TEGUAR

# OPTIO TB-7293

## Compact AI Enable Core Ultra PC




## Key Highlights

- I/O Rich with 8 USB, 5 Serial and Optional PoE
- Wide Operating Temperature Down to -40°C
- Wide Voltage DC Input
- Cellular Capability via SATA Slot and Antennas
- Video Out over USB-C

VIEW ONLINE

The I/O-rich Optio TB-7293 optimizes peripheral usage to excel both at the heart of your systems or on the edge of them. Three video ports support up to four displays while a total of eight USB-A enable peripheral devices such as cameras. This small form factor PC handles our widest temperature range yet—negative 40°C to 60°C—and passively cools its Core Ultra CPU with robust internal heat sinks. Optio isn't just rugged, however; the 14th Gen processor with its built-in NPU empowers advanced AI control solutions. **Optio is part of the Regiment Series product family.**

**USA**
**Teguar**
**2920 Whitehall Park Drive**
**Charlotte, NC 28273**
**+1 866-693-3105**
**sales@teguar.com**

**EUROPE**
**Teguar Europe AG**
**Churerstrasse 54, CH-8808**
**Pfäffikon, Switzerland**
**+41 41 561 53 11**
**sales.EU@teguar.com**

**ASIA**
**Teguar Taiwan Ltd.**
**Rm. A, 28F-12., No.99, Sec. 1, Xintai 5th Rd.,**
**Xizhi Dist., New Taipei City 221, Taiwan (R.O.C.)**
**+886 2 7751 5319**
**sales@teguar.com.tw**

# Technical Specifications

## Primary Components

| | |
|---|---|
| **Processor Family** | Intel Core Ultra Series 14th Generation Meteor Lake |
| **Processor Model** | Core Ultra 5 125U, Core Ultra 7 155U |
| **Memory Type** | 1x DDR5 SO-DIMM |
| **Memory Support** | Up to 48GB |

## Power

| | |
|---|---|
| **Input Voltage Range** | 8-26V DC |
| **Standard Power Adapter** | 72W (24V/3A) External Power Supply, 120W (24V/5A) External Power Supply (Only Required if PoE Module is Installed) |

## Operating Systems

| | |
|---|---|
| **Windows** | Windows 10 IoT, Windows 11 IoT, Windows 11 Pro |
| **Linux** | Linux Ubuntu 24.04 or above (Contact your sales rep for more information) |

## Expansion Slots

| | |
|---|---|
| **Internal M.2** | 1x M-Key 2280 (PCIe4.0 X4, SATAIII), 1x M.2 2230 Key E (for WiFi expansion option), 1x M.2 B-Key 2242/3042/3052 (USB2.0/PCIeX1/SATAIII) |
| **Expansion Module support** | 2x RJ45 Gbe LAN Expansion, Internal PoE+ Expansion (for RJ45 ports already onboard) |

## Enclosure

| | |
|---|---|
| **Material** | Aluminum |
| **Color** | Black & Blue |
| **Led Indicator Light** | Power, Storage |
| **Control Buttons** | Power Button |
| **Mounting Options** | Wall Mount |

## Weight / Dimensions

| | |
|---|---|
| **Weight** | 2.1 kg (4.6 lbs) |
| **Dimensions** | 210 x 150 x 63 mm (8.3 x 5.9 x 2.5 in) |

***Specifications subject to change.***

## External I/O Ports

| | |
|---|---|
| **USB** | 1x USB 3.2 Type-C (DP 1.4A), 3x USB 2.0, 4x USB 3.2 Gen 2 |
| **Serial / Com** | 4x COM |
| **Serial Protocol Detail** | 1x RS232/422/485, 3x RS232 |
| **Ethernet / LAN** | 4x RJ45 2.5Gbe LAN (Optional PoE Module Available), Optional 2x RJ45 Gbe LAN Expansion |
| **Video Outputs** | 1x DisplayPort 1.2, 1x DisplayPort via USB-C Alt Mode, 1x HDMI 1.4 |
| **Other Ports** | 1x 2-Pin DC Power Switch Connector, 1x 8-bit GPIO (in DB9 Connector) |
| **Audio Ports** | 1x Audio Line-Out |
| **Power Input Port** | 3-Pin DC-In (Phoenix Type) |

## Compatibility

| | |
|---|---|
| **Security Hardware** | TPM 2.0 |

## Thermal & Environmental

| | |
|---|---|
| **Operating Temperature** | -40°C - 60°C (-40°F to 140°F with Wide Temperature RAM/Storage) |
| **Storage Temperature** | -40°C - 85°C (-40°F – 185°F) |
| **Cooling Solution** | Passive – Fanless with Heatsink |
| **Storage Humidity** | 10%-95%, non-condensing |

## Peripherals & Wireless Connectivity

| | |
|---|---|
| **WiFi** | Optional WiFi 6E |
| **Bluetooth** | Optional Bluetooth 5.3 |
| **Sim Card** | 1x Nano SIM Card Slot |

## Certification

| | |
|---|---|
| **Certifications** | CE, FCC |

## Warranty

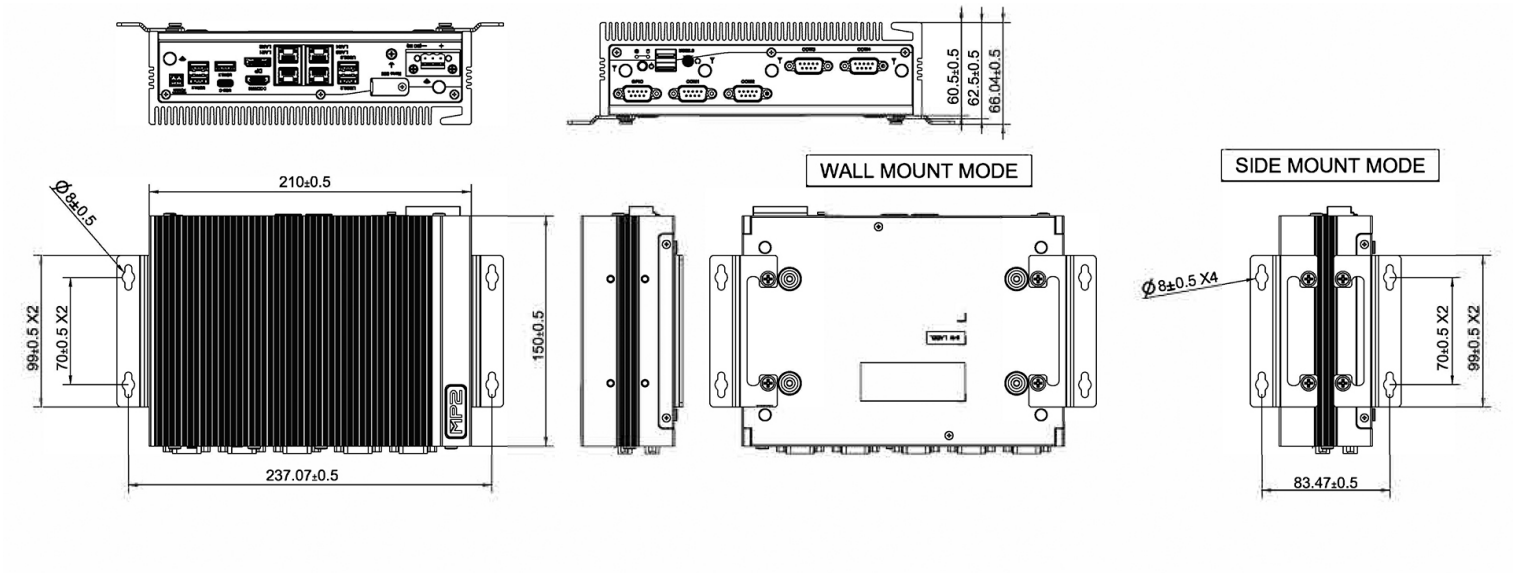
| | |
|---|---|
| **Warranty** | Up to 5 Years |


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## 2D Drawing





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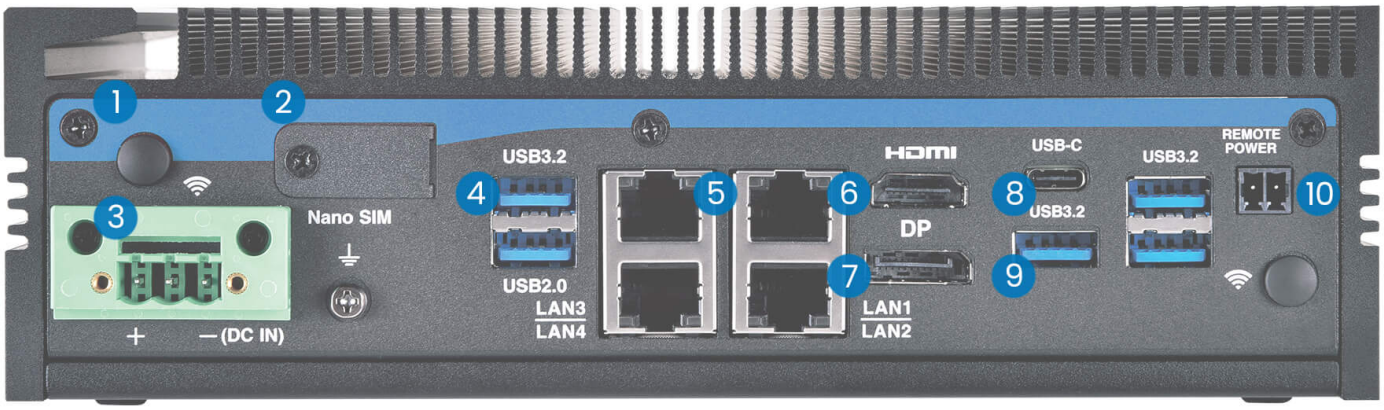
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# I/O




1. Wi-Fi Antenna Holes
2. SIM Slot
3. 3-Pin Terminal Block
4. USB 3.2, USB 2.0
5. 4x LAN
6. HDMI
7. DisplayPort
8. USB-C
9. 3x USB 3.2
10. Remote Power Switch

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