

IXH-AL35

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-AL35 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



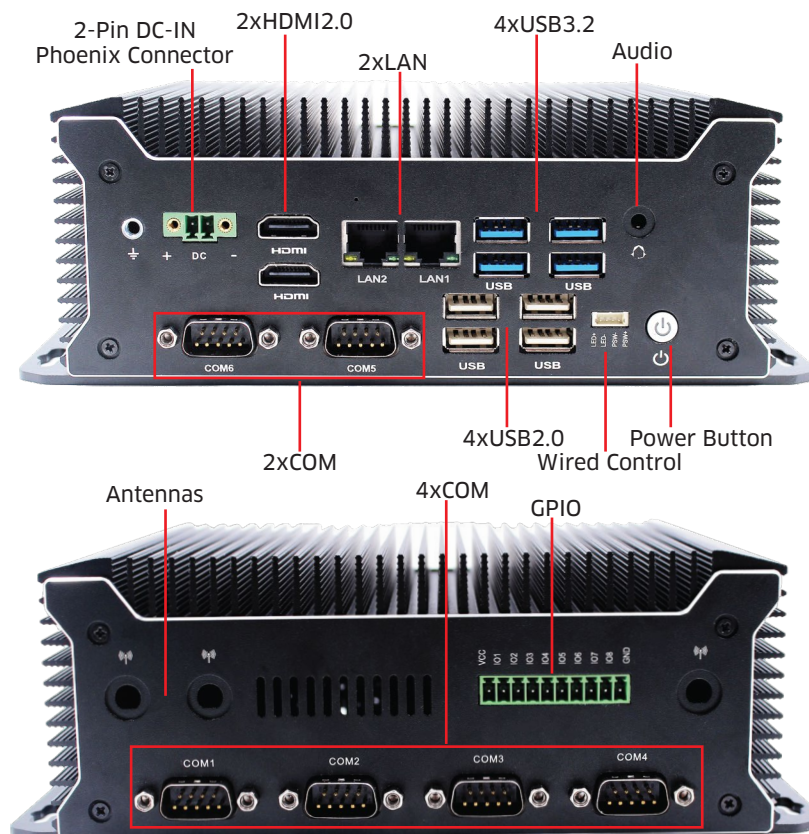
GPIO



Brightness



I/O Interfaces

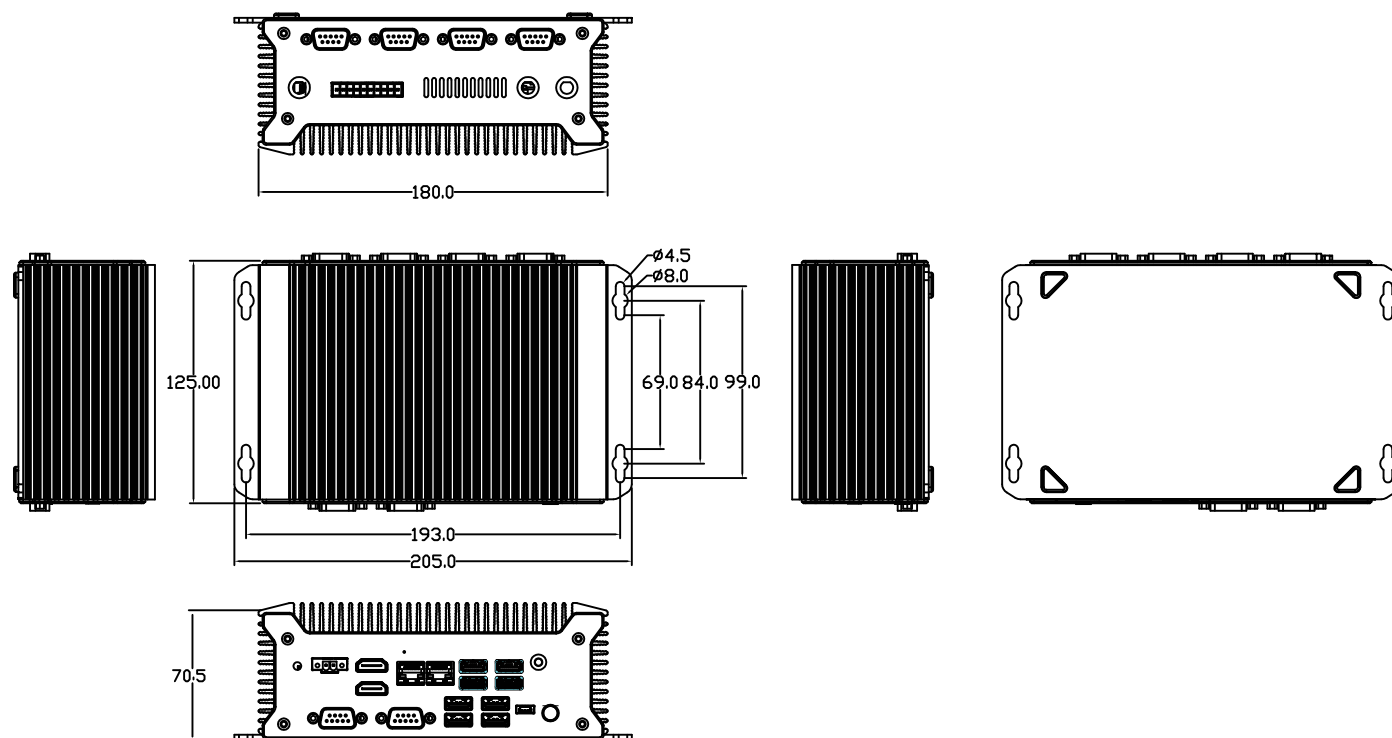


Technical Specifications

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		
	Capacity	8GB/16GB		
Display	GPU	Integrated Intel® UHD Graphics/Iris® Xe Graphics eligible		
	Display via	2 x HDMI2.0		
Ethernet	Controller	2 x Intel® i210		
	Speed	10/100/1000Mbps		
	Interface	2 x RJ45		
	Wake on LAN	Yes		
Audio	Audio Codec	SenaryTech SN6186 High-definition Audio Codec		
	Interface	1 x CTIA 2-in-1 Audio Jack		
Hardware Monitoring		CPU System temperature, Onboard voltage, Watchdog, Auto power on		
Storage & Expansion	M.2	1 x M.2 Key B Slot for 2242/2280 SATA SSD or 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,&Bluetooth Module, 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)		
	USB3.0	4 x USB3.2		
	USB2.0	4 x USB2.0		
	GPIO	8-bit		
	Wired Control	1		
	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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