

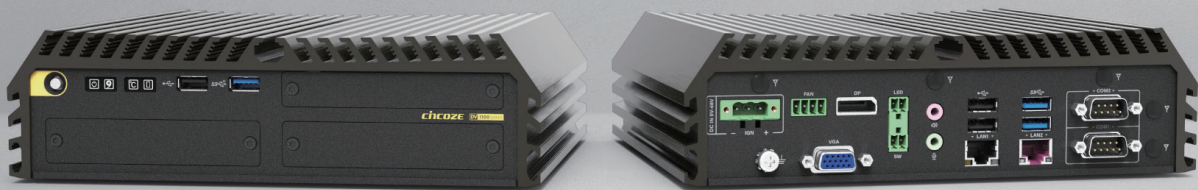
DV-1100

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

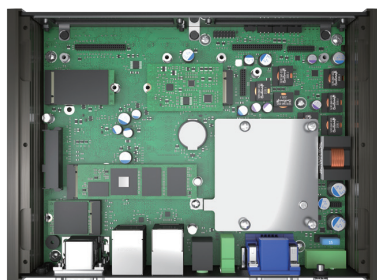


Compact Size

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

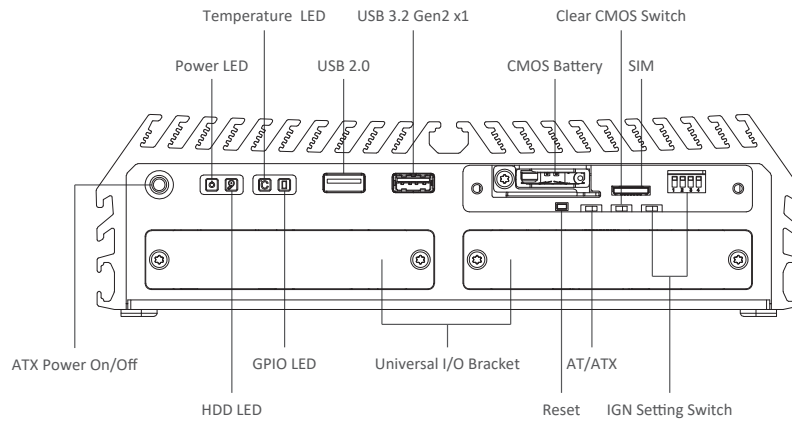
Model Name	DV-1100
System	
Processor	13th Generation Intel® Raptor Lake-S Series CPU: - Intel® Core™ i9-13900E 24 Cores Up to 5.2 Ghz, TDP 65W - Intel® Core™ i7-13700E 16 Cores Up to 5.1 Ghz, TDP 65W - Intel® Core™ i5-13500E 14 Cores Up to 4.6 Ghz, TDP 65W - Intel® Core™ i5-13400E 10 Cores Up to 4.6 Ghz, TDP 65W - Intel® Core™ i3-13100E 4 Cores Up to 4.4 Ghz, TDP 65W - Intel® Core™ i9-13900TE 24 Cores Up to 5.0 Ghz, TDP 35W - Intel® Core™ i7-13700TE 16 Cores Up to 4.8 Ghz, TDP 35W - Intel® Core™ i5-13500TE 14 Cores Up to 4.5 Ghz, TDP 35W - Intel® Core™ i3-13100TE 4 Cores Up to 4.1 Ghz, TDP 35W 12th Generation Intel® Alder Lake-S Series CPU: - Intel® Core™ i9-12900E 16 Cores Up to 5.0 GHz, TDP 65W - Intel® Core™ i7-12700E 12 Cores Up to 4.8 GHz, TDP 65W - Intel® Core™ i5-12500E 6 Cores Up to 4.5 GHz, TDP 65W - Intel® Core™ i3-12100E 4 Cores Up to 4.2 GHz, TDP 60W - Intel® Core™ i9-12900TE 16 Cores Up to 4.8 GHz, TDP 35W - Intel® Core™ i7-12700TE 12 Cores Up to 4.7 GHz, TDP 35W - Intel® Core™ i5-12500TE 6 Cores Up to 4.3 GHz, TDP 35W - Intel® Core™ i3-12100TE 4 Cores Up to 4.0 GHz, TDP 35W - Intel® Pentium® G7400E 2 Cores Up to 3.6 GHz, TDP 46W - Intel® Pentium® G7400TE 2 Cores Up to 3.0 GHz, TDP 35W - Intel® Celeron® G6900E 2 Cores Up to 3.0 GHz, TDP 46W - Intel® Celeron® G6900TE 2 Cores Up to 2.4 GHz, TDP 35W
Chipset	Intel H610E Chipset
Memory	1x DDR5 4800Mhz SO-DIMM Socket - Supports Un-buffered and non-ECC Type, Up to 32GB
BIOS	AMI BIOS
Graphics	
Graphics Engine	- Integrated Intel® UHD Graphics 770: Core™ i9/i7/i5 - Integrated Intel® UHD Graphics 730: Core™ i3 - Integrated Intel® UHD Graphics 710: Pentium®/Celeron®
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
Audio	
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
I/O	
LAN	1x 2.5GbE LAN, RJ45 - Intel® I225 1x 1GbE LAN, RJ45 - Intel® I219
COM	2x RS-232/422/485 with Auto Flow Control (Supports 5V/12V), DB9
USB	1x 10Gbps USB3.2 Gen 2x1, Type A 2x 5Gbps USB 3.2 Gen 1x1, Type A 3x 480Mbps USB2.0, Type A

Storage	
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
Expansion	
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	1x 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
Other Function	
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
Power	
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
Physical	
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
Reliability & Protection	
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

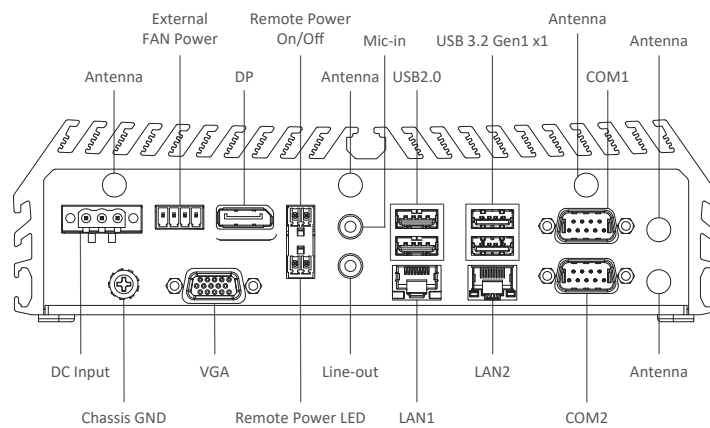
MTBF	• TBC Hours - Database: Telcordia SR-332 Issue3, Method 1, Case 3
Operating System	
Windows	• Windows® 10
Linux	• Supports by project
Environment	
Operating Temperature	• 35W TDP Processor: -40°C to 70°C • 65W TDP Processor: TBC (With External Fan Kit) * PassMark BurnInTest: 100% CPU, 2D/3D Graphics (without thermal throttling) * With extended temperature peripherals; Ambient with air flow * According to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14
Storage Temperature	• TBC
Relative Humidity	• TBC
Shock	• MIL-STD-810G
Vibration	• MIL-STD-810G
EMC	• CE, UKCA, FCC, ICES-003 Class A • EN IEC 61000-6-4 / EN IEC 61000-6-2 (24VDC Input Only) • EN 50155 (EN 50121-3-2 Only) • E-mark (Pending)
EMI	• CISPR 32 Conducted & Radiated: Class A • EN/BS EN 50121-3-2 Conducted & Radiated: Class A • EN/BS EN IEC 61000-3-2 Harmonic current emissions: Class A • EN/BS EN 61000-3-3 Voltage fluctuations & flicker • FCC 47 CFR Part 15B, ICES-003 Conducted & Radiated: Class A
EMS	• EN/IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV • EN/IEC 61000-4-3 RS: 80 MHz to 1000 MHz: 20 V/m • EN/IEC 61000-4-4 EFT: AC Power: 2 kV; DC Power: 2 kV; Signal: 2 kV • EN/IEC 61000-4-5 Surges: AC Power: 2 kV; Signal: 1 kV • EN/IEC 61000-4-6 CS: 10V (**Compliant with the standard when utilizing shielded cable.) • EN/IEC 61000-4-8 PFMF: 50 Hz, 30A • EN/IEC 61000-4-11 Voltage Dips & Voltage Interruptions: 1 cycles at 60 Hz

External Layout

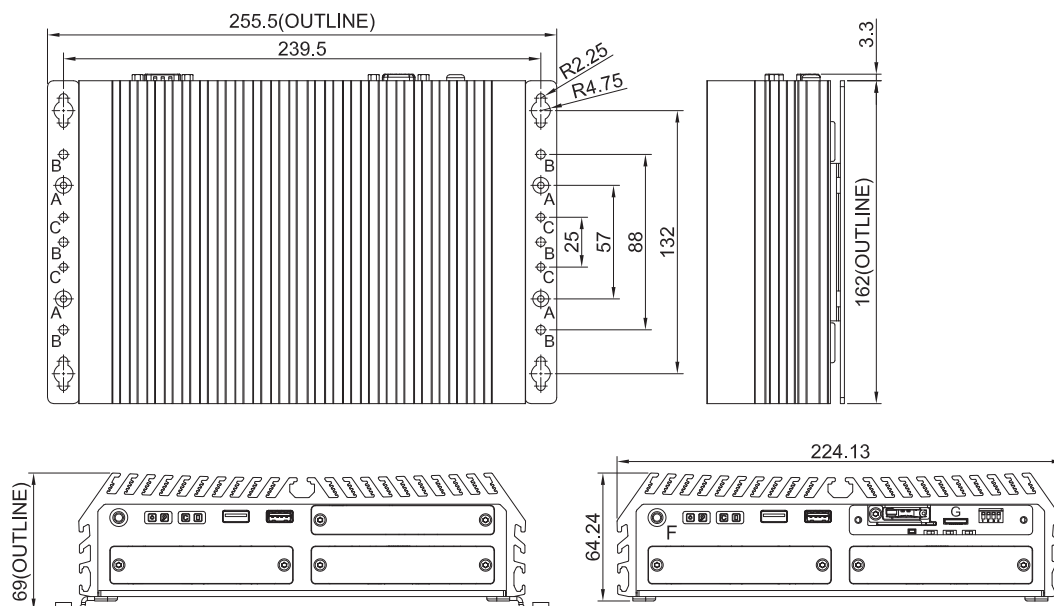
Front



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

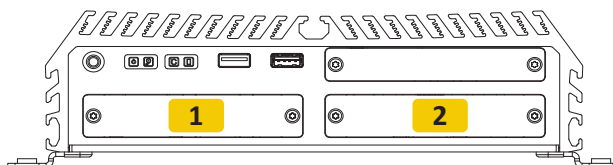
Package Checklist

• 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
CMI-DP01/UB1606 	CMI Module with 1x DisplayPort / 1x Universal Bracket with DP Cutout for DV Series	-	V
CMI-HD03/UB1608 	CMI Module with 1x HDMI / 1x Universal Bracket with HDMI Cutout for DV Series	-	V
CMI-COM06/UB1603 	CMI Module with 2x RS232/422/485 Ports (Support 5V/12V) / 1x Universal Bracket with 2x DB9 Cutout for DV Series	V	V
CMI-DIO06/UB1618 	CMI Module with 16DIO (8in 8out) / 1x Universal Bracket with DIO Cutout for DV Series	V	V

V : Compatible

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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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