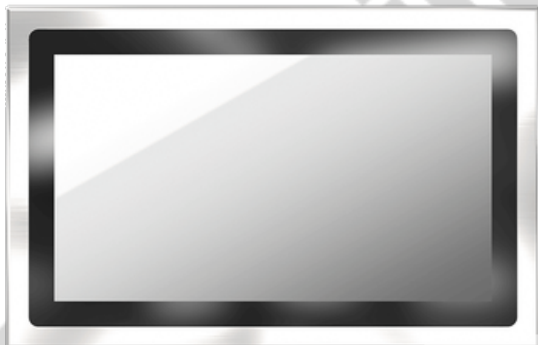




# SIO-W324-MTL

23.8" Stainless Steel Panel PC with Intel® Core™ Ultra 5 125U Processor, 2x LAN, 2x COM, 2x USB



## Features

- 23.8" (16:9) FHD LCD Capacitive Touch
- 1x 262-Pin DDR5 5600 SO-DIMM. Max. up to 48GB
- 1x M.2 M-Key for NVMe/ SATA, Auto detect
- 1x M.2 B-Key for 4G/5G support, 1x M.2 E-Key for Wifi/Bluetooth
- 2x 2.5GbE LAN, 2x USB, 2x COM
- Support 110V to 240V AC power input
- Fanless Operation from -10°C to 50°C
- Full system IP66/IP69K with Stainless Steel SUS316 construction
- Scratch Resistant 7H Glass Hardness
- Optical Bonding for ultimate clarity
- Pressure Valve SUS316L VENT
- CE, FCC Class A

## Specifications

### Display

|                                 |                                |
|---------------------------------|--------------------------------|
| IP Rating                       | IP66/IP69K                     |
| LCD Size                        | 23.8" (16:9)                   |
| Max. Resolution                 | 1920 x 1080 (FHD)              |
| Brightness (cd/m <sup>2</sup> ) | 450 nits                       |
| Contrast Ratio                  | 1000:1                         |
| LCD Color                       | 16.7M                          |
| Pixel Pitch (mm)                | 0.248 (H) x 0.248 (V)          |
| Viewing Angle                   | 89 /89 /89 /89 (Typ.) (CR>=10) |
| Backlight Lifetime              | 50,000 hrs (LED Backlight)     |

### Touch

|                            |                                                                                                            |
|----------------------------|------------------------------------------------------------------------------------------------------------|
| Projected Capacitive Touch | Surface Hardness: 7H / IK07<br>Multi-touch: Default 2 point (Support Glove Mode)<br>Anti-noise: CS 10V rms |
| Resistive Touch (Option)   | Surface Hardness: 3H<br>Touch Point: single Touch<br>IP Rating: IP65                                       |

### System

|                |                                                                                      |
|----------------|--------------------------------------------------------------------------------------|
| Processor      | Intel® Core™ Ultra 5 Processor 125U 12M Cache, up to 4.30 GHz (2+8+2 core), 15W      |
| System Chipset | SoC Integrated                                                                       |
| LAN Chipset    | GbE1: Intel i226V 2.5GbE LAN PXE Support<br>GbE2: Intel i226V 2.5GbE LAN PXE Support |
| Audio Codec    | Realtek ALC897                                                                       |
| System Memory  | 1x 262-Pin DDR5 5600 MT/s SO-DIMM. Max. up to 48GB (Non-ECC)                         |
| BIOS           | AMI uEFI 256MB SPI flash                                                             |
| Watchdog       | Software Programmable Supports 1~255 sec. System Reset                               |

### Storage

|     |                                                                                 |
|-----|---------------------------------------------------------------------------------|
| M.2 | 1x M.2 M-Key (2280, PCIe x4 Gen 4/SATA) support for NVMe/ SATA SSD, Auto Detect |
|-----|---------------------------------------------------------------------------------|

### Expansion

|     |                                                                                                                               |
|-----|-------------------------------------------------------------------------------------------------------------------------------|
| M.2 | 1 x M.2 B-Key (3042/3052, PCIe x2+USB 3.0+USB 2.0) support for 4G/5G<br>1 x M.2 E-Key (2230, PCIe+USB 2.0) for Wifi/Bluetooth |
|-----|-------------------------------------------------------------------------------------------------------------------------------|

### I/O

|        |                                                                                                  |
|--------|--------------------------------------------------------------------------------------------------|
| COM    | COM1: 1x RS232/422/485 by M12 A-Code 8-pin (Default RS232)<br>COM2: 1x RS232 by M12 A-Code 8-pin |
| LAN    | 2x LAN by M12 X-Code 8-pin                                                                       |
| USB    | 1x M12 A-code by 2x USB 2.0 (8-pin)                                                              |
| Others | 4x Antennas (Optional)<br>Power On/Off<br>SUS 316 Vent                                           |

### Operating System

|         |                                                                                    |
|---------|------------------------------------------------------------------------------------|
| Windows | Windows 10 IoT Enterprise LTSC (64-bit)<br>Windows 11 IoT Enterprise LTSC (64-bit) |
| Linux   | Ubuntu 22.04 / 24.04 LTS                                                           |

### Power

|                      |                     |
|----------------------|---------------------|
| Power Mode           | AT / ATX (default)  |
| Power Supply Voltage | 110 ~ 240V AC Input |
| Power Connector      | M12 S-code 4-pin    |

### Environment

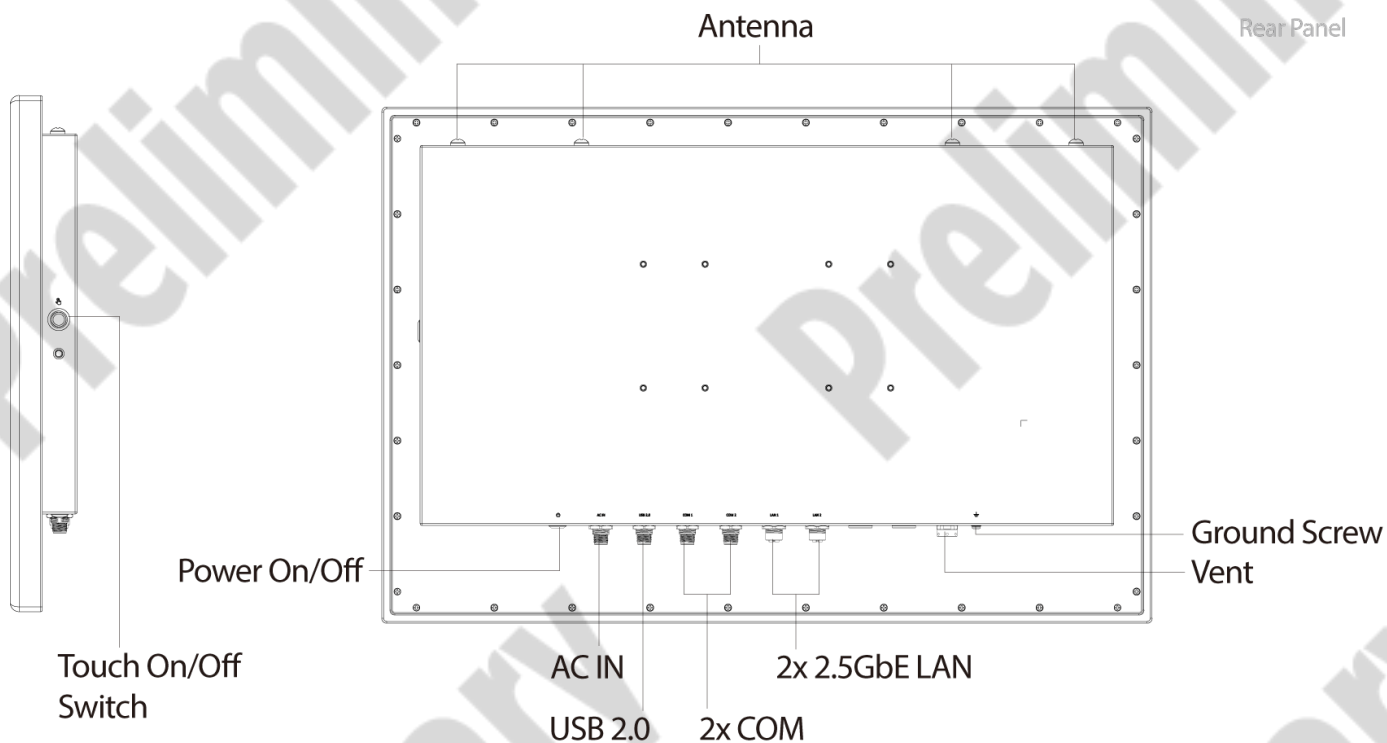
|                       |               |
|-----------------------|---------------|
| Operating Temperature | -10°C to 50°C |
| Storage Temperature   | -20°C to 70°C |

|                   |                                            |
|-------------------|--------------------------------------------|
| Relative Humidity | 10% ~ 80% (non-condensing)                 |
| IP Level          | Full System IP66/IP69K                     |
| Certification     | CE, FCC Class A                            |
| Vibration         | With SSD: 3 Grms (5 ~ 500 Hz, 0.5 hr/axis) |
| Shock             | With SSD: 20G half-sin 11ms                |

### Physical

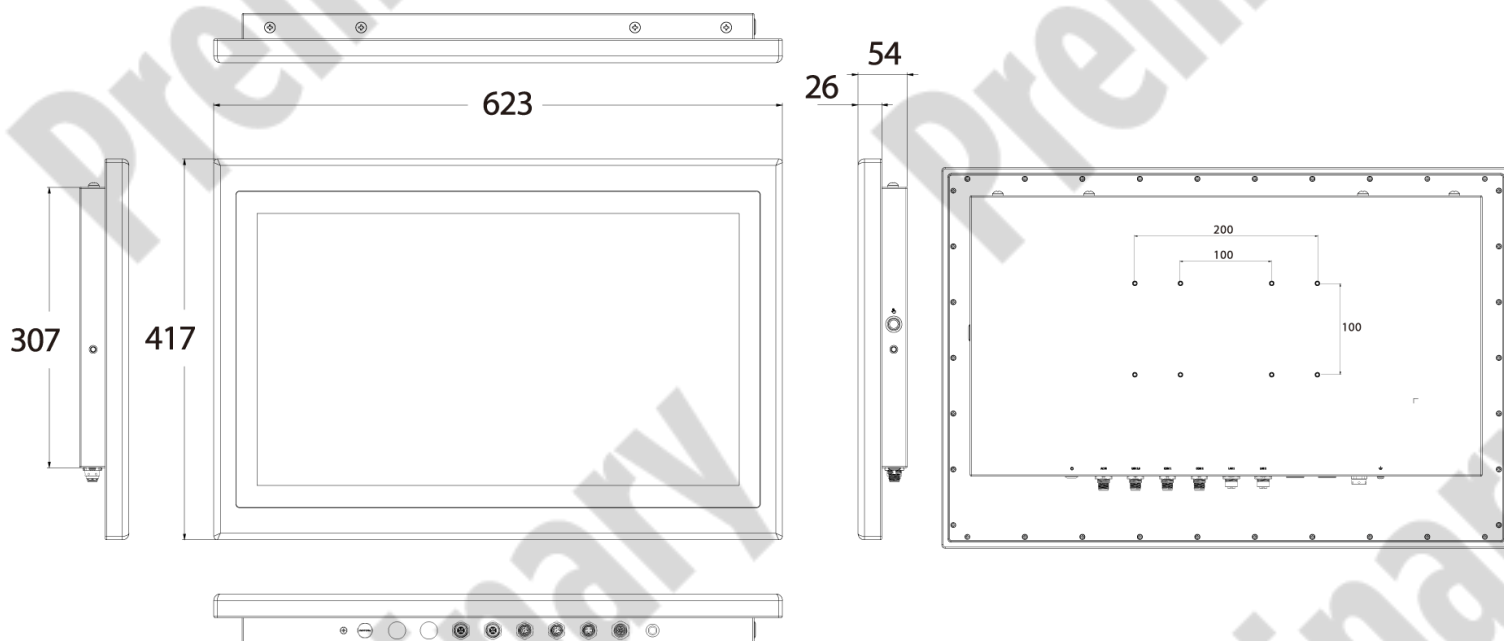
|                  |                                                                         |
|------------------|-------------------------------------------------------------------------|
| Dimensions       | 623 (W) x 417 (H) x 54 (D) mm                                           |
| Weights          | 12 kg                                                                   |
| Construction     | Stainless Steel SUS316 with Optical bonding                             |
| Mounting Options | VESA Mounting Holes 100 x 100 mm or 200 x 100 mm<br>Optional Yoke Mount |

External I/O Mechanical Layout



Dimension

Unit: mm



## Compliances and Standards

|                       |                                                                                                                                                                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Shock                 | With SSD: 20G half-sin 11ms<br>IEC60068-2-27:2008<br>Designed to comply with MIL-STD-810H Method 516.8 Procedure I                                                                                                                  |
| Vibration             | With SSD: 3 Grms (5 - 500 Hz, 0.5 hr/axis)<br>IEC60068-2-64:2008<br>Designed to comply with MIL-STD-810H Method 514.8 Procedure I                                                                                                   |
| Operating Temperature | -10°C to 50°C<br>IEC60068-2-1:2007 (Cold test procedure)<br>IEC60068-2-2:2007 (Dry heat test procedure)<br>IEC60068-2-3:2007 (Damp heat, steady state, test procedure)<br>IEC60068-2-14:2009 (Wide temperature range thermal shock) |
| EMI                   | <ul style="list-style-type: none"> <li>FCC Class A (47 CFR part 15.109 and part 15.107)</li> <li>CE</li> <li>ICES-003</li> <li>UKCA</li> </ul>                                                                                      |

## Available Models

| Model No.      | Description                                                                                                          |
|----------------|----------------------------------------------------------------------------------------------------------------------|
| SIO-W324C-125U | 23.8" FHD Capacitive Touch Stainless Steel Panel PC with Intel® Core™ Ultra 5 125U Processor, 2x LAN, 2x COM, 2x USB |
| SIO-W324R-125U | 23.8" FHD Resistive Touch Stainless Steel Panel PC with Intel® Core™ Ultra 5 125U Processor, 2x LAN, 2x COM, 2x USB  |

## Optional Accessories

| Model No.   | Description                                             |
|-------------|---------------------------------------------------------|
| 1-TPWR00092 | Waterproof M12 S-CODE 4P PWR Cable (SUS316L) Type US 3M |
| 1-TPWR00106 | Waterproof M12 S-CODE 4P PWR Cable (SUS316L) Type EU 3M |
| 1-TPWR00247 | Waterproof M12 S-CODE 4P PWR Cable (SUS316L) Type UK 3M |
| 1-TPWR00248 | Waterproof M12 S-CODE 4P PWR Cable (SUS316L) Type AU 3M |
| 1-TCOM00032 | Waterproof COM Cable 1.5M                               |
| 1-TLAN00024 | Waterproof LAN Cable 1.5M                               |
| 1-TUSB00057 | Waterproof USB 2.0 Cable 1.6M                           |
| 1-TGND00001 | Grounding extension cable 3M                            |

## Packing List

1x SIO-W324 Stainless Steel Panel PC  
1x Waterproof Connector Cover Set  
1x Waterproof AC Power Input M12 S-CODE 4P PWR Cable

## US Exports And Tariff Codes

|            |              |
|------------|--------------|
| ECCN       | EAR99        |
| HTS        | 8528.59.1500 |
| Schedule B | 85.28        |

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