

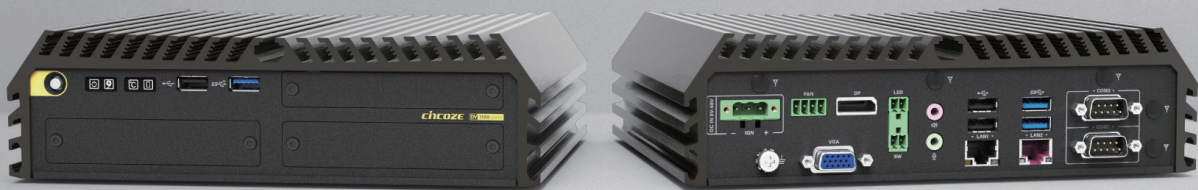
# DV-1100

13/12th Gen. Intel® Core™ Series High Performance and Basic Function Rugged Embedded Computer



## HIGH-PERFORMANCE | COST-EFFECTIVE

DV-1100, a 13/12th Gen Intel Core Series Rugged Computer



### Overview

[CONTACT](#)

The DV-1100 is a compact, high-performance, embedded edge computer that supports 13th/12th generation Intel® processors. Its balance between high-performance computing needs and cost-effectiveness enables enterprises to quickly analyze and process edge data for better decision-making and improved production efficiency and accuracy. The DV-1100 is ideal for smart manufacturing, machine vision, railway computing, and space-constrained applications where stability and reliability are paramount.

### Key Features

- Intel® 13/12th Gen. Core™ i9/i7/i5/i3 Processors (max 65 W TDP)
- 1x M.2 Key M Type 2280 Socket for PCIe Gen 4x4 NVMe Storage
- 1x M.2 Key E Type 2230 Socket for Wireless/Intel CNVi Module Expansion
- 1x M.2 Key B Type 3052/3042 Socket for 5G/Storage/Add-on Card Expansion
- 1x M.2 Key B Type 2242 Socket for Storage/Add-on Card Expansion
- Optional CMI & CFM Modules for I/O Expansion & Power Ignition Sensing Function
- Wide operating temperature -40°C to 70°C

### Certifications



### Balancing Performance and Cost

The DV-1100 has a compact body and supports a 13th/12th generation Intel® Core™ processor. It provides sufficient computing performance for multitasking and diverse applications while balancing performance and cost.

## 13 / 12th Gen

Intel Core Series

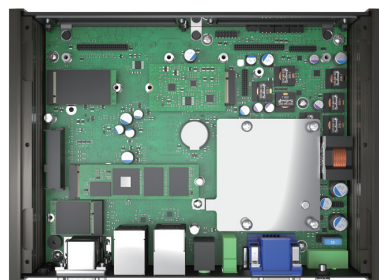


### Compact Size

The DV-1100 measures only 224.1 x 162 x 62mm, making it easy to install anywhere, including in space-constrained applications.

### Stunning Transfer and Access Speeds

The DV-1100 has high-speed I/O interfaces, including 2.5G LAN and 10Gbps USB 3.2 Gen2x1. Storage support includes 2.5" HDD/SSD and high-speed NVMe SSD.



### Excellent Extension Design

The DV-1100 has built-in M.2 Key B, M.2 Key E, and M.2 Key M slots for flexible wireless (5G, Wi-Fi, GNSS) and storage selection according to application requirements.

### Various Industry Certifications

The DV-1100's rugged design meets various industrial-grade and industrial certifications, such as EMC standards in industrial environments (EN 61000-6-2/4), US military shock vibration standards (MIL-STD-810H), railway computing EN50155 (EN 50121-3-2 only), and more.



## Specifications

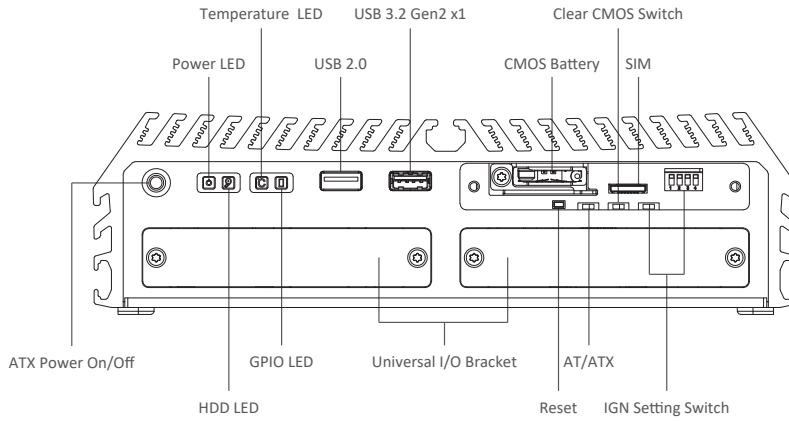
Model Name	DV-1100
<b>System</b>	
Processor	<ul style="list-style-type: none"> <li>• 13th Generation Intel® Raptor Lake-S Series CPU:               <ul style="list-style-type: none"> <li>- Intel® Core™ i9-13900E 24 Cores Up to 5.2 Ghz, TDP 65W</li> <li>- Intel® Core™ i7-13700E 16 Cores Up to 5.1 Ghz, TDP 65W</li> <li>- Intel® Core™ i5-13500E 14 Cores Up to 4.6 Ghz, TDP 65W</li> <li>- Intel® Core™ i5-13400E 10 Cores Up to 4.6 Ghz, TDP 65W</li> <li>- Intel® Core™ i3-13100E 4 Cores Up to 4.4 Ghz, TDP 65W</li> <li>- Intel® Core™ i9-13900TE 24 Cores Up to 5.0 Ghz, TDP 35W</li> <li>- Intel® Core™ i7-13700TE 16 Cores Up to 4.8 Ghz, TDP 35W</li> <li>- Intel® Core™ i5-13500TE 14 Cores Up to 4.5 Ghz, TDP 35W</li> <li>- Intel® Core™ i3-13100TE 4 Cores Up to 4.1 Ghz, TDP 35W</li> </ul> </li> <li>• 12th Generation Intel® Alder Lake-S Series CPU:               <ul style="list-style-type: none"> <li>- Intel® Core™ i9-12900E 16 Cores Up to 5.0 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	• Intel H610E Chipset
Memory	• 1x DDR5 4800Mhz SO-DIMM Socket Supports Un-buffered and non-ECC Type, Up to 32GB
BIOS	• AMI BIOS
<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	• Supports Triple Independent Display
DP	• 1x DisplayPort Connector: 3840 x 2160 @60Hz
VGA	• 1x VGA Connector: 1920 x 1200 @60Hz
CMI Display	• 1x CMI Interface for Optional CMI-DP/CMI-HDMI Module Expansion
<b>Audio</b>	
Audio Codec	• Realtek® ALC888, High Definition Audio
Line-out	• 1x Line-out, Phone Jack 3.5mm
Mic-in	• 1x Mic-in, Phone Jack 3.5mm
<b>I/O</b>	
LAN	<ul style="list-style-type: none"> <li>• 1x 2.5GbE LAN, RJ45               <ul style="list-style-type: none"> <li>- Intel® I225</li> </ul> </li> <li>• 1x 1GbE LAN, RJ45               <ul style="list-style-type: none"> <li>- Intel® I219</li> </ul> </li> </ul>
COM	• 2x RS-232/422/485 with Auto Flow Control (Supports 5V/12V), DB9
USB	<ul style="list-style-type: none"> <li>• 1x 10Gbps USB3.2 Gen 2x1, Type A</li> <li>• 2x 5Gbps USB 3.2 Gen 1x1, Type A</li> <li>• 3x 480Mbps USB2.0, Type A</li> </ul>

<b>Storage</b>	
SSD/HDD	• 1x 2.5" SATA HDD/SSD Bay (SATA 3.0)
M.2 SSD	• 1x M.2 SSD Shared by M.2 Key M Type 2280 Socket, Support PCIe Gen 4x4 NVMe SSD or SATA 3.0 SSD • 2x M.2 SSD Shared by M.2 Key B Socket, Support PCIe Gen 3x2 NVMe SSD or SATA 3.0 SSD
<b>Expansion</b>	
M.2 Key E Socket	• 1x M.2 Key E Type 2230 Socket (PCIe Gen 3x2 / USB2.0), Support Wireless/Intel CNVi Module Expansion
M.2 Key B Socket	• 1x M.2 Key B Type 3042/3052 Socket (PCIe Gen 3x2 / USB3.2 Gen2 x1 / USB2.0 / SATA), Support 5G/Storage/Add-on Card Expansion • 1x M.2 Key B Type 2242 Socket (PCIe Gen 3x2 / USB2.0 / SATA ), Support Storage/Add-on Card Expansion
SIM Socket	• 1 x Front Accessible Dual Nano SIM Socket
CMI (Combined Multiple I/O) Interface	• 1x CMI Interface for optional CMI-Display Module Expansion • 2x CMI Interface for optional CMI-COM/DIO Module Expansion
CFM (Control Function Module) Interface	• 1x CFM IGN Interface for optional CFM-IGN Module Expansion
<b>Other Function</b>	
External FAN Connector	• 1x External FAN Connector, 4-pin Terminal Block (Support Smart Fan by BIOS)
Clear CMOS Switch	• 1x Clear CMOS Switch
Reset Button	• 1x Reset Button
Instant Reboot	• Support 0.2sec Instant Reboot Technology
Watchdog Timer	• Software Programmable Supports 256 Levels System Reset
Antenna Hole	• 5x Antenna Holes
<b>Power</b>	
Power Button	• 1x ATX Power On/Off Button
Power Mode Switch	• 1x AT/ATX Mode Switch
Power Input	• 9 - 48VDC, 3-pin Terminal Block
Remote Power On/Off	• 1x Remote Power On/Off, 2-pin Terminal Block
Remote Power LED	• 1x Remote Power LED, 2-pin Terminal Block
<b>Physical</b>	
Dimension ( W x D x H )	• 224.1 x 162 x 62 mm
Weight Information	• 2.52 KG
Mechanical Construction	• Extruded Aluminum with Heavy Duty Metal
Mounting	• Wall / DIN-RAIL / VESA Mount
Physical Design	• Fanless Design • Cableless Design • Jumper-less Design • Unibody Design
<b>Reliability &amp; Protection</b>	
Reverse Power Input Protection	• Yes
Over Voltage Protection	• Protection Range: 51~58V • Protection Type: shut down operating voltage, re-power on at the preset level to recover
Over Current Protection	• 15A
CMOS Battery Backup	• SuperCap Integrated for CMOS Battery Maintenance-free Operation

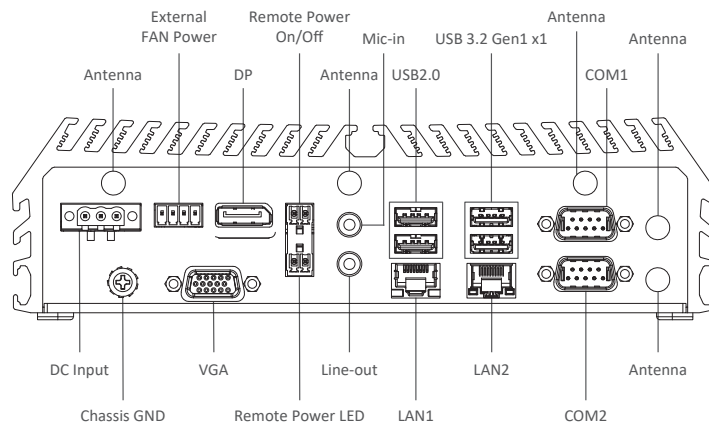
MTBF	<ul style="list-style-type: none"> <li>• TBC Hours</li> <li>- Database: Telcordia SR-332 Issue3, Method 1, Case 3</li> </ul>
<b>Operating System</b>	
Windows	<ul style="list-style-type: none"> <li>• Windows® 10</li> </ul>
Linux	<ul style="list-style-type: none"> <li>• Supports by project</li> </ul>
<b>Environment</b>	
Operating Temperature	<ul style="list-style-type: none"> <li>• 35W TDP Processor: -40°C to 70°C</li> <li>• 65W TDP Processor: TBC (With External Fan Kit)</li> <li>* PassMark BurnInTest: 100% CPU, 2D/3D Graphics (without thermal throttling)</li> <li>* With extended temperature peripherals; Ambient with air flow</li> <li>* According to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14</li> </ul>
Storage Temperature	<ul style="list-style-type: none"> <li>• TBC</li> </ul>
Relative Humidity	<ul style="list-style-type: none"> <li>• TBC</li> </ul>
Shock	<ul style="list-style-type: none"> <li>• MIL-STD-810G</li> </ul>
Vibration	<ul style="list-style-type: none"> <li>• MIL-STD-810G</li> </ul>
EMC	<ul style="list-style-type: none"> <li>• CE, UKCA, FCC, ICES-003 Class A</li> <li>• EN IEC 61000-6-4 / EN IEC 61000-6-2 (24VDC Input Only)</li> <li>• EN 50155 (EN 50121-3-2 Only)</li> <li>• E-mark (Pending)</li> </ul>
EMI	<ul style="list-style-type: none"> <li>• CISPR 32 Conducted &amp; Radiated: Class A</li> <li>• EN/BS EN 50121-3-2 Conducted &amp; Radiated: Class A</li> <li>• EN/BS EN IEC 61000-3-2 Harmonic current emissions: Class A</li> <li>• EN/BS EN 61000-3-3 Voltage fluctuations &amp; flicker</li> <li>• FCC 47 CFR Part 15B, ICES-003 Conducted &amp; Radiated: Class A</li> </ul>
EMS	<ul style="list-style-type: none"> <li>• EN/IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV</li> <li>• EN/IEC 61000-4-3 RS: 80 MHz to 1000 MHz: 20 V/m</li> <li>• EN/IEC 61000-4-4 EFT: AC Power: 2 kV; DC Power: 2 kV; Signal: 2 kV</li> <li>• EN/IEC 61000-4-5 Surges: AC Power: 2 kV; Signal: 1 kV</li> <li>• EN/IEC 61000-4-6 CS: 10V (**Compliant with the standard when utilizing shielded cable.)</li> <li>• EN/IEC 61000-4-8 PFMF: 50 Hz, 30A</li> <li>• EN/IEC 61000-4-11 Voltage Dips &amp; Voltage Interruptions: 1 cycles at 60 Hz</li> </ul>

**External Layout**

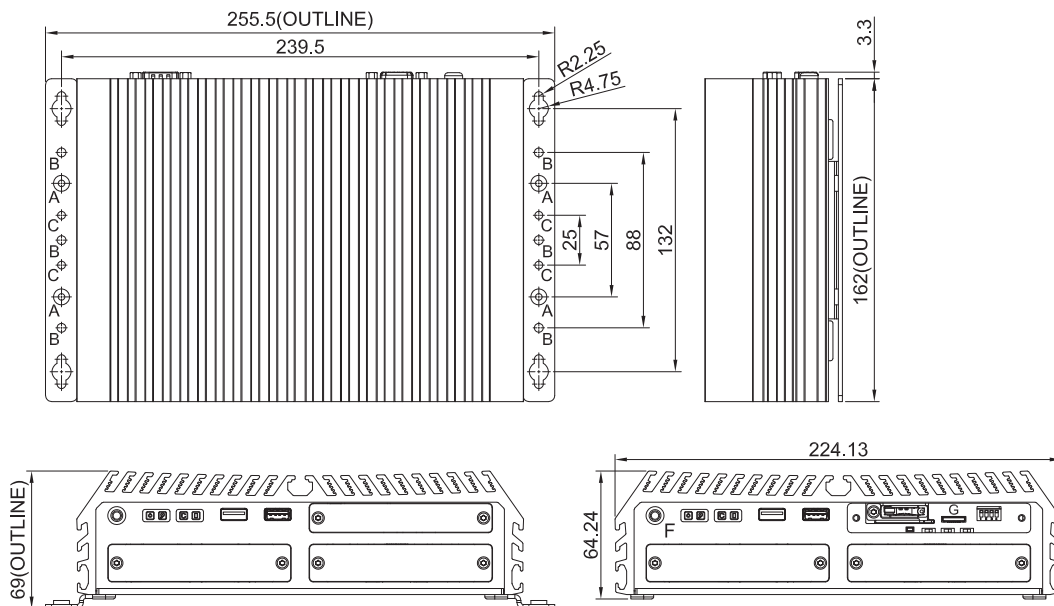
Front



Rear



**Dimensions**



Unit: mm

## Ordering Information

### Available Models

Model No.	Description
DV-1100-R10	13/12th Gen. Intel® Core™ Series High Performance and Basic Function Rugged Embedded Computer

### Package Checklist

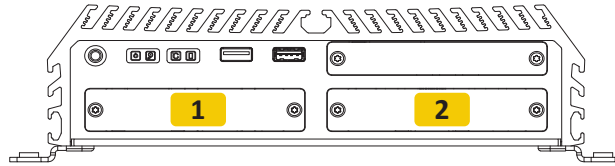
• DV-1100 Embedded Computer x1	• Wall Mounting Kit x1
• CPU Installation Kit x1	• Power Terminal Block Connector x 1
• External Fan Terminal Block Connector x 1	• Remote Function Terminal Block Connector x 2
• Screw Pack x 1	• M.2 Key B Type 3052 to Type 3042 Adapter Bracket x1





### Optional Modules and Accessories

Model No.	Description
CMI-DP01-R10	CMI Module with 1x DisplayPort
CMI-HD03-R10	CMI Module with 1x HDMI Port
CMI-COM06-R10	CMI Module with 2x RS232/422/485 Ports (Support 5V/12V)
CMI-DIO06-R10	CMI Module with 16DIO (8in 8out)
CFM-IGN04-R10	CFM Module with Power Ignition Sensing Function, 12V/24V Selectable
UB1603-R10	Universal Bracket with 2x DB9 Cutout
UB1606-R10	Universal Bracket with DP Cutout
UB1608-R10	Universal Bracket with HDMI Cutout
UB1618-R20	Universal Bracket with DIO Cutout
DINRAIL-R10	Diamond series DIN-RAIL Mount Kit
FAN-EX104	External Fan with 4pin Terminal Block Plug and Mounting Bracket, Support Smart Fan
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
<p>CMI-DP01/UB1606</p> 	CMI Module with 1x DisplayPort / 1x Universal Bracket with DP Cutout for DV Series	-	V
<p>CMI-HD03/UB1608</p> 	CMI Module with 1x HDMI / 1x Universal Bracket with HDMI Cutout for DV Series	-	V
<p>CMI-COM06/UB1603</p> 	CMI Module with 2x RS232/422/485 Ports (Support 5V/12V) / 1x Universal Bracket with 2x DB9 Cutout for DV Series	V	V
<p>CMI-DIO06/UB1618</p> 	CMI Module with 16DIO (8in 8out) / 1x Universal Bracket with DIO Cutout for DV Series	V	V

V : Compatible



## 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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