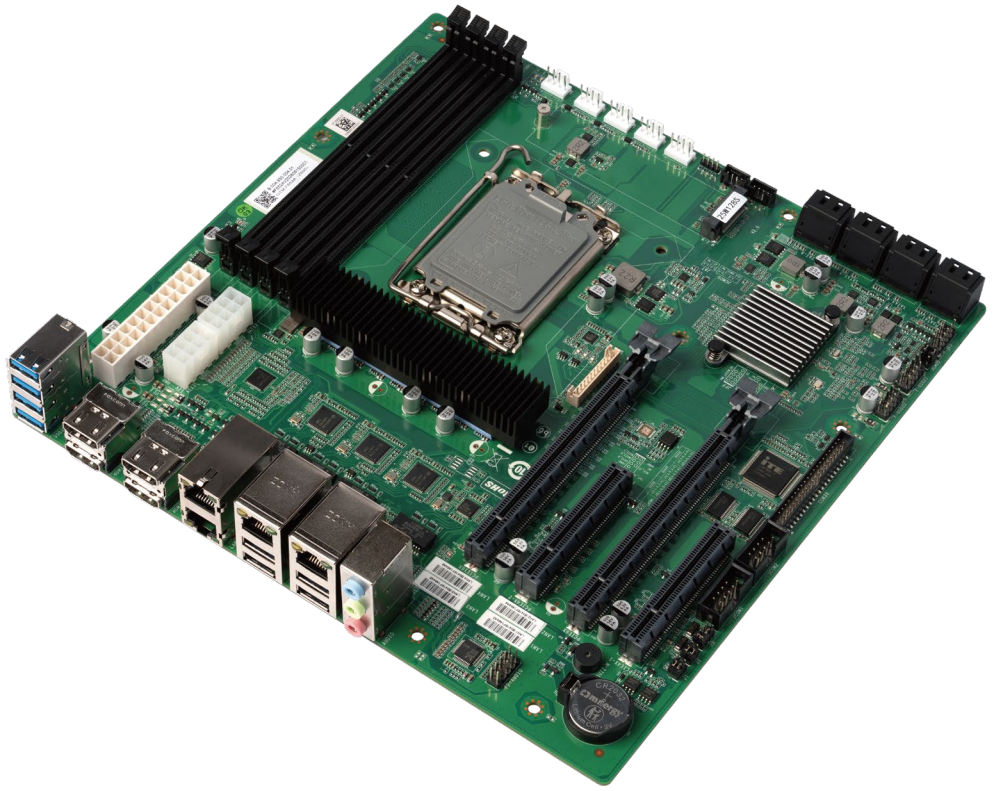
PRODUCT DATASHEET
HW Rev.: V2.0

ALD-76

Intel® Z690 chipset mATX motherboard with LGA1700 socket supporting 12th/13th/14th Gen Intel® Core™ processors



Features

- CPU: Intel 12th/13th/14th Gen Intel Core Processors
- Memory: 4 x UDIMM DDR5 Up to 128GB
- Display: Integrated Graphics display via 4 x HDMI, VGA onboard pin
- Ethernet: 1 x Intel i219+3 x Intel i210
- Storage & Expansion: 1 x M.2 Key M for NVMe SSD,
  8 x SATA(RAID 0.1.5.10), 2*PCIeX4, 1*PCIeX16 or 2*PCIeX8,
- Power: ATX_24PIN + 2*8PIN

intel prestige partner Builder

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Introduction

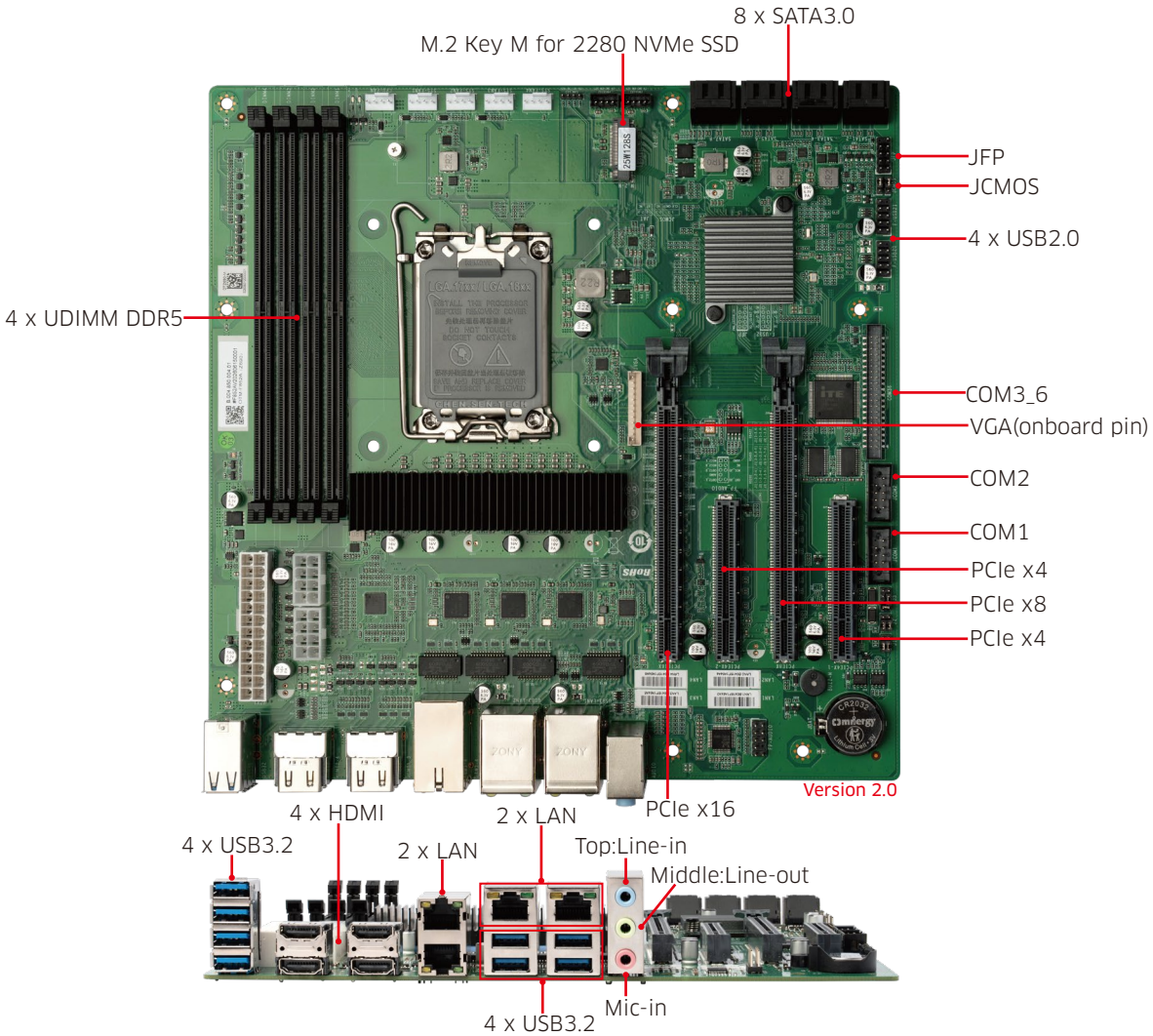
The ALD76 Micro ATX motherboard is a high-performance solution designed for seamless integration with Intel® 12th/13th/14th Gen desktop processors (code names: Alder Lake-S / Raptor Lake) on the LGA1700 socket with the Z690 chipset. It supports up to 128GB of DDR5 memory, offers extensive storage options with eight SATA ports and an M.2 NVMe SSD slot, and ensures fast network connectivity through multiple Intel® Ethernet controllers.

With support for multiple displays via HDMI 1.4 and VGA, the ALD76 delivers reliable graphics performance. Designed for IoT applications, it operates in harsh environments with a wide temperature range of -20°C to 60°C and storage temperatures from -40°C to 80°C, making it a robust choice for demanding computing scenarios. The ALD76 Micro ATX motherboard enables users to fully leverage the performance of Intel® processors, providing a versatile and reliable solution for advanced computing needs.

Linux
ubuntu
Windows

H/W Monitor
Watchdog
Brightness

I/O Interfaces

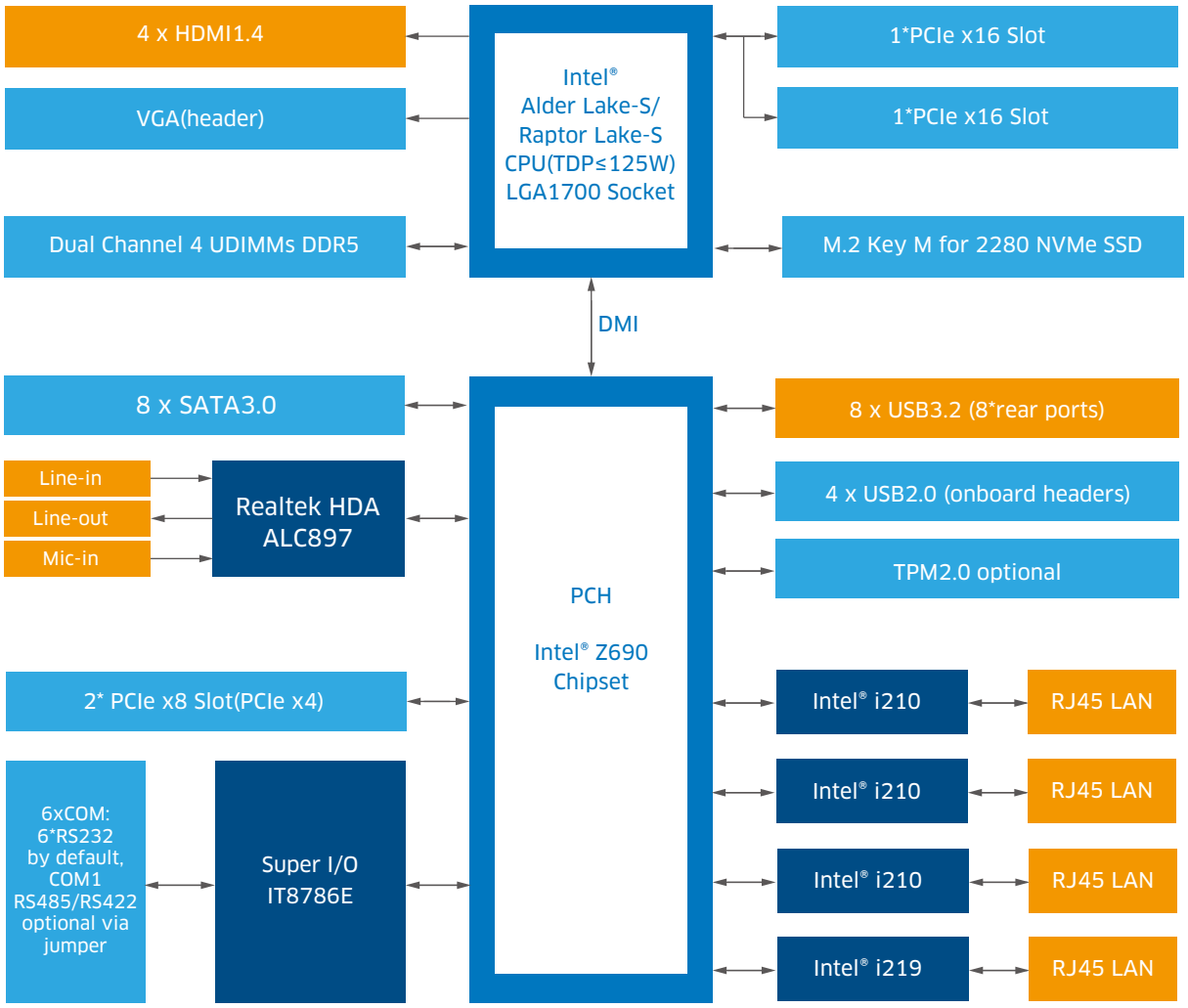


Technical Specifications

Processor	CPU	12th/13th/14th Gen Intel Core™ Processor
	Code Name	Intel Alder Lake-S/Raptor Lake-S Series
	Socket	LGA1700
	Chipset	Z690
Memory	Type	4 x UDIMM DDR5
	Max Transfer Rate	4400MT/s
	Max Capacity	128GB
Display	GPU	Intel Integrated Graphics based on CPU
	Port	4 x HDMI1.4, 1 x VGA(onboard pin)
Ethernet	Controller	1 x Intel i219,Date Rate Per Port:1.0GbE
		3 x Intel i210, Date Rate Per Port:1.0GbE
	Interface	4 x RJ45
Audio	Audio Codec	Realtek HD ALC897
	Interface	1 x Line-in, 1 x Line-out, 1 x Mic-in,
Hardware Monitoring		CPU and system temperature, on-board voltage, watchdog
Storage&Expansion	SATA	8 x SATA3.0, support RAID 0.1.5.10
	M.2	1 x M.2 Key M Slot for 2280 NVMe(PCIe x4) SSD
	PCIe	1*PCIe x16 Slot(PCIe4.0 x16 Signal) or 2*PCIe x16 Slots(PCIe4.0 x8 Signal)
		2*PCIe x8 Slots(PCIe4.0 x4 Signal)
I/O Interface	COM	6 x COM: 6*RS232 by default.
		COM1 can be set as RS485/RS422 via jumper
	USB2.0	4 x USB2.0(onboard headers)
	USB3.2	8 x USB3.2(rear ports)
	TPM2.0	Optional
Dimension	Size	243.84mm x 243.84mm
	Form Factor	Micro ATX
Power	Standard Port	ATX_24PIN + 2*8PIN
	Peripheral Input	For Fan and SATA
Temperature	Operating Temp.	-20 ~ 60° C
	Storage Temp.	-40 ~ 80° C
Operating System		Windows 10/11, Linux

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

Functional Block Diagram



Order Information

Model Name	Description
DTZ690-M	DT Intel Z690 ALD76V2 4DDR5 UDIMM 4LAN 6COM VGA+4*HDMI 2*PCIE16X SLOT(2*PCIE8X) 2*PCIE8X SLOT(2*PCIE4X)

*For customized options, please contact regional sales. Please confirm the model name and description before purchase, as they may vary due to inventory availability.

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