

MXM AI accelerator Intel Edge Motherboard



PEX-300

HIGHLIGHT FEATURES

MXM AI accelerator motherboard with Intel Alder Lake-S platform

- Support Intel LGA 1700 Alder Lake-S processor up to 125W
- Support DDR5 4800MHz, up to 64GB
- 5 Independent Displays: 5 DP++ (1 from CPU, 4 from MXM)
- Multiple Expansion: 1 MXM type B plus, 2 M.2 M Key

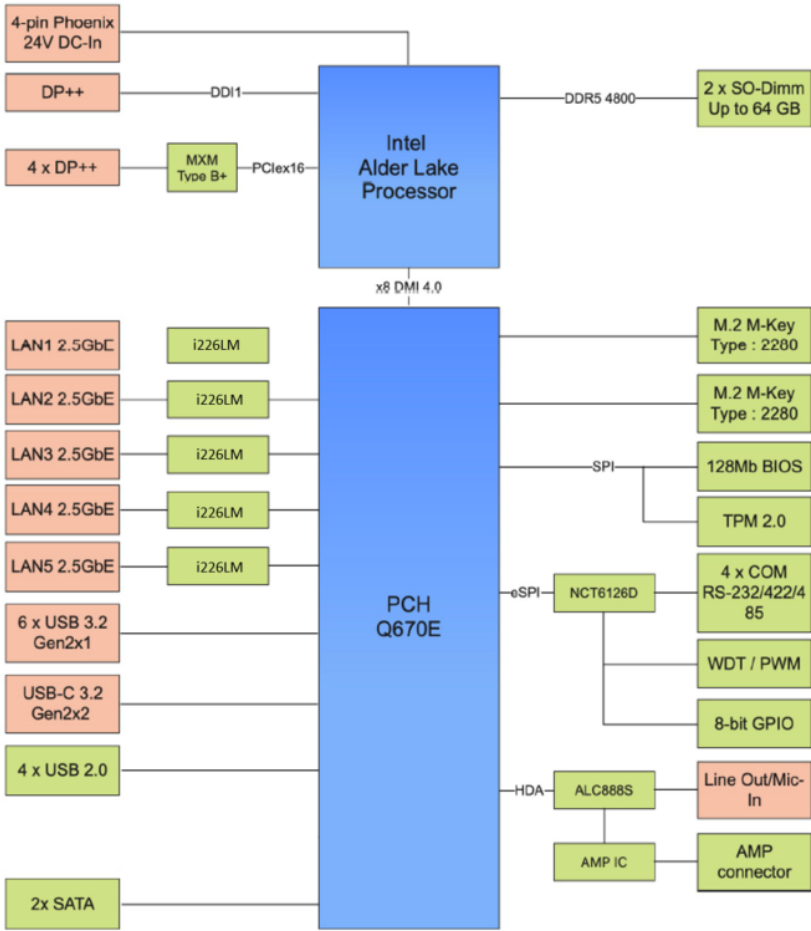
SPECIFICATIONS

Platform	Intel CPU	Support Intel® 12/13/14th Gen. Core™ i Processors
	PCH	Q670E
	BIOS	AMI UEFI 256Mbit
Memory	Technology/ Socket	DDR5 5200MHz / 2 x 262pin DDR5 SO-DIMM
	Max. Capacity	up to 64GB (up to 32GB per slot)
AI accelerator	Form Factor (Interface)	MXM graphics module version 3.1, Type B (PCIe Gen 4 x 16)
	Controller	Intel UHD Graphics 770
Graphics	Graphic Engine	Hardware encode: 8K30 or 5K60 8b/10b 4:2:0 HEVC/VP9/SCC Hardware decode: 8K60 12b 4:2:0 HEVC/VP9/SCC; 8K30 10b 4:2:0 AV1
Displays	DP++ 1.4 (4K@60Hz)	5 x DP++ (1 from CPU, 4 from MXM)
Ethernet	LAN (Intel I226 2.5Gbps)	5
Expansion Slots	M.2 2280 M Key	2 x (PCIe Gen 4 x4 / SATAIII), ECC support in R680E PCH
	MXM Type B	1 x (PCIe Gen4 x16)
Internal I/O	USB	4 USB2.0 (Pin Header 2x5P, 2.54mm pitch)
	SATA	2 x SATA 3.0 (up to 6Gb/s)
	Serial	4 x RS232/RS485/RS422 (COM1~4) 1 x 2*20 pin header, default RS232 by bios setting
	M.2 M Key	2 for storage
	GPIO	8-bit (4 in/ 4 out)
Front I/O	USB	1 x USB 3.2 Gen2x2 Type-C 6 x USB 3.2 Gen2x1 Type-A
	Ethernet	5 x RJ-45
Rear I/O	Display	5 DP++
	Audio	1 x Line-out, 1 x Mic-in
	DC Jack	1, 4pin Phoenix header
Power	Power Input Voltage	24V DC-in
	Power Connector Type	4 pin Phoenix header
Environment	Operating Temperature	0 °C~60 °C
	Storage Temperature	-40 °C ~85 °C
	Operating Humidity	5% to 90%, non-condensing
	Storage Humidity	5% to 90%, non-condensing
Watchdog Timer	Output	System reset
	Interval	Programmable from 1 to 255 Seconds
Security	TPM 2.0	fTPM (Optional) dTPM2.0 (Default)
Physical Characteristics	Dimension L x W x H (mm)	248 x 222
Operating System	OS	Microsoft Windows/ Linux
Regulation	Safety	CE/FCC/RoHS

OPTIONAL DISCRETE GPU

MXM Type B	Discrete GPU	Graphic Cores	Memory Type/ Size
	NVIDIA RTX 5000 Ada	9,728 x NVIDIA Ada Lovelace architecture-based CUDA Cores 304 x NVIDIA fourth-generation Tensor Cores 76 x NVIDIA third-generation RT Cores	GDDR6 / 16GB (W/ECC)
	NVIDIA RTX A4500	7,168 x NVIDIA Ampere architecture-based CUDA Cores 224 x NVIDIA third-generation Tensor Cores 56 x NVIDIA second-generation RT Cores	GDDR6 / 20GB
	NVIDIA RTX 3500 Ada	5,120 x NVIDIA Ada Lovelace architecture-based CUDA Cores 160 x NVIDIA fourth-generation Tensor Cores 40 x NVIDIA third-generation RT Cores	GDDR6 / 12GB
	NVIDIA Quadro RTX 5000	3,072 x NVIDIA Turing (TU106) architecture-based CUDA Cores 384 x NVIDIA Tensor Cores 48 x NVIDIA RT Cores	GDDR6 / 16GB (W/ ECC)
	NVIDIA Quadro RTX 3000	1,920 x NVIDIA Turing (TU106) architecture-based CUDA Cores 240 x NVIDIA Tensor Cores 30 x NVIDIA RT Cores	GDDR6 / 6GB

BLOCK DIAGRAM



ORDER INFORMATION

Part Number	PCH	Memory	Display	GbE	COM	SATA	USB 3.2/2.0	M.2	MXM slot
PEX-300-S0FC02A1-AT	Q670E	2	DP/DP/D P/DP/DP	5	4	2	7/4	2(M key)	1

PACKING LIST

Part Number	Description	Quantity
PEX-300-S0FC02A1-AT	PEX-300 motherboard	1