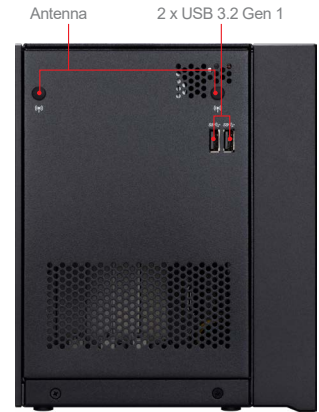
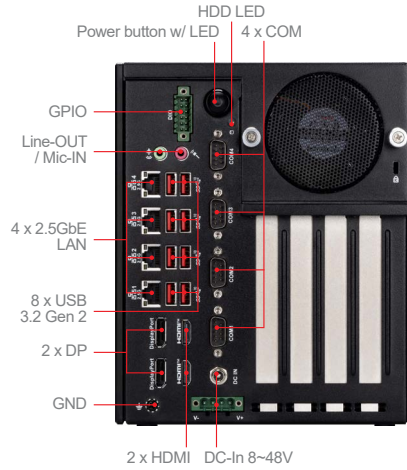


# MS-C910

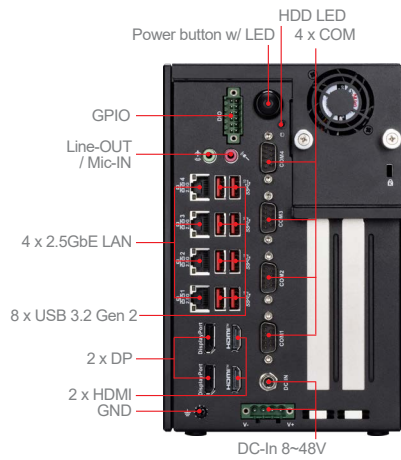
Outperform Fanless Box PC with 12th/13th/14th Gen Intel® Core™ i Processor for Rugged, Scalable & Versatile Solution

NEW

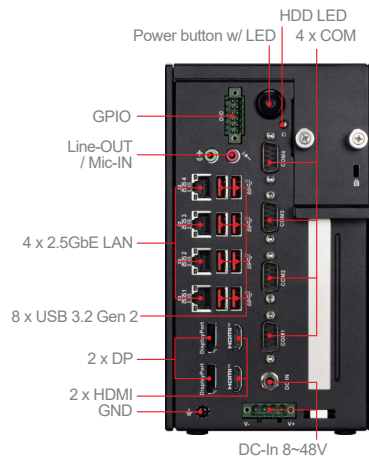
## SKU1 – 4 Slots



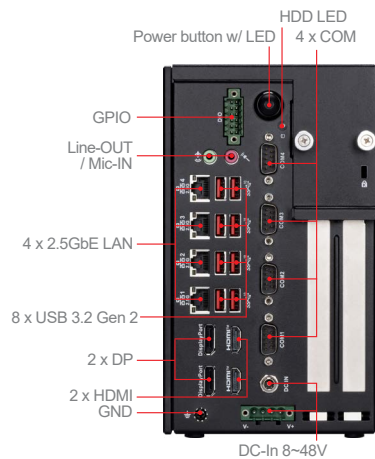
## SKU2 – 2 Slots



## SKU3 – 1 Slot



## SKU4/5 – 2 Slots



## Specifications

		SKU1	SKU2	SKU3	SKU4	SKU5	
<b>Processor</b>	CPU	Intel® 12th Gen IOTG Alder Lake-S Processor Core i9/i7/i5/i3, Pentium®, Celeron® Processor, Max. 35W Intel® 13th Gen IOTG Raptor Lake-S Processor Core i9/i7/i5/i3, Max. 35W Intel® 14th Gen IOTG Raptor Lake-S Refresh Processor Core i9/i7/i5/i3, Max. 35W					
	Frequency	P-Core 1.1 GHz~5.5 GHz (Depends on CPU) E-Core 0.8 GHz~4.0 GHz (Depends on CPU)					
	L2 Cache	4M~36M (Depends on CPU)					
	CPU Type	Socket (LGA1700)					
	Chipset	Intel® R680E chipset					
	BIOS	AMI					
<b>Memory</b>	Technology	Dual-channel DDR5(ECC/non-ECC) 5600MHz (ECC support & Frequency will depend on CPU)					
	Max. Capacity	Up to 64GB					
	Socket	2 x 262-pin SO-DIMMs					
<b>Display</b>	Controller	Intel® UHD Graphics					
	Graphic Memory	Depends on CPU					
	Multiple Display	4 independent displays					
	Display Interface	HDMI up to 4096 x 2304 @60Hz DP up to 4096 x 2304 @60Hz 1 x Intel® I226LM 2.5GbE LAN (Support Intel® AMT) 3 x Intel® I226V 2.5GbE LAN					
<b>Ethernet</b>	Controller	Realtek® ALC897 HD Audio Codec					
<b>Audio</b>	Controller	Realtek® ALC897 HD Audio Codec					
	Watchdog Timer	256-level Watchdog Timer					
<b>H/W Monitor</b>	Smart Fan	Yes					
	TPM	Controller Infineon SLB9672VU2.0					
<b>Expansion Slot</b>	PCIe x16	1			N/A		
	PCIe x8	N/A			2		
	PCIe x4	N/A					
	PCIe x1	N/A					
	PCI	3			1 N/A		
	M.2	1 x M.2 M key (PCIe Gen4 x4 NVMe & SATA 3.0), 2280 1 x M.2 E key (PCIe Gen4 x1, USB2.0), 2230			1 x M.2 M key (PCIe Gen4 x4 NVMe & SATA 3.0), 2280		
	Mini-PCIe	N/A			1 x Full-size N/A		
<b>Storage</b>	SATA	2 x 2.5" HDD/SSD			N/A 2 x 2.5" HDD/SSD (Customer-selected assembly — occupies 1 PCIe x8 slot)		
	mSATA	N/A					
	CFast	N/A					
	CompactFlash	N/A					
	RJ-45	4					
<b>I/O Interface</b>	PoE	N/A					
	Audio	1 x Mic-in 1 x Line-out					
	USB	8 x USB 3.2 Gen 2 2 x USB 3.2 Gen 1 3 x USB 2.0 (internal, Type-A)					
	Serial	4 x COM ports COM1~2: RS232/422/485, 0V/5V/12V COM3~4: RS-232, 0V					
	PS/2	N/A					
	GPIO	8-bits (4 x GPI; 4 x GPO), 5~35V, isolation 1.3KV					
	CANbus	N/A					
	HDMI	2					
	LVDS	N/A					
	DVI	N/A					
	DisplayPort	2					
	Antenna	2 openings reserved for antennas			N/A		
	<b>Power Supply</b>	DC Input	DC-in 8-48V Wide-Range Pluggable connectors with latch (V+, V-)				
		IP Rating	N/A				
<b>Environment</b>	Operating Temperature	-10 ~ 50°C w/ industrial DC power Up to 35W CPU Note: Thermal w/ Airflow:0.7m/s					
	Operating Humidity	10 ~ 90% , non-condensing					
	Storage Temperature	-20 ~ 80°C					
	Storage Humidity	10 ~ 90%, non-condensing					
	Vibration	Operating, IEC 60068-2-64: 2 Grms, random, 5 ~ 500 Hz, 1hr/axis (w/ HDD/SSD)					
	Shock	Operating, IEC 60068-2-27: 50G, half sine, 11ms (w/ HDD/SSD)					
<b>Form Factor</b>	Dimensions (Wx DxH)	178 x 242 x 217 mm	142 x 240 x 217 mm	123 x 240 x 217 mm	127 x 240 x 217 mm		
	Weight	5.0 kg	4.4 kg	4.3 kg	4.4 kg		
	Mounting	Wall mount					
<b>Certification</b>	EMC	FCC Class A, CE, RCM, BSMI, VCCI, UKCA, IC					
	Safety	IEC 62368: CE(LVD) / BSMI					
<b>Software Platform</b>	OS Support	Windows 10 IoT Enterprise 2021 LTSC (64-bit, 21H2) Windows 11 IoT Enterprise 24H2 LTSC (64-bit) Linux (Support by request)					

## Features

- Intel® 12th/13th/14th Gen Alder Lake-S/Raptor Lake-S/Raptor Lake-S Refresh Series with R680E
- 2 DDR5 5600 MHz ECC/non-ECC SODIMM slots up to 64GB
- Quadruple independent displays: 2 HDMI, 2 DP
- 4 2.5 GbE LAN with RJ-45
- SKU1: 1 PCIe x16 (Gen 4), 3 PCI, PCIe E Key (Gen 4) x1
- SKU2: 1 PCIe x16 (Gen 4), 1 PCI, 1 x Mini-PCIe (Full-size)
- SKU3: 1 PCIe x16 (Gen 4)
- SKU4: 2 PCIe x8 (Gen 4)
- SKU5: 2 PCIe x8 (Gen 4)
- 2 SATA 3.0 (2.5" SSD/HDD, 7mm) for storage
- SATA RAID 0/1
- 8 USB 3.2 Gen 2, 2 USB 3.2 Gen 1, 3 USB 2.0, 4 COM, Audio, GPIO, System FAN
- Onboard TPM 2.0
- GPIO 8-bit supports, 5~35V, Isolation 1.3KV
- Easy access CPU, HDD, memory, expansion slots
- Anti-Vibration & Shockproof Design to Compliance IEC 60068-2
- Wide Voltage DC-IN 8~48V
- Fanless design

## Ordering Information

Part Number	Description
936-C910-001	Intel Alder Lake-S/Raptor Lake-S/Raptor Lake-S Refresh Series with R680E, 4 SLOTS (SKU 1), PCIe16*1, PCI*3, HDMI*2, DP*2, COM*4, USB3.2 Gen2 *8, USB3.2 Gen1 *2, Intel 2.5GbE LAN*4, GPIO, DC-IN 8-48V
936-C910-002	Intel Alder Lake-S/Raptor Lake-S/Raptor Lake-S Refresh Series with R680E, 2 SLOTS (SKU 2), PCIe16*1, PCI*1, HDMI*2, DP*2, COM*4, USB3.2 Gen2 *8, USB3.2 Gen1 *2, Intel 2.5GbE LAN*4, GPIO, DC-IN 8-48V
936-C910-003	Intel Alder Lake-S/Raptor Lake-S/Raptor Lake-S Refresh Series with R680E, 1 SLOT (SKU 3), PCIe16*1, HDMI*2, DP*2, COM*4, USB3.2 Gen2 *8, USB3.2 Gen1 *2, Intel 2.5GbE LAN*4, GPIO, DC-IN 8-48V
936-C910-004	Intel Alder Lake-S/Raptor Lake-S/Raptor Lake-S Refresh Series with R680E, 2 SLOTS (SKU 4), PCIe16*2, HDMI*2, DP*2, COM*4, USB3.2 Gen2 *8, USB3.2 Gen1 *2, Intel 2.5GbE LAN*4, GPIO, DC-IN 8-48V
936-C910-005	Intel Alder Lake-S/Raptor Lake-S/Raptor Lake-S Refresh Series with R680E, 2 SLOTS (SKU 5), PCIe16*2, HDMI*2, DP*2, COM*4, USB3.2 Gen2*8, USB3.2 Gen1*2, Intel 2.5GbE LAN*4, GPIO, .25 inch drive bay*2(option), DC-IN 8-48V

## Packing List

Part Number	Description	936-C910-001	936-C910-002	936-C910-003	936-C910-004	936-C910-005
NA1-2060011-SR2	Phoenix Terminal Plug for DIO, 2*6pin	1	1	1	1	1
NA1-1040063-SR2	Phoenix Terminal Plug for DC-in, 1*4pin	1	1	1	1	1
E22-9A66200-LA2	Wall Mount Bracket	2	2	2	2	2
E22-C910020-LA2	PCI/PCIe Bracket	4	2	1	2	1
E26-C910010-F49	Thermal Pad for CPU	1	1	1	1	1
E26-C910030-Z36	Thermal Pad for M.2 SSD, 7.5mm	1	1	1	1	1
E26-C910020-Z36	Thermal Pad for M.2 SSD, 6.25mm	1	1	1	1	1
E26-9A66031-F49	Thermal Pad for HDD	2	2	2	0	2
309-9A51214-MF1	HDD Plastic Support Kit	2	2	2	0	2
E22-9A66290-LA2	HDD Support Tray	2	2	2	0	2
K1D-1008318-V03	SATA Cable, 410mm	1	1	1	0	1
K1D-1008317-V03	SATA Cable, 315mm	1	1	1	0	1
K1D-3008049-V03	SATA Power Cable, 130/350mm	1	1	1	0	1
E22-9A66280-LA2	ROTATE Bracket	0	0	0	0	2
E43-1304016-P65	SCREW	0	0	0	0	4

## Optional Item

Part Number	Description
S93-0404420-S14	Adaptor 19V/180W
K33-3001020-I45	Power cord (TWN type)