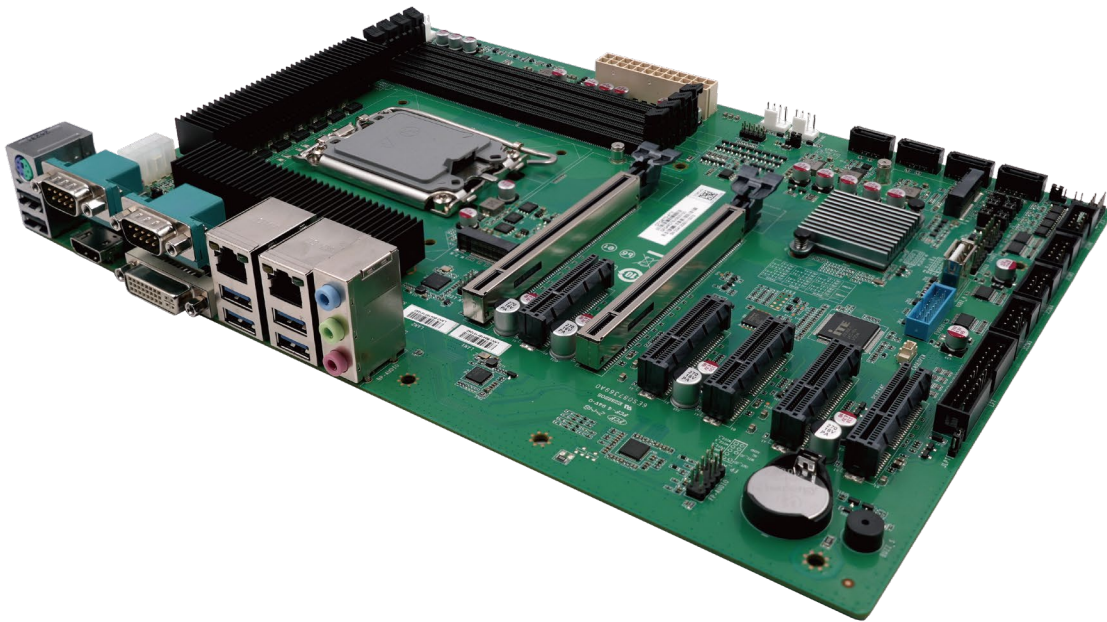


ARD-75(Beta)

Intel® Arrow Lake Desktop Series Core™ Ultra Processor
with Z890 Chipset based ATX Motherboard



Features

- CPU: Intel® Arrow Lake Desktop Series Processor
- NPU: Intel® AI Boost
- Memory: 4x UDIMM DDR5 Up to 192GB
- Display: Integrated Graphics display via HDMI+DVI-I(VGA)
- Ethernet Controllers: 1xIntel i219+1xIntel i210
- Storage: 1xM.2 for NVMe/SATA SSD, 4xSATA
- Expansion: M.2 for Wi-Fi, 1*PCIe1X, 2*PCIe8X, 4*PCIe4X
- Power: ATX_24PIN + 2*8PIN



Introduction

The ARD-75 ATX motherboard, powered by the Intel Arrow Lake Desktop Series Core Ultra processor with Z890 chipset and Intel AI boost NPU, offers a robust and high-performance solution. It supports dual displays, up to 192GB of DDR5 UDIMM memory across four slots, and features two 10/100/1000Mbps Ethernet controllers for reliable high-speed communication. With storage options that include four SATA ports and one M.2 slot, as well as a rich I/O interface comprising 6 COM ports, 7 USB 2.0 ports, 6 USB 3.2 ports, and up to seven PCIe slots, this motherboard provides exceptional versatility and expandability.

Designed to withstand extreme conditions, the ARD-75 is an ideal solution for industrial applications. Its robust construction ensures reliable performance in demanding environments, while its flexible features cater to various use cases. With the ARD-75, we are committed to delivering a dependable, high-quality product that enhances the customer experience and meets the needs of modern industrial requirements.



H/W Monitor



Watchdog

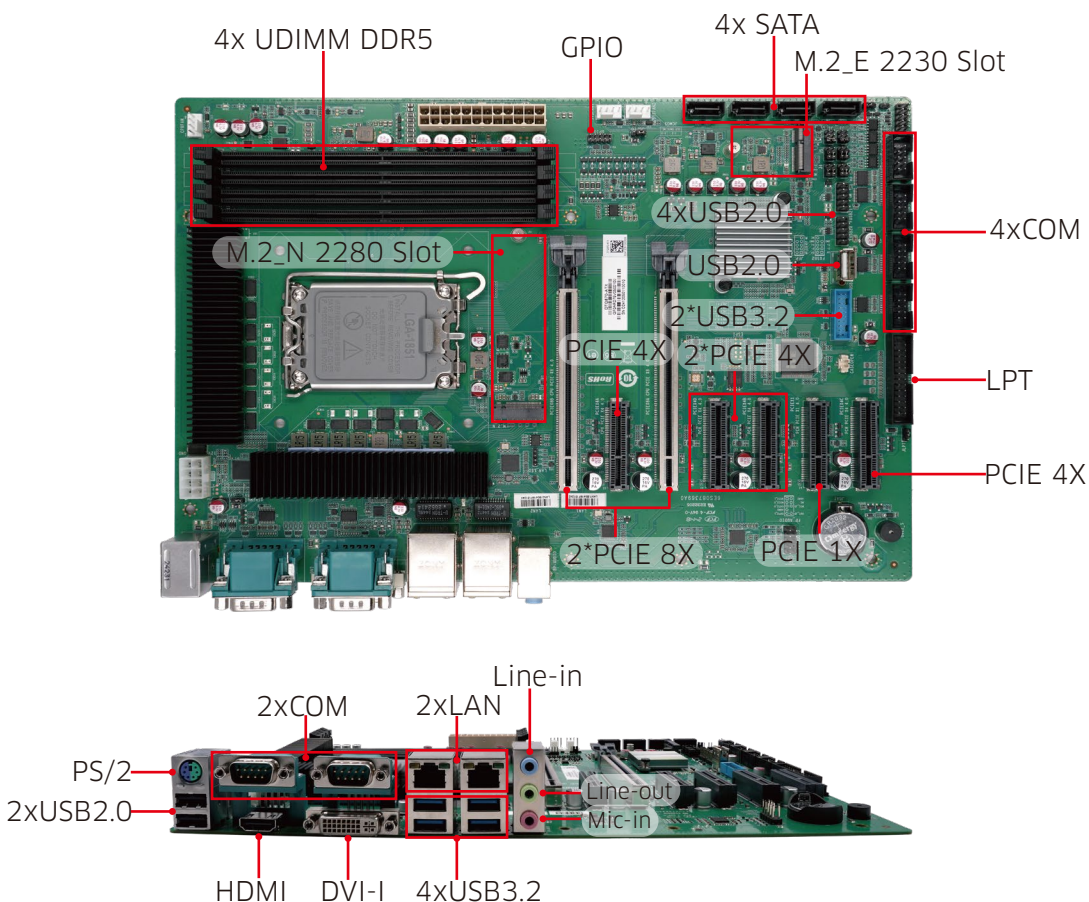


GPIO



Brightness

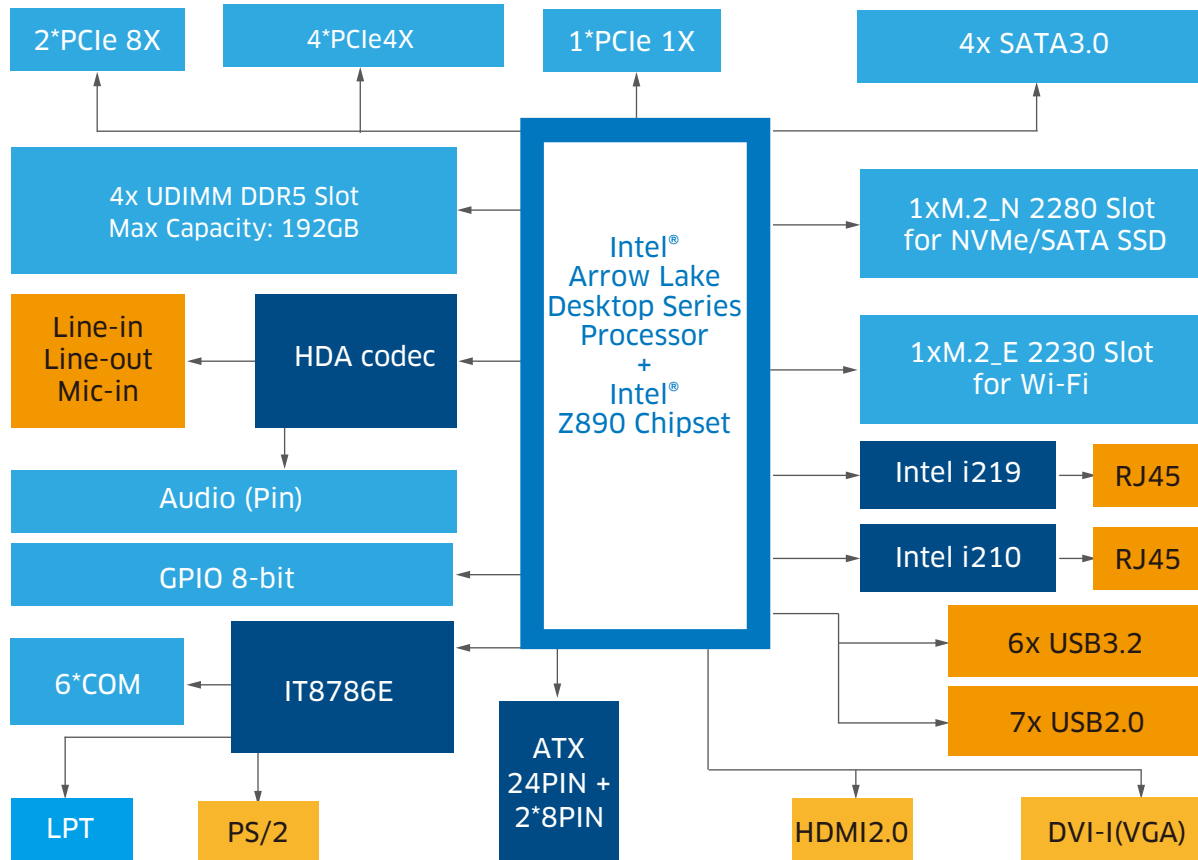
I/O Interfaces



Technical Specifications

Processor	CPU	Intel® Core™ Ultra Processor
	Code Name	Arrow Lake Desktop Series
	Socket	FCLGA1851
	Chipset	Z890
	NPU Name	Intel® AI Boost
Memory	Type	4x UDIMM DDR5
	Max Capacity	Up to 192GB
Display	GPU	Intel Integrated Graphics based on CPU
	Port	1x HDMI + 1x DVI-I(VGA)
Ethernet	Controller	1x Intel i210, Data Rate Per Port: 1.0GbE
		1x Intel i219, Data Rate Per Port: 1.0GbE
	Interface	2x RJ45
Audio	Audio Codec	Realtek HD
	Interface	1x Line-in + 1x Line-out + 1x Mic-in,
Hardware	CPU and system temperature, on-board voltage, watchdog	
Storage	SATA	4x SATA 3.0
	M.2	1x M.2_2280 for NVMe(PCIe 4.0)/SATA SSD
Expansion	M.2	1x M.2_2230 for WiFi
	PCIe 1X	1*PCIe 1X(PCIe 4.0)
	PCIe 4X	4*PCIe 4X(PCIe 4.0)
	PCIe 8X	2*PCIe 8X(PCIe 5.0)
I/O Interface	COM	6x COM: 6*RS232 default
		The COM5, COM6 can be set as RS485/RS422 by jumper
	USB 2.0	7x USB 2.0: 2*Ports + 4*Header + 1*USB 2.0 Dongle
	USB 3.2	6x USB 3.2: 4*Ports + 2*Header
	HDMI 2.0	1
	DVI-I	1
	PS/2	1 (for PS/2 keyboard and mouse)
	GPIO	8-bit
	LPT	1
	TPM 2.0	Optional
	Dimension	Size
Board Type		ATX
Power	Standard Port	ATX_24PIN + 2*8PIN
	Peripheral Input	For Fan and SATA
Temperature	Operating Temp.	0 ~ 60° C, depends on CPU clock speed and cooling systems
	Storage Temp.	-40 ~ 85° C
Operating System	Windows 10/11, Linux	

Functional Block Diagram



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Order Information

Model Name	Description
DTZ890-ATX	DT Intel Z890 ARD75 ATX 2LAN(I219+I210) 6*COM HDMI+DVI-I 1*PCIE1X+2*PCIE8X+4*PCIE4X

*For customized options, please consult regional sales. And please confirm the model name and description before purchasing. *The model name and description might vary due to inventory changes.

