



Features

- AMD Ryzen™ Embedded 7000 Processors with B650 chipset
- Dual-channel DDR5-5200 UDIMM (4 slots), up to 128GB, ECC supported
- 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

CPU Socket	LGA1718
CPU	AMD Ryzen™ Embedded 7000 series
PCH	B650
Memory	Dual-Channel DDR5 5200, UDIMM 4 slots, Max. 128GB ECC support
BIOS	AMI
Watchdog Timer	256 levels
H/W Monitor	Yes
Storage Device Interface	NVMe
Expansion Slots	1x PCI-E x16 (Gen5) / 1x PCI-E x4 (Gen5) 1x PCI-E x4 (Gen4) / 1x PCI-E x1 (Gen3) / 1x PCI
Display Interface	1x HDMI 2.1 1x DP 2.0 1x DVI-D
Mini Type Slots	N/A
Graphics Controller	N/A
Video Output	N/A
Ethernet	2x Gigabit LAN / Intel I226-V
Serial Port	1x Dual DB9 stack connector for - COM #1 (RS232/422/485) (jumper-less selection) - COM #2 (RS232) 4x COM Port Header (RS232)
USB 2.0	2x USB 2.0 via pin header, 2x USB 2.0 type A vertical connector
USB 3.X	4x USB 3.2 Gen 2, + 2 x USB 3.2 Gen1 With PDPC support
Serial ATA	4x SATA 6Gb/s SUPPORT RAID 0, 1, 10 / UEFI and Windows 10 x64 Only (9.2 based driver)
Audio	1x Triplet type jack 3 x 1 for HD audio port [Line-in / Line-out / Mic-in] Realtek ALC888S for 5.1 channel.
TPM	N/A
Others	Digital I/O (4-in/4-out)
Dimensions (L x W)	305mm x 244mm (12" x 9.6")
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 @60°C)

Ordering Information

MBB1001	AMD Ryzen™ Embedded 7000 series ATX Motherboard w/ HDMI, DisplayPort, DVI-D, Dual Giga-LAN, RAID, TPM (2.0), supports ECC
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*Specifications are subject to change without prior notice

Dimensions and Drawing

