UNO-137

Compact DIN-Rail Controller with Intel® Atom® E3940 CPU, 2 x LAN, 2 x COM, 3 x USB 3.0, 1 x USB 2.0, 2 x DP 1.2, 8 x DI, 8 x DO, 1 x M.2, 1 x mPCIe, and TPM 2.0

Features

- Intel® Atom® E3940 processor (1.6 GHz) with 8GB DDR3L memory
- Wide power input range (10 ~ 36 V$_{DC}$)
- Wide operating temperature range (-40 ~ 70 °C/-40 ~ 158 °F)
- Port isolation for 8 x DI, 8 x DO, 2 x COM
- DP++ ensures HDMI/DVI compatibility
- Dual storage: M.2 2242 SATA SSD and 2.5" HDD/SSD
- Onboard TPM 2.0 provides hardware-based security
- Supports M.2 3042/M.2 3052 module
- Modular design for optional iDoor extension
- Ruggedized DIN-rail kit
- Compliant with IEC 61010-1 safety requirements

iDoor ⊖ ⓒⒸⒸ C€ FCC

Introduction

Advantech's UNO-100 series are DIN-rail integrated controller that feature a modular design for flexible configuration according to specific usage requirements.

UNO-137 is equipped with an Intel® Atom® E3940 processor (1.6 GHz), 8 GB DDR3L RAM, and wide operating temperature range (-40 ~ 70 °C/-40 ~ 158 °F), as well as 2 x LAN, 2 x COM, 3 x USB 3.0, 1 x USB 2.0, 8 x DI, 8 x DO, and 2 x DP 1.2 . The controller also supports 1 x full-size mini PCIe, 1 x M.2 (B-key), and 1 x nano SIM card slot for convenient expansion to satisfy diverse industrial applications. Compliant with IEC 61010-1 safety requirements for industrial use, UNO-137 can be equipped with an optional second-stack extension kit that supports Advantech's iDoor technology for integrating additional industrial Fieldbus, wireless communication, I/O, and peripheral modules.

Specifications

General

- **Certification** CE, FCC, UL 61010-2-201, CCC, BSMI
- **Dimensions (W x D x H)** 35 x 105 x 150 mm (1.4 x 4.1 x 5.9 in)
- **Form Factor** Small
- **Enclosure** Aluminum housing
- **Mounting** DIN-rail
- **Weight (Net)** 0.8 kg (1.7 lb)
- **Power Requirement** 10 ~ 36 V$_{DC}$
- **Power Consumption** 21W (typical), 47W (max.)
  *For USB iDoor (PCM-24U2U3-BE): 56W max.
  *For PoE iDoor (PCM-24R2PE-AE): 77W max.
- **OS Support** Win 10 2019 LTSC, AdvLinux (Ubuntu 18.04)

System Hardware

- **BIOS** AMI UEFI (128 Mbit)
- **Watchdog Timer** Programmable timer with 255 intervals (1 ~ 255 sec)
- **Hardware Security** TPM2.0
- **Processor** Intel® Atom® E3940, 1.6 GHz (up to 1.8 GHz)
- **Memory** Built-in 8 GB DDR3L, 1600 MHz (Up to 8 GB)
- **Graphics Engine** Intel® HD Graphics
- **Ethernet** Intel® i210-IT GbE, IIEEE802.1AS, 802.3az
- **LED Indicators** 1 x Programmable LED, 1 x power LED, 1 x RTC battery LED, and LAN (active, status)
- **Storage** 1 x 2.5" SSD/HDD (up to 9.5 mm height)
- **Expansion** 1 x Full-size mPCIe (PCIe/USB signal)
  1 x M.2 (B-key) 2242 SSD (SATA signal), 3042/3052 cellular module (USB signal)
  1 x nano SIM card slot

I/O

- **Isolated Serial Ports** 2 x RS-232/422/485 (terminal block)
  50 ~115.2 kbps (isolation protection: 2500 V$_{DC}$)
- **LAN** 2 x 10/100/1000 Mbps IEEE 802.3u 1000 BASE-T Fast Ethernet (RJ45)
- **USB** 3 x USB 3.2 Gen 1, 1 x USB 2.0 (Type A)

Isolated DI/O

- **Isolated DI/O** 8 x Digital input channels with 2500 V$_{DC}$ isolation protection
  - Wet contact: Logic 0: 10 ~ 30 V$_{DC}$/ Logic 1: 0 ~ 3 V$_{DC}$
  - Dry contact: Logic 0: Shorted to GND/ Logic 1: Open
  8 x Digital output channels
  - Output voltage: 5 ~ 30 V$_{DC}$
  - Output capability sink: 500 mA max./channel
- **Displays** 2 x DP 1.2, up to 4096 x 2306 @ 60 Hz
- **Power Connector** 1 x 2-pin terminal block

Environment

- **Operating Temperature*** -40 ~ 70 °C/-40 ~ 158 °F with 0.7m/s airflow, with wide-temperature (-40 ~ 85 °C/-40 ~ 185 °F) peripherals (e.g., SSD, wireless modules)
- **Storage Temperature** - 40 ~ 85 °C/-40 ~ 185 °F
- **Relative Humidity** 95% RH @ 40 °C/104 °F, non-condensing
- **Shock Protection** Operating, IEC 60068-2-27, 50G, half sine, 11ms
- **Vibration Protection** Operating, IEC 60068-2-64, 4 Grms, random, 5 ~ 500 Hz, 1hr/axis (SSD)
  Operating, IEC 60068-2-64, 0.3 Grms, random, 5 ~ 500 Hz, 1hr/axis (HDD)
- **Ingress Protection** IP40

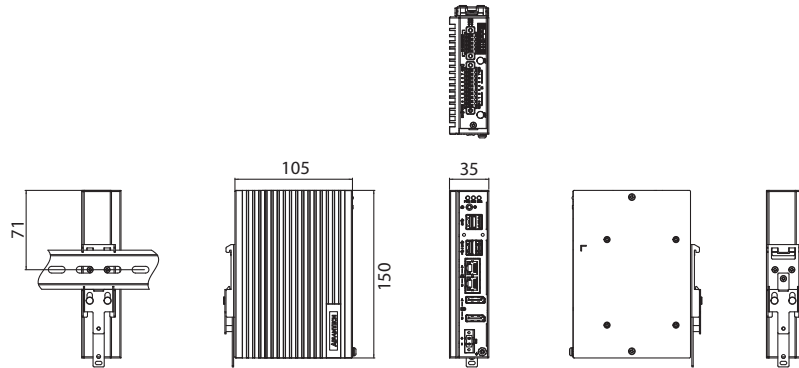*Operating temperature with M.2 SSDs should be maintained under 60 °C/140 °F.

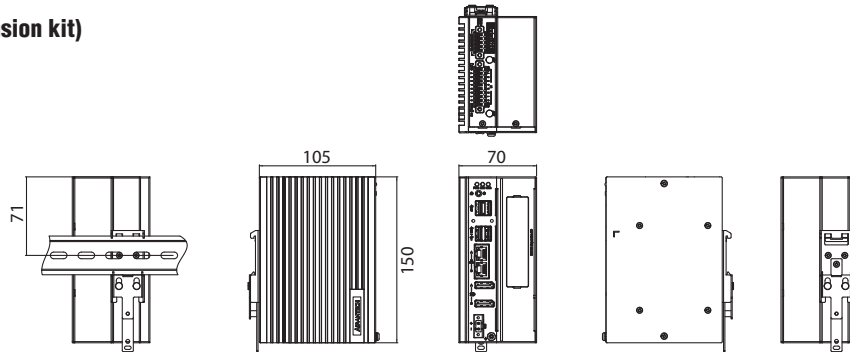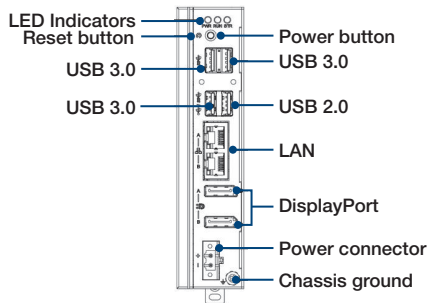## Installation Scenario

DIN-rail mounting installation

Dimensions

Unit: mm

(With optional extension kit)

Front I/O

- LED Indicators
- Reset button
- USB 3.0
- USB 3.0
- Power button
- USB 3.0
- USB 2.0
- LAN
- DisplayPort
- Power connector
- Chassis ground

Top I/O

- COM 1 (RS-232/422/485)
- Digital I/O
- COM 2 (RS-232/422/485)
- Reserved antenna hole
- Reserved antenna hole

Ordering Information

- **UNO-137-E13BA**   Compact DIN-rail controller with Intel® E3940 CPU (1.6 GHz), 8 GB DDR3L, 2 x LAN, 2 x COM, 4 x USB, 8 x DI/O

Extension Kit

- **UNO-137-ID1EA**   UNO-137 second-stack extension kit with 1 x iDoor slot (refer to the extension kit datasheet for more detail)

Embedded OS

- **(TBD)**

Optional Accessories

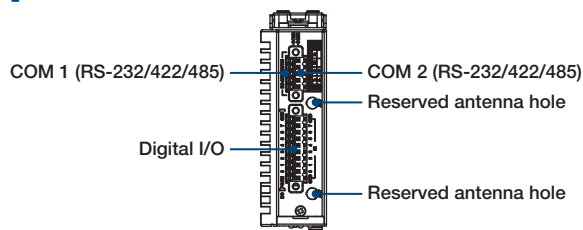- **UNO-137-VEGA330**   Accessory kit for VEGA-330

DIN-Rail Power Supply
- **UNO-IPS2460-AE**   60W Compact DIN-rail power supply
- **96PSD-A120W24-MN**   A/D 100 ~ 240V, 120W, 24V NDR DIN rail
- **PSD-A120W24**   DIN rail A/D 100 ~ 240V, 120W, 24V (recommended for use with PoE iDoor module)

Adapter & Power Cable
- **XARK-ADP-90MDH**   Adaptor A/D 100 ~ 240V, 90W, 19V, W/PFC C6 cord end, 2 pin
- **1700001524**   Power Cord UL 3P 10A 125V 183cm for US
- **170203183C**   Power Cord EU 3P 2.5A 250V 183cm for EU
- **170203180A**   Power Cord BSI 3P 2.5A 250V 183cm for UK
- **1700019146**   Power Cord CCC 3P 2.5A 250V 183cm for CN
- **1700018553**   Power Cord SAA 3P 2.5A 250V 183cm for AU
- **96PSA-A120W19T2-3**   Adaptor A/D 100-240V 120W 19V C14 cord end 62368 (recommended for use with PoE iDoor module)
- **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)

Extension Kit

Advantech offers an optional second-stack extension kit for expanding the system functionalities

UNO-137-ID1EA

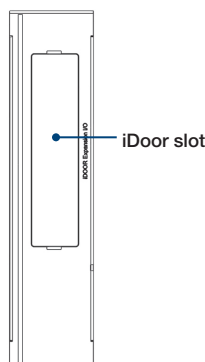**Second-stack extension kit with 1 x iDoor slot (for UNO-137-E13BA)**

Specifications

General

Ports	1x iDoor slot
Dimensions (W x D x H)	35 x 105 x 150 mm (1.4 x 4.1 x 5.9 in)
Weight	0.2 kg (0.4 lb)

Note: The system operating temperature can be maintained at 60 °C/140 °F with most iDoor modules (excluding PoE and USB 3.0 modules)

Front I/O

iDoor slot

Ordering Information

Part Number	Description
UNO-137-ID1EA	UNO-137 second-stack extension kit with 1 x iDoor slot

Supported iDoor Modules

iDoor Industrial Fieldbus Communication	
PCM-26D2CA-AE	2-port isolated CANBus mPCIe,CANopen, DB9
PCM-26D1DB-MAE/SAE	1-port Hilscher netX100 FieldBus mPCIe,PROFIBUS, DB9, Master/Slave
PCM-26R2PN-MAE/SAE	2-Port Hilscher netX100 FieldBus mPCIe, PROFINET,RJ45, Master/Slave
PCM-26R2EC-MAE/SAE	2-port Hilscher netX100 FieldBus mPCIe, EtherCAT, RJ45,Master/Slave
PCM-26R2EI-MAE/SAE	2-port Hilscher netX100 FieldBus mPCIe, EtherNet/IP, RJ45,Master/Slave
PCM-26R2S3-MAE/SAE	2-port Hilscher netX100 FieldBus mPCIe, Sercos III, RJ45,Master/Slave
PCM-26R2PL-SAE	2-port Hilscher netX100 FieldBus mPCIe, POWERLINK, RJ45
iDoor Smart Digital/Analog I/O	
PCM-24D2R4-BE	2-port isolated RS-422/485, mPCIe, DB9
PCM-24D2R2-BE	2-port isolated RS-232, mPCIe, DB9
PCM-24D4R4-BE	4-port non-isolated RS-422/485 mPCIe, DB37 cable
PCM-24D4R2-BE	4-port non-isolated RS-232 mPCIe, DB37 cable
PCM-24R1TP-AE	1-port Gigabit Ethernet, Intel® 82574L, mPCIe, RJ45
PCM-24R2PE-AE	2-port Gigabit Ethernet, IEEE 802.3af (PoE)- compliant,mPCIe, RJ45
PCM-24R2GL-AE	2-port Gigabit Ethernet, Intel® i350, mPCIe, RJ45
PCM-27D24DI-AE	24-channel isolated digital I/O with counter mPCIe, DB37
iDoor CORE	
PCM-2300MR-AE	MR4A16B, MRAM, 2 MB, mPCIe
PCM-23C1CF-BE	1 x CFast slot with cover protection
PCM-23U1DG-CE	USB slot w/ lock for USB dongle, half-size mPCIe
PCM-24U2U3-BE	2-port USB 3.0, mPCIe, USB-A type
PCM-27J3AU-AE	3-port audio stereo, mPCIe, 3.5-mm jack
iDoor Wired/Wireless Communication	
PCM-24S2WF-BE	Wi-Fi 802.11 a/b/g/n 2T2R w/Bluetooth 4.0, half-size mPCIe, antennas
PCM-24S34G-EBE	LTE/HSPA+/GPRS and GPS, full-size mPCIe, 4G/GPS antennas for EMEA/APAC
C-PCM-24S24G-4AV-1	Cellular iDoor module, LTE Cat. 4 for AT&T/Verizon
C-PCM-24S24G-1A-1	Cellular iDoor module, LTE Cat. 1 for AT&T
C-PCM-24S24G-1V-1	Cellular iDoor module, LTE Cat. 1 for Verizon
C-PCM-24S24G-MAV-1	Cellular iDoor module, LTE Cat. M1 for AT&T/Verizon

UNO-1110

TI Cortex AM3505 DIN-Rail PC with 2 x LAN, 5 x COM, 4 x USB, 1GB SD card

Features

- TI Cortex A8 AM3505 600 MHz processor
- 256 MB DDR2 on board
- 4 x RS-232/422/485, 1 x RS-485 serial ports
- Dual 10/100 Mbps Ethernet
- 2 x SD card slots (1GB SD card included)
- Windows® CE 6.0 Ready Platform and optional uClinux OS support
- Included Advantech DaigAnywhere for easy remote configuration & diagnosis
- DIN-rail and Wallmounting Options
- Onboard system & LED indicators
- Supports Microsoft .NET compact framework 3.5
- Fanless and no internal cabling design
- System/Field ground isolation

Introduction

Advantech's UNO-1110 series are RISC-grade embedded platforms that offer up to 2 LAN ports, 5 serial ports and 2 SD card slots. The UNO-1110 series also come with Windows CE 6.0/Linux OS, offering an integrated image. Additionally, the UNO-1110 series operate at temperatures between -10 ~ 70°C, and their small size and lightweight design allows it to be installed in tight industrial environments. The UNO-1110 series are excellent communication gateways for converting communication protocols, I/O control, and data storage in the industrial field.

Specifications

General

- **Certification** — CE, FCC Class A, UL, CCC
- **Dimensions (W x H x D)** — 50 x 154 x 127 mm (1.9" x 6.1" x 5")
- **Enclosure** — Aluminium with solid mounting hardware
- **Mounting** — DIN-rail, Wallmount
- **Industrial Grounding** — Isolation between chassis and power ground
- **Power Consumption** — 10 ~ 30 V_{DC} (13 W), AT, ground isolation, dual power inputs.
- **Weight** — 0.45 kg
- **System Design** — Fanless design with no internal cabling

System Hardware

- **CPU** — TI Cortex A8 AM3505 600 MHz
- **Memory*** — Onboard 256 MB DDR2
- **Display** — DB15 VGA connector, up to 1024 x 768
- **Indicators** — Power, Serial (Tx, Rx), SD
  4 x DI/2 x DO
  4 x programmable LED
- **Storage** — 2 x SD card slot (built-in 1GB SD card for boot)
- **Other** — Realtime clock, Watchdog timer
- **SIM** — 1 x card slot (reserved for project and will only have 1 x SD card slot left)
- **Expansion** — 1 x Mini PCIe card slot (Signal Protocol: USB Differential)

*Note: up to 512MB DDR2 (reserved for project)

System Software

- **Operating System** — WinCE 6.0/ Linux
- **Remote Management** — Built-in Advantech DiagAnywhere agent on Windows

I/O Interface

- **Serial Ports** — 4 x RS-232/422/485, 1 x RS-485
  (COM3,4 support isolation)
  Automatic RS-485 data flow control, DIP Switch configuration
- **Serial Port Speed** — RS-232: 300 ~ 115.2 kbps
  RS-422/485: 300 ~ 115.2 kbps (Max)
- **LAN** — 2 x 10/100Base-T RJ-45 ports
- **USB** — 4 x USB 2.0
- **Digital Input** — 4 x Digital Inputs**
  Dry contact
          Logic level 0: Open
          Logic level 1: Close

- **Digital Output** — 2 x Digital Outputs**
  **Optional isloation by project
  Open Collect to 30 V
  200 mA max Load, power dissipation 450mW
  ***Audio Line-out reserved for project

Environment

- **Ingress Protection** — IP40
- **Operating Temperature** — -10 ~ 70°C (14 ~ 158°F)
- **Storage Temperature** — -40 ~ 80°C (-4 ~ 176°F)
- **Operating Humidity** — 20 ~ 95% (non-condensing)
- **Storage Humidity** — 20 ~ 95% (non-condensing)
- **Shock Protection** — Half-sine wave, 30G, 11ms
- **Vibration Protection** — Random 1Grms

Optional Accessories

- **PWR-247-CE** — ADP A/D 100-240V 60W 24V (Commercial 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)

Embedded OS & Automation Software

- **2070014810** — Image WinCE 6.0 Eng. for UNO-1110
- **2070014814** — Image WinCE 6.0 TC for UNO-1110-R11AE
- **2070014812** — Image WinCE 6.0 KR for UNO-1110-R11AE
- **2070014811** — Image WinCE 6.0 JP for UNO-1110-R11AE
- **2070014813** — Image WinCE 6.0 SC for UNO-1110-R11AE

Ordering Information

- **UNO-1110-R11AE** — TI Cortex AM3505 600MHz DIN-rail PC UNO-1110 with WinCE 6.0 (English), 1GB SD Card
- **SQF-ISDS1-1G-86E** — 1GB SLC SD Card (-40 ~ 85° C)
- **2070012539** — UNO-1110 Linux MUL Image

UNO-1251G

TI Cortex® A8 Micro DIN-rail Gateway w/ 2 x LAN, 1 x USB, 1 x CAN, 3 x COM, 2 x microSD, 1 x micro SIM

NEW

Features

- RISC 32-bit TI ARM® Cortex™-A8 processor
- Programmable OLED display for status & error indication
- 1 x CAN, 3 x COM, 2 x LAN, 1 x USB ports
- Backup Memory FRAM in 128KB for retaining critical data
- Easily accessible Micro SD slot & Micro SIM slot
- Expansible with Wi-Fi/3G/4G connectivity
- Supports WEC7 & Linux operating systems
- Supports WebAccess/HMI software for compatibility with 450 types of PLC, controllers & I/O devices protocols

RoHS COMPLIANT 2002/95/EC   CCC   CE FCC   c(UL)us LISTED E190881 I.T.E.

Introduction

The UNO-1251G is an Industrial IoT DIN-rail gateway. This gateway features dual LAN ports & expansible Wi-Fi/3G connectivity. There are also some user friendly design elements such as: a programmable OLED display to indicate the system status, and a front-accessible microSD card/micro SIM slot. With WebAccess/HMI support, it is compatible with 450 types of PLC, controllers & I/O devices. User can easily access UNO-1251G through mobile devices by VNC. It is the ideal solution for automation control as a cloud enabled HMI platform.

Specifications

General

- **Certification** CE, FCC, CCC, BSMI, UL
- **Dimensions (W x D x H)** 50 x 90 x 100 mm (1.97" x 3.54" x 3.94")
- **Form Factor** Micro Size
- **Enclosure** Aluminum Housing
- **Mounting** DIN-rail
- **Weight (Net)** 0.4 kg (0.88 lbs)
- **Power Requirements** 10~36 V_{DC}
- **Power Consumption** 5W(Typical), 9W (Max)
- **OS Support** Windows Embedded Compact7 (WEC7)/Embedded Linux (kernel v2.6.37)

System Hardware

- **Processor** RISC 32 bit, 600 MHz (ARM® Cortex™-A8)
- **Backup Memory** FRAM 128KB
- **Memory** Onboard DDR2 256MB 166MHz (Optional 512MB)
- **LED Indicators** LEDs for Power(PWR), COM1~3(Tx/Rx) and CAN(Tx/Rx)
- **Storage** Bootloader and image:
  1 x microSD 1G (Built-in)
  External storage:
  1 x microSD card slot
- **Expansion** 1 x Full-size mPCIe slot (USB2.0 signal only)

I/O Interfaces

- **Serial Ports** 1 x RS485, terminal block, auto direction control, 300~115.2k bps
  1 x RS422/485, terminal block, auto direction control (RS-485), 300~115.2k bps
  1 x RS232, DB9, auto flow control 300~115.2k bps
- **CAN** CANbus, version 2.0A/B compliant (terminal block, 10k~500k bps)
- **LAN Ports** 2 x RJ45, 10/100 Mbps
- **USB Ports** 1 x USB 2.0
- **Power Connector** 1 x 4 Pin, terminal block supports dual power input
- **Grounding Protection** Chassis Grounding
- **SIM** 1 x Micro SIM card slot

Environment

- **Operating Temperature** - 20 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH
- **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, 3 Grms, random, 5 ~ 500Hz, 1 hr/axis
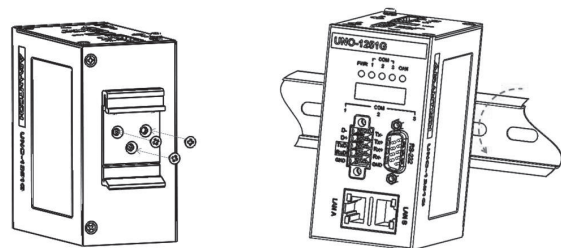
Application Software /SDK

- **Modbus TCP Client/Server API (WEC7 only)**
- **Modbus RTU Master/Slave API (WEC7 only)**
- **CAN SDK**
- **Advantech CANopen protocol library (WEC7 only)**
- **FRAM API**
- **Watchdog SDK**
- **OLED programmable display API**
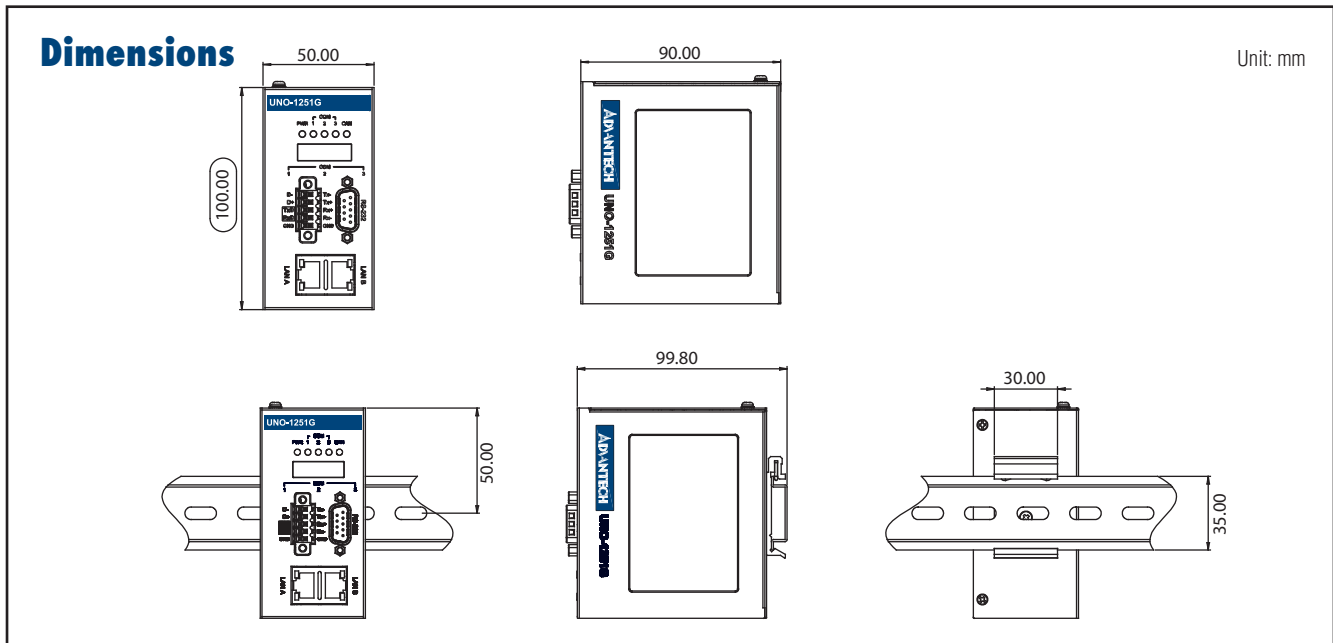- **Supports WebAccess/HMI**

Software Features

- **FTP/Telnet service**
- **Remote display technology**
- **VPN (WEC7 only)**
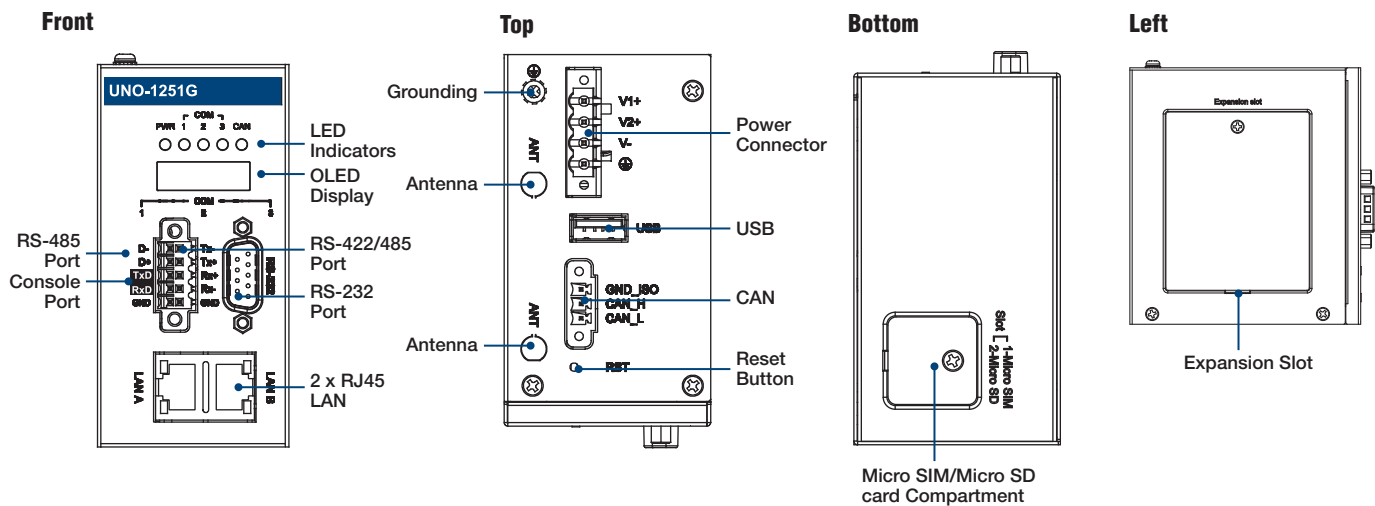- **OpenGL**
- **Remote Access: DigAnywhere & VNC**

Installation Scenario

DIN-rail Mount Illustration

Dimensions

50.00

90.00

Unit: mm

100.00

UNO-1251G

99.80

50.00

30.00

35.00

I/O Views

Front

UNO-1251G

COM
PWR 1 2 3 CAN

LED Indicators

OLED Display

RS-485 Port
Console Port

RS-422/485 Port

RS-232 Port

2 x RJ45 LAN

Top

Grounding

ANT

Antenna

V1+
V2+
V-

Power Connector

USB

USB

GND_ISO
CAN_H
CAN_L

CAN

ANT

Antenna

RST

Reset Button

Bottom

Slot 1:Micro SIM
Slot 2:Micro SD

Micro SIM/Micro SD card Compartment

Left

Expansion slot

Expansion Slot

Ordering Information

- **UNO-1251G-A0AE**   ARM Cortex A8, built-in 256MB Memory, 1G SLC MicroSD, WEC7
- **UNO-1251G-WA0AE**   UNO-1251G-A0AE with WebAccess/HMI 1500 tags

Optional Accessories

Adapters & Power cords:

- **PWR-247-CE**   ADP A/D 100-240V 60W
- **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

DIN-Rail Power Supply:

- **UNO-IPS2440-AE**   24 V_DC/ 40 Watts DIN-Rail Power Supply

3G module & antenna:

- **EWM-C109F601E**   Wide-Temp 3.75G HSPA, Mini PCIe Card (For WEC7 OS)
- **EWM-C109F6GBR**   3.75G UMTS/HSPA mini PCIe card (For Linux OS)
- **1750006264**   Coaxial cable for antenna
- **1750005865**   Antenna L=10.9 cm 50 Ohm

Wi-Fi module & antenna:

- **EWM-W150H02E**   802.11bgn / RT5390 1T1R (For WEC7 OS)
- **9656EWMG00E**   Half-size miniPCIe to Full-size miniPCIe bracket set
- **1750006043**   150 mm Coaxial cable for antenna
- **1750000318**   Antenna

4G module & antenna:

- **968EMC0061**   AirPrime MC7304 PCI Express Mini Card (For WEC7/Linux OS)
- **1750006009**   25 cm cable for antenna
- **1750008303-01**   Antenna
- **1750006432**   GPS antenna

UNO-1252G

Intel® Quark Micro DIN-rail Gateway w/ 2 x LAN, 2 x mPCIe, 2 x COM, 4 x DI, 4 x DO, 2 x USB, 1 x 1GB microSD card, 1 x SIM

NEW

Features

- Intel® Quark X1001 400 MHz processor with 256/512MB Memory
- 2 x LAN, 2 x mPCIe, 1 x RS-232, 1 x RS-232/485, 4 x DI, 4 x DO, 2 x USB, 1 x 1GB microSD card, 1 x SIM
- COM ports and digital I/O with isolation protection design for sensing and
- controlling
- Chassis grounding protection
- Compact with fanless design
- DIN-rail mounting design
- Supports GPRS/3G/GPS/Wi-Fi communication by iDoor technology
- Supports Yocto Linux system

Introduction

The UNO-1252G is an Intel Quark DIN-rail controller for IoT gateway solutions. This controller features dual LAN ports and mPCIe card slots for economic gateway applications bridging cloud and brown areas. The general purpose input/output ports directly read the status of sensors and indicate required results. The UNO-1252G is also equipped with Advantech iDoor technology that employs iDoor modules to extend itself to become a wireless gateway. In addition, the UNO-1252G also features eight LED indicators for the status of Power, Battery, SD card, COM ports and three programmable indicators.

Specifications

General

- **Certification** — CE, FCC, CCC, BSMI, UL
- **Dimensions (W x D x H)** — 63 x 105 x 100 mm (2.48" x 4.13" x 3.94")
- **Form Factor** — Micro Size
- **Enclosure** — Aluminum Housing
- **Mounting** — DIN-rail
- **Weight (Net)** — 0.6 kg (1.33 lbs)
- **Power Requirements** — 10~36 V_{DC}
- **Power Consumption** — 10 W (Typical), 18W (Max)
- **OS Support** — Yocto Linux

System Hardware

- **BIOS** — 8MB SPI Flash
- **Processor** — Intel Quark X1001 400 MHz
- **System Chip** — Integrated Intel SoC Chipset
- **Memory** — On-board 256/512 MB DDR3 800 MHz
- **LED Indicators** — LEDs for Power (PWR) , battery (BTR), COM1~2 (Tx/Rx) and microSD (SD), Programmable Indicators (PL1~3)
- **Storage** — Built-in 1GB micro SD card, up to 32GB
- **Expansion** — 2 x Full size mPCIe slot (1 x USB signal, 1 x PCIe signal)

I/O Interfaces

- **Isolated Serial Ports** — 1 x RS-232, DB9, 50~115.2 kbps, supports console debug
  1 x RS-232/485, DB9, 50~115.2 kbps
  (Isolation Protection 1000 V_{DC})
- **LAN Ports** — 2 x RJ45, 10/100 Mbps
- **USB Ports** — 1 x USB 2.0 (type-A), 1 x USB Client (micro-B)
- **Isolated DI/O** — 4-ch digital input, 4-ch digital output (Isolation Protection 1000 V_{DC} , Overvoltage protection 30 V_{DC}, default wet contact)
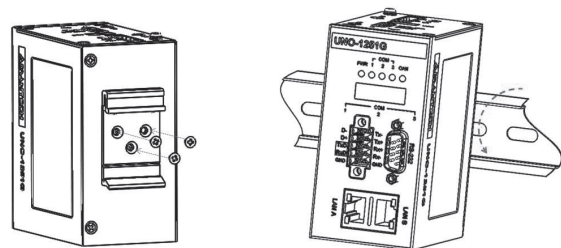- **Power Connector** — 1 x 3 Pin, Terminal Block
- **Grounding Protection** — Chassis Grounding
- **SIM** — 1 x SIM card slot

Environment

- **Operating Temperature** — - 20 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH
- **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, 2 Grms, random, 5 ~ 500Hz, 1 hr/axis
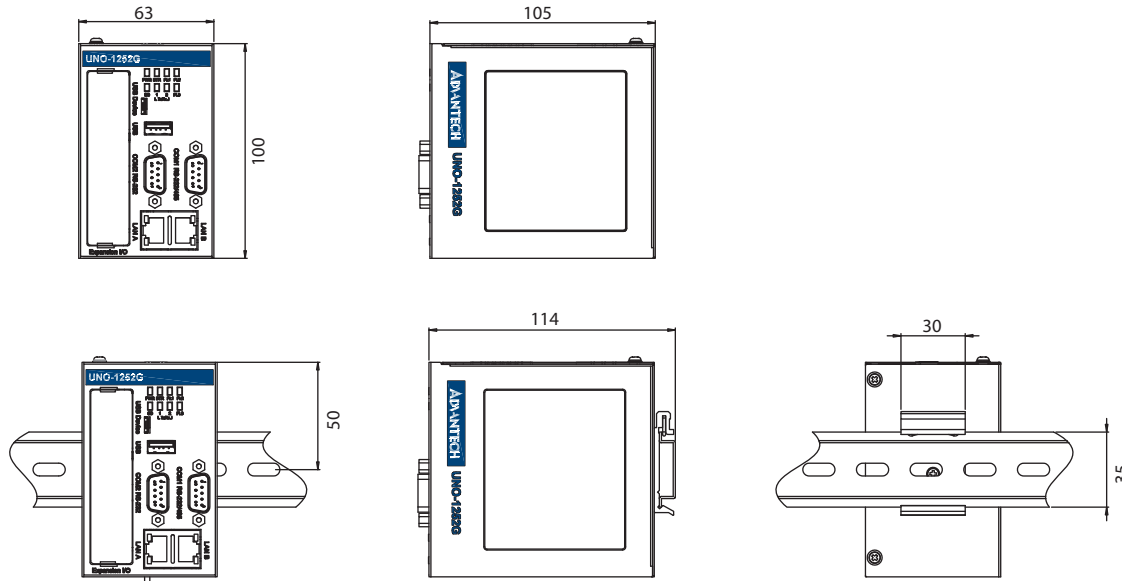
Installation Scenario
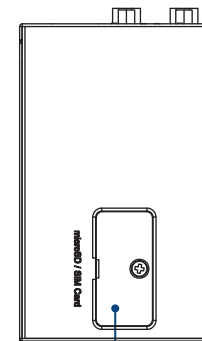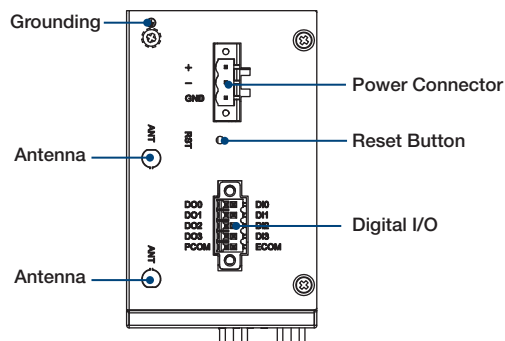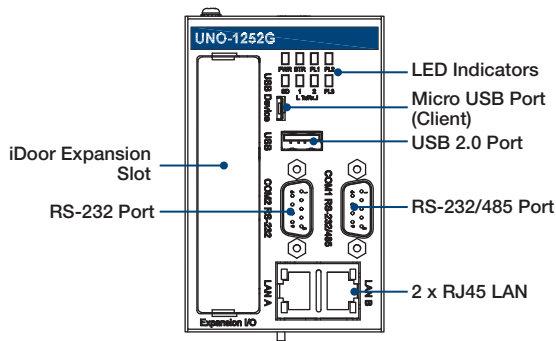
DIN-rail Mount Illustration

Dimensions

Unit: mm

63

100

105

114

50

30

35

Front I/O View

UNO-1252G

iDoor Expansion Slot

RS-232 Port

LED Indicators

Micro USB Port (Client)

USB 2.0 Port

RS-232/485 Port

2 x RJ45 LAN

Top I/O View

Grounding

Antenna

Antenna

Power Connector

Reset Button

Digital I/O

Bottom I/O View

microSD / SIM Card Compartment

Ordering Information

- **UNO-1252G-Q0AE** Intel Quark X1001 400MHz, 2 x LAN, 2 x mPCIe, 2 x COM, 4 x DI, 4 x DO, 2 x USB, 1GB microSD, 256 MB
- **UNO-1252G-Q0BE** Intel Quark X1001 400MHz, 2 x LAN, 2 x mPCIe, 2 x COM, 4 x DI, 4 x DO, 2 x USB, 1GB microSD, 512 MB

iDoor Modules

- **PCM-24S33G-AE** Wide-Temp 3.75G HSPA and GPS, 2-in-1, mPCIe w/ dual SIM Card holder, Antenna, cable
- **PCM-24S2WF-BE** WiFi 802.11 ac/a/b/g/n 2T2R w/Bluetooth 4.1, M.2/ Full-size mPCIe, Antennas
- **PCM-26D2CA-AE** 2-Port Isolated CANBus mPCIe, CANOpen, DB9
- **PCM-24D2R2-BE** 2-Ports Isolated RS-232 mPCIe, DB9
- **PCM-24D2R4-BE** 2-Ports Isolated RS-422/485 mPCIe, DB9
- **PCM-24D4R2-BE** 4-Ports Non-Isolated RS-232 mPCIe, DB37
- **PCM-24D4R4-BE** 4-Ports Non-Isolated RS-422/485 mPCIe, DB37

*More iDoor modules will be supported by project.

Optional Accessories

- **UNO-IPS2440-AE** 24 V_{DC}/ 40 Watts DIN-Rail Power Supply
- **PWR-247-CE** ADP A/D 100-240V 60W 24V
- **1702002600** Power Cable US Plug 1.8 M
- **1702002605** Power Cable EU Plug 1.8 M
- **170203180** Power Cable UK Plug 1.8 M
- **1700000596** Power Cable China/Australia Plug 1.8 M

UNO-1372G

Intel® Atom™ Quad-Core Small Size Control DIN-rail PC w/ 3 x GbE, built-in 4GB DDR3L, 2 x mPCIe, 1 mSATA, 2 x COM, 8 x DI/O, 3 x USB, HDMI, VGA

NEW

Features

- Intel® Atom E3845 1.91GHz processor with 4GB DDR3L memory
- 3 x GbE, 3 x USB, 2 x COM, 1 x VGA, 1 x HDMI, audio, iDoor, mSATA, 2 x mPCIe, 1 x SATA, 4 x DI, 4 x DO, 1 x power terminal
- Compact with fanless design
- Dual power input for avoiding power down time
- Exchangeable RTC battery with easy access on the top
- Digital I/O with isolation protection for sensing and controlling
- Diverse system IO and supports fieldbus protocol by idoor technology as a protocol gateway
- 3G/GPS/GPRS/Wi-Fi communication by idoor technology as a communication gateway
- Supports MRAM by iDoor technology
- LAN redundancy (teaming)

Introduction

The UNO-1372G is an Intel Atom Quad-Core DIN-rail controller. This controller features dual power inputs that shorten the down time to enhance operation excellence. The general purpose input/output ports also help machine builders integrate direct control of start/stop inspection and indicate inspection results. The UNO-1372G is also equipped with Advantech iDoor technology that uses iDoor modules to extend this product to become a gateway controller, such as a PoE card, or isolation serial port card. The UNO-1372G also features 3 gigabyte LAN ports, 1 USB 3.0 port, 2 COM ports and HDMI& VGA display ports for essential upstream and downstream links, for example, PoE connected to IP camera from iDoor.

Specifications

General

- **Certification** CE, FCC, UL, CCC, BSMI
- **Dimensions (W x D x H)** 85 x 139 x 152 mm (3.3" x 5.5" x 6.0")
- **Form Factor** Small Size
- **Enclosure** Aluminum Housing
- **Mounting** DIN-rail, Wallmount
- **Weight (Net)** 1.6kg (3.5lbs)
- **Power Requirement** 9~36V_{DC} (Recommend 12/24 V_{DC})
- **Power Consumption** 24W (Typical), 50W (Max)
- **OS Support** Microsoft® Windows 7/8/10, WES7, AdvLinux

System Hardware

- **BIOS** AMI UEFI 128Mbit Flash BIOS
- **Watchdog Timer** Programmable 255 levels timer interval, from 1 to 255 sec
- **Processor** Intel Atom E3845 1.91GHz, 2MB L2 Cache
- **System Chip** Integrated Intel SoC Chipset
- **Memory** Built-in 4GB DDR3L 1333 MHz (Up to 8GB)
- **Graphics Engine** Intel® HD Graphics
- **Ethernet** LAN A, B: Intel® i210-IT GbE, 802.1Qav, 802.1AS, 802.3az
  LAN C: Realtek RTL8111E GbE
- **LED Indicators** LEDs for Power, battery, LAN (Active, Status), COM (Tx/Rx), HDD and programmer LED
  1 x mSATA
- **Storage** One drive bay for SATA 2.5" HDD (Compatible with 9.5mm height HDD)
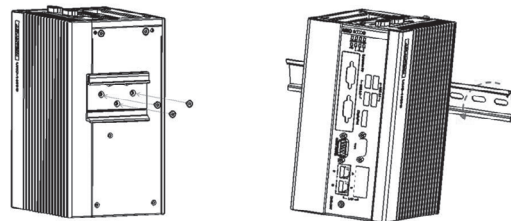- **Expansion** 2 x Full-size mPCIe slot

I/O Interfaces

- **Serial Ports** 1 x RS-232, DB9, 50~115.2kbps
  1 x RS-422/485, DB9, auto flow control, 50~115.2kbps
- **LAN Ports** 3 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000BASE-T Fast Ethernet
- **USB Ports** 3 x USB Ports (2 x USB2.0, 1 x USB 3.0)
- **Isolated DIO** 4-ch digital input, 4-ch digital output (2500 V_{DC})
- **Displays** 1 x VGA, supports 1920 x 1080 @ 60Hz 24bpp
  1 x HDMI 1.4a, supports 1920 x 1080 @ 60Hz 24bpp
- **Audio** Line-Out
- **Power Connector** 1 x 4 Pins, Terminal Block to support dual power input
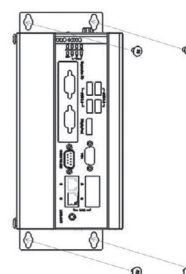
Environment

- **Operating Temperature** - 20 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH with 0.7m/s airflow (Industry SSD)
- **Storage Temperature** - 40 ~ 85°C (-40 ~ 185°F)
- **Relative Humidity** 95% RH @ 40°C, non-condensing
- **Shock Protection** Operating, IEC 60068-2-27, 50G, half sine, 11ms
- **Vibration Protection** Operating, IEC 60068-2-64, 5Grms, random, 5 ~ 500Hz, 1 hr/axis
- **Ingress Protection** IP40

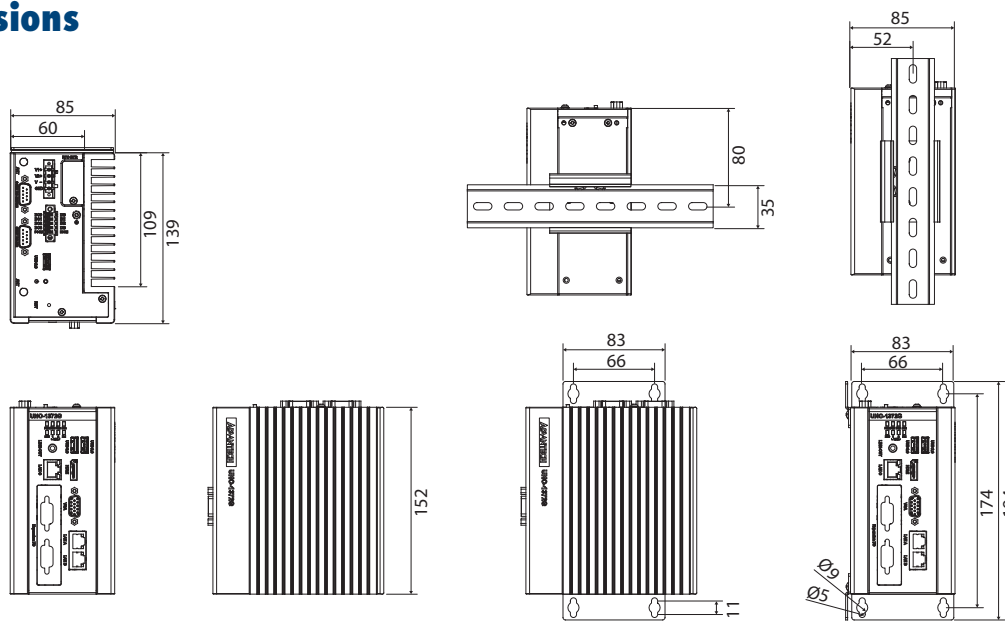## Installation Scenario

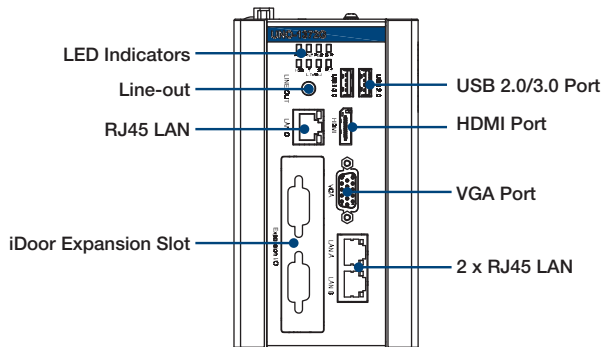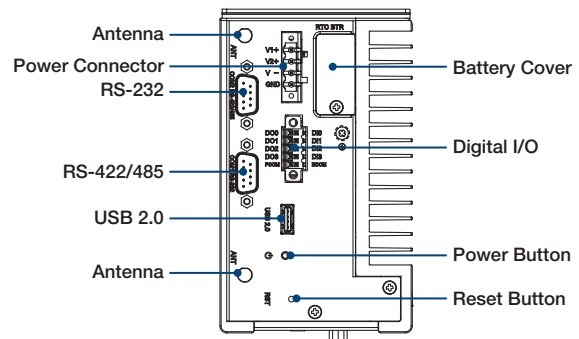### DIN-rail mounting illustration

Wall mounting illustration

Dimensions

Unit: mm

85
60
109
139

85
52
80
35

83
66
152

83
66
174
194

⌀9
⌀5
11

Front I/O View

LED Indicators
Line-out
RJ45 LAN

USB 2.0/3.0 Port
HDMI Port

iDoor Expansion Slot

VGA Port

2 x RJ45 LAN

Top I/O View

Antenna
Power Connector
RS-232

Battery Cover

RS-422/485

Digital I/O

USB 2.0

Power Button

Antenna

Reset Button

Ordering Information

- **UNO-1372G-E3AE**   Intel Atom Quad-Core 1.91GHz, 4GB, 3 x LAN, 2 mPCIe, iDoor

iDoor Modules

- **PCM-23C1CF-BE**   1 CFast Slot with Cover Protection
- **PCM-23U1DG-BE**   USB Slot w/ Lock for USB Dongle
- **PCM-24R2GL-AE**   2-Port Gigabit Ethernet, mPCIe, RJ45
- **PCM-24U2U3-AE**   2-Port USB 3.0, mPCIe, USB-A type
- **PCM-24D2R4-BE**   2-Port Isolated RS-422/485 mPCIe, DB9
- **PCM-24D4R4-BE**   4-Port Non-Isolated RS-422/485 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, 2-in-1, Full-size mPCIe w/ Redundant SIM Card holder, 2-port SMA
- **PCM-26R2PN-MAE**   2-Port Hilscher netX100 FieldBus mPCIe, PROFINET, RJ45, Master
- **PCM-26R2PN-SAE**   2-Port Hilscher netX100 FieldBus mPCIe, PROFINET, RJ45, Slave
- **PCM-26D1DB-MAE**   1-Port Hilscher netX100 FieldBus mPCIe, PROFIBUS, DB9, Master
- **PCM-26D1DB-SAE**   1-Port Hilscher netX100 FieldBus mPCIe, PROFIBUS, DB9, Slave

Optional Accessories

- **PWR-247-CE**   ADP A/D 100-240V 60W 24V (Commercial 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)

Embedded O/S

- **2070014956**   Image Win10 Enterprise 2016 LTSB X64 MUI for UNO-1372G
- **2070014549**   Image AdvLinuxTU for UNO-1372G
- **20703WE7PS0010**   Img WS7P X64 MUI V4.18 B024 for UNO-1372G
- **20703WE7PS0011**   Img WS7P X86 MUI V4.18 B021 for UNO-1372G
- **20703WC70S0037**   Img WEC7 MUI V4.02 B117 for UNO-1372G

UNO-1372G-J

Intel® Celeron® J1900 Small-Size DIN-rail Control PC, 4G DDR3L, 2 GbE, iso. 4 COM, 4 DI, 4 DO, 4 USB, HDMI, DP, TPM2.0

NEW

Features

- Intel® Celeron® J1900 2.0GHz processor with 4GB DDR3L memory
- Robust design for industrial control and harsh environment
- Isolated protection of COM and digital Input/output
- Compact fanless design
- Wide power input range and operating temperature
- Chassis grounding protection
- Flexibility of expanding functionality for various application
- Support diverse industrial fieldbus, IO & peripheral and wireless communication iDoor modules
- Dedicated TPM2.0 microcontroller designed for hardware security

Introduction

The UNO-1372G series is a ruggedized fanless automation PC. The DIN-rail mounting form factor is suitable to be used in control cabinet for industrial automation application. The well-designed heat dispassion mechanism enables the UNO-1372G operating in wide temperatures (from -20 to 60°C). The latest UNO-1372G-J includes Intel Celeron J1900 platform and builds in 4G DDR3L RAM. It provides rich interfaces including 2 x GbE LAN, 1 x USB3.0, 3 x USB2.0 ports, 4 COM ports and 4DI/4DI. It also equips with one DP and one HDMI for display. UNO-1372G-J provides great expansion including 2 x Mini-PCIe (one supports mSATA option) and supporting Advantech's latest iDoor technology. It has great expandability for wireless communication, I/O expansion and industrial protocols via iDoor technology. With multiple OS and driver support, such as Windows 7, Windows 10 and embedded Linux, users can integrate applications easily in an application ready platform that can provide versatile functions to fulfill diverse requirements.

Specifications

General

- **Certification** CE, FCC, UL, CCC, BSMI
- **Dimensions (W x D x H)** 65 x 105 x 150mm (2.6" x 4.1" x 5.9")
- **Form Factor** Small Size
- **Enclosure** Aluminum Housing
- **Mounting** DIN-rail
- **Weight (Net)** 1kg (2.2lbs)
- **Power Requirement** 10~36V$_{DC}$
- **Power Consumption** 19W (Typical), 35W (Max.)
- **OS Support** Microsoft® Windows 7/8/10, WES7, AdvLinux

System Hardware

- **BIOS** AMI UEFI 64Mbit Flash BIOS
- **Watchdog Timer** Programmable 255 levels timer interval, from 1 to 255 sec
- **Processor** Intel® Celeron® J1900, 2GHz
- **System Chip** Integrated Intel SoC Chipset
- **Memory** Built-in 4GB DDR3L 1333 MHz (Up to 8GB)
- **Graphics Engine** Intel® HD Graphics
- **Ethernet** Intel® i210-IT GbE, 802.1Qav, 802.1AS, 802.3az
- **LED Indicators** LEDs for Power, RTC battery, LAN (Active, Status), COM (Tx/Rx), HDD, Programmable LED
- **Storage** 1 x mSATA shared with mPCIe slot
  1 x drive bay for SATA 2.5" HDD (Compatible with 9.5mm height HDD)
- **Expansion** 2 x Full size mPCIe slots
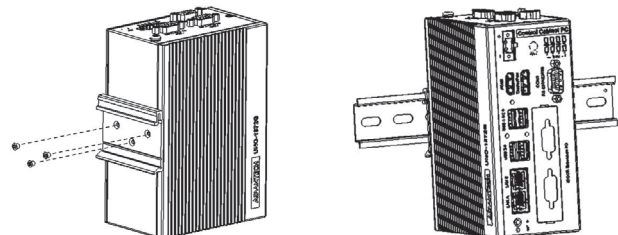- **Trusted Platform Module** TPM2.0

I/O Interfaces

- **Isolated Serial Ports** 4 x RS232/422/485, DB9, 50 ~ 115.2kbps (Isolation Protection 1500V$_{DC}$)
- **LAN Ports** 2 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000BASE-T Fast Ethernet
- **USB Ports** 4 x USB Ports (3 x USB2.0, 1 x USB 3.0)
- **Isolated DIO** 4-ch digital input (Default contact)
  4-ch digital output (2500 V$_{DC}$)
- **Displays** 1 x DP, supports 2560 x 1440 @ 60Hz
  1 x HDMI, supports 1920 x 1080 @ 60Hz
- **Power Connector** 1 x 2 Pins, Terminal Block
- **Grounding Protection** Chassis Grounding

Environment

- **Operating Temperature** - 20 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH with 0.7m/s airflow (Industry SSD)
- **Storage Temperature** - 40 ~ 85°C (-40 ~ 185°F)
- **Relative Humidity** 95% RH @ 40°C, non-condensing
- **Shock Protection** Operating, IEC 60068-2-27, 50G, half sine, 11ms
- **Vibration Protection** Operating, IEC 60068-2-64, 1Grms, random, 5 ~ 500Hz, 1 hr/axis
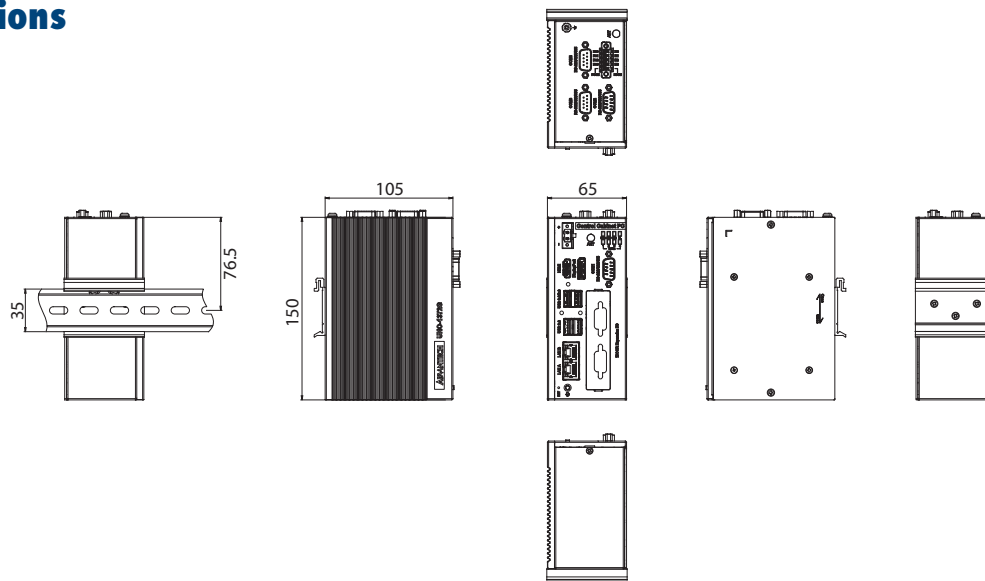- **Ingress Protection** IP40

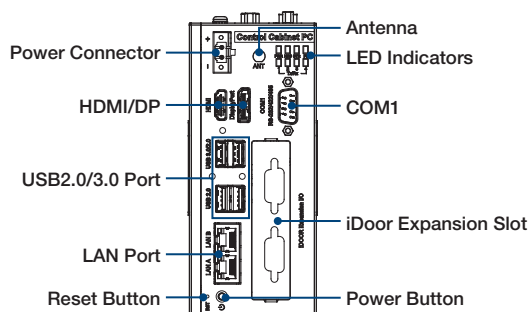## Installation Scenario

DIN-rail mounting illustration

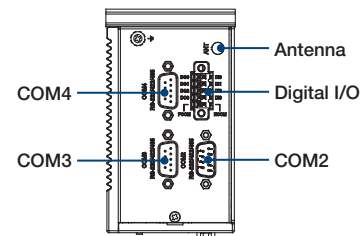## Dimensions

Unit: mm

105

65

76.5

35

150

Front I/O View

Power Connector
Antenna
LED Indicators
HDMI/DP
COM1
USB2.0/3.0 Port
iDoor Expansion Slot
LAN Port
Reset Button
Power Button

Top I/O View

COM4
Antenna
Digital I/O
COM3
COM2

Ordering Information

- **UNO-1372G-J021AE** Intel Celeron J1900, 2GHz, 4GB DDR3L, 2 x LAN, iso. 4 x COM, 4 x USB, iso. 4 DI/4DO, iDoor

iDoor Modules

- **PCM-23C1CF-BE** 1 CFast Slot with Cover Protection
- **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, 2-in-1, Full-size mPCIe w/ Redundant SIM Card holder, 2-port SMA
- **PCM-26R2PN-MAE** 2-Port Hilscher netX100 FieldBus mPCIe, PROFINET, RJ45, Master
- **PCM-26R2PN-SAE** 2-Port Hilscher netX100 FieldBus mPCIe, PROFINET, RJ45, Slave
- **PCM-26D1DB-MAE** 1-Port Hilscher netX100 FieldBus mPCIe, PROFIBUS, DB9, Master
- **PCM-26D1DB-SAE** 1-Port Hilscher netX100 FieldBus mPCIe, PROFIBUS, DB9, Slave

Optional Accessories

Adapter & Power cable

- **PWR-247-CE** A/D 100-240V 60W 24V (Commercial 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)

DIN-Rail Power Supply

- **UNO-IPS2460-AE** 60Watts Compact Size DIN-Rail Power Supply

Embedded O/S

- **20703WE7PS0001** Img WS7P x64 MUI v4.18 B010 UNO-1372G-J0xxAE
- **20703LUB1S0002** Image AdvLinuxTu V1.0.6 x86 for UNO-1372G-J0xxAE
- **20703LUB1S0003** Image AdvLinuxTu V1.0.6 x64 for UNO-1372G-J0xxAE
- **20703WE7PS0012** Img WS7P x86 MUI V4.18 B022 for UNO-1372G-J0xxAE
- **20703WX6HS0014** Img WIN10 LTSB v6.03 B003 UNO-1372G-J0xxAE
- **20703WX9ES0004** Img W10 LTSC V6.04 B016 UNO-1372G-J0xxAE Entry

UNO-1372GH

Class I, Division 2 Certified Intel® Atom™ Quad-Core Control DIN-rail PC

NEW

Features

- UL listed for hazardous locations: Class I, Division 2
- Intel® Atom E3845 1.91GHz processor with 4GB DDR3L memory
- 3 x GbE, 3 x USB, 2 x COM, 1 x VGA, 1 x HDMI, audio, iDoor, mSATA, 2 x mPCIe, 1 x SATA, 4 x DI, 4 x DO, 1 x power terminal
- Spark-free design with lockable I/O kit
- Dual power input for avoiding power down time
- Exchangeable RTC battery with easy access on the top
- Digital I/O with isolation protection for sensing and controlling
- Diverse system IO and supports fieldbus protocol by idoor technology as a protocol gateway
- 3G/GPS/GPRS/Wi-Fi communication by idoor technology as a communication gateway
- Supports MRAM by iDoor technology
- LAN redundancy (teaming)

Introduction

In hazardous locations, devices are under potential danger from flammable gases, combustible dust, or ignitable fibers, creating the potential for fire and explosions. The UNO-1372GH is designed to be safely operated in these locations and are UL listed for Hazardous Locations with Class I, Division 2, groups A, B, C, D T4A certification. The UNO-1372GH is an Intel Atom DIN-rail PC which features an innovative iDOOR Technology for automation applications. It provides rich I/O include 3 x GbE, 3 x USB, 2 x COM, 1 x VGA, 1 x HDMI, Audio, iDoor,8 x DIO, all of them can be locked to make sure they are spark-free in harsh environments.

Specifications

General

- **Certification**: CE, FCC, UL, CCC, BSMI
  Class I, Division 2, Groups A,B,C,D, Hazardous Location, Temperature code: T4A, Ambient Temperature Range: -20°C - 60°C
- **Dimensions (W x D x H)**: 85 x 139 x 152 mm (3.3" x 5.5" x 6.0")
- **Form Factor**: Small Size
- **Enclosure**: Aluminum Housing
- **Mounting**: DIN-rail, Wallmount
- **Weight (Net)**: 1.6kg (3.5lbs)
- **Power Requirement**: 9~36V_{DC} (Recommend 12/24 V_{DC})
- **Power Consumption**: 24W (Typical), 50W (Max)
- **OS Support**: Microsoft® Windows 7/8, WES7, WIN10 Ent. LTSB, AdvLinux

System Hardware

- **BIOS**: AMI UEFI 128Mbit Flash BIOS
- **Watchdog Timer**: Programmable 255 levels timer interval, from 1 to 255 sec
- **Processor**: Intel Atom E3845 1.91GHz, 2MB L2 Cache
- **System Chip**: Integrated Intel SoC Chipset
- **Memory**: Built-in 4GB DDR3L 1333 MHz (Up to 8GB)
- **Graphics Engine**: Intel® HD Graphics
- **Ethernet**: LAN A, B: Intel® i210-IT GbE, 802.1Qav, 802.1AS, 802.3az
  LAN C: Realtek RTL8111E GbE
- **LED Indicators**: LEDs for Power, battery, LAN (Active, Status), COM (Tx/ Rx), HDD and Programmable LED
  1 x mSATA
- **Storage**: One drive bay for SATA 2.5" HDD (Compatible with 9.5mm height HDD)
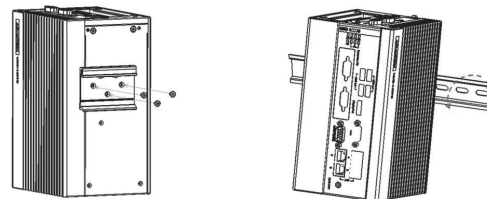- **Expansion**: 2 x Full-size mPCIe slot

I/O Interfaces

- **Serial Ports**: 1 x RS-232, DB9, 50~115.2kbps
  1 x RS-422/485, DB9, auto flow control, 50~115.2kbps
- **LAN Ports**: 3 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000BASE-T Fast Ethernet
- **USB Ports**: 3 x USB Ports (2 x USB2.0, 1 x USB 3.0)
- **Isolated DIO**: 4-ch digital input, 4-ch digital output (2500 V_{DC})
- **Displays**: 1 x VGA, supports 1920 x 1080 @ 60Hz 24bpp
  1 x HDMI 1.4a, supports 1920 x 1080 @ 60Hz 24bpp
- **Audio**: Line-Out
- **Power Connector**: 1 x 4 Pins, Terminal Block to support dual power input
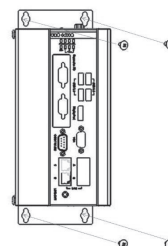
Environment

- **Operating Temperature**: - 20 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH with 0.7m/s airflow (Industry SSD)
- **Storage Temperature**: - 40 ~ 85°C (-40 ~ 185°F)
- **Relative Humidity**: 95% RH @ 40°C, non-condensing
- **Shock Protection**: Operating, IEC 60068-2-27, 50G, half sine, 11ms
- **Vibration Protection**: Operating, IEC 60068-2-64, 5Grms, random, 5 ~ 500Hz, 1 hr/axis
- **Ingress Protection**: IP40

Installation Scenario
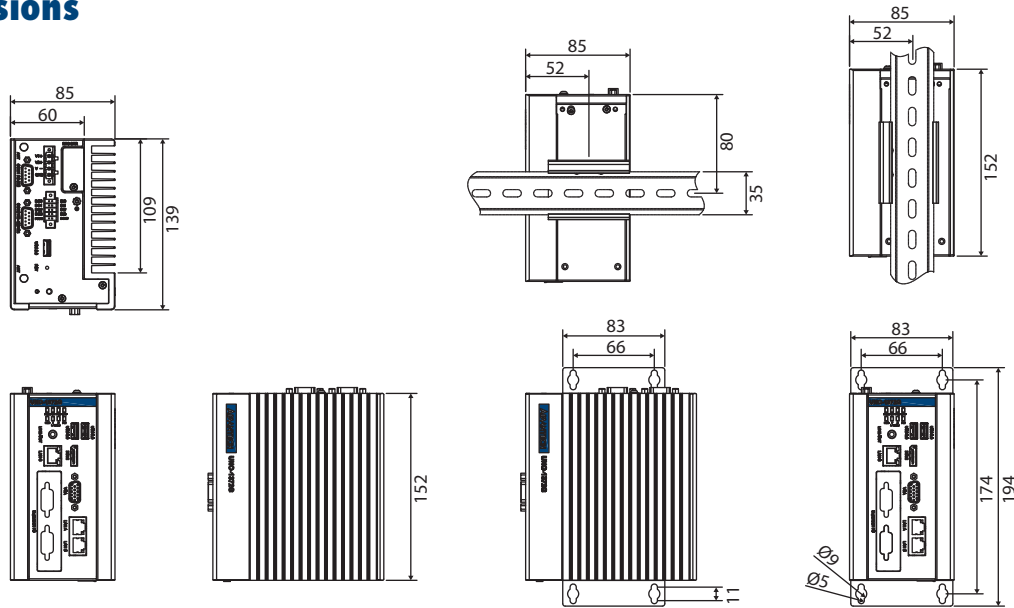
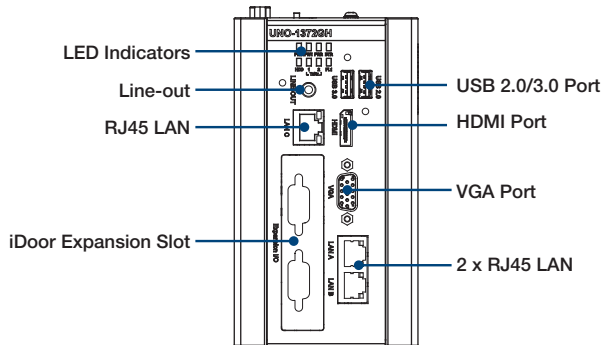### DIN-rail mounting illustration
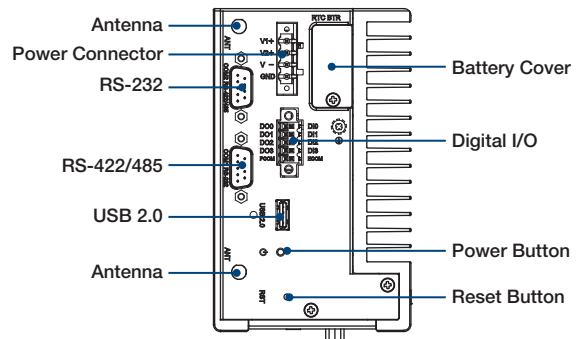

Wall mounting illustration

Dimensions

Unit: mm

Front I/O View

- LED Indicators
- Line-out
- RJ45 LAN
- iDoor Expansion Slot
- USB 2.0/3.0 Port
- HDMI Port
- VGA Port
- 2 x RJ45 LAN

Top I/O View

- Antenna
- Power Connector
- RS-232
- RS-422/485
- USB 2.0
- Antenna
- Battery Cover
- Digital I/O
- Power Button
- Reset Button

Ordering Information

- **UNO-1372GH-E3AE** Class I, Division 2 Certified Intel Atom Quad-Core 1.91GHz, 4GB, 3 x LAN, 2 mPCIe, iDoor

iDoor Modules

- **PCM-23C1CF-BE** 1 CFast Slot with Cover Protection
- **PCM-23U1DG-BE** USB Slot w/ Lock for USB Dongle
- **PCM-24R2GL-AE** 2-Port Gigabit Ethernet, mPCIe, RJ45
- **PCM-24U2U3-AE** 2-Port USB 3.0, mPCIe, USB-A type
- **PCM-24D2R4-BE** 2-Port Isolated RS-422/485 mPCIe, DB9
- **PCM-24D4R4-BE** 4-Port Non-Isolated RS-422/485 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, 2-in-1, Full-size mPCIe w/ Redundant SIM Card holder, 2-port SMA
- **PCM-26R2PN-MAE** 2-Port Hilscher netX100 FieldBus mPCIe, PROFINET, RJ45, Master
- **PCM-26R2PN-SAE** 2-Port Hilscher netX100 FieldBus mPCIe, PROFINET, RJ45, Slave
- **PCM-26D1DB-MAE** 1-Port Hilscher netX100 FieldBus mPCIe, PROFIBUS, DB9, Master
- **PCM-26D1DB-SAE** 1-Port Hilscher netX100 FieldBus mPCIe, PROFIBUS, DB9, Slave

Optional Accessories

- **PWR-247-CE** ADP A/D 100-240V 60W 24V (Commercial 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-IPS2460-AE** 24 V_{DC}/ 60 Watts DIN-Rail Power Supply

Embedded O/S

- **2070014956** Image Win10 Enterprise 2016 LTSB X64 MUI for UNO-1372G
- **2070014549** Image AdvLinuxTU for UNO-1372G
- **2070014098** Image WEC7 MUI for UNO-1372G
- **20703WE7PS0010** Img WS7P X64 MUI V4.18 B024 for UNO-1372G
- **20703WE7PS0011** Img WS7P X86 MUI V4.18 B021 for UNO-1372G

UNO-1483G

Intel® Core™ i Regular-Size DIN-rail Controller w/ 4 x GbE, 3 x mPCIe, 1 x PCIe, DP, VGA, 4 x DI, 4 X DO

NEW

Features

- 4th Generation Intel® Core™ i processors 1.7GHz with 8GB DDR3L memory
- 4 x GbE, 4 x USB 2.0/3.0, 1 x RS-232, 2 x RS-422/485, 1 x VGA, 1 x DP, audio
- Compact with fanless design
- Supports PCIe card, PoE iDoor module and digital I/O for machine motion/vision application
- Dual power input and remote power button for avoiding power down time and remote power control
- 3G/GPS/GPRS/Wi-Fi communication by iDoor technology
- Supports MRAM by iDoor technology
- Hot-Swap RTC battery with easily access at top side
- Supports Fieldbus protocol by iDoor technology

iDoor | SUSIAccess | RoHS COMPLIANT 2002/95/EC | CCC | CE | FCC | c(UL)us LISTED E190881 I.T.E.

Introduction

The UNO-1483G is an Intel 4th generation Core i3 DIN-rail controller. This controller features dual power inputs that shorten down time and enhance operation excellence. The general purpose input/output ports also help machine builders integrate direct control of start/stop inspections and indicate inspection results. UNO-1483G is also equipped with PCIe slot and Advantech iDoor technology that extend this product to applications such as motion controller, or isolation control unit using iDoor modules. A UNO-1483G fitted with 4 gigabyte LAN, 2 USB 3.0, 3 COM, DP, and VGA provides essential upstream and downstream links. PoE, for example, can be connected to an IP camera using iDoor.

Specifications

General

- **Certification** CE, FCC, UL, CCC, BSMI
- **Dimensions (W x D x H)** 106 x 139 x 198 mm (4.2" x 5.8" x 7.8")
- **Form Factor** Regular Size
- **Enclosure** Aluminum Housing
- **Mounting** DIN-rail, Wallmount
- **Weight (Net)** 2.4kg (5.3lbs)
- **Power Requirement** 12V/24V$_{DC}$ ± 20%
- **Power Consumption** 40W (Typical), 55W (Max)
- **OS Support** Microsoft® Windows 7/8, WES7, WIN10 Ent. LTSB, AdvLinux

System Hardware

- **BIOS** AMI UEFI 128Mbit Flash BIOS
- **Watchdog Timer** Programmable 255 levels timer interval, from 1 to 255 sec
- **Processor** Intel® 4th Gen. Core™ i3-4010U ULT 1.7GHz Haswell Dual Core, 3MB L2
  Core i7-4650U/i5-4300U/Celeron 2980U by project
- **System Chip** Integrated Intel 8 Series Chipset
- **Memory** Built-in 8GB DDR3L 1600 MHz
- **Graphics Engine** Intel® HD Graphics 4400
- **Ethernet** LAN B/C/D: Intel® i210-IT GbE
  LAN A: Intel® i218-LM GbE
- **LED Indicators** LEDs for Power, battery, LAN (Active, Status), COM (Tx/Rx) and HDD
  1 x mSATA
- **Storage** One drive bay for SATA 2.5" HDD (Compatible with 9.5mm height HDD)
- **Expansion** 1 x Full-size mPCIe slot, mPCIe 2.0
  1 x Half-size mPCIe slot w/ PCIe signal
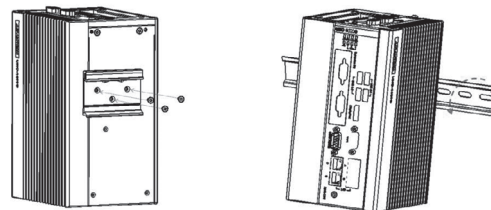 1 x PCIex1 slot

I/O Interfaces

- **Serial Ports** 1 x RS-232, DB9, 50~115.2kbps
  2 x RS-422/485, DB9, auto flow control, 50~115.2kbps
- **LAN Ports** 4 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000BASE-T Fast Ethernet
- **USB Ports** 4 x USB Ports (2 x USB2.0, 2 x USB3.0)
- **Isolated DIO** 4-ch digital input,(Wet/dry contact
  4-ch digital output (2500 V$_{DC}$)
- **Displays** 1 x VGA, supports 1920x1080@60Hz 24bpp
  1 x DP 1.2, supports 1920x1080@60Hz 24bpp
- **Audio** Line-Out
- **Power Connector** 1 x 7 Pins, Terminal Block to support dual power input and remote power control
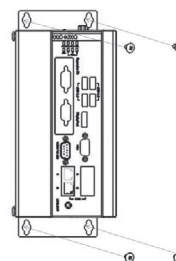
Environment

- **Operating Temperature** - 20 ~ 60°C (-4 ~ 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, 1Grms, random, 5 ~ 500Hz, 1 hr/axis

Installation Scenario
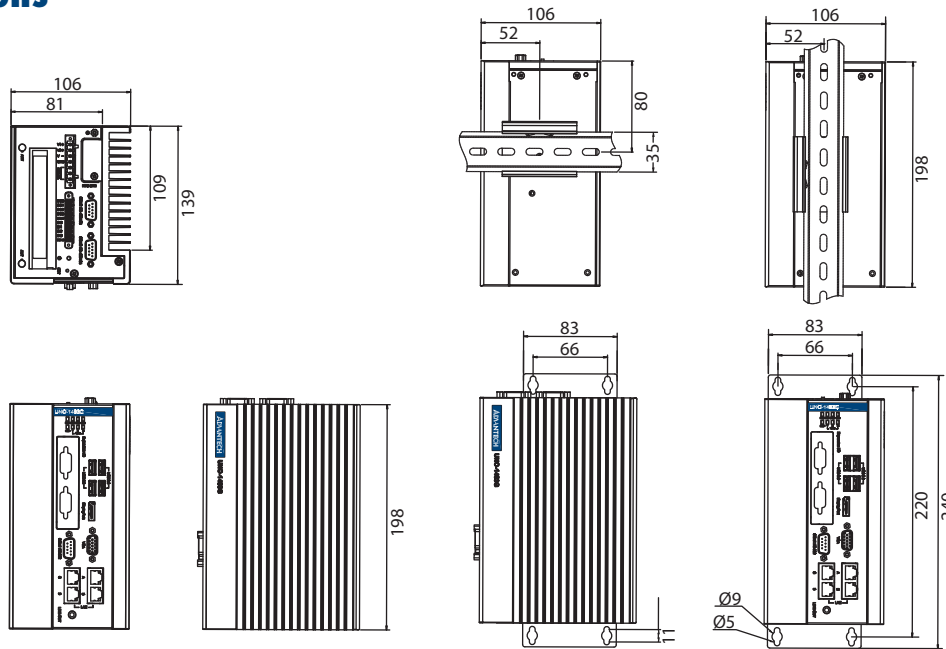
DIN-rail mounting illustration
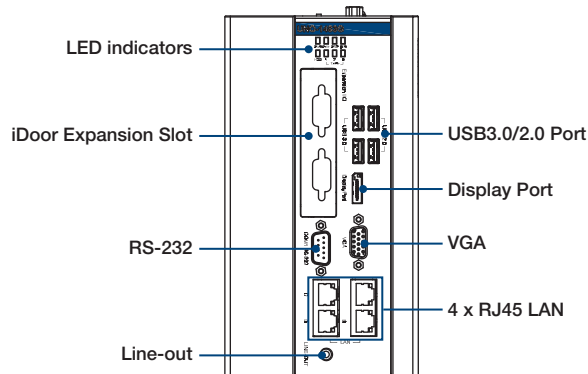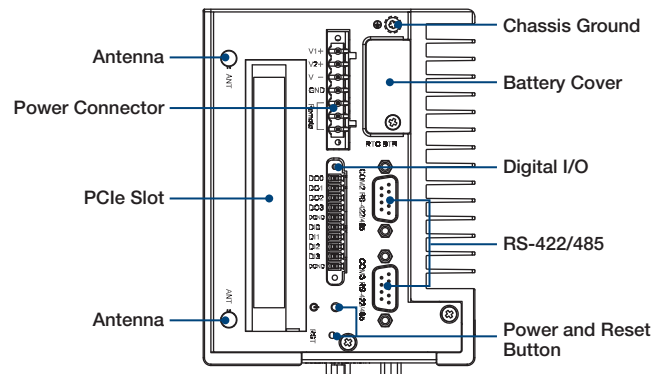

Wall mounting illustration

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All product specifications are subject to change without notice.   Last updated: 28-Jun-2019

Dimensions

Unit: mm

Front I/O View

- LED indicators
- iDoor Expansion Slot
- RS-232
- Line-out
- USB3.0/2.0 Port
- Display Port
- VGA
- 4 x RJ45 LAN

Top I/O View

- Antenna
- Power Connector
- PCIe Slot
- Antenna
- Chassis Ground
- Battery Cover
- Digital I/O
- RS-422/485
- Power and Reset Button

Ordering Information

- **UNO-1483G-434AE**   Intel® Core™ i3-4010U ULT 1.7GHz, 8GB, 4 x LANs, 2 x mPCIe, 1 PCIe Slot

Note: Processor i7-4650U/i5-4300U/Celeron 2980U reserved for project

iDoor Modules

- **PCM-24R2PE-AE**   Intel i350, GbE, PoE IEEE 802.3af, PD, RJ45 x 2
- **PCM-24U2U3-AE**   2 port USB 3.0 mini card
- **PCM-2300MR-AE**   MR4A16B, 2MByte
- **PCM-26D2CA-AE**   SJA1000 CANbus, CANopen, DB9 x 1
- **PCM-24D2R4-BE**   OXPCIe-952 UART, Isolated RS-422/485, DB9 x 2
- **PCM-24S2WF-BE**   WiFi 802.11 ac/a/b/g/n 2T2R w/Bluetooth 4.1
- **PCM-24S33G-AE**   63.75G HSPA and GPS, Dual SIM card slots

Optional Accessories

- **96PSA-A120W19T2**   AC to DC 100-240V 120W 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

Embedded O/S

- **2070013219**   Image Linux for UNO-1483G
- **207UNWX5VS0000**   Image WIN10 2016 LTSB v6.01 B060 for UNO-1483G
- **20703WE7PS0013**   Img WS7P x64 MUI V4.18 B026 UNO-1483G-43xAE
- **20703WE7PS0014**   Img WS7P x86 MUI V4.18 B023 UNO-1483G-43xAE