

EBF-235-U5-125U/125H/155H

Intel® Meteor Lake/Arrow Lake Series CPU based Embedded Mini PC
supports up to four displays with Intel® AI Boost NPU



Features

- CPU: Intel® Meteor Lake/Arrow Lake-U/H Processor
- Memory: Dual Channel SO-DIMM DDR5 up to 96GB
- GPU: Integrated Intel® Graphics, Max Four Displays.
- Ethernet: 10/100/1000/2500Mbps
- Storage: M.2 Key M for NVMe SSD, M.2 Key B for SATA SSD/4G
- I/O Ports: 2xLAN, 2xCOM, 4xUSB3.2, 2xUSB2.0, 4xHDMI, USB-C
- Expansion: M.2 Key E for Wi-Fi(support CNVi, PCIe&USB), Nano SIM
- Power: 19V DC-IN/9-36V Phoenix optional
- Support Intel® AI Boost NPU, HDMI Hot-Plug Lock, RTC/W



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Introduction

The EBF-235-U5 is a compact and powerful embedded mini PC featuring Intel Meteor Lake/Arrow Lake Series CPUs with up to 16 cores, delivering exceptional performance for industrial and AI-driven applications. It supports up to four displays via HDMI and USB-C, powered by integrated Intel® Graphics or Intel® Arc™. With dual-channel DDR5 memory expandable to 96GB, Intel® AI Boost NPU, and compatibility with leading AI frameworks, it excels in edge computing tasks.

This device offers robust connectivity with dual LAN ports (up to 2.5Gbps), multiple USB and COM ports, and flexible storage via M.2 NVMe or SATA SSDs. New features include HDMI Hot-Plug lock for enhanced display stability and support for RTC (Real-Time Clock) setup independently for each day of the week, enabling highly customizable scheduling options. Its wide temperature range, smart cooling, and rugged design ensure reliable operation in diverse environments. Perfect for AI, automation, and multiple displays applications.



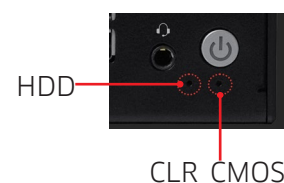
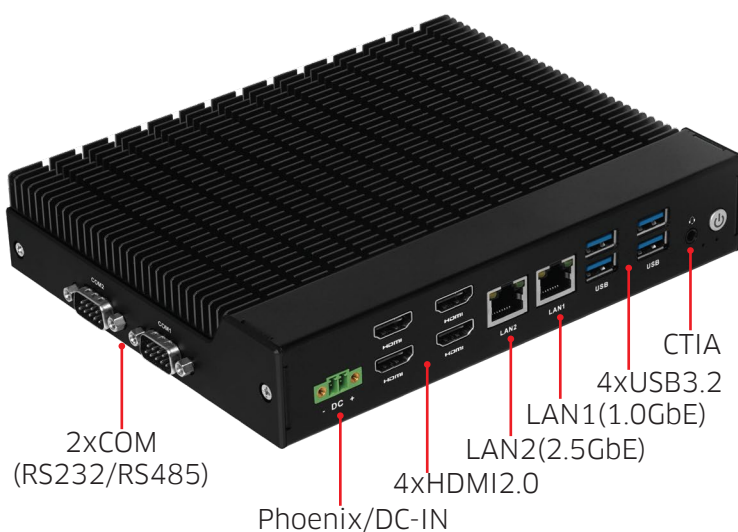
H/W Monitor



Watchdog



I/O Interfaces



USB-C(USB3.2+DP)



Wired Control

2xUSB2.0



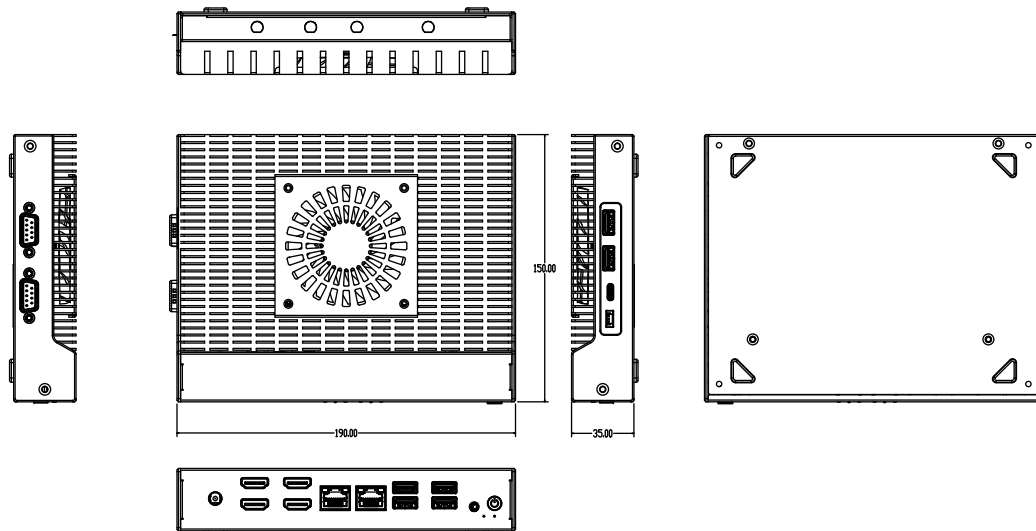
Antennas

Technical Specifications

Processor	Intel Core™ Ultra 5	125U	125H	155H
	Total Cores/Threads	12C/14T	14C/18T	16C/22T
	P-core Max Turbo Frequency	4.30GHz	4.50GHz	4.80GHz
	E-core Max Turbo Frequency	3.60GHz	3.60GHz	3.80GHz
	Intel® Smart Cache	12MB	18MB	24MB
	Processor Base Power	15W	28W	28W
	GPUs	Intel® Graphics(125U)/Intel® Arc™ graphics(125H, 155H)		
	NPU	Intel® AI Boost		
	AI Software Frameworks	Supported by NPU: OpenVINO™, WindowsML, ONNX RT.		
		DirectML(125U/125H), WebGPU(125U).		
Memory	BIOS	AMI UEFI BIOS		
	Type	Dual Channel SO-DIMM DDR5		
	Max. Capacity	96GB		
Display	Graphics	Integrated Graphics depends on the CPU, see GPUs.		
	Display via	4x HDMI2.0+USB-C(DP1.4)		
	Max. Displays	Four Screens for Multiple Displays		
		HDMI Hot-Plug Lock		
Ethernet	Controller	LAN1: 1xIntel i219(1.0GbE)		
		LAN2: 1xIntel i226(2.5GbE)		
	Interface	2x RJ45		
	Wake on LAN	Yes		
Audio	Audio Codec	Realtek HD ALC897		
	Interface	1x CTIA 2 in 1 Audio Jack. Support Line-out+Mic-in.		
Storage	M.2_N	1x M.2 Key M 2280 Slot for NVMe SSD		
	M.2_SW	1x M.2 Key B 2280/3042 Slot for SATA SSD/4G Module.		
Expansion	M.2_E	1x M.2 Key E 2230 Slot for Wi-Fi&BT Module. Support CNVi, PCIe & USB.		
	Nano SIM	1x Internal Nano SIM Slot		
Other I/O	COM	2x COM(RS232 by default, RS485 optional)		
	USB2.0	2		
	USB3.2	4		
	USB-C	1x USB-C(Supports USB3.2 plus DP1.4)		
	Wired Control	1x Wired Control Switch		
	TPM	Onboard, optional		
	RTC	Support RTC set up, independently for each day of the week.		
Real Time Clock	RTC	Support RTC set up, independently for each day of the week.		
Dimension	Size	190mm x 150mm x 35mm		
Weight	N.W.	TBD		
Power	Standard Port	9-36V Phoenix_2PIN		
	Optional	19V DC-IN.		
Temperature	Operating Temp.	- 20°C to 60°C		
	Storage Temp.	- 40°C to 80°C		
Cooling Method		Passive(U Series Processors)		
		Active(H Series Processors)		
Operating System		Windows 11 64bit, Linux 64bit		

Dimension (in mm)

▪ ACTIVE COOLING



▪ PASSIVE COOLING

