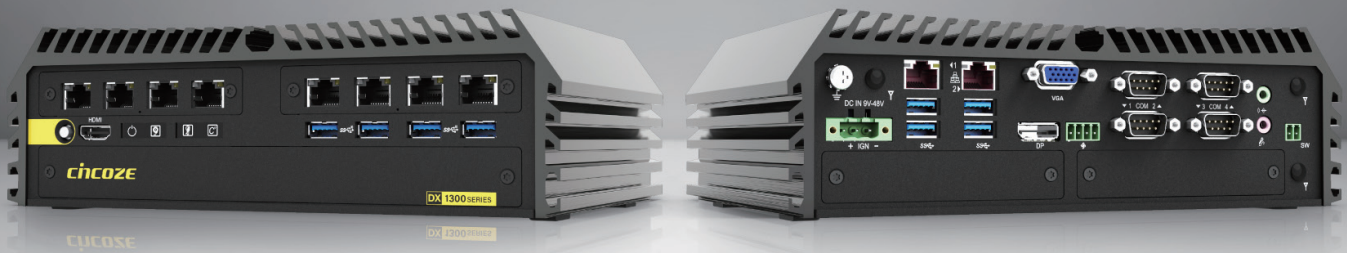


DX-1300

Intel® Arrow Lake-S Core™ Ultra 200S Series Processors, High Performance and Compact Rugged Embedded Computer



Rugged · Powerful · Compact

DX-1300 Series — Intel Arrow Lake-S Core Ultra Edge Computer

Overview

 **CONTACT**

The DX-1300 is a compact industrial computer engineered for high-performance edge computing. Powered by an Intel Arrow Lake-S Core™ Ultra 200S series processor, it supports demanding edge applications, including advanced image processing, AI inference, and data integration across multiple tasks. The DX-1300 series packs exceptional computing performance and a rich feature set into a compact chassis while maintaining industrial-grade ruggedness. It is particularly well-suited for high-performance applications with limited installation space and has earned high acclaim in the manufacturing, in-vehicle, and railway markets.

Key Features

- Intel® Arrow Lake-S Core™ Ultra 200S Series (Max 65 W TDP)
- 2x DDR5 SODIMM/CSODIMM Sockets, Up to 6400MHz, 96GB
- Wide Operating Temperature -20°C to 60°C
- Optional CMI Modules for I/O Expansion
- Optional CFM Modules for Hardware TPM, Ignition Sensing & PoE

Certifications



EN 50121-3-2



EN 45545



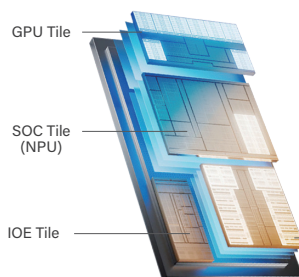
MIL-STD-810H



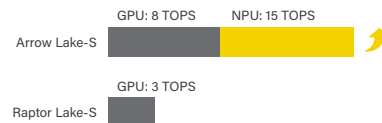
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Next-Generation Edge AI Computing Performance

The Intel® Core™ Ultra 200S series processors deliver up to 36 TOPS of AI computing performance through an integrated CPU, GPU, and NPU. This design, specifically for AI acceleration, delivers more than a 3.5x improvement over the previous generation platform.



Up to **36** Total Platform TOPS

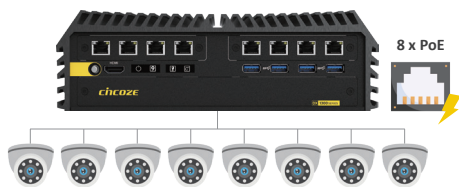


Compact Chassis

Measuring only 242 x 173 x 75mm, the compact chassis has a footprint comparable to an 11-inch iPad. This enables flexible deployment in space-constrained environments such as control cabinets, equipment interiors, or in-vehicle systems.

Rich & Versatile Expandability

Multiple built-in M.2 B/E key slots offer flexible support for wireless communication modules (5G, GNSS, Wi-Fi, Bluetooth), high-speed storage (NVMe SSD), and high-capacity storage (SATA SSD). It also supports I/O expansion modules, allowing for versatile configurations tailored to specific application needs.



Stable, High-speed Data Transmission

Fast and reliable data transmission is crucial for applications such as image capture and surveillance. The DX-1300 supports multiple high-speed I/O ports, including 10/2.5/1 GbE LAN and USB 3.2. It can be expanded to support up to 12x LAN ports or 8x PoE, effectively simplifying cabling.

Rugged & Multi-vertical Certifications

The rugged design of the DX-1300 complies with military standards (MIL-STD-810H), railway certifications (EN 50121-3-2 & EN 45545-2), ensuring reliable operation in various harsh environments.



Specifications

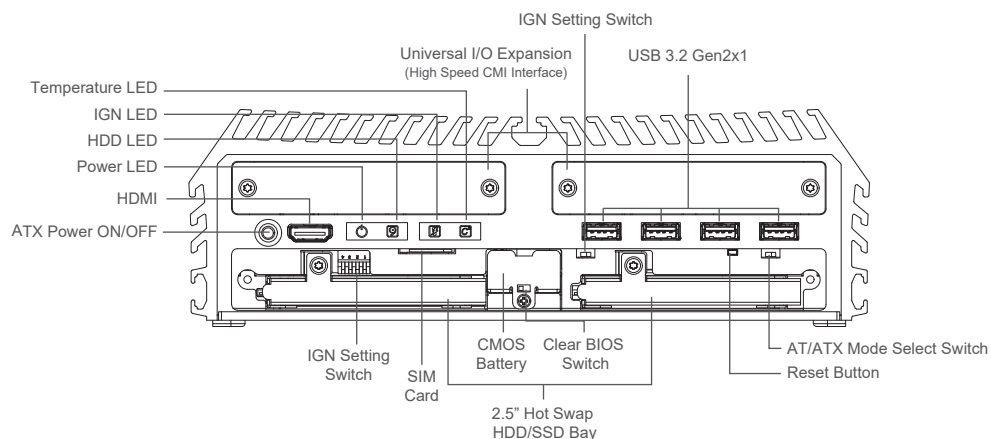
Model Name	DX-1300
System	
Processor	• Arrow Lake-S Ultra 200S Series CPU: - Intel® Core™ Ultra 9 285 24 Cores Up to 5.6 GHz, TDP 65W - Intel® Core™ Ultra 9 285T 24 Cores Up to 5.4 GHz, TDP 35W - Intel® Core™ Ultra 7 265 20 Cores Up to 5.3 GHz, TDP 65W - Intel® Core™ Ultra 7 265T 20 Cores Up to 5.3 GHz, TDP 35W - Intel® Core™ Ultra 5 245 14 Cores Up to 5.1 GHz, TDP 65W - Intel® Core™ Ultra 5 245T 14 Cores Up to 5.1 GHz, TDP 35W - Intel® Core™ Ultra 5 225 10 Cores Up to 4.9 GHz, TDP 65W - Intel® Core™ Ultra 5 225T 10 Cores Up to 4.9 GHz, TDP 35W
Chipset	• Intel W880 Chipset
Memory	• 2x DDR5 SODIMM/CSODIMM Socket, Support Un-buffered and ECC Type - Ultra 9 / 7: Supports Up to 6400MHz, 96GB - Ultra 5: Supports Up to 5600MHz, 96GB * CSODIMM is supported by project
BIOS	• AMI BIOS
Graphics	
Graphics Engine	• Integrated Intel® X® LPG Graphics
Maximum Display Output	• Supports Three Independent Display
VGA	• 1x VGA Connector : 1920 x 1200@60Hz
DP	• 1x DP Connector : 4096 x 2304@60Hz - Support cable switch HDMI 4096 x 2160@30Hz * Verified maximum resolution: 3840x2160 @60Hz
HDMI	• 1x HDMI Connector : 4096x2160@30Hz * Verified maximum resolution: 3840x2160 @30Hz
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	• 2x 2.5 GbE LAN, RJ45 - GbE1~2: Intel® I226
COM	• 4x RS-232/422/485 with Auto Flow Control (Supports 5V/12V), DB9
USB	• 4x 10Gbps USB 3.2 Gen2x1, Type A • 4x 5Gbps USB 3.2 Gen1x1, Type A
Storage / Expansion	
2.5" SSD / HDD	• 2x 2.5" Front Accessible SATA HDD/SSD Bay (SATA 3.0)
M.2 Key B Socket	• 1x M.2 Key B Type 3042/3052 Socket (PCIe Gen 3x2 / USB3.2 Gen1x1 / SATA), Support 5G / GNSS / Storage / Add-on Card Expansion • 1x M.2 Key B Type 2242 Socket (PCIe Gen 4x2 / SATA / USB 2.0), Support Storage / Add-on Card Expansion
M.2 Key E Socket	• 1x M.2 Key E Type 2230 Socket (PCIe Gen 3x2 / USB2.0), Support Wireless / Bluetooth / Storage / Intel CNVi Module Expansion
SIM	• 1x SIM Socket
CMI (Combined Multiple I/O) Socket	• 2x High Speed CMI Interface for optional CMI Module Expansion • 1x Low Speed CMI Interface for optional CMI Module Expansion
CFM (Control Function Module) Socket	• 1x CFM-IGN Interface for optional CFM-IGN Module Expansion • 1x CFM-TPM Interface for optional CFM-TPM Module Expansion

Other Function	
RAID	Support RAID 0/1/5/10
External FAN Connector	1x External FAN Connector, 4-pin Terminal Block (Support Smart Fan by BIOS)
Power Ignition Sensing	Support Power Ignition Sensing Function with Delay Time Management and Selectable 12V/24V (With Optional CFM Module)
TPM	Support Discrete TPM2.0 (with Optional CFM Module)
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 Holes	3
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
Max. Power Consumption	35W CPU: 162W 65W CPU: 272.88W - Test conducted with CPU, 1x RAM, and 1x storage - 100% load during burn-in test
Inrush Current (Peak)	35W CPU: 5.24 A@24V 65W CPU: 4.939 A@24V
Physical	
Dimension (W x D x H)	242.2 x 173 x 75mm
Weight Information	3.59 kg
Mechanical Construction	Extruded Aluminum with Heavy Duty Metal
Mounting	Wall / DIN-RAIL / VESA / Side 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	332,808 Hours - Database: Telcordia SR-332 Issue3, Method 1, Case 3
Operating System	
Windows	Windows®11, Windows® 10
Linux	Ubuntu 24.04

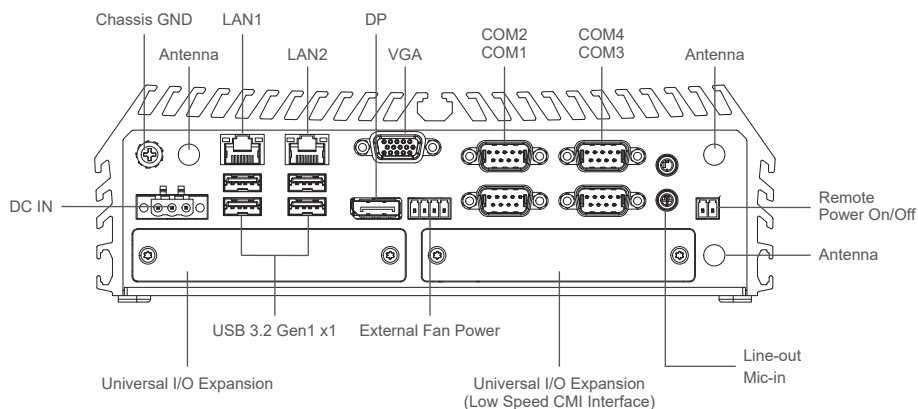
Environment	
Operating Temperature	• 35W TDP Processor: -20°C to 60°C (-4°F to 140°F) • 65W TDP Processor: -20°C to 50°C (-4°F to 122°F) With External Fan Kit - With extended temperature peripherals; Ambient with air flow - According to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14
Storage Temperature	• -40°C to 85°C (-40°F to 185°F)
Relative Humidity	• 95%@60°C (non-Condensing)
Shock	• MIL-STD-810H
Vibration	• MIL-STD-810H
EMC	• CE, UKCA, FCC, ICES-003 Class A
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 EN61000-3-3 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 (with optional PPM module): AC Power: 2 kV; DC Power: 1 kV; Signal: 2 kV • EN/IEC 61000-4-5 Surges: AC Power: 2 kV; Signal: 1 kV • EN/IEC 61000-4-6 CS: 10V • EN/IEC 61000-4-8 PF: 50 Hz, 30A/m • EN/IEC 61000-4-11 Voltage Dips & Voltage Interruptions: 1 cycles at 60 Hz
Railway	• EMC: - EN 50155: 2021 Clause 4.4.6, 13.4.9 - EN 50121-1 : 2017 - EN 50121-3-2: 2016 + A1: 2019
Fire Protection	• EN 45545-2
Safety	• UL, cUL, CB, IEC, EN 62368-1

External Layout

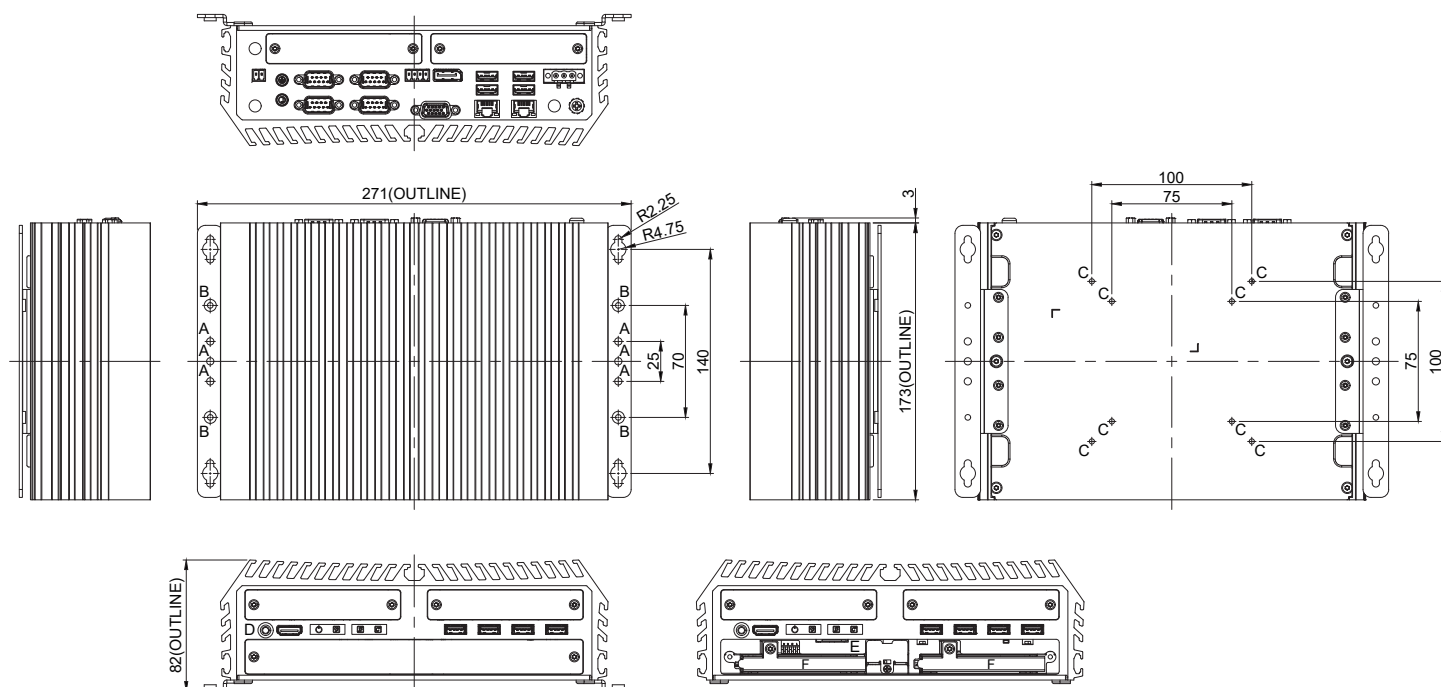
Front I/O



Rear I/O



Dimensions



Unit: mm

Ordering Information

Available Models

Model No.	Description
DX-1300-R11	Intel® Arrow Lake-S Core™ Ultra 200S Series Processors, High Performance and Compact Rugged Embedded Computer

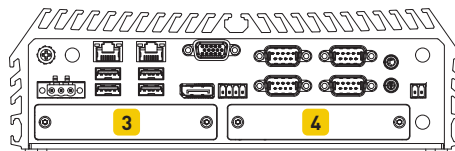
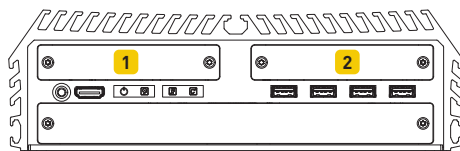
Package Checklist

• DX-1300 Series Embedded System x1	• Power Terminal Block Connector x1
• CPU Heatsink Pack x1	• Remote Power On/Off Terminal Block Connector x 1
• Screw Pack x 1	• Fan Terminal Block Connector x 1
• Wall Mounting Kit x1	• M.2 Key B Type 3052 to 3042 Adapter Bracket x1

Optional Modules and Accessories

Model No.	Description
CFM-PoE01	CFM Module with PoE Control Function, Individual Port 25.5W
CFM-IGN01	CFM Module with Power Ignition Sensing Control Function, 12V/24V Selectable
CFM-TPM02-R10	CFM Module with Hardware TPM 2.0
CMI-LAN01-R12	CMI Module with 4x RJ45 Intel I210 1GbE LAN Ports
CMI-M12LAN01-R12	CMI Module with 4 x M12 Intel I210 1GbE LAN Ports
CMI-XM12LAN01-R10	CMI Module with M12 X-Coded Connector, 4x Intel I210 1GbE LAN Ports
CMI-2P5GLAN01-R10	CMI Module with 4x Intel 2.5GbE LAN, RJ45 Port
CMI-10GLAN05-R10	CMI Module with 2x Intel 10GbE LAN, RJ45 Port
CMI-10GXM12LAN01-R10	CMI Module with 2x Intel 10GbE LAN, M12 X-Coded Connector
CMI-CAN01-R10	CMI Module with 2x CAN FD Ports
CMI-DIO01	CMI Module with 16DIO (8in 8out)
CMI-COM01	CMI Module with 2x RS232/422/485 (Support 5V/12V)
MEC-CAN-2812i	M.2 2242/2260/2280 (B+M key) dual isolated CAN bus 2.0B board (-40°C~+85°C), 2x DB9 Connector, Cervoz
MEC-CAN-2814i	M.2 2242/2260/2280 (B+M key) quad isolated CAN bus 2.0B board (-40°C~+85°C), 4x DB9 Connector, Cervoz
MEC-COM-2012	M.2 2242/2260/2280 (B+M key) 2-port RS-232 serial board (-40°C~+85°C), 2x DB9 Connector, Cervoz
MEC-COM-2032i	M.2 2242/2260/2280 (B+M key) 2-port RS-232/422/485 isolated serial board (-40°C~+85°C), 2x DB9 Connector, Cervoz
MEC-LAN-2002i	M.2 2242/2260/2280 (B+M key) 2-port 10/100/1000 isolated Ethernet board(-40°C~+85°C), 2x RJ45 Connector, Cervoz
MEC-LAN-2002i-S	M.2 2242/2260/2280 (B+M key) 2-port 10/100/1000 isolated Ethernet board(0°C~+70°C), 2x RJ45 Connector, Cervoz
UB0930-R10	Universal Bracket with 4x M12 X-Coded Cutout
UB0932-R10	Universal Bracket with 3x Antenna Cutout
UB1303	Universal Bracket with 2x DB9 Cutout
UB1311	Universal Bracket with 2x RJ45 Cutout for MEC-LAN Expansion
UB1318	Universal Bracket with DIO Cutout
UB1710-R10	Universal Bracket with 4x M12 A-Coded Cutout
UB1712-R10	Universal Bracket with 4x RJ45 Cutout
UB1728-R10	Universal Bracket with 2x RJ45 Cutout for CMI-10GLAN Expansion
UB1737-R10	Universal Bracket with 2x M12 X-coded Cutout
UB1738-R10	Universal Bracket with 2x DB9 and 1x Switch Cutout for CMI-CAN Expansion
AC-BE01-R10	M.2 Key B Type 2242 to M.2 Key E Type 2230 Adapter Card
SIDE-DX	DX Series side mount kit
DIN01	DIN-RAIL Mount Kit, KMRH-K175
GST220A24-CIN	Adapter AC/DC 24V 9.2A 220W with 3pin Terminal Block Plug and Tubes, Level VI
GST360A24-CIN	Adapter AC/DC 24V 15A 360W with 3pin Terminal Block Plug and TUBES, Level VI
RSD-200D-24	Railway Single Output DC-DC Converter 200W / DC 24V
FAN-EX101	External Fan with 4pin Terminal Block Plug and Mounting Bracket, Support smart fan
PPM-I360-01-R10	360W Power Protection Module for DV/DX Series

Optional Module Configuration



Model No.	Description	1	2	3	4
UB0932-R10 	Universal Bracket with 3x Antenna Cutout	V	V	V	V
CMI-LAN01-R12/UB1712-R10 	CMI Module with 4x Intel I210 1GbE LAN, RJ45 Port / Universal Bracket with 4x RJ45 Cutout	V	V	-	-
CMI-2P5GLAN01-R10/UB1712-R10 	CMI Module with 4x Intel 2.5GbE LAN, RJ45 Port / Universal Bracket with 4x RJ45 Cutout	V	V	-	-
CMI-10GLAN05-R10/UB1728-R10 	CMI Module with 2x Intel 10GbE LAN, RJ45 Port/ Universal Bracket with 2x RJ45 Cutout	V	V	-	-
CMI-M12LAN01-R12/UB1710-R10 	CMI Module with M12 Connector, 4x Intel 1GbE LAN / Universal Bracketwith 4x M12 A-Coded Cutout	V	V	-	-
CMI-XM12LAN01-R10/UB0930-R10 	CMI Module with M12 X-Coded Connector, 4x Intel I210 1GbE LAN Ports / Universal Bracket with 4x M12 X-Coded Cutout	V	V	-	-
CMI-10GXM12LAN01-R10/UB1737-R10 	CMI Module with 2x Intel 10GbE LAN, M12 X-Coded Connector / Universal Bracket with 2x M12 X-coded Cutout	V	V	-	-
CMI-CAN01-R10 /UB1738-R10 	CMI Module with 2x CAN FD Ports / Universal Bracket with 2x DB9 and 1x Switch Cutout for CMI-CAN Expansion	V	V	-	-
CMI-DIO01/UB1318 	CMI Module with 16DIO (8in 8out) / Universal Bracket with DIO Cutout	-	-	-	V
CMI-COM01/UB1303 	CMI Module with 2x RS232/422/485 (Support 5V/12V) / Universal Bracket with 2x DB9 Cutout	-	-	-	V
MEC-COM-2012/UB1303 	M.2 Module with 2x RS-232 Ports, 1x Standard DB9 Cable / Universal Bracket with 2x DB9 Cutout	-	-	V	-
MEC-COM-2032i/UB1303 	M.2 Module with 2x RS-232/422/485 Ports, 1x Standard DB9 Cable / 2x Universal Bracket with 2x DB9 Cutout	-	-	V	-
MEC-CAN-2812i/UB1303 	M.2 Module with 2x isolated CAN bus 2.0B Ports, 2x Standard DB9 Cable / Universal Bracket with 2x DB9 Cutout	-	-	V	V
MEC-CAN-2814i/2xUB1303 	M.2 Module with 4x isolated CAN bus 2.0B Ports, 4x Standard DB9 Cable / 2x Universal Bracket with 2x DB9 Cutout	-	-	V	
MEC-LAN-2002i(-S)/UB1311 	M.2 Module with 2x LAN Ports, 2x 30cm cable / Universal Bracket with 2x RJ45 Cutout for MEC-LAN Expansion	-	-	V	-

V : Compatible

Updated: Sep. 18, 2026