SP7000H Product Hardware Description

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# Part 1 Safety Precautions

**Security Statement**

1. This chapter describes the safety precautions to properly apply this product. Please read the instruction manual and properly understand the relevant information of safety precautions before using this product. Failure to comply with such safety precautions may result in injury to personnel or damage to equipment.
2. This product should be used in an environment that meets the requirements of the design specifications, otherwise it may cause malfunction. Functional abnormalities or component damage caused by failure to comply with relevant regulations are not within the scope of product quality assurance.
3. Our company will not assume any legal responsibilities for personal safety accidents and property losses caused by failure to comply with the content of this manual, or illegal operation of products.

**Safety Signs**

In order to ensure work safety, please comply with the safety signs posted on the equipment. Do not damage or peel off the safety signs.

## Power Supply Requirements

1. DC 12V
2. Ensure the power supply voltage matches the equipment requirements before powring on the equipment.

## Routine Maintenance

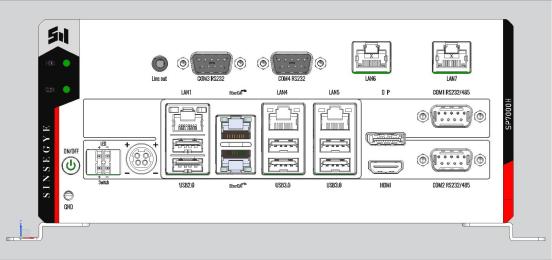
1. Do not open or disassemble the equipment randomly. The equipment should only be opened by professional maintenance personnel.
2. Before cleaning the equipment with a damp rag, unplug the power cord from the outlet. Do not use liquids or decontamination sprayers to clean the equipment.
3. In case not using the equipment for a long time, please turn off the computer normally and disconnect the power cord to avoid the equipment being damaged by the instantaneous voltage.
4. Prevent any liquid from flowing or spilling into the equipment to avoid short circuits or fires.

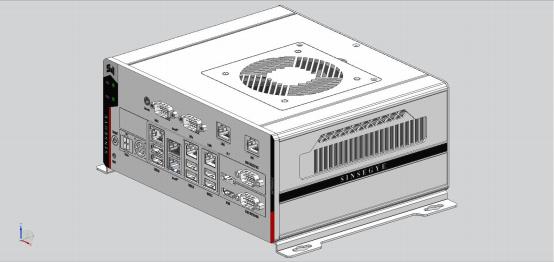
## Operating Environment

1. Please ensure that the equipment is placed on a reliable flat surface before installation, accidental dropping or overturning may cause damage to the equipment.
2. The openings in the enclosure of the equipment are for air convection and prevent the equipment from overheating, and forbid to cover or seal these openings.
3. Please do not use the equipment in a humid environment.

# Part 2 Hardware Specifications

## Product Figure

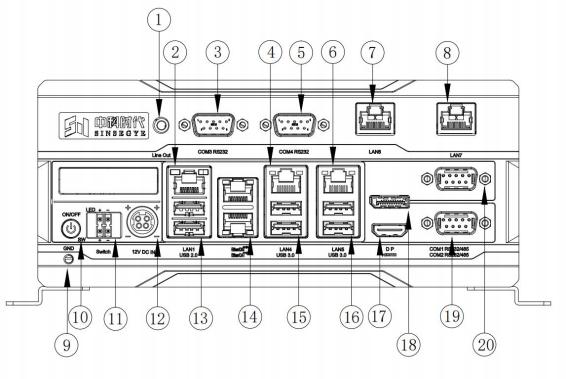


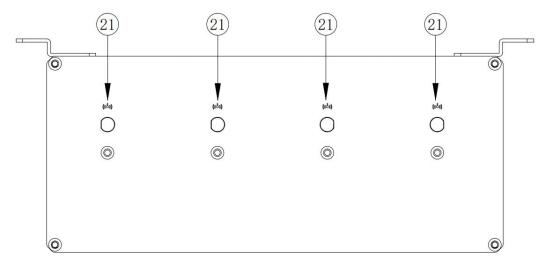


## Technical Specifications

|  |  |  |
| --- | --- | --- |
| Product Figure |  |  |
| Product name | SP7000H | |
| Operating system | Linux+Windows10 | |
| Color | Light silver gray | |
| Processor | Intel Core I5-12400 ，2.5GHz ，up to 4.4 Ghz ，TDP 65 W ，6 cores, 12 threads | |
| Memory | DDR4 3200MHz 16GB | |
| Storage | 128GB SSD + 512G SSD | |
| Network port | 7 个（1\*i219+6\*i210） | |
| Serial port | 4\* COM(2\*RS485/RS232+2\*RS232) | |
| USB port | 4\*USB 3.0+2\*USB 2.0 | |
| DIO | Not support | |
| Display interface | HDMI+DP | |
| Power supply | DC 12V With switching power supply | |
| Switch | Illuminated push button switch | |
| SW terminals | 4PIN Terminal (Switch + Light) | |
| Line Out | 1\*line out | |
| Graphics card expansion slots | Not support | |
| Installation | Embedded | |
| Exterior dimensions | 208 (W) \* 202 (D) \* 133 (H) mm | |
| Storage temperature | -30~ 70℃ | |
| Operating temperature | -10~ 50℃ | |

## Interface Details





**Description of interface identifier:**

|  |  |  |  |
| --- | --- | --- | --- |
| Serial number | Interface Description | Serial number | Interface Description |

|  |  |  |  |
| --- | --- | --- | --- |
| ① | Line out&Mic in | ② | LAN1（i219） |
| ③ | COM3 RS232 | ④ | LAN4（i210） |
| ⑤ | COM4 RS232 | ⑥ | LAN5（i210） |
| ⑦ | LAN6（i210） | ⑧ | LAN7（i210） |
| ⑨ | GND | ⑩ | ON/OFF Push button switch |
| ⑪ | SWITCH switch | ⑫ | 12V DC IN |
| ⑬ | USB2.0\*2 | ⑭ | LAN2 LAN3（i210） |
| ⑮ | USB3.0\*2 | ⑯ | USB3.0\*2 |
| ⑰ | HDMI | ⑱ | DP |
| ⑲ | COM2 RS232/485 | ⑳ | COM1 RS232/485 |
| ㉑ | WIFI Antenna holes |  |  |

**Default allocation of network port**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | LAN1 | EtherCAT | EtherCAT | LAN4 |
| Linux | Initial IP: 192.168.1.200  Network Name: enp1s0 | EtherCAT master station  Network name: enp1s0 | EtherCAT master station  Network name: enp8s0 | - |
| Windows | - | - | - | Win10 |
|  | LAN5 | LAN6 | LAN7 |  |
| Linux | - | - | - |  |
| Windows | Win10 | Win10 | Win10 |  |

## Interface Definition

**Definition of Jumpers /Headers and Connectors**

**1) LAN1/LAN2/LAN3/LAN4/LAN5/LAN6/LAN7**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Graphic | Pin | Definition | | Pin | Definition | |
|  | 1 | MDI3\_0+ | | 5 | MDI3\_2+ | |
| 2 | MDI3\_0- | | 6 | MDI3\_2- | |
| 3 | MDI3\_1+ | | 7 | MDI3\_3+ | |
| 4 | MDI3\_1- | | 8 | MDI3\_3- | |
| A | Active LED | ACT: Twinkling Yellow | B | Speed LED | 1000M: Turn Yellow |
| Only LINK: Off | 100M: Turn Green |
| Stop: Off | 10M: Off |

**2) COM3/COM4 RS232**

|  |  |  |
| --- | --- | --- |
| Graphic | Pin | RS232 (Default) |
| Definition |
| COM | 1 | **/** |  |
| 2 | RXD |  |
| 3 | TXD |  |
| 4 | / |  |
| 5 | GND |  |
| 6 | / |  |
| 7 | / |  |
| 8 | / |  |
| 9 | / |  |

**3) ON/OFF(****Power Button)**

|  |  |
| --- | --- |
| Power-on status | Indicator |
| The equipment is not turned on | OFF |
| The equipment is turned on | Blue |

**4) SWITCH**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Graphic | Pin | Definition | Pin | Definition |
|  | 1 | SW+ | 2 | SW- |
| 3 | POWER LED+ | 4 | POWER LED- |

**5) 12V DC IN**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Graphic | Pin | Definition | Pin | Definition |
|  | 1 | + 12V | 2 | + 12V |
| 3 | GND | 4 | GND |

**6) COM1/COM2 RS232/485**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Graphic | Pin | Definition | Pin | Definition |
|  | 1 | COM1\_DCD#/ RS485- | 6 | COM1\_DSR# |
| 2 | COM1\_RXD/ RS485+ | 7 | COM1\_RTS# |
| 3 | COM1\_TXD | 8 | COM1\_CTS# |
| 4 | COM1\_DTR# | 9 | N/C |
| 5 | GND |  |  |

# Part 3 Product Appearance Dimension Drawing

Appearance size: 208 (W)\*173 (H)\*89 (D) MM (not including bracket)

Opening size: 222\* 130MM M4

