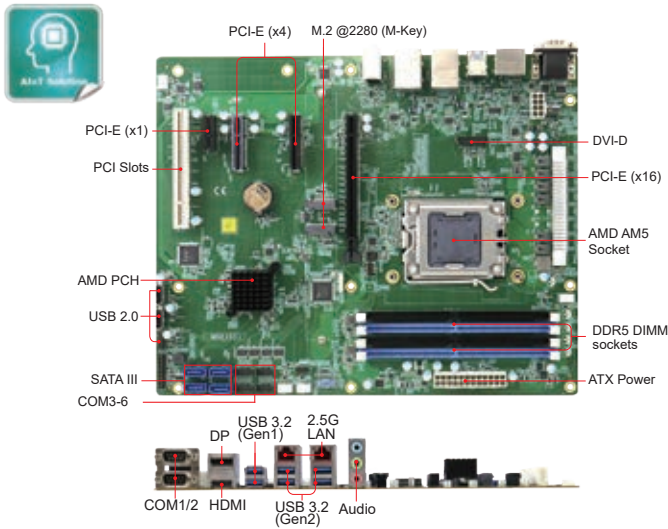




Features

- AMD Ryzen™ Embedded 7000 Processors with B650 chipset
- Dual-channel DDR5-5200 UDIMM (4 slots), up to 128GB, ECC support
- Triple independent display outputs: DP / HDMI / DVI-D
- Dual GbE LAN for high-speed networking
- Flexible expansion: 1x PCI-E x16 (Gen5), 1x PCI-E x4 (Gen5), 1x PCI-E x4 (Gen4), 1x PCI-E x1 (Gen3), 1x PCI slot
- 2x M.2 2280 (PCI-E x2 Gen4, NVMe), supports RAID 0, 1

Specifications

Form Factor	ATX Motherboard
Dimensions	305mm x 244mm (12 x 9.6)
CPU Socket	LGA1718
CPU Type	AMD Ryzen™ Embedded 7000 series
PCH	B650
Memory	Dual-Channel DDR5 5200, UDIMM 4 slots, Max. up to 128GB Supports ECC
BIOS	AMI
Watchdog Timer	256 levels
H/W Monitor	Yes
Storage Device Interface	NVMe
Graphics	N/A
Display	1x HDMI 2.0 FRL (Max. 4K @ 60Hz) 1x DP 1.4 UHBR10 (Max. 4K @ 60Hz) 1x DVI-D port (Max. 1920 x 1080 @ 60Hz)
Image Capture Interface	N/A
Video Codec	H.264 / H.265 (HEVC)
I/O Chipset	Fintek F81956D-I / AMD B650
External I/O	1x Dual DB9 stack connector for - COM 1 (RS-232/422/485) (jumperless selection) - COM 2 (RS-232) 1x HDMI 1x DP 2x 2.5G LAN (Intel® I226V) 2x USB 3.2 Gen1 with PDPC support 4x USB 3.2 Gen 2 1x Triplet type jack 3x 1 for HD audio port [Line-in / Lineout / Mic-in] Realtek ALC888S for 5.1 channel
Internal I/O	2x M.2 2280 (PCI-E x2 Gen4, NVMe) 1x DVI-D 4x COM Port Header (RS-232) 2x USB 2.0 via pin header, 2x USB 2.0 type A vertical connector 4x SATA 6Gb/s supports RAID 0, 1, 10 / UEFI and Windows 10 x64 Only (9.2 based driver)
Expansion IO	1x PCI-E(x16) supports (Gen5) / 1x PCI-E(x4) supports (Gen5) 1x PCI-E(x4) supports (Gen4) / 1x PCI-E(x1) supports (Gen3) / 1x PCI
TPM	N/A
Others	Digital I/O (4-in/4-out)

Power Consumption	MBB1001-7645 / 7745 / 7945: AMD Ryzen™ 5 PRO 7645 3.8GHz AMD Ryzen™ 7 PRO 7745 3.8GHz AMD Ryzen™ 9 PRO 7945 3.7GHz w/ 1x 8GB DDR5-5200 UDIMM +12V: ~6.5A / +12V: ~7.0A / +12V: ~7.5A
Operating Temperature	0°C~60°C (32°F~140°F)
Storage Temperature	-20°C~80°C (-4°F~176°F)
Relative Humidity	95% (non-condensing)
OS Support	Ubuntu 22.04, Windows 11, Windows Server 2022
Certification	CE, FCC Class B, LVD, RoHS 2.0

Ordering Information

MBB1001	AMD Ryzen™ Embedded 7000 series ATX Motherboard w/ HDMI, DisplayPort, DVI-D, Dual Giga-LAN, RAID, TPM (2.0), ECC support
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Dimensions and Drawing

