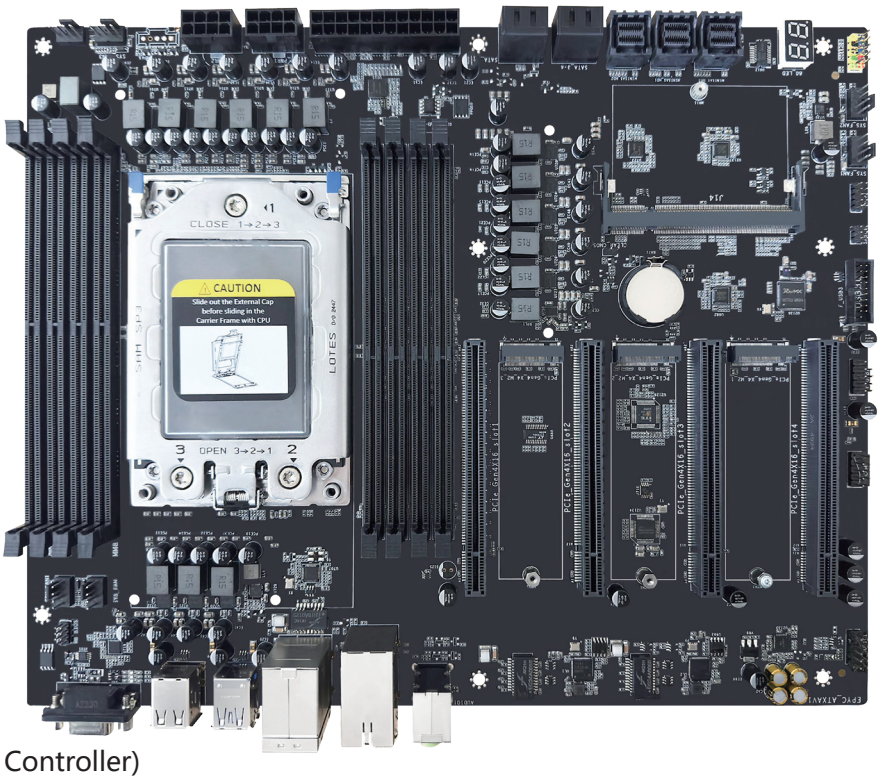
ZA-EPYC_ATXAV20 Motherboard

Product characteristics:

- Supports a single AMD EPYC 7002/7003 series,Up to 64 cores
- Supports up to 8 channels of DDR4-3200 memory (1DPC); The maximum capacity is up to 2TB
- Supports 16 SATA 3.0 disks(Or 4 for SATA 3.0 disks + 3 U.2 PCIe Gen4 x4.) SSD), 3 x 2280 M.2 x4 NVMe SSDs)
- Supports up to 4 double-wide x16 PCIe Gen4 cards
- Support 10*USB (4*USB2.0 interface/ 6*USB3.0 interface)
- Support 3*LAN
  (IPMI LAN: Support 1*100MbE/10MbE Ethernet Controller)
  (LAN: Support 2*2.5GbE/1GbE/100MbE/ 10MbE Ethernet Controller)



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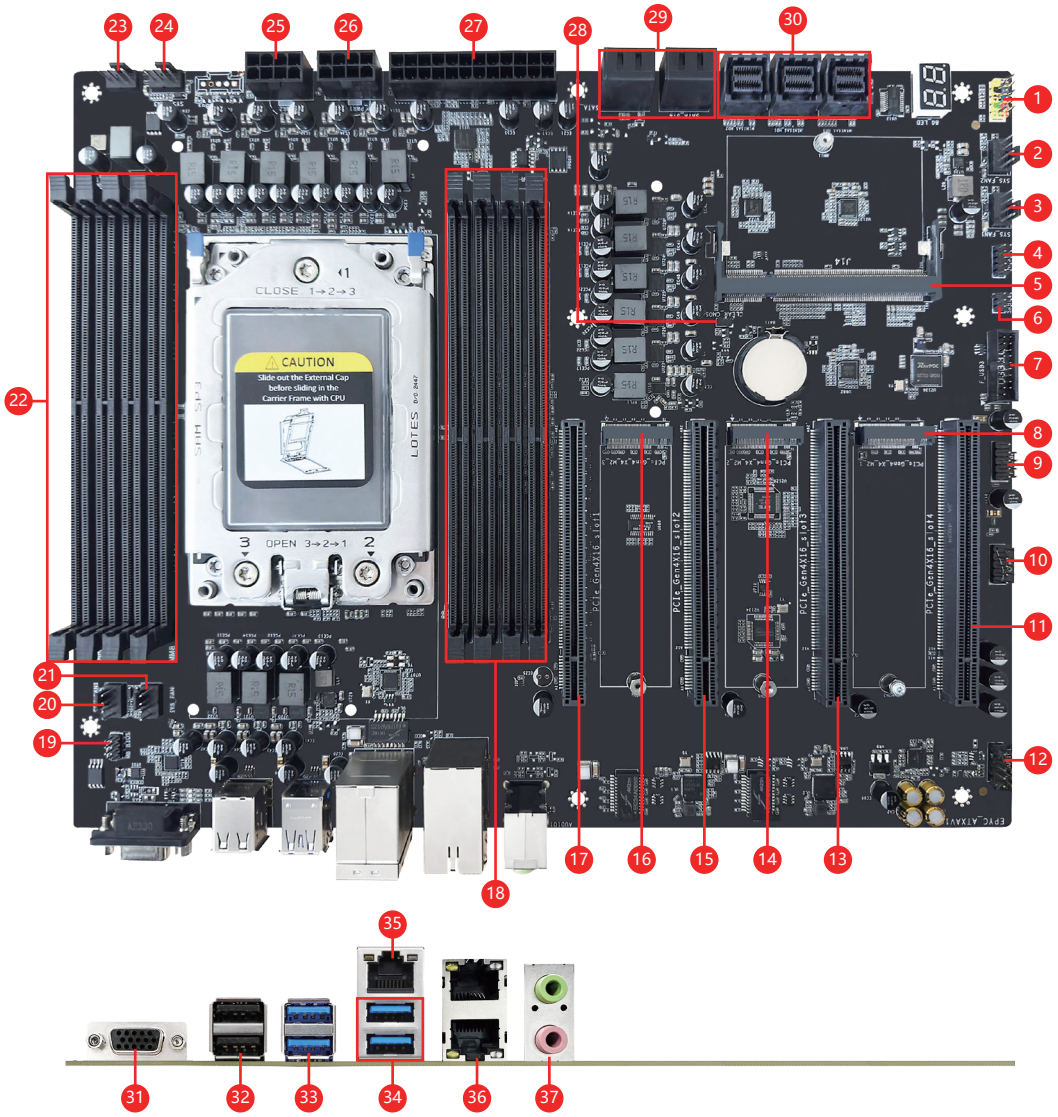
ZA-EPYC_ATXAV20 Motherboard Specifications

Size	245mm*304mm
CPU	Supports a single AMD EPYC 7002/7003 series,Up to 64 cores
RAM	Supports up to 8 channels of DDR4-3200 memory (1DPC); The maximum capacity is up to 2TB
BIOS	AMIBIOS 256Mbit Flash
Internal I/O	1*Front panel Pin 1*NCS1 Pin 1*BMC Module interface slot 1*SMBus Pin 1*F_USB3 Pin (Supports 2*USB3.0 interface) 1*F_USB2 Pin (Supports 2*USB2.0 interface) 1*COM1 Pin 1*AUDIO Pin 1*CPU_FAN Pin 2*8Pin Power outlet(CPU) 1*24Pin Power outlet 1*5PIN PMBus 1*CLEAR_CMOS Pin 4*SATA Data interface 3*MINISAS_HD1-3 interface(Supports 12*SATA/3* U.2 NVme SSD)
Rear I/O	1*VGA interface 2*USB2.0 interface 4*USB3.0 interface 1*IPMI LAN interface(100MBE) 2*LAN interface(2.5GBE) 2*AUDIO interface (1*MIC IN、1*LINE OUT)
Storage interfaces	Supports 3 x M.2 NV ME (PCIe 4.0 x4) SSDs and 16 SATA 3.0 drives (or 4 SATA 3.0 disks + 3 U.2 NVMe SSDs)
LAN	2*2.5GbE/1000MbE/100MbE/10MbE Ethernet Controller(BASE-T Service NIC) 1*100MbE/10MbE Ethernet Controller(BASE-T Dedicated management NICs)
Expansion slot	4*PCIe_Gen4_x16_4.0 slot (up to 4 double-wide cards)
Operating System	Equipped with an optional AST2500 BMC management module, it supports remote management of web pages, and supports voltage, speed, and temperature and CPU status and other sensor monitoring, support for remote KVM and serial port redirection, and more



1	Front panel Pin
2	SYS_FAN2 Pin
3	SYS_FAN1 Pin
4	NCS1 Pin
5	BMC Module interface slot
6	SMBus Pin
7	F_USB3 Pin
8	PCIE_Gen4_x4_M2_1 slot
9	F_USB2 Pin
10	COM1 Pin
11	PCIE_Gen4_x16 slot 4
12	AUDIO Pin
13	PCIE_Gen4_x16 slot 3
14	PCIE_Gen4_x4_M2_2 slot
15	PCIE_Gen4_x16 slot 2
16	PCIE_Gen4_x4_M2_3 slot
17	PCIE_Gen4_x16 slot 1
18	DDR4 slot
19	MB_BIOS Pin

20	CPU_FAN Pin	29	SATA Data interface
21	SYS_FAN Pin	30	MINISAS_HD1-3 interface
22	DDR4 slot	31	VGA interface
23	SYS_FAN4 Pin	32	USB2.0 interface
24	SYS_FAN3 Pin	33	USB3.0 interface
25	8Pin Power outlet(CPU)	34	USB3.0 interface
26	8Pin Power outlet(CPU)	35	IPMI LAN interface(100MBE)
27	24Pin Power outlet	36	LAN interface(2.5GBE)
28	CLEAR_CMOS Pin	37	AUDIO interface (1*MIC IN、1*LINE OUT)

ZA-EPYC_ATXAV20 Mainboard Definition

(1) Front panel Pin

Location	Pin	Definition	Pin	Definition
FP1 (2.54mm)	1	HDD_LED_PWR	2	Power
	3	HDD_LED_N	4	PWR_LED_N
	5	GND	6	PWR_BTN_N
	7	RST_BTN_N	8	GND
	9	UID_LED_N		

(2/3/21/23/24) SYS_FAN Pin

Location	Pin	Definition
SYS_FAN	1	GND
	2	+12V
	3	FAN_TAC
	4	FAN_CTL

(6)SMBUS Pin

Location	Pin	Definition	Pin	Definition
SMBus	1	MGMT_SMBUS_CLK7	2	MGMT_SMBUS_CLK5
	3	MGMT_SMBUS_DATA7	4	MGMT_SMBUS_DATA5
	5	GND	6	GND

(7)USB30_F1 Pin

Location	Pin	Definition	Pin	Definition
USB30_F1	2		1	VBUS
	4	VBUS	3	SSRX1-
	6	SSRX2-	5	SSRX1+
	8	SSRX2+	7	GND
	10	GND	9	SSTX1-
	12	SSTX2-	11	SSTX1+
	14	SSTX2+	13	GND
	16	GND	15	D1-
	18	D2-	17	D1+
	20	D2+	19	NC

(9) FUSB Pin

Location	Pin	Definition	Pin	Definition
FUSB (2.54mm)	1	5V_RUN	2	5V_RUN
	3	USB_PN4	4	USB_PN5
	5	USB_PP4	6	USB_PP5
	7	GND	8	GND
	9	NC	10	GND

(10) COM Pin

Location	Pin	Definition	Pin	Definition
COM1 (2.54mm)	1	NDCDA	2	NSINA
	3	NSOUTA	4	NDTRA
	5	GND	6	NDSRA
	7	NRTSA	8	NCTSA
	9	NRIA		

(12) AUDIO Pin

Location	Pin	Definition	Pin	Definition
AUDIO (2.54mm)	1	MIC1_L	2	GND
	3	MIC1_R	4	NC
	5	LINEOUT_R	6	MIC1_JD
	7	GND	8	
	9	LINEOUT_L	10	LINEOUT_JD

(20) CPU_FAN Pin

Location	Pin	Definition
CPU_FAN1	1	GND
	2	+12V
	3	FAN_TAC
	4	FAN_CTL

(28) CLEAR_CMOS Pin

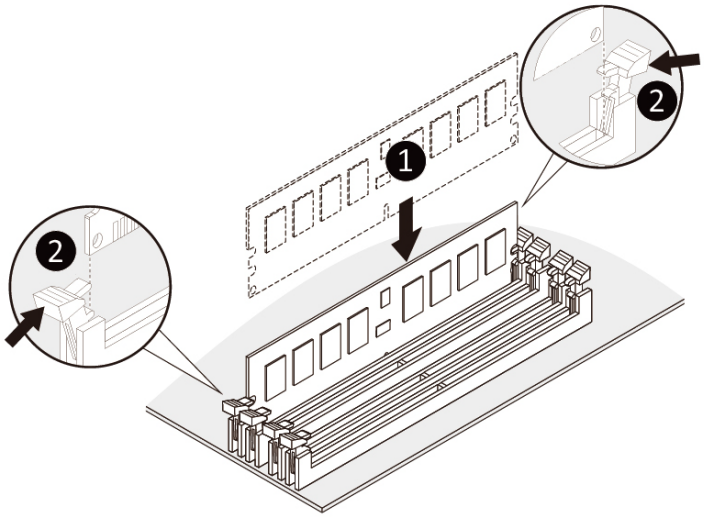
CLEAR_MOS	
1	VDD_RTC
2	GND

Installing and Removing the Memory Module

Before installing a memory module, make sure to turn off the computer and unplug the power cord from the power outlet to prevent damage to the memory module.
Be sure to install DDR4 DIMMs on to this motherboard.

Follow these instructions to install a DIMM module:

1. Insert the DIMM memory module vertically into the DIMM slot and push it down.
2. Close the plastic clip at both edges of the DIMM slots to lock the DIMM module.
3. Reverse the installation steps when you want to remove the DIMM module.



Processor and Memory Module Matrix Table

Processor and Memory Module Matrix Table								
CPU#	MM1	MM2	MM3	MM4	MM5	MM6	MM7	MM8
1 DIMMs								
CPU0			✓					
2 DIMMs								
CPU0	✓		✓					
4 DIMMs								
CPU0	✓	✓	✓	✓				
6 DIMMs（仅7003支持）								
CPU0	✓	✓	✓	✓			✓	✓
8 DIMMs								
CPU0	✓	✓	✓	✓	✓	✓	✓	✓