



KEY FEATURES

- AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors with B650 Chipset
- 2 x 288-pin Long-DIMM DDR5 5200 MHz, up to 96GB (48GB per DIMM)
- 1 x PCIe x16 (Gen5), 6 x USB 3.2 Gen2, 3 x USB2.0, 1 x M.2 Key B, 1 x M.2 Key M, 1 x M.2 Key E, 2 x COM, 2 x SATA3
- 2 x Realtek Gigabit LAN
- Supports Quad display, 3 x DP 1.2, 1 x eDP 1.4b
- TPM 2.0 onboard IC
- ATX PWR (24+4-pin)

SPECIFICATIONS

Form Factor

Dimensions (LxWxH)	Mini-ITX (6.7-in x 6.7-in x 1.5-in, 17.0 cm x 17.0 cm x 3.7 cm)
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Processor System

CPU	AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Desktop Processors*, up to 65W <small>*The availability of expansion slots may vary by CPU. Please refer to PCIe Bandwidth Table for details.</small>
Chipset	AMD B650
Socket	AM5
BIOS	AMI SPI 256 Mbit

Memory

Technology	Dual Channel DDR5 5200 MHz
Capacity	up to 96GB (48GB per DIMM)
Socket	2 x 288-pin Long-DIMM

Graphics

Controller	AMD RDNA™ 2 Architecture
DisplayPort	DisplayPort 1.2, DP++ Max resolution up to 4096x2160@60Hz
eDP	eDP 1.4b Max resolution up to 4096x 2160@60Hz
MultiDisplay	Quad Display

Expansion Slot

PCIe	1 x PCIe x16 (Gen5)
M.2	1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 for Wireless 1 x M.2 (Key B, 3042/3052) with PCIe x1, USB 3.0, USB 2.0 and SIM Socket for 4G/5G
SIM Socket	1 x Socket connected to M.2 Key B

Audio

Interface	Realtek ALC897, High Definition Audio. Mic-in, Line-out
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Ethernet

Controller/ Speed	LAN1: Realtek RTL8111H with 10/100/1000 Mbps LAN2: Realtek RTL8111H with 10/100/1000 Mbps
Connector	2 x RJ-45

Rear I/O

DisplayPort	3 x DP 1.2
Ethernet	2 x 1 Gigabit LAN
USB	6 x USB 3.2 Gen2
Audio	2 (Mic-in, Line-out)

Internal Connector

USB	3 x USB 2.0 (1 x 2.54 pitch header, 1 x USB 2.0 Type-A vertical con)
COM	COM1, COM2 (RS-232/422/485)
eDP	1

Storage

M.2	1 x M.2 (Key M, 2242/2280) with PCIe Gen4 x4, SATA3 and USB2.0
SATA	2 x SATA3 (6Gb/s)

Security

TPM	TPM 2.0 onboard IC
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Watchdog Timer

Output	From Super I/O to drag RESETCON#
Interval	256 Segments, 0, 1, 2, ..., 255sec

Power Requirements

Input PWR	ATX PWR (24+4-pin)
Power On	AT/ATX Supported - AT : Directly PWR on as power input ready - ATX : Press button to PWR on after power input ready

Environment

Operating Temp	-20°C ~ 60°C
Storage Temp	-40°C ~ 85°C
Operating Humidity	5% ~ 90%
Storage Humidity	5% ~ 90%

BLOCK DIAGRAM

