UNO-2372V3

Small-Size Modular Embedded Box PC with Intel® Twin Lake N250

Features

- Intel® Twin Lake N250 quad-core processor with one DDR5 slot for memory
- Compact, robust, fanless and scalable system with high stability
- Optional second stack for supporting extension iDoor module, including wireless connectivity, industrial fieldbus and more I/O ports
- Supports NVME storage with high data-transmission efficiency

Introduction

Advantech's UNO-2000 series of embedded automation computers are highly rugged, fanless systems. The modular design offers vigorous computing performance and flexible scalability with various I/O ports to support IoT Connectivity. UNO-2372V3 features high processing capacity, 4K resolution display ports, optimized I/O ports, and expansion options to support wire/ wireless IoT edge data transmission and processing. With an optional second expansion stack which supports Advantech's iDoor technology, system functionalities can be easily extended to satisfy specific application requirements.

Specifications

General

- **Certification** CE, FCC, UL, CCC, BSMI
- **Dimensions (W x D x H)** 150 x 105 x 38 (5.9" x 4.2" x 1.5") for single stack
  150 x 105 x 75 (5.9" x 4.2" x 3") with second expansion stack
- **Form Factor** Small
- **Enclosure** Aluminum housing
- **Mount Options** Stand, Wall, VESA (optional), DIN rail (optional)
- **Weight (Net)** Single-stack: 0.8 kg (1.8 lb)
  Double-stack: 1.0 kg (2.2 lb)
- **Power Requirement** 10 ~ 36 V_{DC}
- **Power Consumption** 19W (Typical), 60W (Max)
- **OS Support** Microsoft® Windows 11 LTSC, Advantech Linux (Ubuntu 22.04)

Hardware

- **BIOS** AMI UEFI (64 Mbit)
- **Watchdog Timer** Programmable timer with 255 intervals (1 ~ 255 sec)
- **Hardware Security** TPM2.0
- **Processor** Intel Twin Lake N250
- **Memory** 1 x DDR5 SODIMM slot (support up to 16G RAM)
- **Graphics Engine** Intel® UHD Graphics
- **Ethernet** 2 x GbE LAN 10/100/1000/2500 Mbps (Intel i226v)
- **LED Indicators** Power, RTC battery, LAN (active, status), and HDD
- **Expansion/Storage** 1 x M.2 B key (3042,3052, PCIe Gen3 x1, USB 3.2/2.0, SATA 3.0)
  1 x M.2 M key (2242, NVMe, PCIe Gen3 x2)
  1 x M.2 E key (2230, PCIe Gen3 x1, USB2.0)
  1 x 2.5" SATA (Optional)
  1 x external Nano SIM card slot (4FF)

I/O

- **GPIO** 1 x GPIO 8 bit
- **Serial Ports** 2 x RS232/422/485, 50kbps~115.2kbps (COM1-2)
- **LAN** 2 x GbE LAN 10/100/1000/2500 Mbps (Intel i226v)
- **USB** Type-A: 2 x USB3.2 GEN 2, 1 x USB2.0
  Type-C: USB3.2 Gen 2, DP1.4a Alt mode (3840x2160@60Hz)
- **Displays** 1 x HDM I(1920x1080@60Hz),
  1 x DP 1.4a (3840x2160@60Hz)
- **Power Connector** 1 x 2-pin terminal block

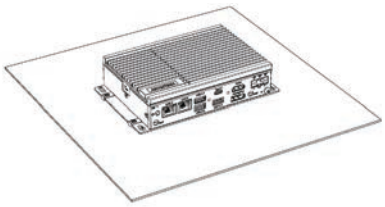
Environment

- **Operating Temperature** -20 ~ 60 °C/-4 ~ 140 °F with 0.7m/s airflow
- **Storage Temperature** - 40 ~ 85 °C/-40 ~ 185 °F
- **Relative Humidity** Operating, 95% RH @ 40° C, Non-Condensing
  Non-Operating, 95% RH @ 60° 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 (SSD)
- **Ingress Protection** IP40

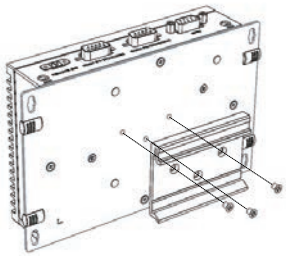
* A 2.5" SSD can be installed in the first or second deck, but installing it in the first stack will disable M.2 expansion
* Once a single-layer expansion is used for the Wireless module, storage can only be installed on the M key

Installation Scenario

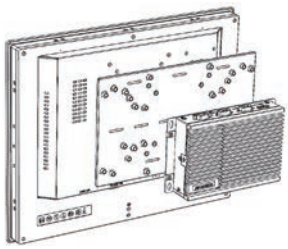
Stand/Wall Mount



DIN-Rail Mount (Optional)



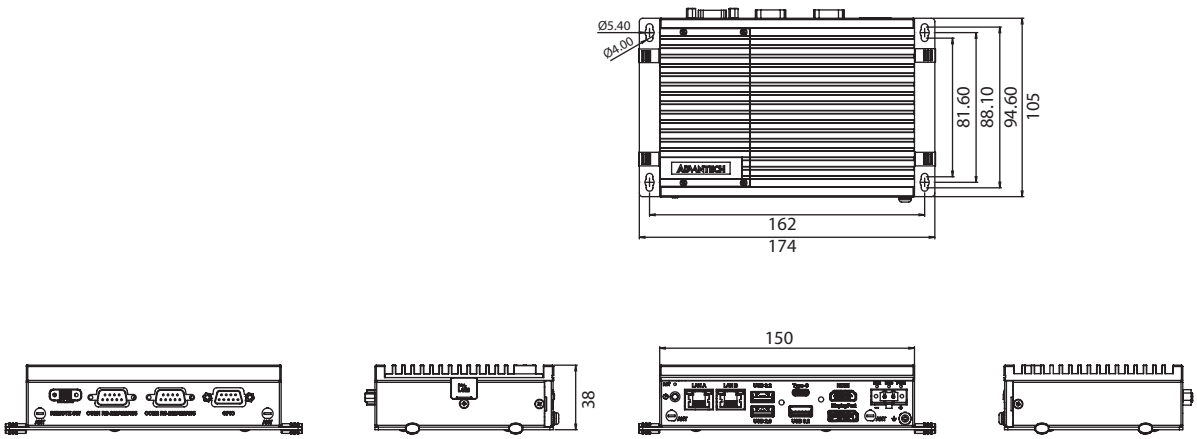
VESA Mount (Optional)



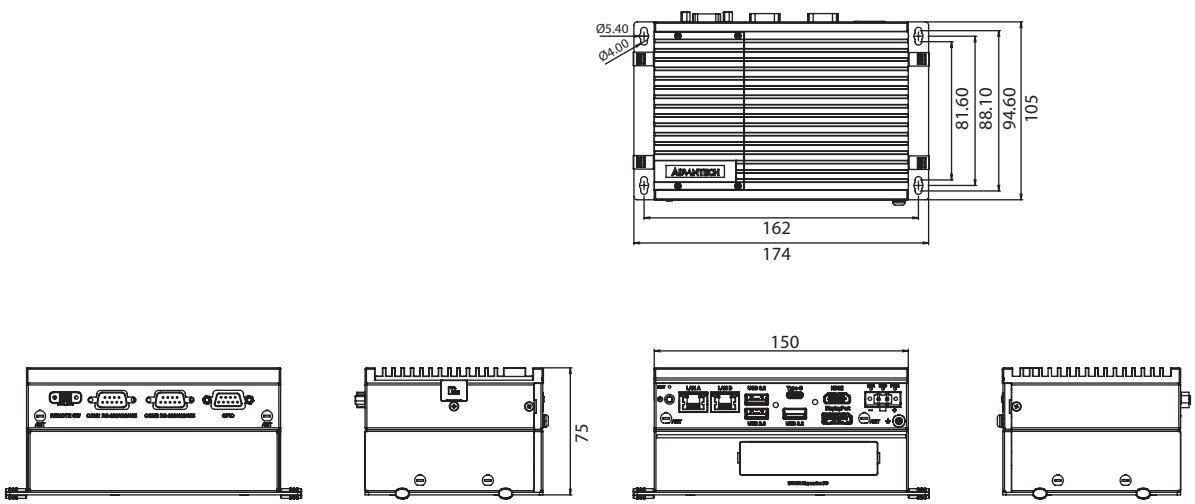
Dimensions

Unit: mm

Single stack



Double stack with with UNO-2372V3-EKA

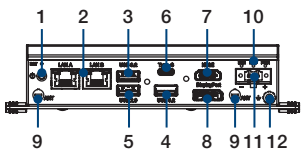


Ordering Information

Ordering P/N	CPU	Memory	M.2	iDoor	USB	COM	LAN	Antenna hole
UNO-2372V3-N2N1A	Twin Lake N250	1 x DDR5 SODIMM slot (support up to 16G RAM)	1 x M.2 B key (3052) 1 x M.2 M key (2242) 1 x M.2 E key (2230)	1 (with 2nd stack UNO-2372V3-EKA)	4	2	2	4

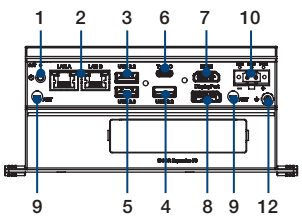
Front I/O

Single Stack



1. Power button
2. RJ45 LAN
3. 1 x USB 3.2
4. 1 x USB 3.2
5. 1 x USB 2.0
6. USB Type-C

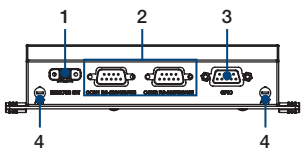
Double Stack



7. HDMI
8. DisplayPort 1.4
9. Reserved Antenna holes
10. Battery, HDD, Power LEDs
11. Power connector
12. Chassis grounding

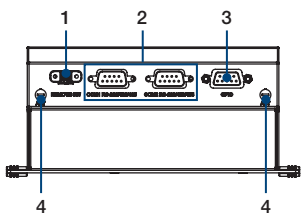
Rear I/O

Single Stack



1. Remote SW
2. RS-232/422/485

Double Stack



3. GPIO
4. Reserved Antenna holes

Optional Accessories

- **96PSA-A60W24T2-3** A/D 100 ~ 240V 60W 24V C14 cord end terminal power adapter
- **1702002600** Power cable, US plug, 1.8 m
- **1702002605** Power cable, EU plug, 1.8 m
- **1702031801-11** Power cable, UK plug, 1.8 m
- **1700000596-11** Power cable, China plug, 1.8 m
- **1702031836** Power cable, Australia plug, 1.8m
- **UNO-2000G-DMKAE** UNO-2000 DIN-rail kit
- **UNO-2000G-VMKAE** UNO-2000 VESA mount kit
- **UNO-2000-LKAE** Cable locking kit, 10 units per pack
- **1990029436N030** CPU Thermal Pad
- **1990042457N000** RAM Thermal Pad
- **1990042456N000** M.2 M key Thermal Pad
- **98R12372002** M.2 B Key Thermal kit
- **98R12372003** M.2 E Key thermal kit

*1x 1990042457N000 and 1x1990042456N000 already be included in default package

Embedded OS

- **TBC**

Please note: If some optional modules are offered with the system, additional system certificates may be required in certain regions/countries.
Please contact Advantech for certificate compliance.

Extended Module

UNO-2372V3-EKA

Second stack module for supporting 1*iDoor on UNO-2372V3

Specifications

General	
Ports	1 x iDOOR (Chassis only)
Dimensions	150 x 105 x 37 mm
Weight	200g
Antenna hole	4

Ordering Information

P/N	Description
UNO-2372V3-EKA	UNO-2372 V3 2nd stack expansion module

iDoor Modules

supporting by second extended stack

Compatible With M.2 B/M key Slot

- **PCM-34D2R2-AE** 2-Port Isolated RS-232, M.2 B key (2242, USB), DB9
- **PCM-34D2R4-AE** 2-Port Isolated RS-422/485, M.2 B key (2242, USB), DB9
- **PCM-34D4R2-AE** 4-Port Non-Isolated RS-232, M.2 B key (2242, USB), DB37 cable
- **PCM-34D4R4-AE** 4-Port Non-Isolated RS-422/485, M.2 B key (2242,USB), DB37 cable
- **PCM-34R1TP-AE** 1-Port 2.5Gigabit Ethernet, Intel® i225 B+M key (3042, PCIex1)
- **PCM-34R2GL-AE** 2-Port Gigabit Ethernet, Intel® I350, B+M Key (2242, PCIex1)
- **PCM-37D24DI-AE** 24ch Isolation Digital I/O, 16DI/ 8DO, DB37 x1, B+M Key (3042, PCIex1)