1ST-IXHAL-35

Fanless Industrial Computer
with Intel® Alder Lake U Processor, 2x LAN, 2x HDMI, 8x USB, 6x COM
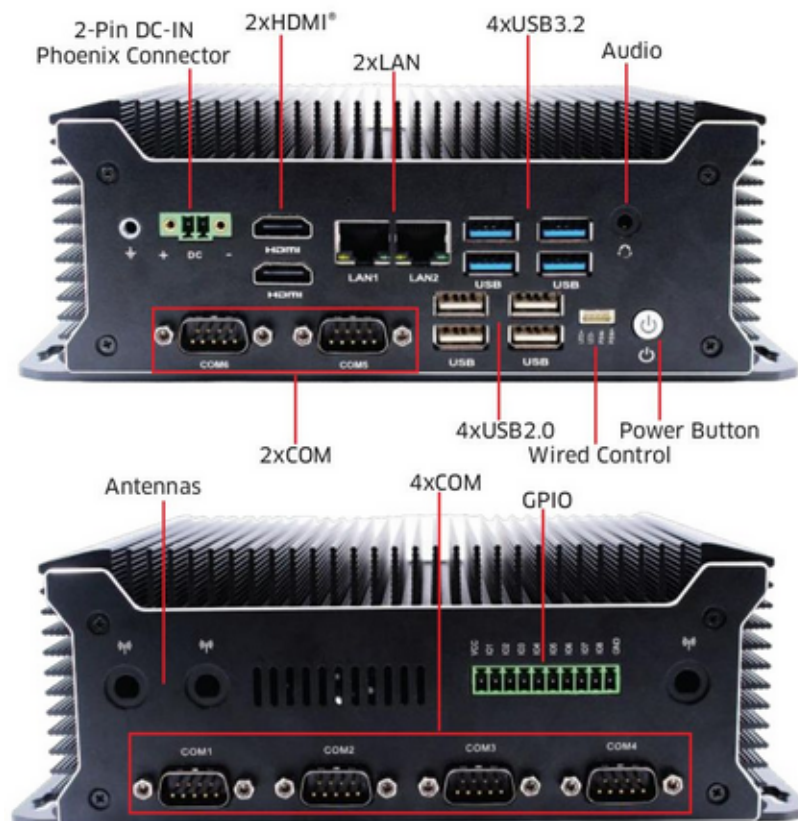

- Onboard Intel® 12th Gen. Core™ i3/i5/i7 CPU

- 2× SO-DIMM slot for DDR4 memory up to 64GB

- 2x HDMI 2.1

- Rich I/O ports: 4x USB3.2, 4x USB2.0, 2x LAN (10/100/1000Mbps), 6x COM, 8-bit GPIO

- Expansions : 1x SATA3.0, 2x M.2 for SSD/4G Module, 1x M.2 for WiFi

- Fanless design

- 9V-35V DC Input

The 1ST-IXHAL-35 is a small form factor embedded system. Built with the Intel® Alder Lake U platform, it supports Intel® Core™ i3/i5/i7 CPUs. This system supports up to 64GB of dual-channel SO-DIMM DDR4 memory to add higher bandwidth and lower latencies for processes. This computer features 2x LAN, 3x M.2 and SATA3.0, which makes it a good choice for data transportation applications with reliable network communication.

This system also features two display via HDMI 2.1. It has 2x 10M/100M/1000Mbps BASE-T Gigabit LAN (Intel® i210, Intel® i219), 4× USB3.2, 4× USB 2.0, 4× RS232, 2x COM configurable as RS232/RS485/RS422, catering to most requirements in the market. 8-Bit GPIO for interfacing with external devices and peripherals and a wired control interface for enhanced system control enable enhanced integrations to fit your application demands.

This Intel® Alder Lake based system is designed for various applications as, but not limited to, automation, network security, communication and transportation. It has a long-lasting life cycle based on its stability and reliability. The fanless structure of the aluminium enclosure ensures silent operation while safeguarding internal components from dust and debris in harsh industrial environments. With the 1ST-IXHAL-35 connectivity is not just a feature, it's a gateway to enhanced efficiency and productivity in your industrial environment.

Items		Descriptions		
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
	BIOS	AMI UEFI BIOS		
Memory	Type	Dual Channel SO-DIMM DDR4		
	Max Capacity	64GB		
Display	GPU	Intel® UHD Graphics based on CPU / Intel® Iris® Xe Graphics		
	HDMI 2.1	2x, max Resolution 4096 x 2304 @ 60Hz		
Ethernet	Speed	10Mbps/100Mbps/1000Mbps		
	Interface	2x RJ45		
	Controller	1x Intel® i210, 1x Intel® i219		
	Wake on LAN	Yes		
Audio	Audio codec	Realtek® HD		
	Interface	1x CTIA 2-in-1 Audio Jack		
BIOS Funtions	System temperature, Onboard voltage, Watchdog, Auto power on			
Storage	M.2	1x M.2 2242 for SATA SSD/4G module		
	M.2	1x M.2 2280 for NVMe SSD		
	SATA3.0	1x FPC Interface		
System I/O	Front Panel I/O	2x COM RS232. The COM5-6 are 2-wire serial communication. 2x LAN 4x USB3.2 4x USB2.0 2x HDMI 1x Wired Control		
	Rear Panel I/O	4x COM RS232. The COM1-2 can be set as RS485/RS422 in BIOS. 8-bit GPIO. 3x Holes for antennas		
Expansion	M.2	1x M.2 for WiFi, support PCIe & Intel® Integrated Connectivity (CNVi)		
Power	Standard Input	9V-35V. 2-Pin DC-IN Phoenix Connector		
	Peripheral Input	For fan and SATA power		
	LED Indicator	Power indicator		
Operating Temperature		-20℃ ~ 60℃ non condensing		
Storage Temperature		-40℃ ~ 80℃		
Dimensions (LxWxH)		205mm x 125mm x 70,5mm		
Operating System		Supports Win 11 64 bit, Linux 64 bit		

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