ESRP-RMM-UNO2372

Intel Atom/Celeron Small-Size Modular Box Platform with 2 GbE,4 USB, 4 COM, 2 mPCIe, HDMI, DP

Features

- Intel Atom E3845/Celeron® J1900 Quad-Core processors with 4G DDR3L memory
- Robust and cableless design with high stability
- 2 x GbE, 4 x USB, 4 x RS-232/422/485, 1 x HDMI, 1 x DP
- Modular design with flexibility to extend second stack for function enhancement
- Compact size with fanless design
- Rubber stopper design for stand mount and optional kit for DIN-rail mount, and VESA mount
- Optional 3G/GPS/GPRS/Wi-Fi communication
- Supports WISE-PaaS/DeviceOn and WISE-Marketplace

Introduction

The ESRP-RMM-UNO2372 edge intelligence computer is built to extend cloud intelligence and analytics to edge devices. ESRP-RMM-UNO2372 enables stream analytics, machine learning, image recognition, and high-value AI modules to be deployed from the Azure cloud to the edge in order to support diverse applications. All data are collected and delivered to the cloud by WISE-EdgeLink and secured by key encryption technology provided by the embedded security chip. With WISE-DeviceOn software, users are able to access manage the system remotely and deploy WISE-Marketplace I.App products.

WISE-DeviceOn Function Highlights

Device Management
- Remote Monitoring & Control
- Device Onboarding & Registration

Connectivity Service
- Industrial Protocol Connectivity
- Plug-n-Play Peripherals

System Security
- McAfee Application Control
- Acronis Backup Recovery

Edge Intelligence
- Real-Time Data Processing
- Data Analysis & Filtering

Cloud Integration
- Pre-Configured with Azure, Ali, AWS
- Data Intelligence & AI Enabling

WISE-Marketplace Integration
- Over 200+ I.App Offerings
- Easy to Purchase and Deploy

Specifications

General

Certification	CE, FCC, UL, CCC, BSMI
Dimensions (W x D x H)	Single stack: 150 x 105 x 35mm Double Stack: 150 x 105 x 65mm
Form Factor	Small Size
Enclosure	Aluminum Housing
Mounting	Stand, Wall, VESA (Optional), DIN-rail (Optional)
Weight (Net)	1.0kg (2.2lbs)
Power Requirement	10 - 36V_{DC}
Power Consumption	30W (Typical), 42W (Max)
OS Support	Windows 10 IoT Enterprise LTSC

System Hardware

BIOS	AMI UEFI64 Mbit
Watchdog Timer	Programmable 255 levels timer interval, from 1 to 255 sec
Hardware Security	TPM2.0 (UNO-2372G-J Series)
Processor	Intel® Atom Quad Core E3845 1.91GHz / Intel® Celeron® Quad Core J1900, 2GHz
Memory	Built-in 4GB DDR3L 1333MHz (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) and HDD
Storage	1 x mSATA with Built-in 120GB mSATA SATAIII 3DTLC SSD (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

I/O Interfaces

Serial Ports	4 x RS232/422/485, DB9, 50 ~ 115.2kbps
LAN Ports	2 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000BASE-T Fast Ethernet
USB Ports	1 x USB 3.0, 3 x USB 2.0 Compliant
Displays	1 x HDMI 1.4 (1920x1080@60Hz) 1 x DP 1.1 (2560x1600@60Hz)
Power Connector	1 x 2 Pins, Terminal Block

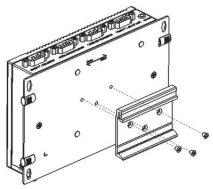
Environment

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, 2Grms, random, 5 ~ 500Hz, 1hr/axis (mSATA) Operating, IEC 60068-2-64, 0.75Grms, random, 5 ~ 500Hz, 1hr/axis (HDD)
Ingress Protection	IP40

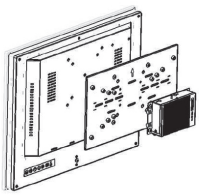
研佳科技 15323276600

Installation Scenario

DIN-rail Mount Illustration



VESA Mount Illustration

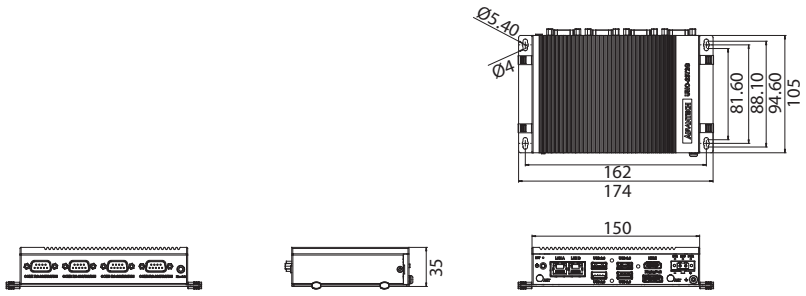


All product specifications are subject to change without notice.

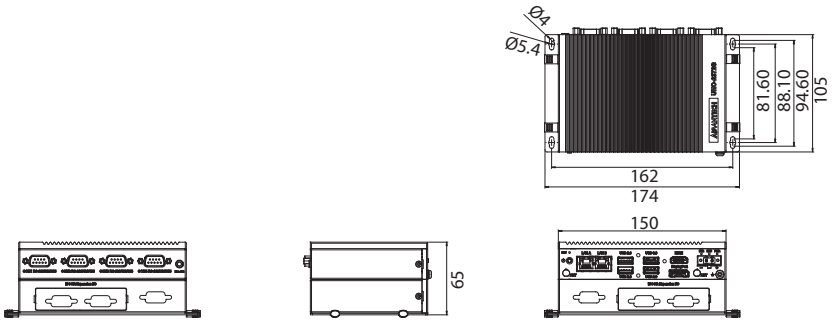
Dimensions

Unit: mm

Single Stack

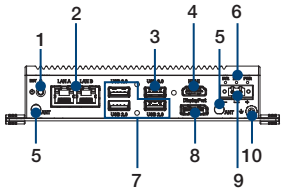


Dual Stack

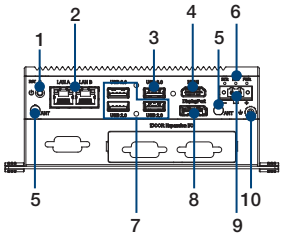


Front I/O View

Single Stack



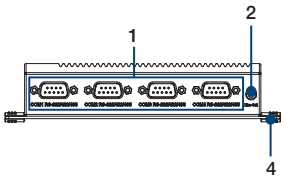
Dual Stack



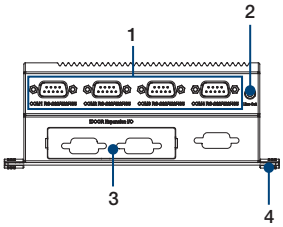
1. Power Button
2. RJ45 LAN
3. USB 3.0
4. HDMI
5. Reserved Antenna
6. BTR, HDD & PWR LED Lights
7. USB 2.0
8. DisplayPort
9. Power Connector
10. Chassis Grounding

Rear I/O View

Single Stack



Dual Stack



1. RS-232/422/485
2. Line Out
3. iDoor Expansion Slot
4. Rubber Stopper

Ordering Information

- **ESRP-RMM-UNO2372** UNO-2372G, 4G Memory, 120G SSD, Win10, DeviceOn

iDoor Modules

iDoor modules are supported by UNO-2372G-E022AE & UNO-2372G-J022AE.
(UNO-2372G-E021AE & UNO-2372G-J021AE can also support iDoor modules by adding 2nd stack extension kit UNO-2372G-EKBE)

- **PCM-24D2R2-BE** 2-Port Isolated RS-232 mPCIe, DB9
- **PCM-24D2R4-BE** 2-Port Isolated RS-422/485 mPCIe, DB9
- **PCM-24D4R2-BE** 4-Port Non-Isolated RS-232 mPCIe, DB37
- **PCM-24D4R4-BE** 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-24R1TP-AE** 1-Port Gigabit Ethernet, Intel® 82574L, mPCIe, RJ45
- **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

Contact Advantech for more compatible iDoor solutions

Optional Accessories

- **96PSA-A60W24T2** A/D 100-240V 60W 24V C14 Cord End Terminal Power Adapter
- **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
- **UNO-2000-LKAE** Cable lockable kit 10 units/per pack

Embedded OS

UNO-2372G-E0xxAE

- **20703WE7PS0002** WS7P X64 MUI V4.18 B007 image
- **20703WX6ES0003** WIN10ENT 2016LTSB v6.02B016 image
- **20703WX9ES0005** WIN10 2019 LTSC v6.04 B014 image

UNO-2372G-J0xxAE

- **20703WX6ES0003** WIN10LTSB v6.02 B016 image
- **20703WC70S0034** WEC7 MUI V4.02 B116 image
- **20703WE7PS0019** WS7P x64 MUI V4.19 B009 image
- **20703WX9ES0005** WIN10 2019 LTSC v6.04 B014 image