I/O and Isolated Digital I/O by iDoor Technology
- 3G/GPS/GPRS/Wi-Fi Communication by iDoor Technology
- Supports MRAM by iDoor Technology
- Chassis Grounding Protection
- LAN Redundancy (Teaming)
- Fault-Protected RS-485 Transceivers With Extended Common-Mode Range

SUSIAccess IDoor RoHS COMPLIANT 2002/95/EC CCC CE FCC c(UL)us LISTED E190881 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)** — 252 x 149 x 62 mm (9.9" x 5.9" x 2.4")
- **Form Factor** — Regular Size
- **Enclosure** — Aluminum Housing
- **Mounting** — Stand, Wall, VESA (Optional), Din-rail (Optional)
- **Weight (Net)** — 1.6kg (3.5lbs)
- **Power Requirements** — 24V_{DC} ± 20%
- **Power Consumption** — 28W (Typical), 48W (Max) / 10W (Typical), 14W(Max)
- **OS Support** — Microsoft® Windows 7/8

System Hardware

- **BIOS** — AMI UEFI 128Mbit Flash BIOS
- **Watchdog Timer** — Programmable 256 levels timer interval, from 1 to 255 sec
- **Processor** — Intel® Atom™ Processor E3845 1.91 GHz Quad Core, 2MB L2
  Intel® Celeron™ Processor J1900 2.42 GHz Quad Core, 2MB L2
- **System Chip** — Intel AtomTM/Celeron J1900 Processor SoC integrated
- **Memory** — On-board 4GB DDR3L 1600 MHz / 4GB DDR3L 1333 MHz
- **Graphics Engine** — Intel® HD Graphics: Gen7 with 4EU
- **Ethernet** — Intel® i210-IT GbE, 802.1Qav, IEEE1588/802.1AS, 802.3az
- **LED Indicators** — LEDs for Power, battery, LAN (Active, Status), Tx/Rx (UNO-2473G-E3AE only) and HDD
- **Storage** — One mSATA
  One drive bay for SATA 2.5" HDD
  CFast drive by iDoor Technology (Optional)
- **Expansion** — 3 x Full-size mPCIe slot, mPCIe 2.0 for UNO-2473G-E3AE
  1 x Full-size mPCIe slot, mPCIe 2.0 for UNO-2473G-J3AE

I/O Interfaces

- **Serial Ports** — 2 x RS-232, DB9, 50 ~ 115.2kbps , 2 x RS-422/485, DB9, auto flow control, 50 ~ 115.2kbps(E3AE)
  2 x RS-232, DB9, 50 ~ 115.2kbps, 2 x 232/422/485, DB9, auto flow control, 50 ~ 115.2kbps (J3AE)
- **LAN Ports** — 4/2 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000Base-T Fast Ethernet
- **USB Ports** — 4 x USB Ports (3 x USB 2.0, 1 x USB 3.0 compliant) for UNO-2473G-E3AE
  5 x USB Ports (4 x USB 2.0, 1 x USB 3.0 compliant) for UNO-2473G-J3AE
- **Displays** — 1 x VGA, supports 2560 x 1600 at 60Hz
  1 x HDMI, supports 1920 x 1080 at 60Hz
  eDP is supported on a project basis
- **Audio** — Line-In
- **Power Connector** — 1 x 3 Pins, Terminal Block
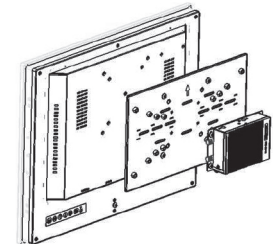- **Grounding Protection** — Chassis Grounding

Environment

- **Operating Temperature** — UNO-2473G-E3AE: - 20 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH with 0.7m/s airflow
  UNO-2473G-J3AE: - 10 ~ 60°C (14 ~ 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)
  Operating, IEC 60068-2-64, 0.7Grms, random, 5 ~ 500Hz, 1hr/axis (HDD)
- **Ingress Protection** — IP40

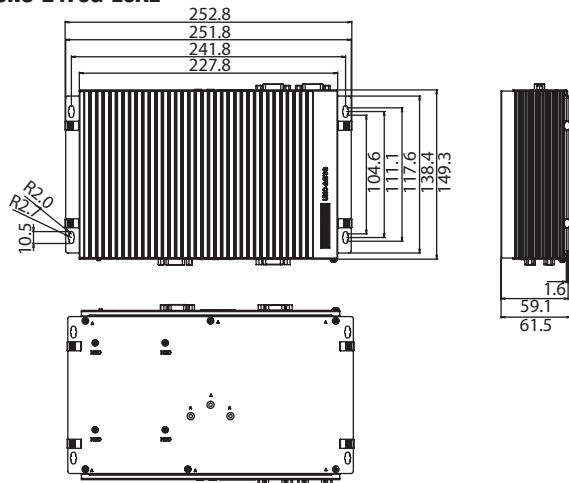## Installation Scenario
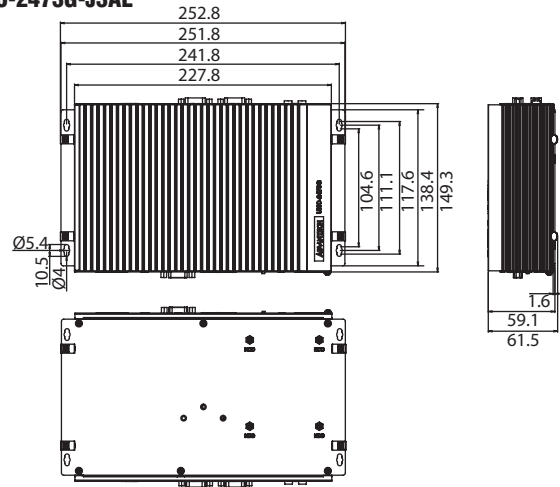
DIN-rail Mount Illustration
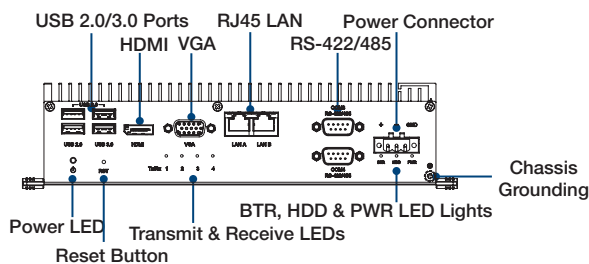

VESA Mount Illustration

Dimensions

Unit: mm

UNO-2473G-E3AE
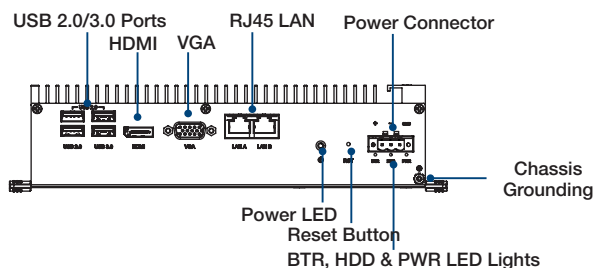
UNO-2473G-J3AE

Front I/O View

UNO-2473G-E3AE

USB 2.0/3.0 Ports
HDMI VGA
RJ45 LAN
RS-422/485
Power Connector
Chassis Grounding
Power LED
Reset Button
Transmit & Receive LEDs
BTR, HDD & PWR LED Lights

UNO-2473G-J3AE

USB 2.0/3.0 Ports
HDMI VGA
RJ45 LAN
Power Connector
Chassis Grounding
Power LED
Reset Button
BTR, HDD & PWR LED Lights

Rear I/O View

UNO-2473G-E3AE

RS-232
Audio Ports
iDoor Expansion Slot
Rubber Stopper
Antenna
RJ45 LAN

UNO-2473G-J3AE

USB 2.0 Ports
RS-232 Ports
iDoor Expansion Slot
Antenna
Audio Ports
RS-232/422/485 Ports
Antenna

Ordering Information

- **UNO-2473G-E3AE**   Intel® Atom™ E3845 1.91GHz, 4GB, 4 x LANs, 3 x mPCIe
- **UNO-2473G-J3AE**   Intel® Celeron J1900 2.42GHz, 4GB, 2 x LANs, 1 x mPCIe

iDoor Modules

- **PCM-24D4R2-AE**   4-Port Non-Isolated RS-232 mPCIe, DB37
- **PCM-24D4R4-AE**   4-Port Non-Isolated RS-422/485 mPCIe, DB37
- **PCM-26D2CA-AE**   2-Port Isolated CANBus mPCIe, CANopen, DB9
- **PCM-27D24DI-AE**   24-Channel Isolated Digital I/O w/ counter mPCIe, DB37
- **PCM-2300MR-AE**   MR4A16B, MRAM, 2 MByte, mPCIe
- **PCM-24S2WF-AE**   Wi-Fi 802.11 a/b/g/n 2T2R w/ Bluetooth4.0, Half-size mPCIe, 2-port SMA
- **PCM-24U2U3-AE**   2-Port USB 3.0, mPCIe, USB-A type
- **PCM-24R2GL-AE**   2-Port Gigabit Ethernet, mPCIe, RJ45
- **PCM-24S23G-AE**   Wide-Temp 3.75G HSPA and GPS, 2-in-1, Full-size mPCIe w/ Redundant SIM Card holder, 2-port SMA

Optional Accessories

- **96PSA-A60W24T2**   ADP A/D 100-240V 60W 24V C14 Cord End Terminal
- **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)
- **1700001524**   Power Cable 3-pin US type 1.8 M (Commercial Grade)
- **170203183C**   Power Cable 3-pin EU type 1.8 M (Commercial Grade)
- **170203180A**   Power Cable 3-pin UK type 1.8 M (Commercial Grade)
- **UNO-2000G-DMKAE**   UNO-2000 DIN Rail Kit
- **UNO-2000G-VMKAE**   UNO-2000 VESA Mount Kit

Embedded O/S

- **2070013268**   Image WES7P X64 MUI. V4.12 B001 for UNO-2473G-Ex

S/W Bundle Offering

- **WA-HU2473G-J15H2AE**   UNO-2473G-J3AE, HMI Runtime 1500 tags, 32G mSATA, WES7P
- **WA-SU2473G-J15H5AE**   UNO-2473G-J3AE, SCADA Runtime 1500 tags, 128G SSD, WES7P