

uATX-B650A (MB650MM)

Micro-ATX support AMD® Ryzen™ Embedded 7000/9000 Series Processors & AMD® EPYC™ Embedded 4005 Series Processors, Dual channel DDR5 memory, PCIe slot , 4 x COM , 8 x USB, 4 x SATA 6Gb/s



Features

- Micro ATX form factor
- Support AMD® Ryzen™ Embedded 7000/9000 Series & AMD® EPYC™ Embedded 4005 Series Processors
- AMD® B650
- Dual Channel DDR5, 4 x DIMMs
- 1 x GbE LAN Port, support Realtek® DASH Remote Management
- 1 x 2.5GbE LAN Port
- Support 3 x PCIe slots
- HDMI and Display Port for multiple display
- 4 x COM Ports (RS-232)

Specifications

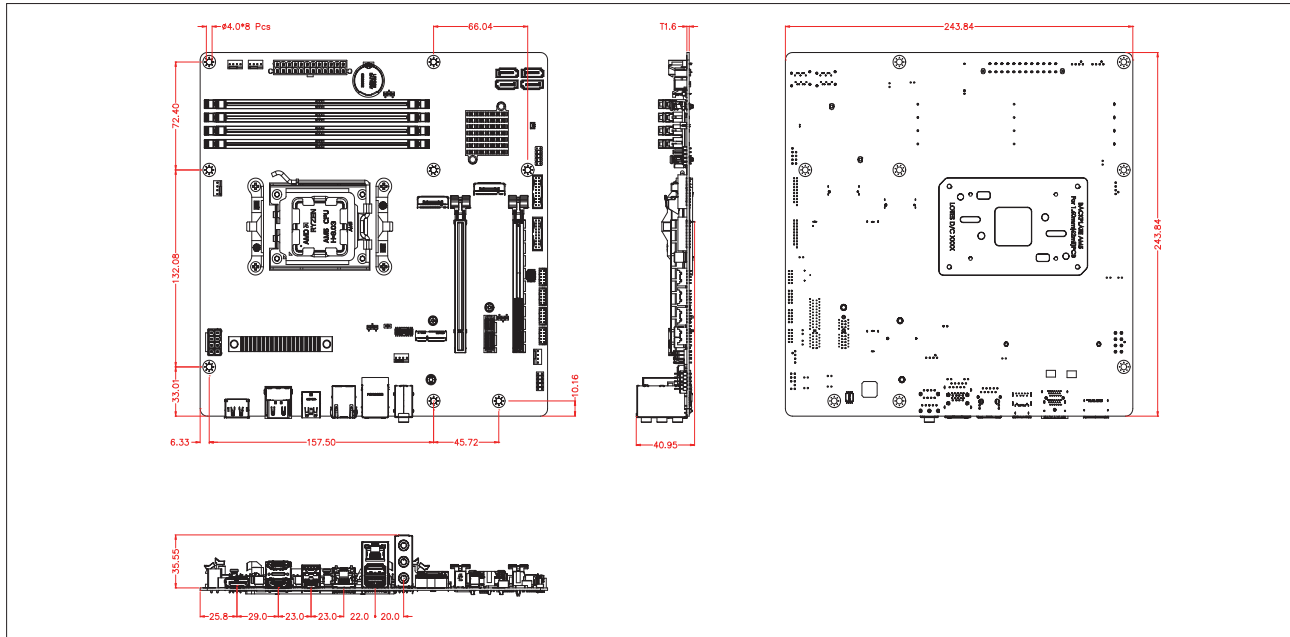
Form Factor	Micro ATX 244W x 244D (mm)
CPU	Support AMD® Ryzen™ Embedded 7000/9000 Series Processors & AMD® EPYC™ Embedded 4005 Series Processors TDP under 105W
Socket	1 x Socket AM5
Chipset	AMD® B650
Memory	4 x DDR5 DIMM sockets, Max Capacity 128 GB (32 GB single DIMM capacity) of system memory Dual channel memory architecture Support Non-ECC UDIMM memory modules (The CPU and memory configuration may affect the supported memory types, data rate (speed), and number of DRAM modules)
Ethernet	1 x 2.5G LAN Port (Realtek® RTL8125B) 1 x GbE DASH LAN Port (Realtek® RTL8111EPP)
Video	Integrated Graphics Process - depends on CPU: 2 x HDMI 2.1 port (TMDS), supporting a maximum resolution of 4096x2160 @60Hz 1 x DP 1.2 port, supporting a maximum resolution of 4096x2160 @60Hz (3 independent display outputs)
Audio	Realtek® ALC897 High Definition audio 7.1-channel
Storage	4 x SATA 6Gb/s Ports
RAID	RAID 0/1/10
Expansion Slots	1 x PCIe x16 (Gen5 x16) 1 x PCIe x16 (Gen4 x4) 1 x PCIe x1 (Gen4 x1) 2 x 2280 M.2 M-Key (PCIe Gen5 x4) 1 x 2230 M.2 E-Key (PCIe x1, USB 2.0)

Internal I/O	1 x 24-pin ATX main power connector 1 x 8-pin ATX 12V power connector 1 x CPU fan header 4 x System fan headers 1 x Front panel header 1 x Front panel audio header 4 x USB 3.2 Gen 1 headers (5 Gbps) 4 x COM headers (RS-232) 1 x Clear CMOS jumper 1 x Buzzer header
Rear I/O	3 x Audio Jacks (Line in, Line out, Mic in) 2 x HDMI 1 x Display Port 2 x RJ45 LAN Ports 3 x USB 3.2 Gen 2x2 Type A (10 Gbps) 1 x USB 3.2 Type C (10 Gbps)
TPM	Onboard TPM 2.0 security chip INFINEON SLB9670VQ2.0
OS Compatibility	Windows 10 IoT Enterprise LTSC 2021, x64 Windows 11 IoT Enterprise, version 24H2 x64 Windows 11 IoT Enterprise LTSC 2024, x64 Windows 11 Enterprise LTSC 2024 Windows 11 IoT Enterprise, version 25H2, x64 Ubuntu 24.04.4 LTS
Operating Properties	Operating temperature: 0°C to 60°C Operating humidity: 60°C @ 20~95% (non-condensing) Non-operating temperature: -40°C to 85°C Non-operating humidity: 85°C @ 95% (non-condensing)
Packing Content	Carton size: 360 x 354 x 390 (mm) Packing Capacity: 5pcs Single Box size: 350 x 330 x 65 (mm) Including: IO Shield x 1 (P/N: 12AIO-MC13NB-00R) SATA Cable x 2 (P/N: 12CF1-2SAT1B-01R)
Order Information	9MB650MMMR-SI (Bulk Packing)

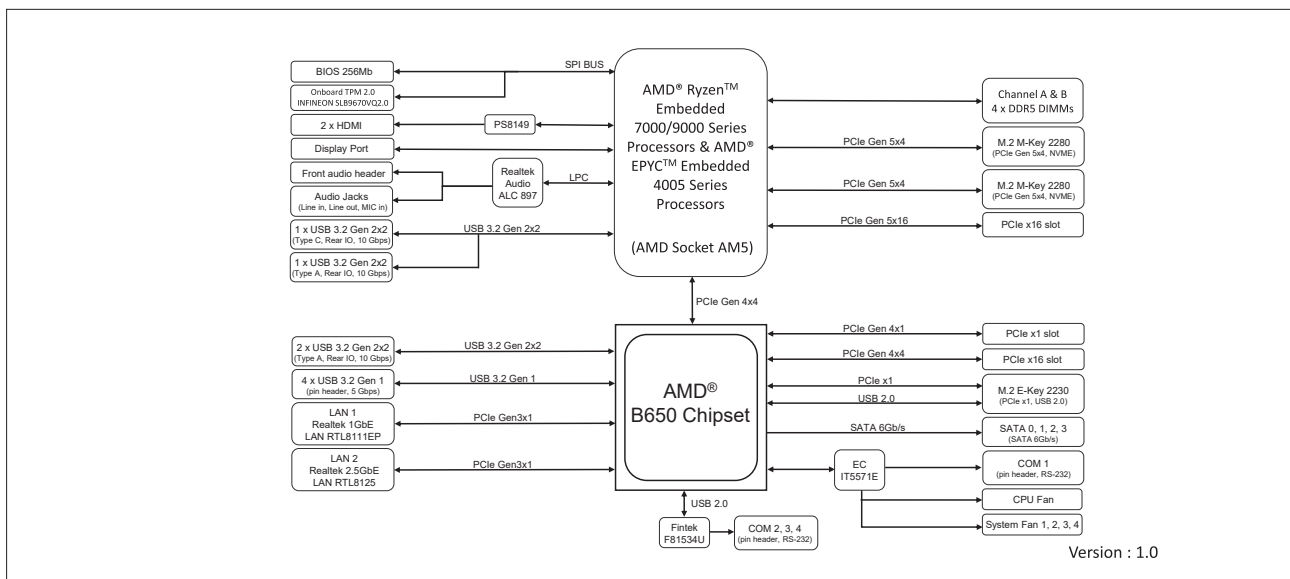
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Dimension (Unit: mm)

2026/09/07



Block Diagram



Optional Kit

Part No.	Description	Quantity
25ST4-300002-Y0R	CPU Cooler for CPU TDP 105W	1

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