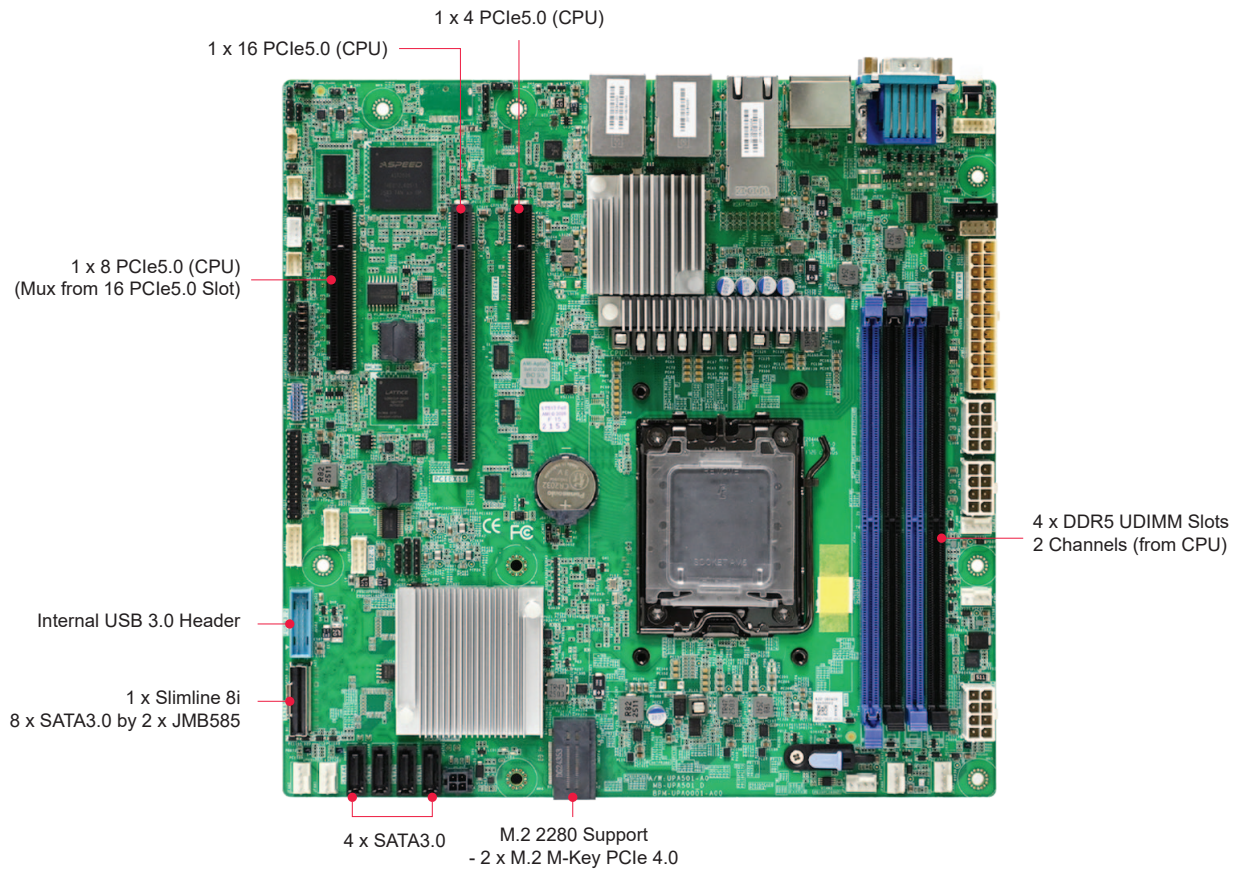
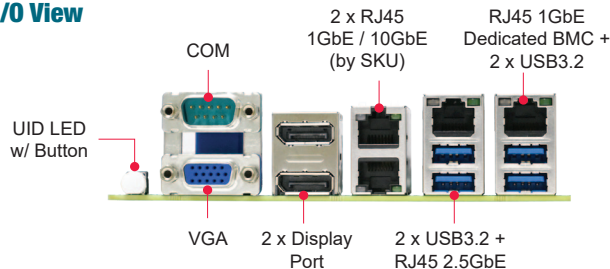




I/O View



Dimensions

mm : 245 x 245 / inches : 9.6 X 9.6

Merak supports single AMD EPYC™ 4005/4004 Series and Ryzen™ 7000/8000/9000 Series processors with TDP up to 170W. It supports up to 256GB DDR5 ECC/Non-ECC UDIMMs with four memory slots and memory speeds up to 5600MT/s (1DPC).

The high-speed expansion I/O includes 1 × PCIe Gen5 x16 or 2 × PCIe Gen5 x8 (via PCIe Mux), 1 × PCIe Gen5 x4, 2 × M.2 M-Key PCIe Gen4 x2 2280 slots, 8 × SATA3 ports via SFF-8654 8i and 4 × SATA3 onboard 7P connectors. It also features with dual-port 10GbE or 1GbE Base-T networking (depending on SKU), 1 × 2.5GbE ethernet, a dedicated GbE BMC management port, dual DisplayPort++, VGA, RS232, USB 3.2 Gen2, TPM 2.0, and AST2600 BMC support.

Features

- Supports AMD EPYC™ 4005/4004 Series / and Ryzen™ 7000/8000/9000 Series processors with up to 170W TDP
- Supports 4 x DDR5 UDIMM slots up to 256GB (4x64GB)
- Supports DDR5 ECC/Non-ECC UDIMMs (5600MHz)
- Supports AMD B650E/B850 chipset
- Supports up to 20 lanes of PCIe Gen5 from CPU, including 1 x16 or 2 x8 + 1 x4 slots
- SKU A: Supports dual-port 10GbE Base-T + 8 x SATA3 (SFF-8654 8i) + 4 x SATA3 onboard
- SKU B: Supports dual-port 1GbE Base-T + 8 x SATA3 (SFF-8654 8i) + 4 x SATA3 onboard
- Supports 1 x 2.5GbE Ethernet + 1 x dedicated GbE BMC management port
- Supports TPM 2.0 onboard

Specifications

System	Processor Support	AMD EPYC™ 4005/4004 Series Processor
	CPU interconnection	Single Socket (1P)
	Socket Type	Socket AM5 (LGA1718)
	System Memory	• DDR5 ECC/non-ECC UDIMM - Up to 5600MHz (1DPC) / 5200MHz (2DPC) • Total 4 memory slots
	Expansion Slots	• PCIe slots - 1 x PCIe Gen5 x16 or 2 x PCIe Gen5 x8 - 1 x PCIe Gen5 x4 • M.2 2280 support - 2 x M.2 M-Key PCIe Gen4 x2 2280 (B650E/B850)
System BIOS	BIOS Type	AMI UEFI BIOS
	BIOS Features	• ACPI • PXE • WOL • AC loss recovery • IPMI 2.0 KCS mode interface • SRIOV • SMBIOS • TPM • Serial console redirection • PCIe hotplug • TPM 2.0 support

On-board Devices	SATA	• 8 x SATA3.0 (by 2xJMB585, Slimline 8i connector) • 4 x SATA3.0 (by FCH, SATA 7P on board)
	IPMI	Aspeed AST2600
	Network Controller	• Realtek RTL8211 GbE PHY for dedicated BMC management port • Dual 10GbE/1GbE Base-T by Broadcom 57416/5720L (depending on SKU, NCSI shared NIC) • Intel® I226-LM ethernet controller for single-port 2.5GbE (WOL support)
	Graphics	• 1x VGA in pin header
Input/ Output	SATA	• 8 x SATA3.0 (by 2xJMB585, Slimline 8i connector) • 4 x SATA3.0 (by FCH, SATA 7P on board)
	LAN	• 2 x RJ45 10GbE or 1GbE (by SKU, Data/BMC management shared) • 1 x RJ45 2.5GbE • 1 x RJ45 GbE dedicated for BMC management
	USB	• 2 x USB3.2 double-stack Type-A connectors
	VGA	• 1 x DB-15 VGA connector • 2 x DisplayPort++ (Dual-Mode DisplayPort)
	Serial Port	• 1 x RS232 D-Sub connector
	Additional Information	• PCIe slots - 1 x PCIe Gen5 x16 or 2 x PCIe Gen5 x8 - 1 x PCIe Gen5 x4 • M.2 support - 2 x M.2 M-Key PCIe Gen4 x2 2280