

USER'S MANUAL

H10 Series

Open Frame Touch Panel PC



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Prefaces

Revision

| Revision | Description | Date |
|----------|-----------------|------------|
| 1.0 | Manual Released | 2024/06/18 |

Disclaimer

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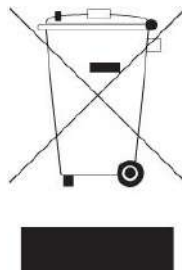
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Environmental Protection Announcement

Do not dispose this electronic device into the trash while discarding. Please recycle to minimize pollution and ensure environment protection.



Safety Precautions

Before installing and using the equipment, please read the following precautions:

- Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.
- The power outlet shall be installed near the equipment and shall be easily accessible.
- Turn off the system power and disconnect the power cord from its source before making any installation. Be sure both the system and the external devices are turned OFF. Sudden surge
- of power could ruin sensitive components. Make sure the equipment is properly grounded.
- When the power is connected, never open the equipment. The equipment should be opened only by qualified service personnel.
- Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
- Disconnect this equipment from the power before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
- Avoid the dusty, humidity and temperature extremes.
- Do not place heavy objects on the equipment.
- If the equipment is not used for long time, disconnect it from the power to avoid being damaged by transient over-voltage.
- The storage temperature shall be above -20°C and below 60°C .
- The computer is provided with a battery-powered real-time clock circuit. There is a danger of explosion if incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.
- If one of the following situation arises, get the equipment checked by service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated into the equipment.
 - The equipment has been exposed to moisture.
 - The equipment does not work well or it cannot work according the user's manual.
 - The equipment has been dropped and damaged.
 - The equipment has obvious signs of breakage.

Technical Support and Assistance

1. Visit the C&T Solution Inc website at <https://www.candtsolution.com/> where you can find the latest information about the product.
2. Contact your distributor, our technical support team or sales representative for technical support if you need additional assistance. Please have following information ready before you call:
 - Model name and serial number
 - Description of your peripheral attachments
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages

Conventions Used in this Manual



WARNING

This indication alerts operators to an operation that, if not strictly observed, may result in severe injury.



CAUTION

This indication alerts operators to an operation that, if not strictly observed, may result in safety hazards to personnel or damage to equipment.



NOTE

This indication provides additional information to complete a task easily.

Package Contents

Before installation, please ensure all the items listed in the following table are included in the package.

| Item | Description | Q'ty |
|------|--|------|
| 1 | HIO-200-ADL Series Open Frame Touch Panel PC | 1 |
| 2 | DC jack to S4P Power Cable | 1 |
| 3 | 128G M.2 B key SSD | 1 |
| 4 | 8GB DDR5 4800 MT/s | 1 |

Ordering Information

| Model No. | Description |
|---------------|--|
| 1-E09A06012 | Adapter Output 12V 5A 60W / Input 100-240V |
| 3-WIFI0701S10 | WIFI 6E Module KIT, Intel, 2T2R & BT 5.3 |
| 1-TCOM00041 | COM cable (CT-240125-01/CHEN PERNG) |
| 1-TUSB00066 | Dual USB 2.0 Cable (M-6133/CABLING) |

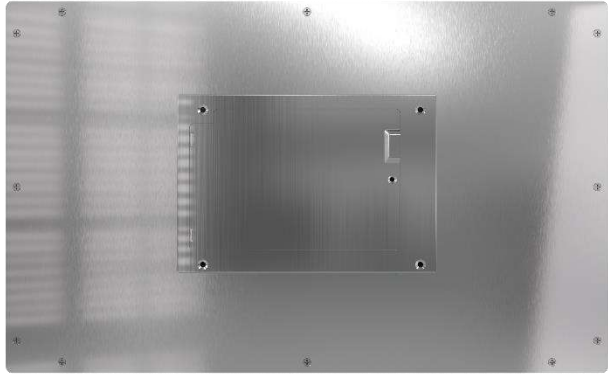
Available Models

| Model No. | Description |
|---------------|---|
| HIO-W210C-ADL | 10.1" WXGA Capacitive Open Frame Touch Panel PC with Intel® Alder lake N97 Processor |
| HIO-W215C-ADL | 15.6" Full HD Capacitive Open Frame Touch Panel PC with Intel® Alder lake N97 Processor |
| HIO-W221C-ADL | 21.5" Full HD Capacitive Open Frame Touch Panel PC with Intel® Alder lake N97 Processor |

Chapter 1

Product Introductions

1.1 Overview



Key Features

- 10.1" / 15.6" / 21.5" Open Frame Touch Panel PC
- World Class Certifications for Safety and Reliability: CE/FCC
- Front IP65 Rating for protection against water and dust
- Scratch Resistant 7H Glass Hardness
- Versatile Display Outputs; HDMI and DP
- MTBF Up to 30,000 Hours
- MTBF Up to 50,000 Hours (HIO-W221-ADL only)



1.2 Hardware Specification

| Display | HIO-W210-ADL | HIO-W215-ADL | HIO-W221-ADL |
|---------------------|--------------------------------|-----------------------------------|--------------------------------|
| LCD Size | 10.1" (16:10) | 15.6" (16:9) | 21.5" (16:9) |
| Max. Resolution | 1280 x 800 | 1920 x 1080 (FHD) | 1920 x 1080 (FHD) |
| Brightness (cd/m2) | 400 | 400 | 500 |
| Contrast Ratio | 800:1 | 800:1 | 1,000:1 |
| LCD Color | 16.7M | 16.7M | 16.7M |
| Pixel Pitch (mm) | 0.169(H) x 0.1695 (V) | 0.17925 (H) x 0.17925 (V) | 0.248 (H) x 0.248 (V) |
| Viewing Angle (H-V) | 89/89/89/89 (Typ.) (CR>=10) | 85 /85 /85 /85 (Typ.) (CR>=10) | 89/89/89/89 (Typ.) (CR>=10) |
| Backlight MTBF | 30,000 Hours | 30,000 Hours | 50,000 Hours |

Touch

- **Projected Capacitive**
HIO-W210C / HIO-W215C / HIO-W221C
- **Surface Hardness**
7H / IK07

System

- **Processor**
Intel® Processor N97 6M Cache,
up to 3.60 GHz
- **System Chipset** SoC integrated
- **LAN Chipset**
GbE1:
Intel I225-V (Support Wake-on-LAN and PXE)
GbE1:
Intel I225-V (Support Wake-on-LAN and PXE)
- **Audio Codec**
Realtek ALC897
- **System Memory**
Default 8GB DDR5 4800MT/s SODIMM
(up to 16GB)

BIOS

AMI uEFI 8Mbit SPI BIOS

Watchdog

Software Programmable Supports 1~255 sec.
System Reset

Storage

SSD/HDD

128G M.2 B Key SSD (Default)

Expansion

M.2

M.2 E Key Support WiFi 6e (Optional)

I/O

- **DisplayPort**
HDMI / DP / LVDS / eDP
- **COM**
2x RS-232/422/485 by internal cable
- **USB**
6x USB 2.0 by internal cable
4x USB 3.2 Gen 2
- **LAN**
2x 2.5G LAN
- **Audio**
1x Audio out
- **Others**
2x Pifa Antenna (optional)

Environment

- **Operating Temp**
-10°C to 50°C
- **Storage Temp**
-20°C to 60°C
- **Relative Humidity**
10% to 80% (non-condensing)
- **Certification**
CE, FCC Class A
- **Vibration**
IEC60068-2-64:2008
With SSD: 3 Grms (5 - 500 Hz, 0.5 hr/axis)
Designed to comply with MIL-STD-810G Method 514.7 Procedure I
- **Shock**
IEC60068-2-27:2008
With SSD: 20G half-sin 11ms
Designed to comply with MIL-STD-810G Method 516.7 Procedure I

Operating System

- **Windows**
Windows 10 / Windows 11
- **Linux**
Linux Ubuntu 22.04

Power

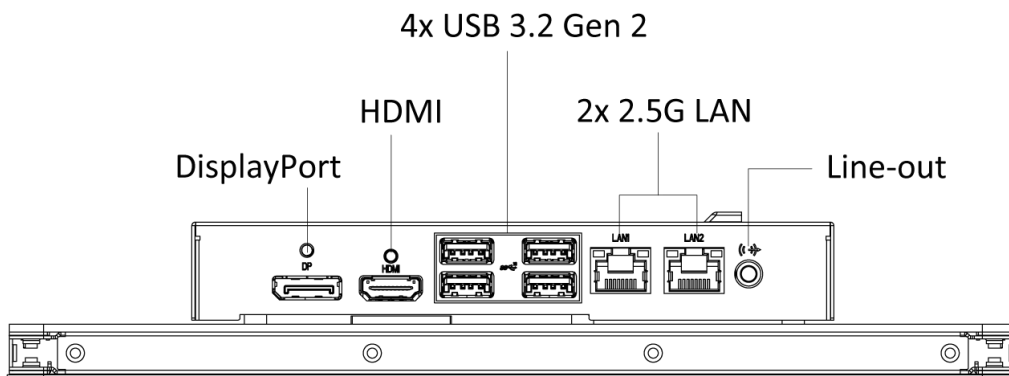
- **Power Adapter**
Optional 60W (12V 5A)
- **Power Supply Voltage**
DC 9~36V
- **Power Connector**
DC Jack 5.5mm/2.5mm

Physical

- **Dimension**
 1. HIO-W210-ADL :
252 (W) x 166 (H) x 39 (D) mm
 2. HIO-W215-ADL :
395 (W) x 245 (H) x 40 (D) mm
 3. HIO-W221-ADL :
533 (W) x 325 (H) x 46 (D) mm
- **Weight**
 1. AIO-W210 : 1.3 Kg
 2. AIO-W215 : 2.1 Kg
 3. AIO-W221 : 4.9 Kg
- **Mounting**
Open Frame Mount

1.3 System I/O

1.3.1 HIO-W210-ADL

**USB 3.2 Gen 2 port**

Used to connect USB 3.2 device

Line-out

Used to connect a speaker

LAN port

Used to connect the system to a local area network

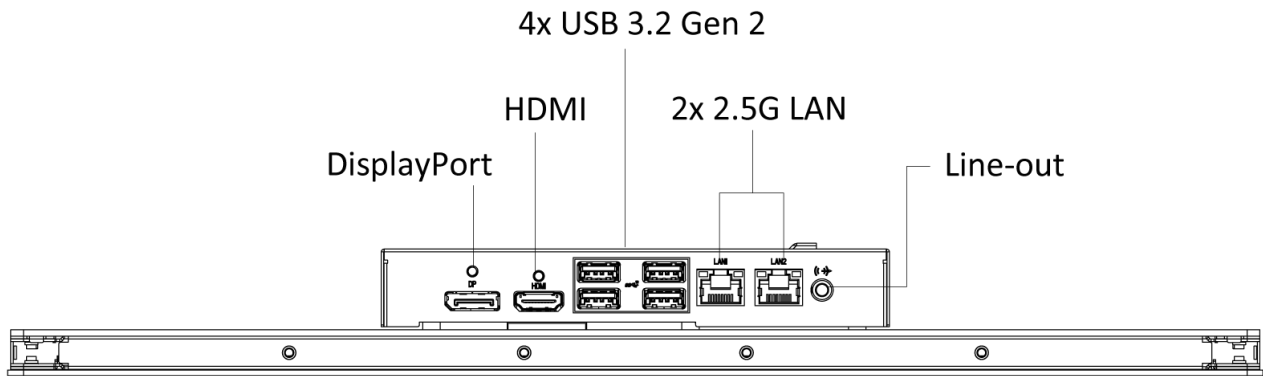
DisplayPort

Used to connect a DisplayPort monitor

HDMI

Used to connect a HDMI monitor

1.3.2 HIO-W215-ADL

**USB 3.2 Gen 2 port**

Used to connect USB 3.2 device

Line-out

Used to connect a speaker

LAN port

Used to connect the system to a local area network

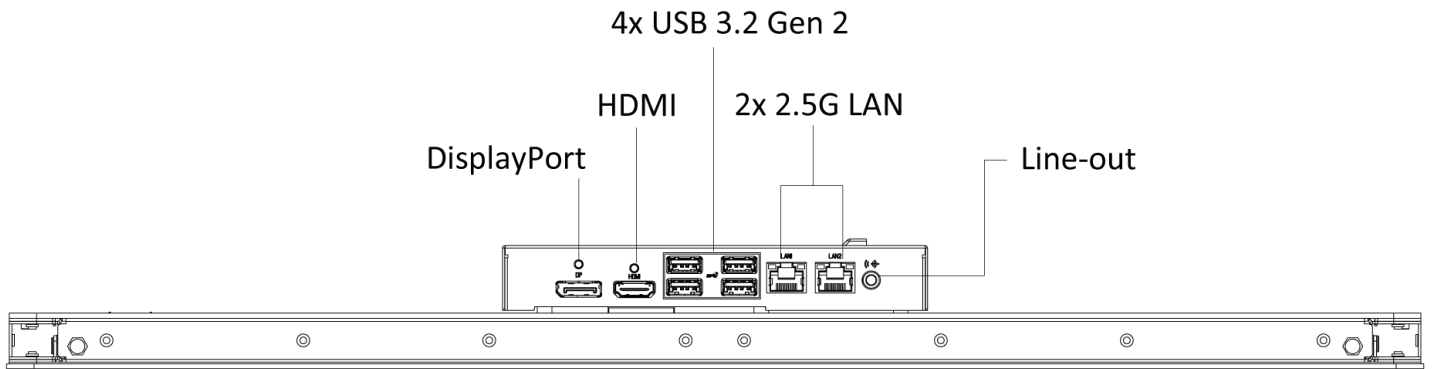
DisplayPort

Used to connect a DisplayPort monitor

HDMI

Used to connect a HDMI monitor

1.3.3 HIO-W221-ADL

**USB 3.2 Gen 2 port**

Used to connect USB 3.2 device

Line-out

Used to connect a speaker

LAN port

Used to connect the system to a local area network

DisplayPort

Used to connect a DisplayPort monitor

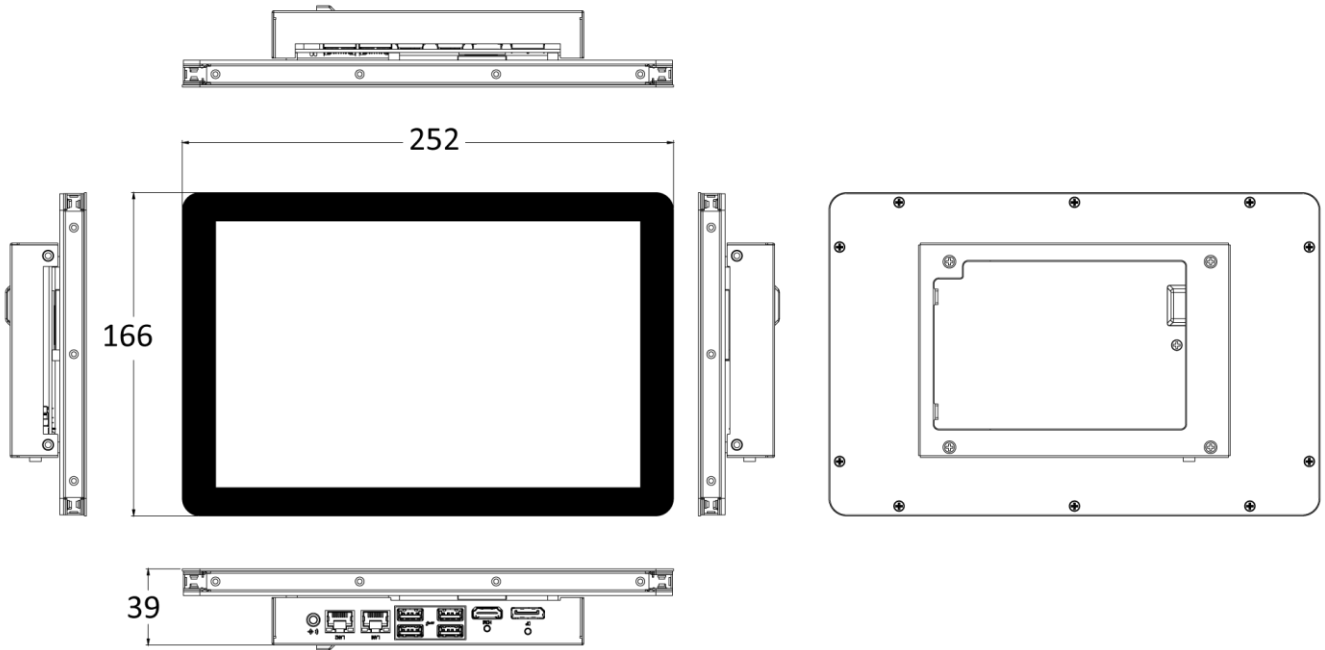
HDMI

Used to connect a HDMI monitor

1.4 Mechanical Dimensions

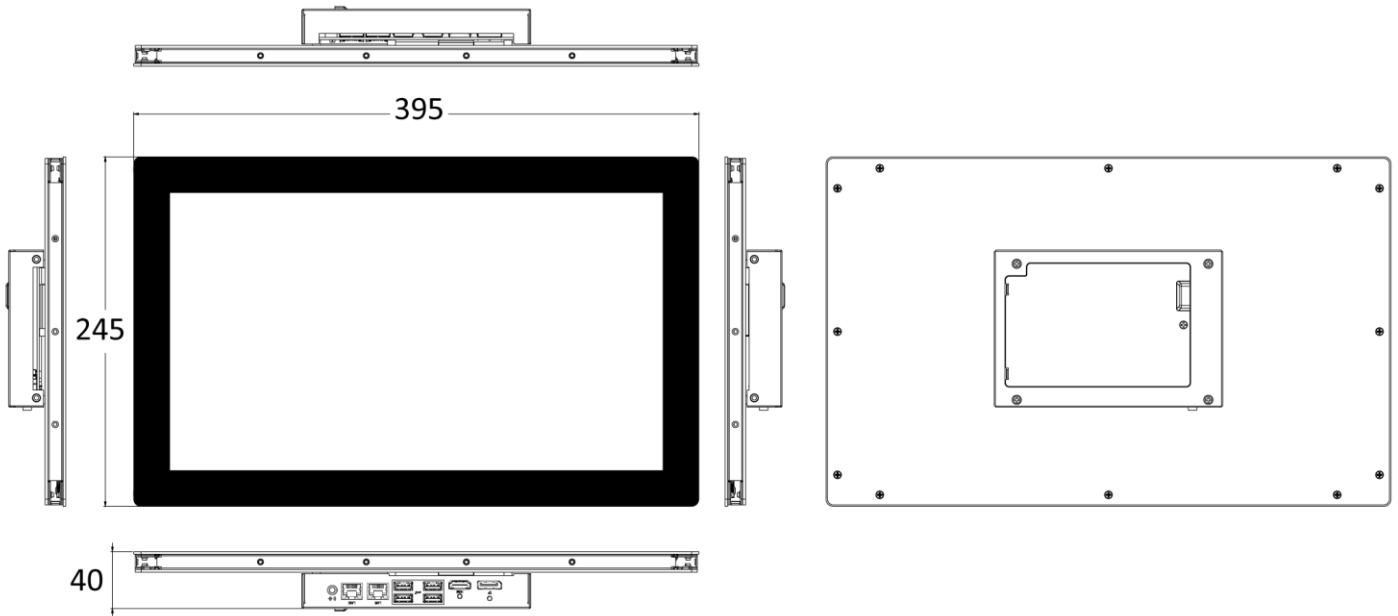
1.4.1 HIO-W210-ADL

Unit: mm



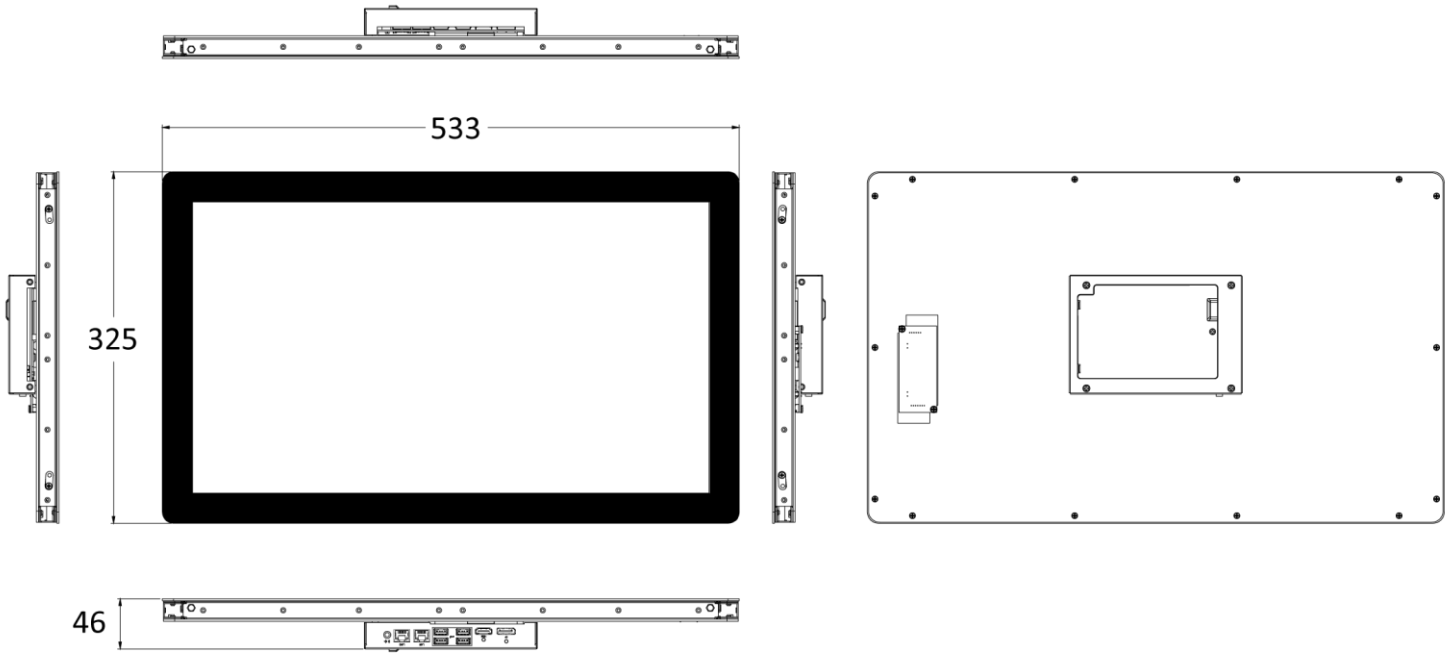
1.4.2 HIO-W215-ADL

Unit: mm



1.4.3 HIO-W221-ADL

Unit: mm



Chapter 2

System Setup

Set torque force to 3.5 kgf-cm to execute all the screwing and unscrewing.

2.1 Replacement of Internal Modules



WARNING

In order to prevent electric shock or system damage, before removing the chassis cover, must turn off power and disconnect the unit from power source.

1. Use a screwdriver to remove the screws securing the maintenance cover.

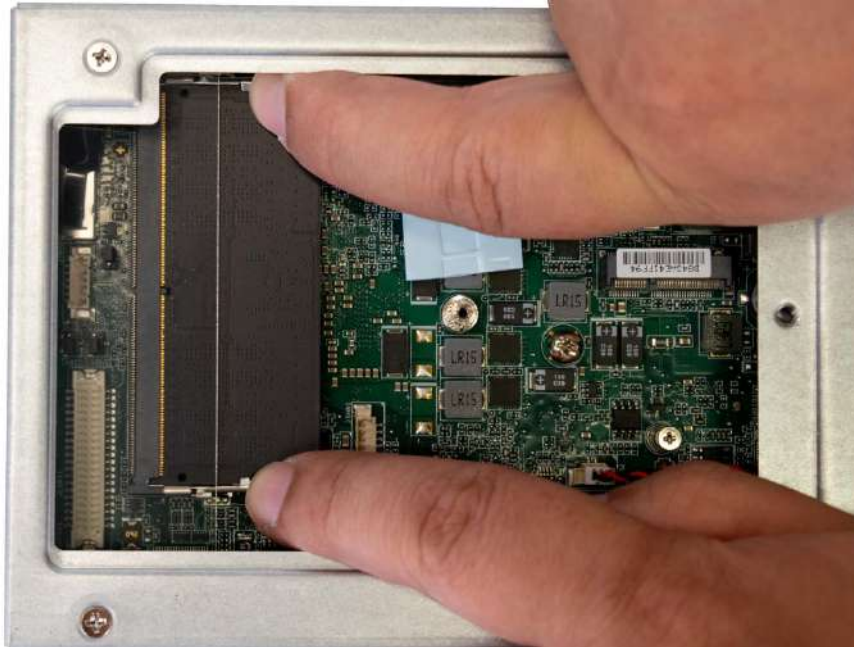


2. Pull the maintenance cover away from the main unit.

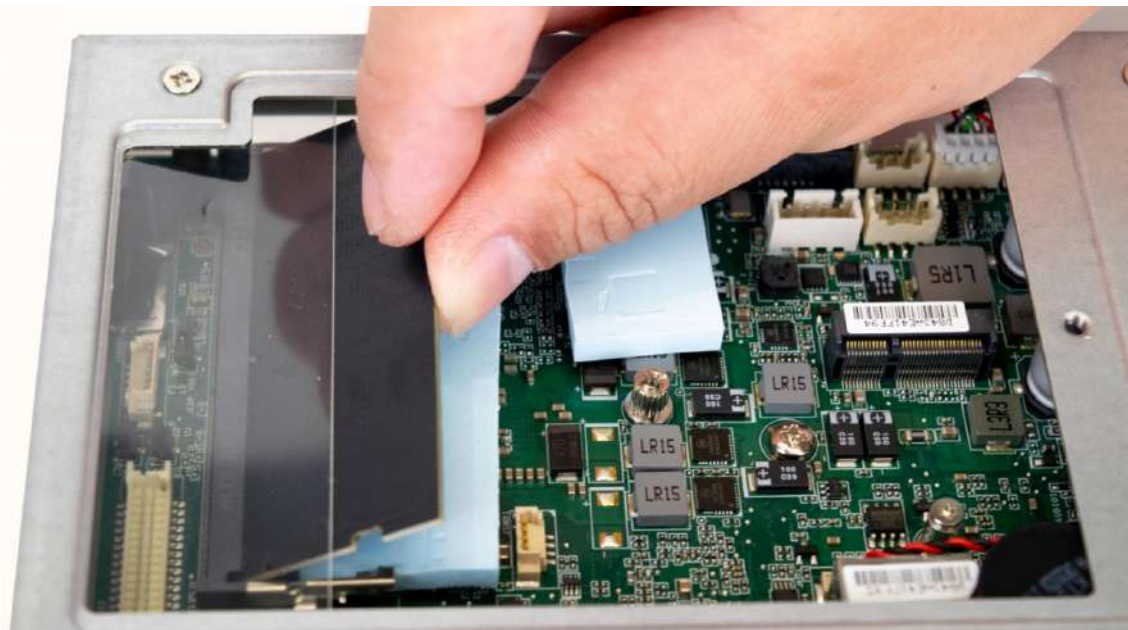


2.2 Replacement of Memory Module

1. Pull out the locking tabs on both sides of the memory slot to release the memory module, allowing it to pop out.

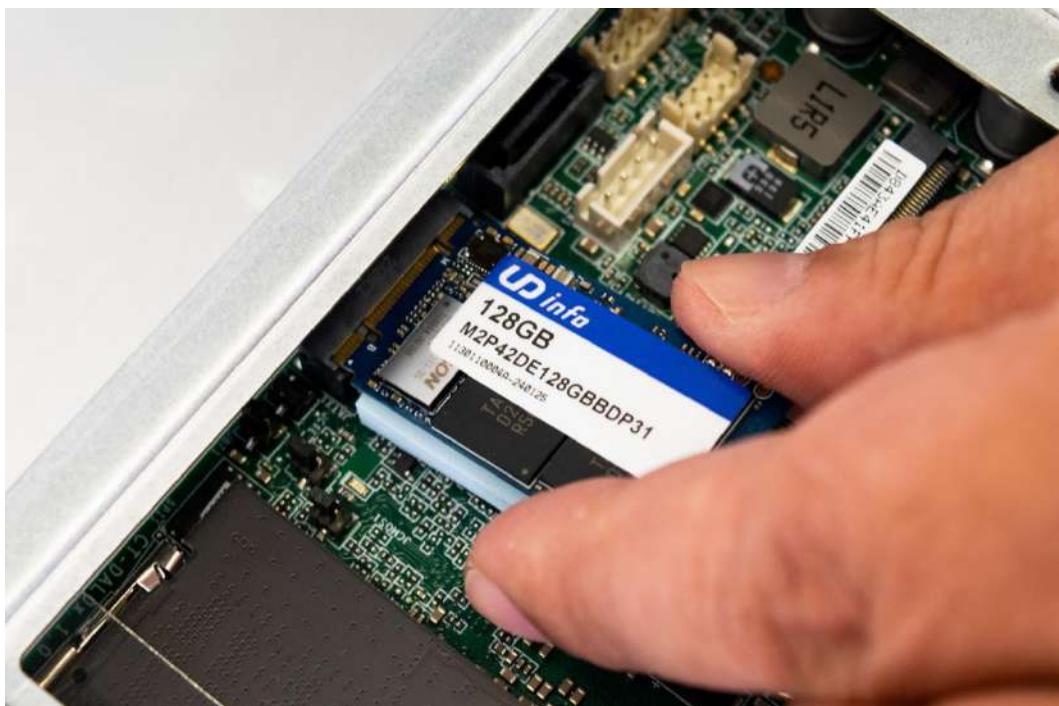


2. After the memory module pops up, pull it out. Carefully remove the thermal pad underneath the memory module.



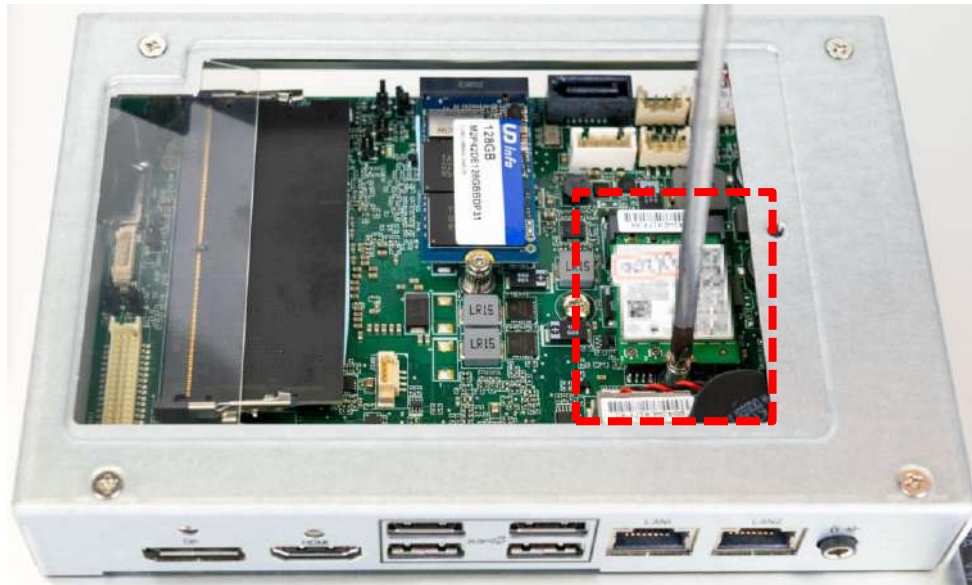
2.3 Replacement of M.2 Storage Module

Use a screwdriver to remove the single screw securing the M.2 card. After removing the M.2 card, carefully remove the thermal pad underneath.



2.4 Install wireless network card and antenna

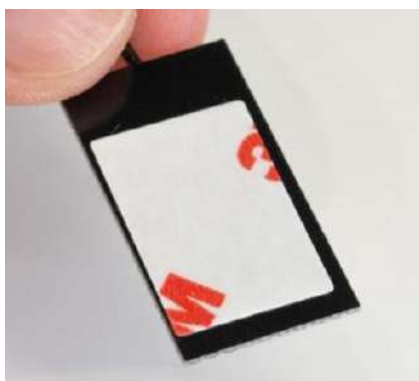
1. Install the network card in the designated red frame and secure it with screws.



2. Route the antenna cable out of the main unit and attach the antenna to a non-metallic surface away from the whole body. (Do not attach it on iron parts)

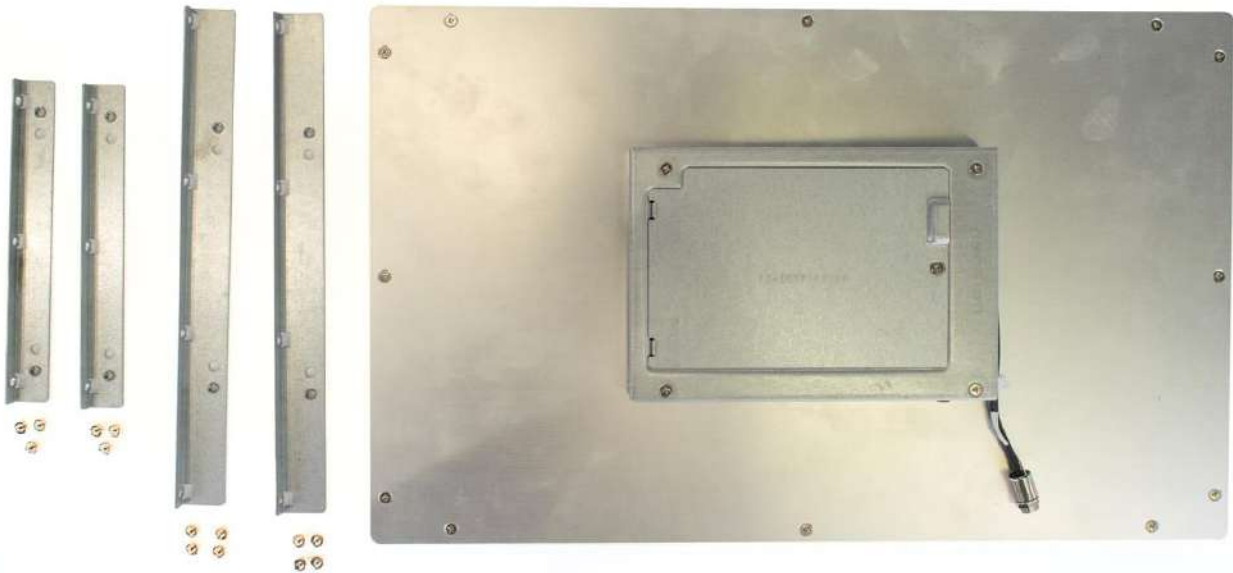


3. If it is necessary to attach the antenna to the main unit, ensure that at least half of the antenna's surface area is exposed and extends beyond any iron parts.



2.5 Install Wall Mount Bracket

1. Use the appropriate Wall mount bracket according to the model size



| Model | Wall Mount Kit |
|--------------|----------------|
| HIO-W210-ADL | 4 |
| HIO-W215-ADL | 4 |
| HIO-W221-ADL | 4 |

2. Secure the Wall mount bracket to the fixing holes around the screen as shown below.



