

EAGLE-7V3

Industrial Edge fanless computer 12th/13th/14th Gen Core™ i Processor



Features

- Intel® 12th/13th/14th Gen Core™ i CPU socket-type (LGA1700) with Intel® R680E/H610E chipset
- Wide operating temperature (-20 ~ 60 °C)
- VGA and HDMI output
- 2 x GigaLAN, 2 x USB 3.2 (Gen2) and 6 x USB 3.2 (Gen1)
- 2 x RS-232/422/485 and 4 x RS232 serial ports (Optional)
- 1 x 2.5" HDD/SSD, 1 x mSATA, and 1 x NVMe M.2
- 9 ~ 36 V_{DC} input power range
- IP40 dust proof for deployment in harsh environment
- Supports expansion for flexible configure additional HDMI, DP, DVI, COM port, DIO, Remote switch IO, i-IOModule
- Supports Intel® vPro™/AMT and TPM technologies
- Supports iBMC 1.2 remote out-of-band power management as option

All features

Intel® Core™ Processors Series 2 (Bartlett Lake-S)	CPU	251E	251TE	221E	221TE	211E	211TE	211EF	201E	201TE	300	300T		
	P-core Base Frequency	2.1 GHz	1.4 GHz	2.7 GHz	1.8 GHz	2.7 GHz	1.7 GHz	2.7 GHz	3.6 GHz	2.9 GHz	3.9 GHz	3.4 GHz		
	L3 Cache	36 MB	36 MB	24 MB	24 MB	20 MB	20 MB	20 MB	12 MB	12 MB	6 MB	6 MB		
	Cores	24	24	14	14	10	10	10	4	4	2	2		
	Processor Base Power	65W	45W	65W	45W	65W	45W	65W	60W	45W	46W	35W		
	Chipset	R680E/H610E												
	BIOS	AMI 256Mb SPI Flash												
14 th Generation Processors	CPU	i9-14900	i7-14700	i5-14500	i5-14400	i5-14400F	i3-14100	300	i9-14900T	i7-14700T	i5-14500T	i5-14400T	i3-14100T	300T
	P-core Base Frequency	2.0 GHz	2.1 GHz	2.6 GHz	2.5 GHz	2.5 GHz	3.5 GHz	3.9 GHz	1.1 GHz	1.3GHz	1.7 GHz	1.5 GHz	2.7 GHz	3.4 GHz
	L3 Cache	36 MB	33 MB	24 MB	20 MB	20 MB	12 MB	6 MB	36 MB	33 MB	24 MB	20 MB	12 MB	6 MB
	Cores	24	20	14	10	10	4	2	24	20	14	10	4	2
	Processor Base Power	65 W	65 W	65 W	65 W	65 W	60 W	46 W	35 W	35 W	35 W	35 W	35 W	35 W
	Chipset	R680E/H610E												
	BIOS	AMI 256Mb SPI Flash												
13 th Generation Processors	CPU	i9-13900(E)	i7-13700(E)	i5-13500(E)	i5-13400(E)	i3-13100(E)	i9-13900TE	i7-13700TE	i5-13500T(E)	i3-13100T(E)				
	P-core Base Frequency	2.0 GHz	2.1 GHz	2.5 GHz	2.5 GHz	3.4 GHz	1.0 GHz	1.4 GHz	1.6 GHz	2.5 GHz				
	L3 Caches	36 MB	30 MB	24 MB	20 MB	12 MB	36 MB	30 MB	24 MB	12 MB				
	Cores	24	16	14	10	4	24	16	14	4				
	Processor Base Power	65W	65W	65W	65W	60W	35W	35W	35W	35W				
	Chipset	R680E/H610E												
12 th Generation Processor	CPU	i9-12900(E)	i7-12700(E)	i5-12500(E)	i3-12100(E)	G7400E	G6900E	i9-12900TE	i7-12700TE	i5-12500TE	i3-12100TE	Pentium G7400TE	Celeron G6900TE	
	Core/Thread number	16/24	12/20	6/12	4/8	2/4	2/2	16/24	12/20	6/12	4/8	2/4	2/2	
	Base Frequency	2.30 GHz	2.10 GHz	2.90 GHz	3.20 GHz	3.60 GHz	3.00 GHz	1.10 GHz	1.40 GHz	1.90 GHz	2.10 GHz	3.00 GHz	2.4 GHz	
	Max Turbo Frequency	5.00 GHz	4.80 GHz	4.50 GHz	4.20 GHz			4.80 GHz	4.60 GHz	4.30 GHz	4.00 GHz			
	L3 Cache	30 MB	25 MB	18 MB	5 MB	2.5 MB	2.5 MB	30 MB	16 MB	12 MB	6 MB	2.5MB	2.5MB	
	Processor Base Power	65W	65W	65W	65W	46W	46W	35W	35W	35W	35W	35W	35W	
	Chipset	R680E/H610E												
Memory	Technology	Dual-channel DDR5 4800 MHz (R680E SKU supports ECC)												
	Socket	2 x 282-pin DDR5 SODIMM (up to 64GB per socket)												
	Maximum Capacity	128GB												
Display	Chipset	Core i: Intel® UHD Graphics 770 Pentium/Celeron: Intel® HD Graphics 710												
	VGA	1 x DB15, up to 1920 x 1200 maximum resolution												
	HDMI	1 x HDMI, up to 4096 x 2160@30Hz												
	Multiple Display	R680E: 4 x independent displays (third and fourth display output via optional cable) H610E: 3 x independent displays (third display output via optional cable)												
Ethernet	Controller	R680E LAN1: Intel® I219LM, LAN2: Intel® i210IT H610E LAN1: Intel® I219V, LAN2: Intel® i210IT												
	Interface	2 x RJ45												

Note 1: The CPU PCIe slot can support graphic cards only due to Intel design specification. Other types of add-on cards will have no function installed on this slot.

Note 2: For the 65W CPU, the operating temperature could support up to 50 degrees and may cause thermal throttling when continued system full-loading which could adjust the CPU power config from BIOS to increase the operating temperature.

Modular IPCs

All product specifications are subject to change without notice.

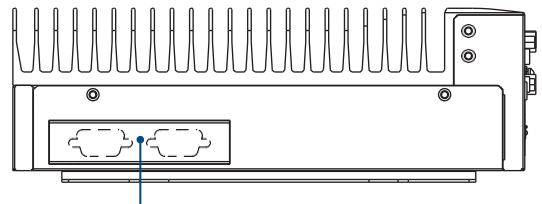
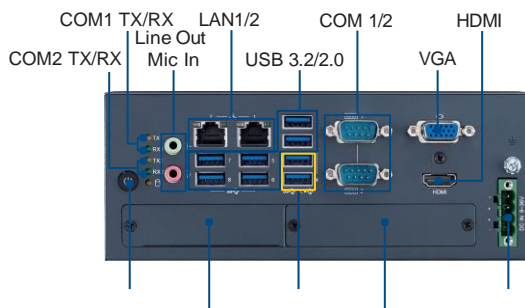
Last updated: 6-Feb-2026

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Specifications

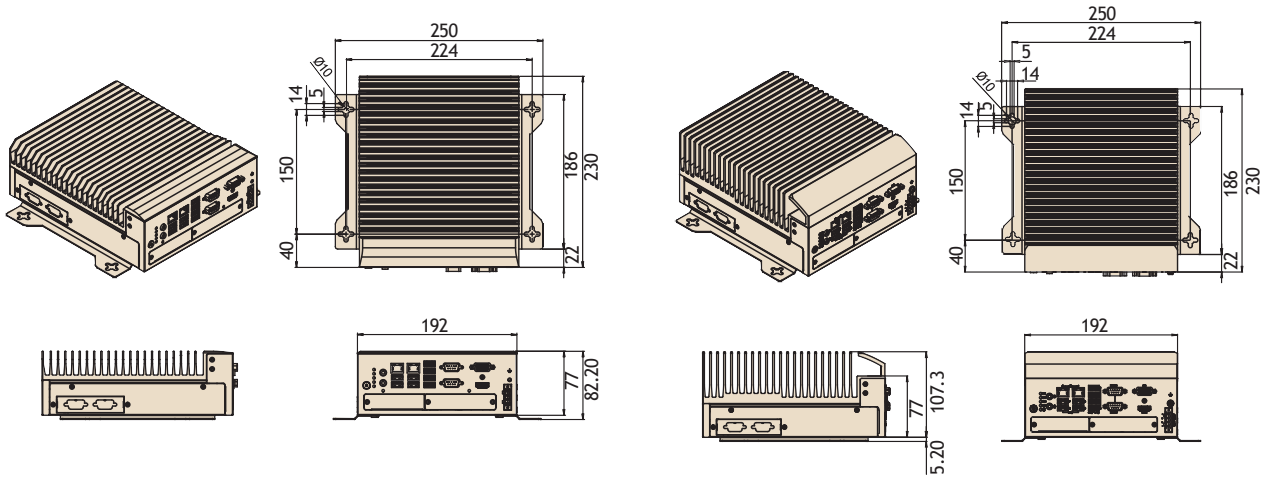
Storage	HDD	1 x 2.5" HDD/SSD (up to 2 x 2.5" SSD by optional kit; 2 x 3.5" HDD by i-Module)		
	mSATA	1		
	NVMe M.2	1 x M Key 2280 with PCIe Gen 4 x 4 (R680E SKU, operating temp. -20 ~ 50 °C)		
	RAID	0/1/5/10 (R680E SKU only)		
I/O	USB	R680E: 2 x USB3.2 (Gen2), 6 x USB3.2 (Gen1), 1 x USB 2.0 (Internal) H610E: 4 x USB3.2 (Gen1), 4 x USB2.0		
	Serial Port	2 x DB9, RS-232/422/485 support auto flow control; 4 x RS-232 (Optional)		
	Audio	2 (1 x line out and 1 x mic in)		
Expansion	PCIe slot	Supports Advantech MIC-75 series i-module, please refer Optional i-Modules		
	Mini PCIe/mSATA	R680E: 1 x mini PCIe, 1 x mini PCIe/mSATA H610E: 1 x mini PCIe, 1 x mSATA		
LED and Switch	LED	2 (1 x Storage and 1 x Power), 4 for COM1 TX/RX and COM2 TX/RX		
	Button	1 x Power on/off switch		
	Remote Switch	Yes, 2pin terminal block (Optional)		
Power	Type	ATX/AT		
	Input Voltage	9 ~ 36 V _{DC}		
	Power consumption	Typical: 45.7W Maximun: 108W		
Watchdog Timer	Output	System reset		
	Interval	Programmable 1 ~ 255 sec/min		
Environment	Temperature	65W CPU w/ industrial wide Temp. SSD	35W CPU w/ industrial wide Temp. SSD	Non-operating
		Standard: -20 ~ 50°C with 0.7 m/s air flow	Standard: -20 ~ 60°C with 0.7 m/s air flow	-40 ~ 85°C
		Extreme: -20 ~ 65°C with 0.7 m/s air flow	Extreme: -20 ~ 70°C with 0.7 m/s air flow	-40 ~ 85°C
		Extreme: -20 ~ 35°C without air flow	Extreme: -20 ~ 50°C without air flow	-40 ~ 85°C
		Fan kit: -20 ~ 55°C without air flow		-40 ~ 85°C
	Humidity	95% @ 40 °C (non-condensing)		
Vibration	With SSD: 3 Grms @ 5 ~ 500 Hz, random, 1 hr/axis			
	With 2.5" HDD: 1 Grms @ 5 ~ 500 Hz, random, 1 hr/axis			
Shock	With SSD: 20G, IEC-68-2-27, half-sine wave, 11 ms duration			
Mechanical	Dimensions (W x H x D)	Standard: 77 x 192 x 230 mm (3.07" x 7.55" x 9.05")	Extreme: 107.3 x 192 x 230 mm (4.22" x 7.55" x 9.05")	FAN Kit: 120 x 200 x 230mm (4.73" x 7.87" x 9.05")
		Weight	Standard: 2.8 kg (6.17 lbs)	Extreme: 4.5 kg (9.92 lbs)
	Installation	Desktop/wall mount		
Certifications	EMC	CE/FCC Class A, CCC, BSMI		
	Safety	CB/UL, CCC, BSMI		
OS Support	Windows 11, Windows 10, Windows 10 IoT, Linux OS			

Front View

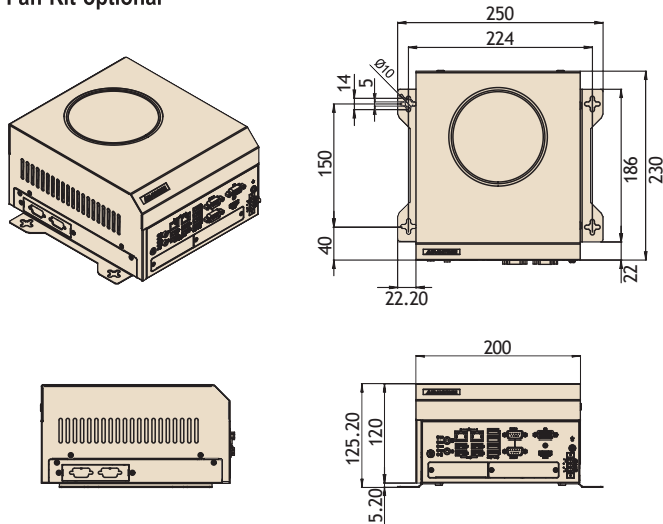


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Dimensions without expansion



Fan Kit optional



EAGLE-7V3-2540326 Custom Assembly

Part Number	process or	VGA	HDMI	2.5" HDD/SSD	mSATA	NVMe M.2	USB3.2 (Gen2)	USB3.2 (Gen1)	Ethernet standard	COM	PCIe	Power
EAGLE-7V3-2540326	CORE i3 3.5G 12M 4C	1	1	option	option	M2x256G	2	6	0	2	2	9 - 36Voc
Assembly with	TPM	Digital I/O	mount	ETH add card	GPU	testing		Ram	Expansion Card	Warranty		
	2.0	16DI / 8 DO	wall	6 ETH GbE PoE+	RTX PRO 5000 Blackwell 48GB	Burn in 24h		32 Gbyte DDR5	1PCIEx16 + 1PCIEx4	24 months international		

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Packing List Standard

Part Number	Description	Quantity
EAGLE-7V3	bare system	1
	startup manual (ENG+TC+SC)	1
	4-pin Phoenix power connector	1
	2 x Mounting bracket	2
	SATA cable	1
	SATA power cable	1
	CPU thermal grease	1
	RAM thermal pad	2

Optional Accessories

Description
ADP A/D 100-240V 230W 24V C14 TERMINAL BLOCK 4P
Power cord (USA) UL/CSA, 3-pin, 10A, 125V, 1.83 M, 180 D
Power Cord PSE 3P 12A 125V 183cm
Power Cord (EU), 3-pin, 10A, 250V 1.83M, 90D
A/D 100-240V 240W 24V NDR DIN RAIL
DC-DC power cord, A cable TEM*4/TEM*4 UL2464 18AWG 150cm
AC-DC power cord (US), M cable AC CONN 3P 183cm
AC-DC power cord (CN), M cable conn 3P CCC 10A 250V 150cm
AC-DC power cord (EU), M cable Type E 3P/TEMx3 80CM

Optional I/O Modules

Description
1-slot expansion module (1 x PCIe)
2-slot expansion module (1 x PCIe and 1 x PCI slots)
4-slot expansion module (1 x PCIe and 3 x PCI slots)
2-slot expansion module (2 x PCIe slots)
2-slot expansion module (2 x PCIe slots)
3-slot expansion module (3 x PCIe slots)
GPU card expansion module (2 x PCIe and 2 x removable 2.5" storage bay)
Dual GPU card expansion module (3 x PCIe and 2 x removable 2.5" storage bay, 1 x HDMI, 1 x DP)
MXM GPU expansion module (1 x MXM, 1 x PCIe and 2 x removable 2.5" storage bay, 1 x HDMI, 3 x DP)
2 x removable 2.5" storage bay
2-slot expansion storage module (2 x PCIe and 2 x removable 2.5" storage bay)
2-slot expansion storage module (2 x PCIe and 2 x removable 2.5" storage bay)
2 x 3.5" HDD kit

Other Optional I/O

Description
AIIS GPIO module (32 bit)
TPM 2.0 module (SPI)
DVI FIO
HDMI/Remote power on/off FIO
HDMI kit FIO
Remote power on/off FIO
COMport kit FIO (4x COM RS-232 via 2x dual DB9 cable)
Reset/Remote power on/off/5VDC kit FIO (SATA)
GPIO kit FIO
DP kit FIO
COM and HDMI kit
MIC HDMI kit for SFIO
Display Port kit for SFIO
DVI kit for SFIO
Remote Switch kit for SFIO
Reset/Remote power on/off/5VDC kit FIO (SATA) for SFIO
2 x 1GbE Ethernet Ports (Intel® i210-AT)
4 x 1GbE Ethernet Ports (Intel® i210-AT), 1 x M.2 NVMe Slot
2 x 2.5GbE Ethernet Ports (Intel® I226-V)
4 x 2.5GbE Ethernet Ports (Intel® i226-V), 1 x M.2 NVMe Slot
1 x M.2 NVMe Slot
4 x 1GbE Ethernet Ports with PoE (Intel® I350-AM4)
2nd 2.5" HDD/SSD kit (used in 2-slot i-Module)
2 x 2.5" SSD kit (Thickness: 7mm)
MIC Din Rail Mounting kit
MIC Wall Mounting kit
MIC Fan Kit

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GPU Expansion Module for Video AI Edge Computing



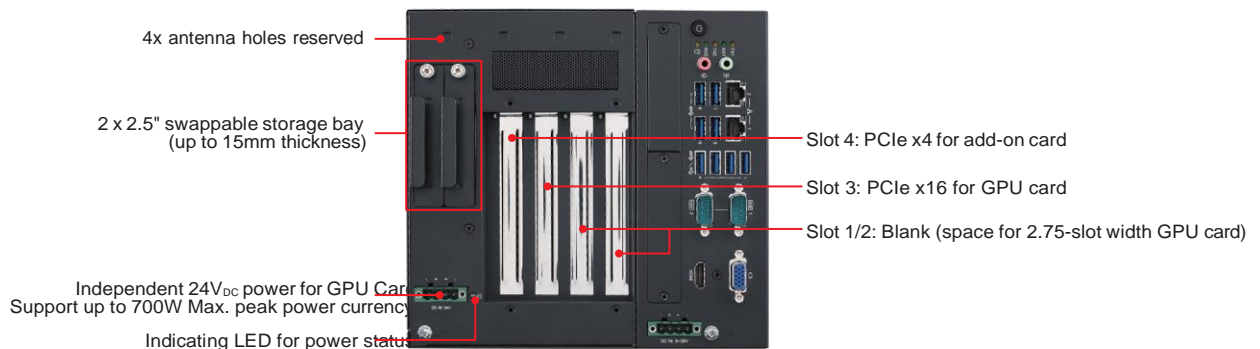
Features

- Offering powerful GPU solution with NVIDIA 350W, 2.5-slot width, 334.5mm length GPU cards for new AI application
- Dual 24V_{DC} power inputs with reliable power and OCP solution for up to 700W maximum peak power currency
- Intelligent power status indicating LED for system and GPU card independently
- Flexible GPU card holders (R.O.C. Patent Pending), ensuring GPU card's stability and reliability
- Support up to 1Grms Op. vibration
- Support up to 40°C Op. temp. with 350W GPU and 4-port PoE card installed with PWM fan control for intelligent thermal management
- Dual front removable 2.5" storage bay for easy swap
- IP30 rating with fan filter, suitable for outdoor or industrial environment
- Compact size design

Specification

Expansion slot	Slot 1/2: Blank, Slot 3: PCIe x16, Slot 4: PCIe x4
SATA Connector	1 x SATA Signal, 1 x SATA Power
Storage	2 x 2.5" swappable HDD/SSD storage bay
Power	Input: Dual 24 V _{DC} (one on MIC-7000 system, one on MIC-75G20) Power consumption: Max. Load: 448W (tested with 350W GPU, PoE card and MIC-770 system with 35W CPU) Power solution supports up to maximum 700W (Tested with 350W GPU card's peak power consumption) 2 x 6-pin Conn. for GPU card (12V _{DC} , 17A for each Conn.) 1 x 4-pin Conn. for add-on card (12V _{DC} , 5A)
GPU Card Dimension	Thickness: 50 mm (2.5-slot width), Length: 334.5 mm, Height: 120 mm Support up to triple-fan fan GPU cards
LED	1x indicating LED for power status
Environment	Operating Temp.: -10~40 °C (35W CPU w/ industrial wide-temp. RAM/SSD) Vibration: With SSD: 1 Grms @ 5-500 Hz, random, 1 hr/axis Shock: With SSD: 10G, IEC-68-2-27, half-sine wave, 11 ms duration
Mechanical	N.W. 3.5 kg; G.W.: 5.5 kg Dimension (W x H x D): 207 x192 x 385 mm
Fan	1x 12025 cooling fan embedded (4500 RPM, 145.4 CFM, Max. 62.5 dB)

Front View



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Mounting Type and Dimensions

W x H x D: 207 x 192 x 385 mm

