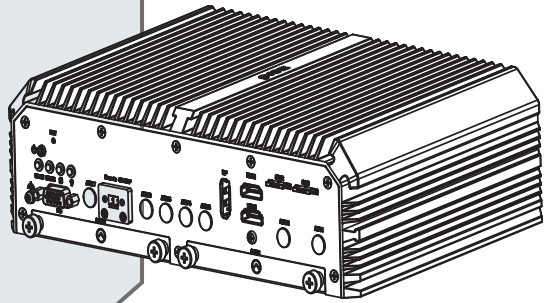


IV-Z318

Quick Reference Guide



Ver. Q3

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Specification

System

CPU Support	Intel® 11th Gen. Core™ i7 / i5 / i3 processor
Memory Support	2 x DDR4-3200 SO-DIMM up to 32 GB
Graphics	Intel® Iris® Xe Graphics (for i7 and i5) / Intel® UHD Graphics (for i3)
Watchdog	1~255 seconds watchdog timer selectable
Power Input	DC In 9~48V (with ignition)
Expansion Slots	1 x full-sized Mini PCIe slot 1 (USB2.0 and SIM signal) 1 x full-sized Mini PCIe slot 2 (PCIe and USB 2.0 signal) 1 x M.2 3042/3052-D2-B slot (PCIe, USB 3.0 and USB 2.0 and SIM signal) 1 x M.2 2230-D2-E slot (PCIe and USB 2.0 signal) 1 x M.2 2280-D2-M slot (PCIe Gen4 x 4 signal)

TPM TPM 2.0

Mounting Support Wall Mount (default) / VESA Mount (75x75) / DIN Rail (optional)
Operating System Windows 10 LTSC 2019/2021 / Windows 11 IoT Enterprise (GAC) / Ubuntu 20.04 LTS

Dimensions & Weight 259.5 x 72 x 184.8mm ((WxHxD) / 3.2kg

Certifications FCC / CE / E13

I/O Ports

Drive Bay 2 x 2.5" SATA SSD (Support RAID 0/1)
USB 2 x USB 3.2 Gen 2 and 2 x USB 2.0
LAN 4 x RJ45 / M12-X-coded GbE with optional PoE (IEEE 802.3af)
Supports Wake-On-LAN/PXE

Serial Ports COM 1/2 for RS-232/422/485 with 3kVrms isolation
COM 3/4 for RS-232 (optional with CAN Bus)

Display 2 x HDMI 2.0: Max. resolution 4K @ 60Hz
1 x DP1.4: Max. resolution 4K @ 60Hz

Audio 1 x Line Out, 1 x Mic In
Digital I/O 4 x in / 4 x out with 3kVrms isolation

SIM Card Sockets 2 x Nano SIM card slots

Antenna Holes 7 x Antenna holes

LED 1 x System LED, 1 x HDD LED, 1 x WWAN LED, 1 x WLAN LED,
4 x PoE LED

Power On / Off 1 x Power Button / 1 x Reset Button / 1 x Remote Switch

Ground 1 x M3 hole

Environment

Operating Temp. -40°C~70°C (32°F~158°F) (with ambient airflow)

Storage Temp. -40°C~85°C (-4°F~185°F) / Humidity: 20%~ 90%

Vibration (Random) IEC60068-2-64, random, 2.5G@5~500Hz, 1hr/axis with SSD

Vibration (Operating) MIL-STD-810G, 514.6C Procedure 1, Category 4

Vibration (Storage) MIL-STD-810G, 514.6E Procedure 1, Category 24

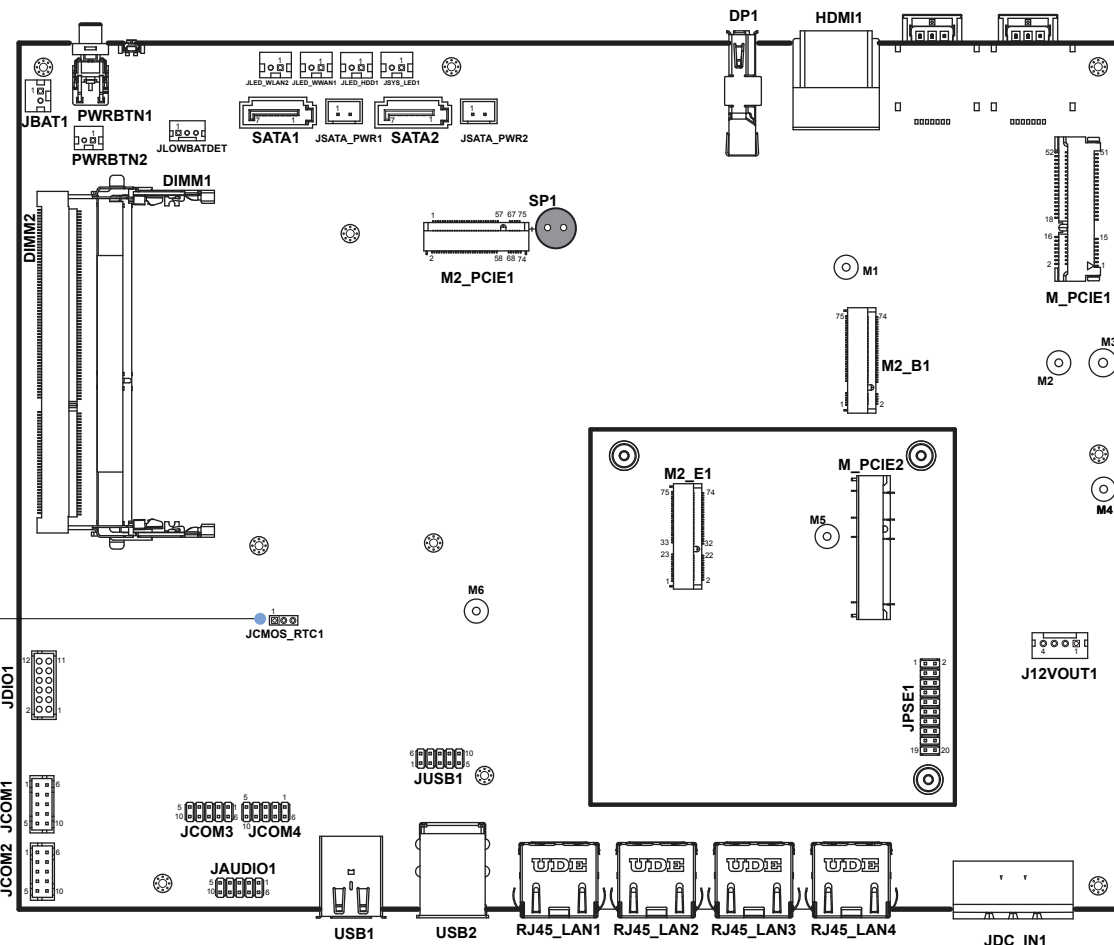
Shock (Operating) MIL-STD-810G, 516.6 Procedure I, trucks and semi-trailers=40G

Shock (Non-Operating) MIL-STD-810G, 516.6, Procedure V, crash hazard shock test=100G

Jumper Settings

Clear ME RTC Register and CMOS Selection

- 1 Normal (default)
- 1 Clear CMOS
- 1 Clear ME RTC Register



NOTES

- In order to have ignition power control for in-vehicle usage, you need to supply IGN signal to the system before enabling "Power On/Off Function" in BIOS.
- How to set up Power Cable for Ignition Function:
The power terminal block connector of IV-Z318 has 3 pins: GND/ VCC/ Ignition. When using power from battery, Ignition has to be in contact with the VCC pin. Or you can simulate vehicle engine start, and then the ignition pin can connect a switch to start the system.

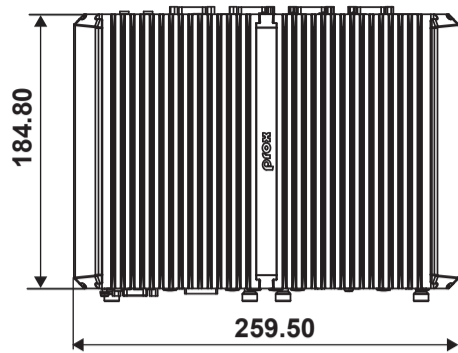
CAUTION!

Danger of explosion may occur if the battery is replaced incorrectly. Replace batteries only with the same or equivalent type recommended by the manufacturer. Dispose the used batteries according to the manufacturer's instructions.

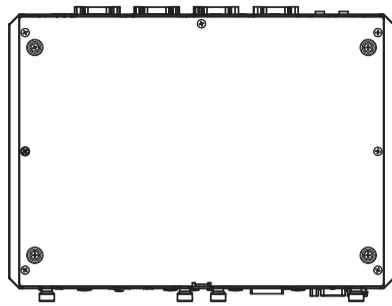
System Overview

(Unit: mm)

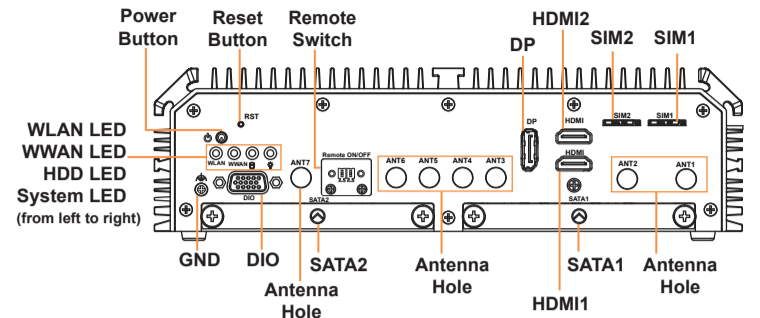
Top View



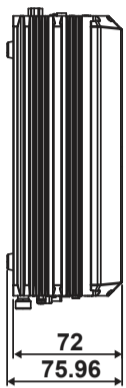
Bottom View



Front View



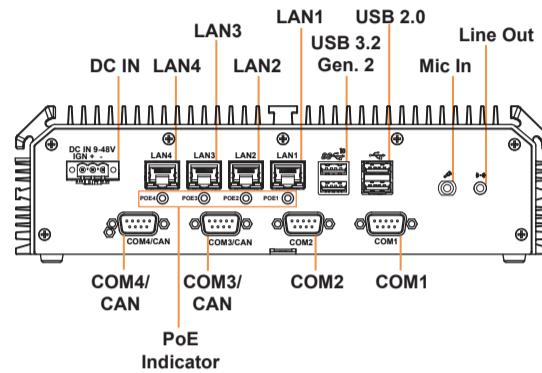
Left Side View



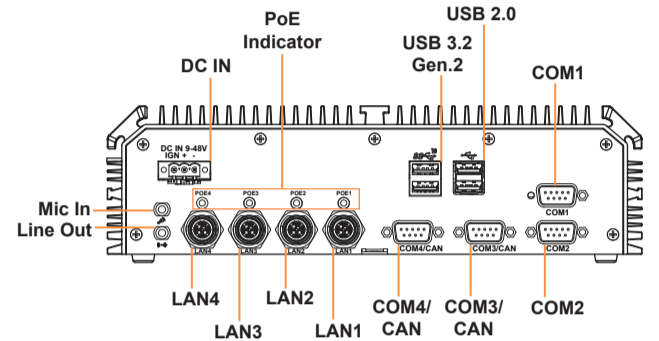
Right Side View



Rear View (RJ45)



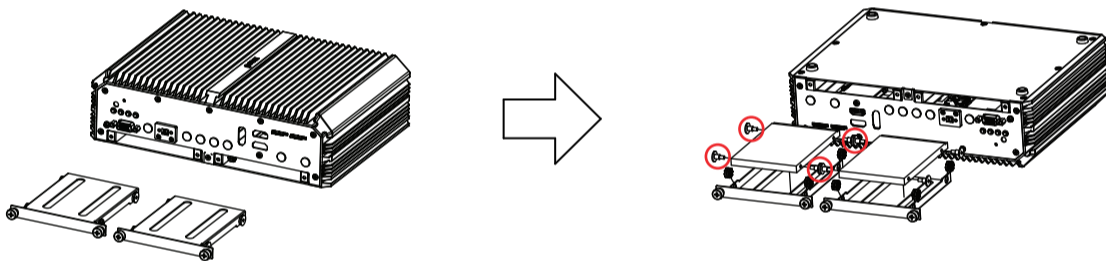
Rear View (M12)



Quick Setup

HDD Easy Maintenance

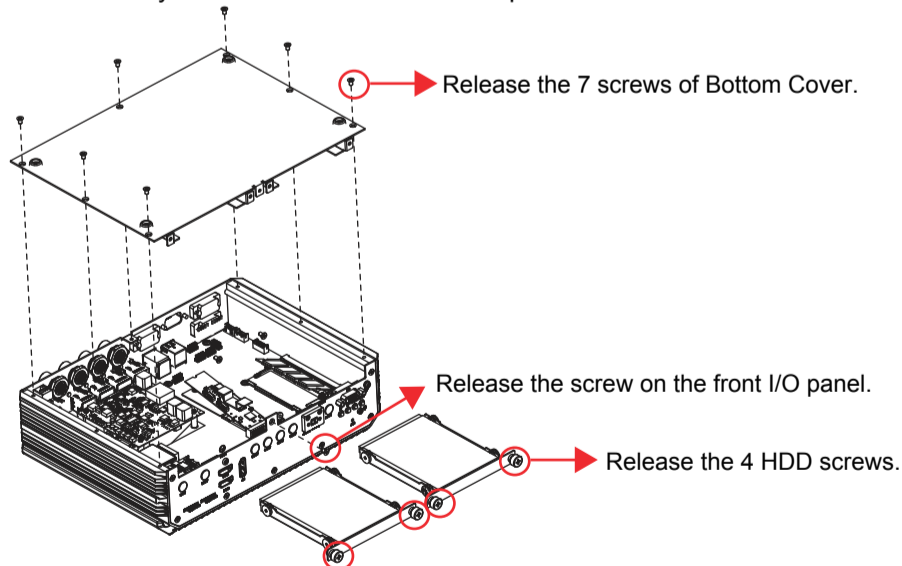
- Step 1.** Release the 2 screws of each HDD Tray. **Step 3.** Release the 4 screws of each HDD Tray as indicated below to complete.
- Step 2.** Pull out HDD Tray.



Note: Heed the mark should be directed upwards when you push back HDD tray.

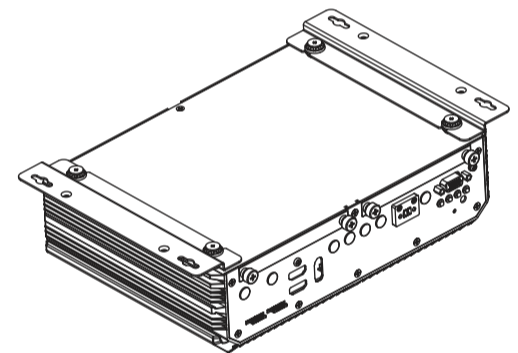
Installing Memory and Extension Module

- Step 1.** Release the 4 screws of the 2 HDD trays and pull out the 2 HDD Trays.
- Step 2.** Release the 7 screws of the bottom cover and the screw on the front I/O panel as shown.
- Step 3.** Install the Memory or Extension module to complete.

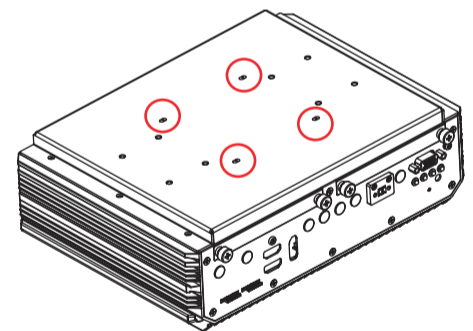


Installing Accessories

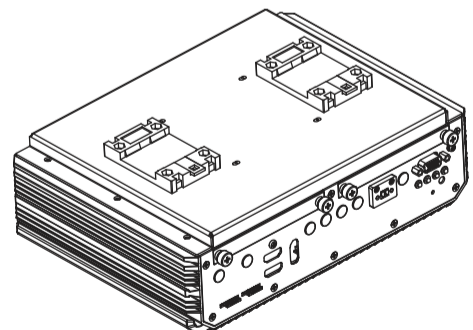
Wall Mount



VESA Mount



DIN-Rail



Safety Precaution

The following messages are reminders for safety on how to protect your system from damages and extend a long life of the system.

1. Check the Cable Voltage

- The range of operating voltage should be 9~48V DC. Otherwise, the system could be damaged.

2. Environmental Conditions

- Place your IV-Z318 on a sturdy, level surface. Be sure to allow enough space to have easy access around the system.
- Avoid extremely hot or cold place to install the system.
- Avoid exposure to sunlight for a long period of time or in an airtight space.
- Avoid the system from any heating device or using IV-Z318 when it's been left outdoors in a cold winter day.
- Bear in mind that the operating ambient temperature is from -40°C ~ 70°C for the system.
- Avoid moving the system rapidly from a hot place to a cold place and vice versa because condensation may come from inside of the system.
- Placing IV-Z318 in strong vibrations may cause hard disk failure.
- Don't place the system close to any radio-active device in case of signal interference.

3. Handling

- Avoid putting heavy objects on top of the system.
- Don't turn the system upside down. This may cause the hard drive to mal-function.
- If water or other liquid spills into this product, unplug the power cord immediately.

4. Good Care

- When the outside of the case is stained, remove the stain with a neutral washing agent with a dry cloth.
- Never use strong agents such as benzene and thinner to clean the system.
- If heavy stains are present, moisten a cloth with diluted neutral washing agent or with alcohol and then wipe thoroughly with a dry cloth.
- If dust has been accumulated on the outside, remove it by using a special made vacuum cleaner for computers.

CAUTION! Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

WARNING! Some internal parts of the system may have high electrical voltage. And therefore we strongly recommend that qualified engineers can open and disassemble the system.

WARNING! Please keep the system away from human bodies while the system is active and in operation. If engineers need to service or move the system, please power off the system and wait for the system to cool down and then engineers can conduct the servicing safely.