

IXH-AL35V2.0

Intel® Alder Lake U/Raptor Lake U Series
based Embedded Fanless Industrial PC



Features

- CPU: Intel® Alder Lake U/Raptor Lake U Series Processor
- Memory: Onboard DIMM DDR5, 8GB/16GB
- Display: Integrated Intel® Graphics, display via 2xHDMI2.0
- Ethernet: 10/100/1000Mbps
- Storage & Expansion: SATA FPC, M.2 Key B Slot for SATA SSD/4G, M.2 Key M for NVMe SSD, M.2 Key E for Wi-Fi&BT, UFS Flash optional
- Power: 9V-36V (2-Pin DC-IN Phoenix Connector)



Introduction

The Maxtang IXH-AL35V2.0 is a compact, fanless embedded industrial PC powered by 12th Gen Intel® Core™ U-Series processors, supporting up to Core™ i7-1255U with hybrid Performance and Efficient core architecture. Delivering up to 10 cores and 12 threads, it provides strong multitasking capability and optimized power efficiency for industrial edge computing applications. Onboard LPDDR5-5200 memory (8GB/16GB) ensures high-speed data processing with improved system stability.

Designed for long-term industrial deployment, the IXH-AL35V2.0 features a fully passive cooling structure and supports a wide 9-36V DC input for flexible power environments. The system integrates dual Intel® i210 Gigabit LAN, 6 × COM ports (COM1-2 configurable as RS422/RS485), dual HDMI outputs, 8 × USB ports, GPIO, and multiple M.2 expansion slots (Key B, Key M, Key E) with additional SATA support. With an operating temperature range of -20°C to 60°C and robust hardware monitoring including watchdog support, this platform is ideal for industrial automation, transportation systems, machine vision, and intelligent control applications requiring reliable 24/7 operation.



H/W Monitor



Watchdog



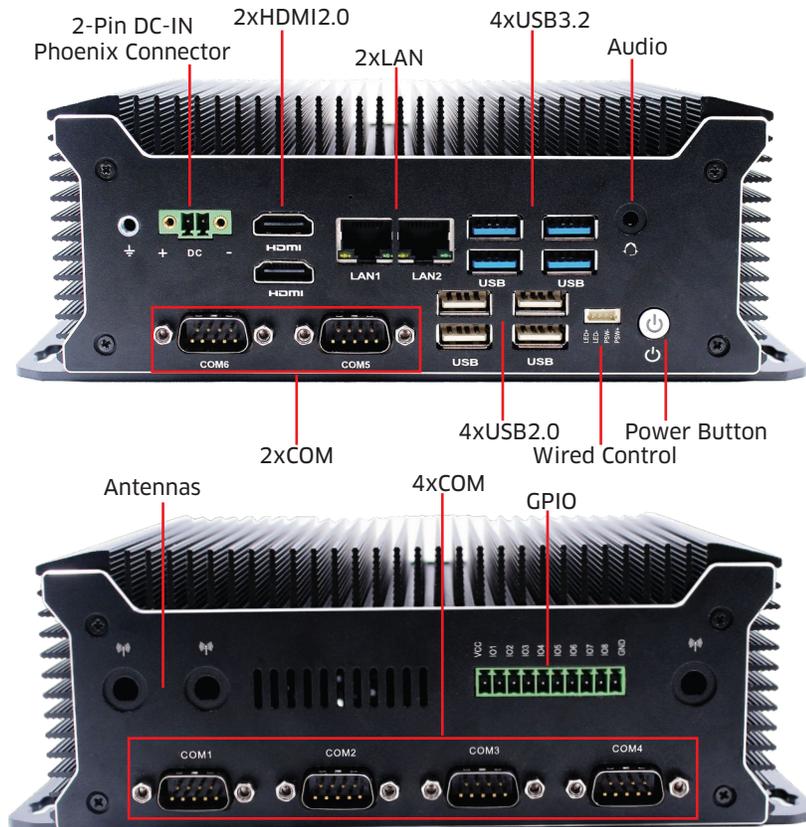
GPIO



Brightness



I/O Interfaces

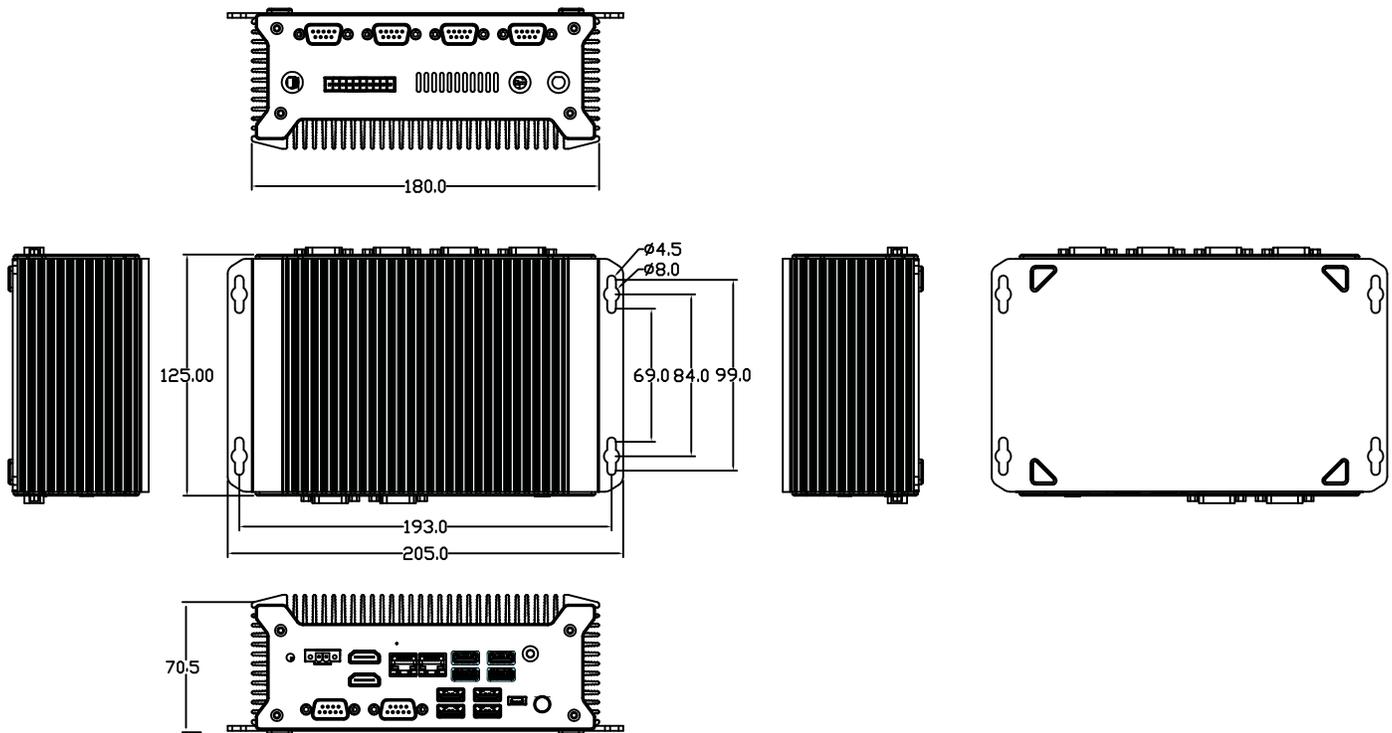


Technical Specifications

Processor	Intel® Core™ CPU	i7-1255U	i5-1235U	i3-1215U	
	Total Cores/Threads	10C/12T	10C/12T	6C/8T	
	P-core Max Turbo Frequency	4.70GHz	4.40GHz	4.40GHz	
	E-core Max Turbo Frequency	3.50GHz	3.30GHz	3.30GHz	
	Intel® Smart Cache	12MB	12MB	10MB	
Memory	BIOS	AMI UEFI BIOS			
	Type	Onboard LPDDR5-5200Mb/s			
Display	Capacity	8GB/16GB			
	GPU	Integrated Intel® UHD Graphics/Iris® Xe Graphics eligible			
Ethernet	Display via	2 x HDMI2.0			
	Controller	2 x Intel® i210			
Audio	Speed	10/100/1000Mbps			
	Interface	2 x RJ45			
	Wake on LAN	Yes			
Hardware	Audio Codec	SenaryTech SN6186 High-definition Audio Codec			
	Interface	1 x CTIA 2-in-1 Audio Jack			
Storage & Expansion	System temperature, Onboard voltage, Watchdog, Auto power on				
	M.2	1 x M.2 Key B Slot for 2242/2280 SATA SSD/3042 4G Module			
	M.2	1 x M.2 Key M Slot for 2280 NVMe SSD			
	SATA	1 x SATA3.0 FPC Interface			
	M.2	1 x M.2 Key E Slot for 2230 Wi-Fi, support PCIE & CNVi			
	UFS	UFS Flash support, optional			
	I/O Interface	COM	6 x RS232. COM1-2 configurable as RS422/RS485 via BIOS COM5-6: RS232 (TX/RX/GND only, no flow control)		
USB2.0		4 x USB2.0			
USB3.0		4 x USB3.2			
GPIO		8-bit			
Wired Control		1			
Dimension		Size	205mm x 125mm x 70.5mm		
Power		Standard Input	9V-36V; 2-Pin DC-IN Phoenix Connector		
	Peripheral Input	For Fan and SATA			
	LED Indicator	Power indicator			
Temperature	Operating Temp.	-20°C to 60°C			
	Storage Temp.	-40°C to 80°C			
Cooling	Passive				
Operating System	Win10/11 64bit, Linux 64 bit				

*All specifications and photos are subject to change without notice.

Dimensions



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