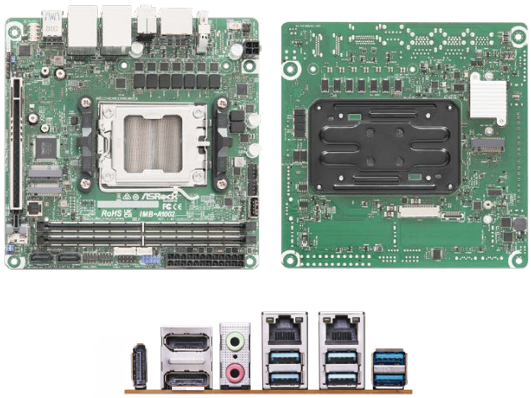
ASRock Industrial

IMB-A1002

Mini-ITX Motherboard



KEY FEATURES

- Supports AMD Ryzen™ 8000 and 7000 Series Processors with B650 Chipset
- 2 x 288-pin Long-DIMM DDR5 5200 MHz, up to 64GB (32GB 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)

Processor System

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

Memory

Technology	Dual Channel DDR5 5200 MHz
Capacity	64GB (32GB 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

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

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 ~ 70°C
Storage Temp	-40°C ~ 85°C
Operating Humidity	5% ~ 90%
Storage Humidity	5% ~ 90%

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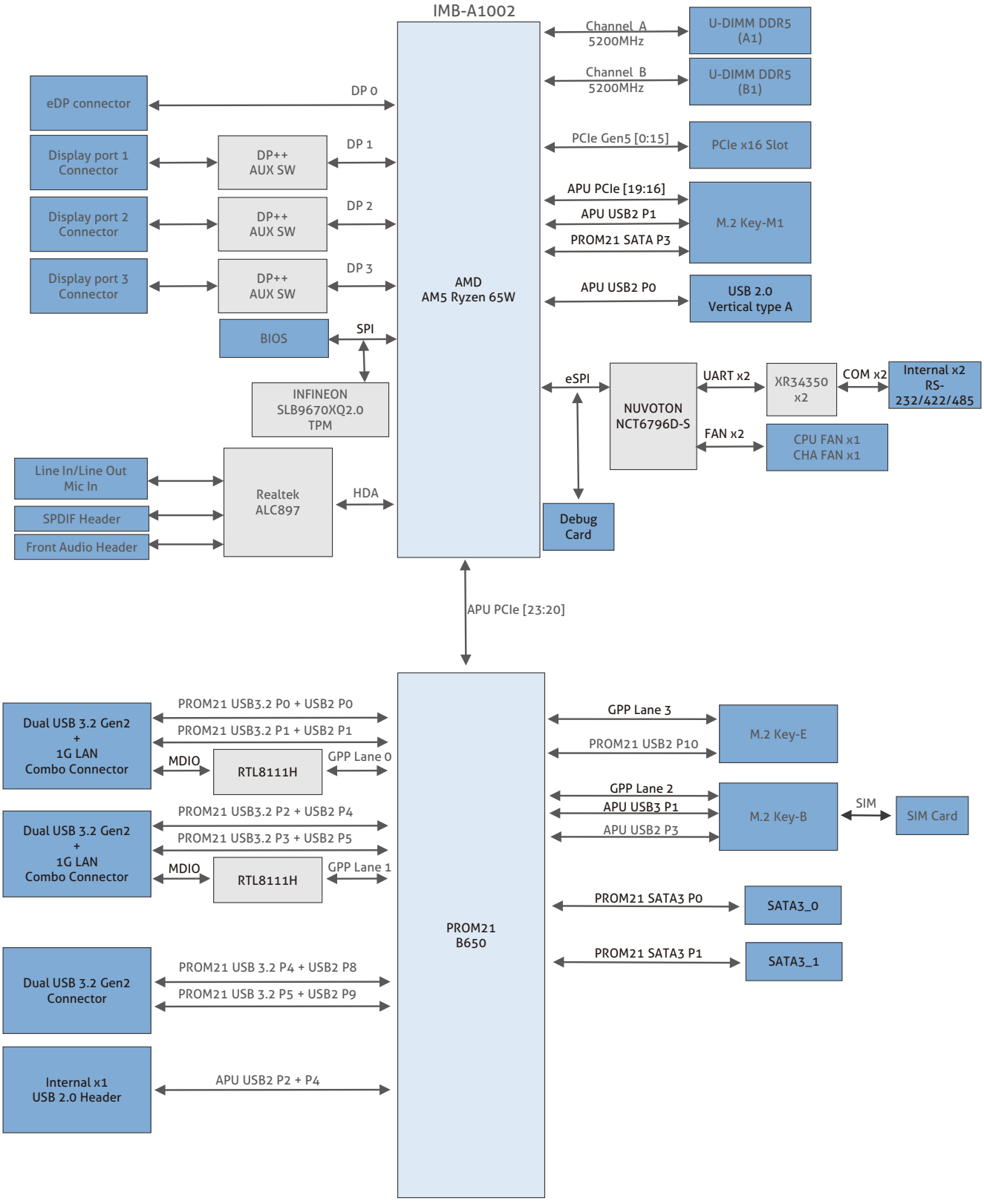
BLOCK DIAGRAM



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