

## DS-1402

12th Generation Intel® Core™ Series Processors, High Performance, Expandable and Modular Rugged Embedded Computer with 2x PCI/PCIe Expansion Slot



### High Performance | Highly Expandable

DS-1402, 12<sup>th</sup> Gen. Intel Alder Lake-S Rugged Embedded Computer



## Overview

The DS-1402 is a high-performance, expandable, and rugged embedded computer, boasting outstanding performance as well as rich industrial I/O interfaces and robust functionalities. To meet various application needs, it has dual PCI/PCIe expansion capability and it can also flexibly expand the required I/O and specific functions through Cincoze's unique CMI, CFM, and MEC modules. Moreover, the DS-1402 has passed multiple international certifications, ensuring stable and reliable performance in diverse harsh environments. It is an ideal choice for manufacturing and railway applications.

- Intel® 12th Gen Alder Lake-S Core™ i9/i7/i5/i3 Processors (max 65 W TDP)
- 2x DDR5 SO-DIMM Sockets, Supports ECC/non ECC type Memory, Up to 4800MHz, 64GB
- 2x GbE LAN and optional 2x 10GbE LAN
- 2x 2.5" SATA storage, 3x mSATA sockets, 1x M.2 key M for NVMe SSD
- 2x PCI/PCIe expansion slots
- Optional CMI modules for I/O expansion
- Optional CFM modules for ignition sensing & PoE
- Wide operating temperature -40°C to 70°C
- MIL-STD-810G military standard and EN50155 (EN 50121-3-2 only)



## Rapid Processing and Inference

The DS-1402 supports 12th gen Intel® Core™ i9/i7/i5/i3 (Alder Lake-S) processors based on the Intel 7 process, with up to 16 cores (8P + 8E) and 24 threads, delivering more than 1.35x the speed of Comet Lake-S platform. The Intel® Xe architecture of the UHD 770 graphics chip boosts GPU image classification inference performance to 2.81x the speed of Comet Lake-S, providing the processing performance needed for AI and edge computing.

### CPU Performance

Alder Lake-S **135%**

Comet Lake-S



**Alder Lake-S**

### GPU Image Classification Inference Performance

UHD Graphics 770

**281%**

UHD Graphics 630



## Industrial I/O and Modular Expansion

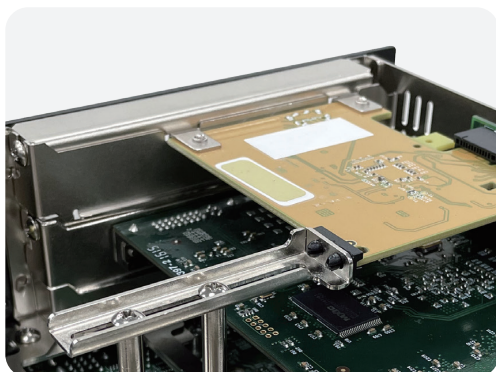
The DS-1402 offers a vast array of industrial-focused I/O including up to 2x GbE LAN, 6x USB 3.2, and 2x USB 2.0, 2x RS232/422/485, 2x 2.5" SATA, 3x mSATA, 1x M.2 key M for NVMe SSD, 2x SIM card slots, 3x full-size Mini-PCIe and quad independent displays (DisplayPort, HDMI, VGA). It also features modular expansion through Cincoze's CMI/CFM modules, adding additional I/O or other functionality such as high-speed 10GbE LAN, PoE, and IGN (power ignition sensing).

## PCI/PCIe

### Add-on Cards

The DS-1402 accommodates dual PCI/PCIe expansion slots. It can support a maximum of one 110W add-on card with dimensions of 111 x 237 mm. This flexible slot allows integration of I/O, GPU, image capture, data acquisition, and motion control cards to suit specific application needs.





### Adjustable PCIe Card Retainer

A patented adjustable PCIe card retainer can securely fasten add-on cards. This unique design effectively prevents the cards from loosening due to vibrations in high-vibration environments, ensuring the stable operation of the system.

Patent No. I773359

### Robust and Reliable

The DS-1402 is built tough, reflected in its industrial-grade protection design and industry certifications in different fields. In addition to features such as wide temperature (-40 - 70°C), wide voltage input (9 - 48 VDC), overvoltage, overcurrent, and ESD protection, it also complies with the US military shock vibration standard MIL-STD-810G. For more secure railway computing, it also passes the EMC EN 50121-3-2 standard in EN 50155.



## Specifications

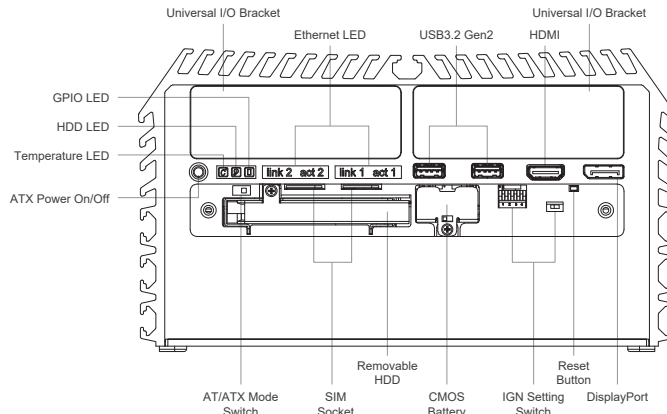
| Model Name             | DS-1402                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>System</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Processor              | <ul style="list-style-type: none"> <li>12th Generation Intel® Alder Lake-S Series CPU: <ul style="list-style-type: none"> <li>Intel® Core™ i9-12900E 16 Cores Up to 5 GHz, TDP 65W</li> <li>Intel® Core™ i7-12700E 12 Cores Up to 4.8 GHz, TDP 65W</li> <li>Intel® Core™ i5-12500E 6 Cores Up to 4.5 GHz, TDP 65W</li> <li>Intel® Core™ i3-12100E 4 Cores Up to 4.2 GHz, TDP 60W</li> <li>Intel® Core™ i9-12900TE 16 Cores Up to 4.8 GHz, TDP 35W</li> <li>Intel® Core™ i7-12700TE 12 Cores Up to 4.7 GHz, TDP 35W</li> <li>Intel® Core™ i5-12500TE 6 Cores Up to 4.3 GHz, TDP 35W</li> <li>Intel® Core™ i3-12100TE 4 Cores Up to 4.0 GHz, TDP 35W</li> <li>Intel® Pentium® G7400E 2 Cores Up to 3.6 GHz, TDP 46W</li> <li>Intel® Pentium® G7400TE 2 Cores Up to 3.0 GHz, TDP 35W</li> <li>Intel® Celeron® G6900E 2 Cores Up to 3.0 GHz, TDP 46W</li> <li>Intel® Celeron® G6900TE 2 Cores Up to 2.4 GHz, TDP 35W</li> </ul> </li> </ul> |
| Chipset                | <ul style="list-style-type: none"> <li>Intel R680E Chipset</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Memory                 | <ul style="list-style-type: none"> <li>2x DDR5 4800 MHz SO-DIMM Socket, Supports Un-buffered and ECC Type, Up to 64GB</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| BIOS                   | <ul style="list-style-type: none"> <li>AMI BIOS</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Graphics</b>        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Graphics Engine        | <ul style="list-style-type: none"> <li>Integrated Intel® UHD Graphics 770: Core™ i9/i7/i5</li> <li>Integrated Intel® UHD Graphics 730: Core™ i3</li> <li>Integrated Intel® UHD Graphics 710: Pentium®/Celeron®</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Maximum Display Output | <ul style="list-style-type: none"> <li>Supports Quad Independent Display</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| VGA                    | <ul style="list-style-type: none"> <li>1x VGA Connector : 1920 x 1080@60Hz</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DP                     | <ul style="list-style-type: none"> <li>2x DP Connector : 4096 x 2304@60Hz</li> <li>* Verified maximum DP resolution: 3840x2160 @60Hz</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| HDMI                   | <ul style="list-style-type: none"> <li>1x HDMI Connector : 4096x2160@30Hz</li> <li>* Verified maximum resolution: 3840x2160 @30Hz</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Audio</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Audio Codec            | <ul style="list-style-type: none"> <li>Realtek® ALC888, High Definition Audio</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Line-out               | <ul style="list-style-type: none"> <li>1x Line-out, Phone Jack 3.5mm</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Mic-in                 | <ul style="list-style-type: none"> <li>1x Mic-in, Phone Jack 3.5mm</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>I/O</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| LAN                    | <ul style="list-style-type: none"> <li>2x GbE LAN, RJ45 <ul style="list-style-type: none"> <li>GbE1: Intel® I219</li> <li>GbE2: Intel® I210</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| COM                    | <ul style="list-style-type: none"> <li>2x RS-232/422/485 with Auto Flow Control (Supports 5V/12V), DB9</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| USB                    | <ul style="list-style-type: none"> <li>2x 10Gbps USB 3.2 Gen2, Type A</li> <li>4x 5Gbps USB 3.2 Gen1, Type A</li> <li>2x 480Mbps USB 2.0, Type A</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| PS/2                   | <ul style="list-style-type: none"> <li>1 x PS/2, 6 Pin Mini-DIN Female Connector</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Storage</b>         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| SSD/HDD                | <ul style="list-style-type: none"> <li>1x 2.5" Front Accessible SATA HDD/SSD Bay ( SATA 3.0 )</li> <li>1x 2.5" Internal SATA HDD/SSD Bay ( SATA 3.0 )</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| mSATA                  | <ul style="list-style-type: none"> <li>3x mSATA Socket ( SATA 3.0, shared by Mini-PCIe socket )</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| M.2 SSD                | <ul style="list-style-type: none"> <li>1x M.2 Key M Type 2280 Socket, Support PCIe Gen3 x4 NVMe SSD or SATA SSD ( SATA 3.0 )</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| RAID                   | <ul style="list-style-type: none"> <li>Support RAID 0/1/5/10</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Expansion                               |                                                                                                                                                                                       |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PCI Express                             | <ul style="list-style-type: none"> <li>2x PCI/PCIe Expansion Slot with Optional Riser Card</li> <li>* Supports maximum dimensions of add-on card (H x L) : 111 x 237 mm</li> </ul>    |
| Mini PCI Express                        | <ul style="list-style-type: none"> <li>3x Full-size Mini-PCIe Socket</li> </ul>                                                                                                       |
| SIM Socket                              | <ul style="list-style-type: none"> <li>2x SIM Socket</li> </ul>                                                                                                                       |
| CMI (Combined Multiple I/O) Interface   | <ul style="list-style-type: none"> <li>2x High Speed CMI Interface for optional CMI Module Expansion</li> <li>2x Low Speed CMI Interface for optional CMI Module Expansion</li> </ul> |
| CFM (Control Function Module) Interface | <ul style="list-style-type: none"> <li>1x CFM IGN Interface for optional CFM-IGN Module Expansion</li> </ul>                                                                          |
| Other Function                          |                                                                                                                                                                                       |
| External FAN Connector                  | <ul style="list-style-type: none"> <li>1x External FAN Connector, 4-pin Terminal Block (Support Smart Fan by BIOS)</li> </ul>                                                         |
| Power Ignition Sensing                  | <ul style="list-style-type: none"> <li>Support Power Ignition Sensing Function with Delay Time Management and Selectable 12V/24V (With Optional CFM Module)</li> </ul>                |
| Clear CMOS Switch                       | <ul style="list-style-type: none"> <li>1x Clear CMOS Switch</li> </ul>                                                                                                                |
| Reset Button                            | <ul style="list-style-type: none"> <li>1x Reset Button</li> </ul>                                                                                                                     |
| Instant Reboot                          | <ul style="list-style-type: none"> <li>Support 0.2sec Instant Reboot Technology</li> </ul>                                                                                            |
| Watchdog Timer                          | <ul style="list-style-type: none"> <li>Software Programmable Supports 256 Levels System Reset</li> </ul>                                                                              |
| Power                                   |                                                                                                                                                                                       |
| Power Button                            | <ul style="list-style-type: none"> <li>1x ATX Power On/Off Button</li> </ul>                                                                                                          |
| Power Mode Switch                       | <ul style="list-style-type: none"> <li>1x AT/ATX Mode Switch</li> </ul>                                                                                                               |
| Power Input                             | <ul style="list-style-type: none"> <li>9 - 48VDC, 3-pin Terminal Block</li> </ul>                                                                                                     |
| Remote Power On/Off                     | <ul style="list-style-type: none"> <li>1x Remote Power On/Off, 2-pin Terminal Block</li> </ul>                                                                                        |
| Remote Power LED                        | <ul style="list-style-type: none"> <li>1x Remote Power LED, 2-pin Terminal Block</li> </ul>                                                                                           |
| Physical                                |                                                                                                                                                                                       |
| Dimension( W x D x H )                  | <ul style="list-style-type: none"> <li>227 x 261 x 128 mm</li> </ul>                                                                                                                  |
| Weight Information                      | <ul style="list-style-type: none"> <li>5.44 kg</li> </ul>                                                                                                                             |
| Mechanical Construction                 | <ul style="list-style-type: none"> <li>Extruded Aluminum with Heavy Duty Metal</li> </ul>                                                                                             |
| Mounting                                | <ul style="list-style-type: none"> <li>Wall</li> </ul>                                                                                                                                |
| Physical Design                         | <ul style="list-style-type: none"> <li>Fanless Design</li> <li>Cableless Design</li> <li>Jumper-less Design</li> <li>Unibody Design</li> </ul>                                        |
| Reliability & Protection                |                                                                                                                                                                                       |
| Reverse Power Input Protection          | <ul style="list-style-type: none"> <li>Yes</li> </ul>                                                                                                                                 |
| Over Voltage Protection                 | <ul style="list-style-type: none"> <li>Protection Range: 51~58V</li> <li>Protection Type: shut down operating voltage, re-power on at the preset level to recover</li> </ul>          |
| Over Current Protection                 | <ul style="list-style-type: none"> <li>15A</li> </ul>                                                                                                                                 |
| CMOS Battery Backup                     | <ul style="list-style-type: none"> <li>SuperCap Integrated for CMOS Battery Maintenance-free Operation</li> </ul>                                                                     |
| MTBF                                    | <ul style="list-style-type: none"> <li>371,274 Hours</li> <li>- Database: Telcordia SR-332 Issue3, Method 1, Case 3</li> </ul>                                                        |

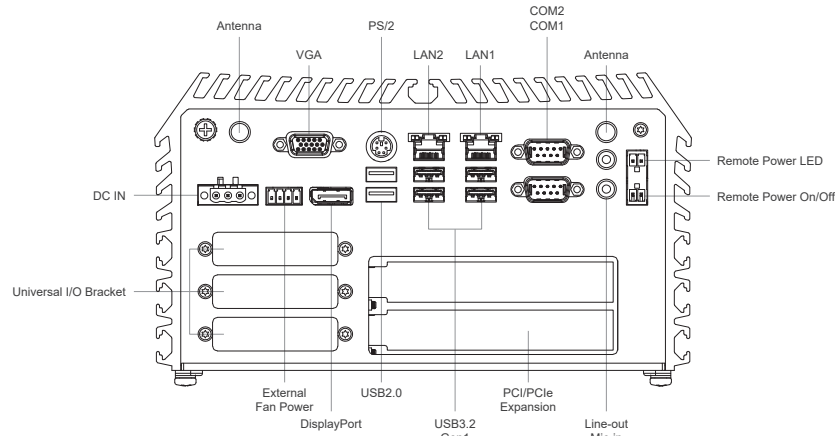
| Operating System      |                                                                                                                                                                                                                                                                                                                                              |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Windows               | • Windows® 10                                                                                                                                                                                                                                                                                                                                |
| Linux                 | • Supports by project                                                                                                                                                                                                                                                                                                                        |
| Environment           |                                                                                                                                                                                                                                                                                                                                              |
| Operating Temperature | <ul style="list-style-type: none"> <li>• 35W TDP Processor: -40°C to 70°C</li> <li>• 65W TDP Processor: -40°C to 50°C (With External Fan Kit) <ul style="list-style-type: none"> <li>- With extended temperature peripherals; Ambient with air flow</li> <li>- According to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14</li> </ul> </li> </ul> |
| Storage Temperature   | • -40°C to 85°C                                                                                                                                                                                                                                                                                                                              |
| Relative Humidity     | • 95%RH @ 70°C (non-Condensing)                                                                                                                                                                                                                                                                                                              |
| Shock                 | • MIL-STD-810G                                                                                                                                                                                                                                                                                                                               |
| Vibration             | • MIL-STD-810G                                                                                                                                                                                                                                                                                                                               |
| EMC                   | <ul style="list-style-type: none"> <li>• CE, UKCA, FCC, ICES-003 Class A</li> <li>• EN 50155 (EN 50121-3-2 Only)</li> </ul>                                                                                                                                                                                                                  |

## External Layout

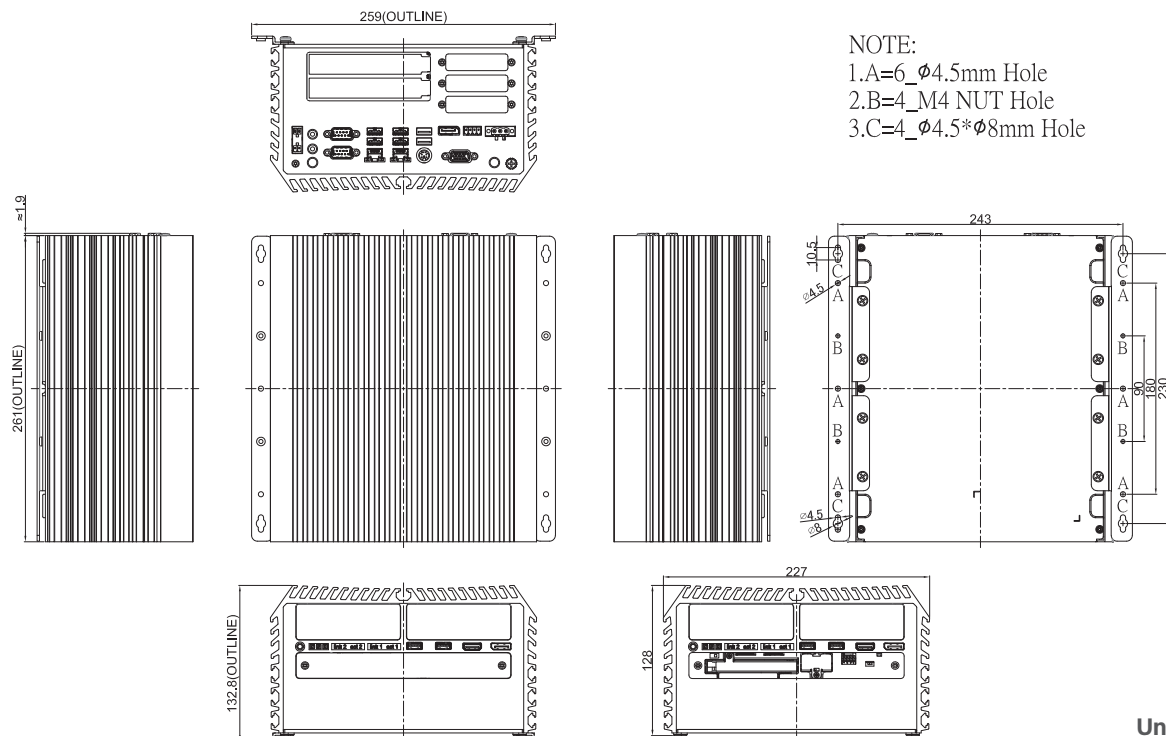
Front I/O



Rear I/O



## Dimensions



Unit: mm

## Ordering Information

### Available Models

| Model No.   | Description                                                                                                                                     |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| DS-1402-R10 | 12th Generation Intel Core Series Processors, High Performance, Expandable and Modular Rugged Embedded Computer with 2x PCI/PCIe Expansion Slot |

### Package Checklist

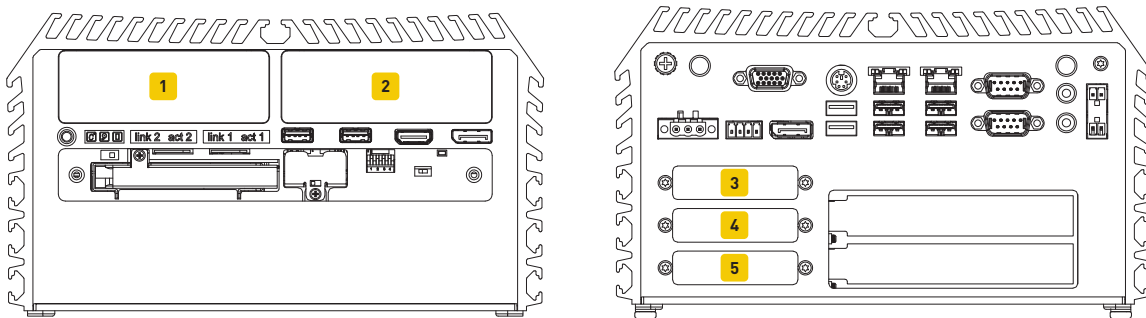
|                                      |                                                |
|--------------------------------------|------------------------------------------------|
| • DS-1402 Embedded System x1         | • Heatsink Pack x1                             |
| • Wall Mounting Kit x1               | • Screw Pack x1                                |
| • Power Terminal Block Connector x 1 | • Remote Function Terminal Block Connector x 2 |
| • Fan Terminal Block Connector x 1   |                                                |

### Optional Modules and Accessories

| Model No.         | Description                                                                                 |
|-------------------|---------------------------------------------------------------------------------------------|
| CMI-LAN01-R12     | CMI Module with 4x RJ45 Intel I210 GbE LAN Ports                                            |
| CMI-M12LAN01-R12  | CMI Module with 4x M12 Intel I210 GbE LAN Ports                                             |
| CMI-XM12LAN01-R10 | CMI Module with M12 X-Coded Connector, 4x Intel I210 GbE LAN Ports                          |
| CMI-10GLAN03-R10  | CMI Module with 2x Intel X550 10GbE LAN, RJ45 Port                                          |
| CMI-COM02         | CMI Module with 4x RS232/422/485 Serial Ports                                               |
| CMI-ICOM01        | CMI Module with 4x Electrical Isolated RS-232 Serial Ports                                  |
| CMI-DIO02         | CMI Module with 16x Optical Isolated DIO (8 in/8 out)                                       |
| MEC-LAN-M102-30   | Mini-PCIe Module with 2x LAN Ports, 2x 30cm cable                                           |
| MEC-USB-M102-30   | Mini-PCIe Module with 2x USB 3.2 Gen1 Ports, 1x 30cm cable                                  |
| MEC-COM-M212-DB9  | Mini-PCIe Module with 2x RS-232 Serial Ports, 1x Standard DB9 Cable                         |
| UB1004            | Universal Bracket with 4x DB9 Cutout                                                        |
| UB1010            | Universal Bracket with 4x M12 Cutout                                                        |
| UB1012            | Universal Bracket with 4x RJ45 Cutout                                                       |
| UB1018            | Universal Bracket with DIO Cutout                                                           |
| UB1028            | Universal Bracket with 2x RJ45 Cutout                                                       |
| UB1030-R10        | Universal Bracket with 4x M12 X-Coded Cutout                                                |
| UB0303            | 2x Universal Bracket each with 1x DB9 Cutout                                                |
| UB0311            | Universal Bracket with 2x RJ45 Cutout                                                       |
| UB0314            | Universal Bracket with 2x USB Cutout                                                        |
| CFM-PoE03         | CFM Module with PoE Control Function, Individual Port 25.5W                                 |
| CFM-IGN101        | CFM Module with Power Ignition Sensing Control Function, 12V/24V Selectable                 |
| RC-E8E8-R10       | Riser Card with 2 x PCIe8 Slots                                                             |
| RC-E16E1-01       | Riser Card with 1x PCIe16 and 1x PCIe1 Slots (PCIe x16 Slot Supports Dual Deck Add-on Card) |
| RC-E16PI-01       | Riser Card with 1x PCIe16 and 1x PCI Slots (PCIe x16 Slot Supports Single Deck Add-on Card) |
| RC-PIPI-01        | Riser Card with 2x PCI Slots                                                                |

|               |                                                                                 |
|---------------|---------------------------------------------------------------------------------|
| FAN-EX101     | External Fan with 4pin Terminal Block Plug, Mounting Bracket, Support smart fan |
| FAN-UB100     | Exhaling fan with 4pin Connector, Universal Bracket                             |
| FAN-UB101     | Inhaling fan with 4pin Connector, Universal Bracket                             |
| GST120A24-CIN | Adapter AC/DC 24V 5A 120W with 3pin Terminal Block Plug and Tubes, Level VI     |
| GST220A24-CIN | Adapter AC/DC 24V 9.2A 220W with 3pin Terminal Block Plug and Tubes, Level VI   |

### Optional Module Configuration



| Model No.                                                                                                           | Description                                                                                                       | 1  | 2  | 3  | 4  | 5  |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----|----|----|----|----|
| <br>CMI-LAN01-R12/UB1012         | CMI Module with 4x Intel I210 GbE LAN, RJ45 Port / 1x Universal Bracket with 4x RJ45 Cutout                       | V  | V  | -- | -- | -- |
| <br>CMI-M12LAN01-R12/UB1010      | CMI Module with M12 Connector, 4x Intel GbE LAN / 1x Universal Bracket with 4x M12 Cutout                         | V  | V  | -- | -- | -- |
| <br>CMI-XM12LAN01-R10/UB1030-R10 | CMI Module with M12 X-Coded Connector, 4x Intel I210 GbE LAN Ports / Universal Bracket with 4x M12 X-Coded Cutout | V  | V  | -- | -- | -- |
| <br>CMI-10GLAN03-R10/UB1028      | CMI Module with 2x Intel X550 10GbE LAN, RJ45 Port / 1x Universal Bracket with 2x RJ45 Cutout                     | V  | -- | -- | -- | -- |
| <br>CMI-COM02/UB1004             | CMI Module with 4x RS232/422/485 Ports (Support 5V/12V) / 1x Universal Bracket with 4x DB9 Cutout                 | V  | V  | -- | -- | -- |
| <br>CMI-ICOM01/UB1004            | CMI Module with M12 Connector, 4x Intel GbE LAN / 1x Universal Bracket with 4x M12 Cutout                         | V  | V  | -- | -- | -- |
| <br>CMI-DIO02/UB1018             | CMI Module with 2x Intel X550 10GbE LAN, RJ45 Port / 1x Universal Bracket with 2x RJ45 Cutout                     | V  | V  | -- | -- | -- |
| <br>MEC-LAN-M102-30/UB0311       | Mini-PCle Module with 2x LAN Ports, 2x 30cm cable / 1x Universal Bracket with 2x RJ45 Cutout                      | -- | -- | V  | V  | V  |
| <br>MEC-USB-M102-30/UB0314       | Mini-PCle Module with 2x USB 3.2 Gen1 Ports, 1x 30cm cable, 1x Universal Bracket with 2x USB Cutout               | -- | -- | V  | V  | V  |
| <br>MEC-COM-M212-DB9/UB0303      | Mini-PCle Module with 2x RS-232 Ports, 1x Standard DB9 Cable / 2x Universal Bracket each with 1x DB9 Cutout       | -- | -- | V  | V  | V  |

Remark:  
Maximum one CMI-COM02 or CMI-ICOM01 module can be installed in this system.

V : Compatible

Updated: Aug. 16, 2023

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## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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