倍控®
BKHD

BKHD C612NP-21 Motherboard

VER 1.1

用户手册 User Manual

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安全须知 Safety Guide:

为了协助您使用倍控产品，请仔细阅读【使用手册】。在了解产品相关信息，请先务必仔细通读安全指导。

In order to assist you in the use of the Beikong products, please read the [User Manual] carefully. Before understanding product-related information, please be sure to read the safety instructions carefully.

产品版本辨识

您可在主板上找到标示此主板的版本[VER:X.X],其中 X.X 为数字。例如标示[VER1.0],即此主板的版本为 1.0。当您要更新主板的 BIOS、驱动程序或参考其他技术资料时，请注意产品版本的标示。

Product Version Identification

You can find the motherboard version [VER:X.X] marked on the motherboard, where X.X is a number. For example, if marked [VER1.0], the version of this motherboard is 1.0. When you want to update the motherboard's BIOS, drivers or refer to other technical documents, please pay attention to the product version label.

安全使用小常识

在使用本产品前，请您务必仔细阅读产品说明书；

对未准备安装的板卡，应将其保存在防静电保护袋中；

在从防静电保护袋中拿出板卡前，应先将手置于接地金属物体上一会儿（比如 10 秒钟），以释放身体及手中的静电；

在拿板卡时，需佩戴静电保护手套，尽可能仅触及其边缘部分；

为避免人体被电击或产品被损坏，在对板卡进行拔插或重新配置时，务必先关断电源；

在需对板卡或整机进行搬动前，务必先关断电源；

对整机产品，需增加或减少板卡时，务必先关断交流电源；

当您需连接或移除任何设备前，务必先关断交流电源；

为避免频繁开关机对产品造成不必要的损伤，关闭电源后，应至少等待 30 秒后再开机。

Tips for Safe Use

Please read the product manual carefully before using this product;

For boards that are not ready to be installed, they should be stored in anti-static protective bags;

Before taking out the board from the anti-static protective bag, place your hands on a grounded metal object for a while (for example, 10 seconds) to release static electricity from your body and hands;

When handling the board, wear electrostatic protective gloves and try to only touch the edge of it;

In order to avoid electric shock to the human body or damage to the product, the power must be turned off before removing or recon figuring the board;

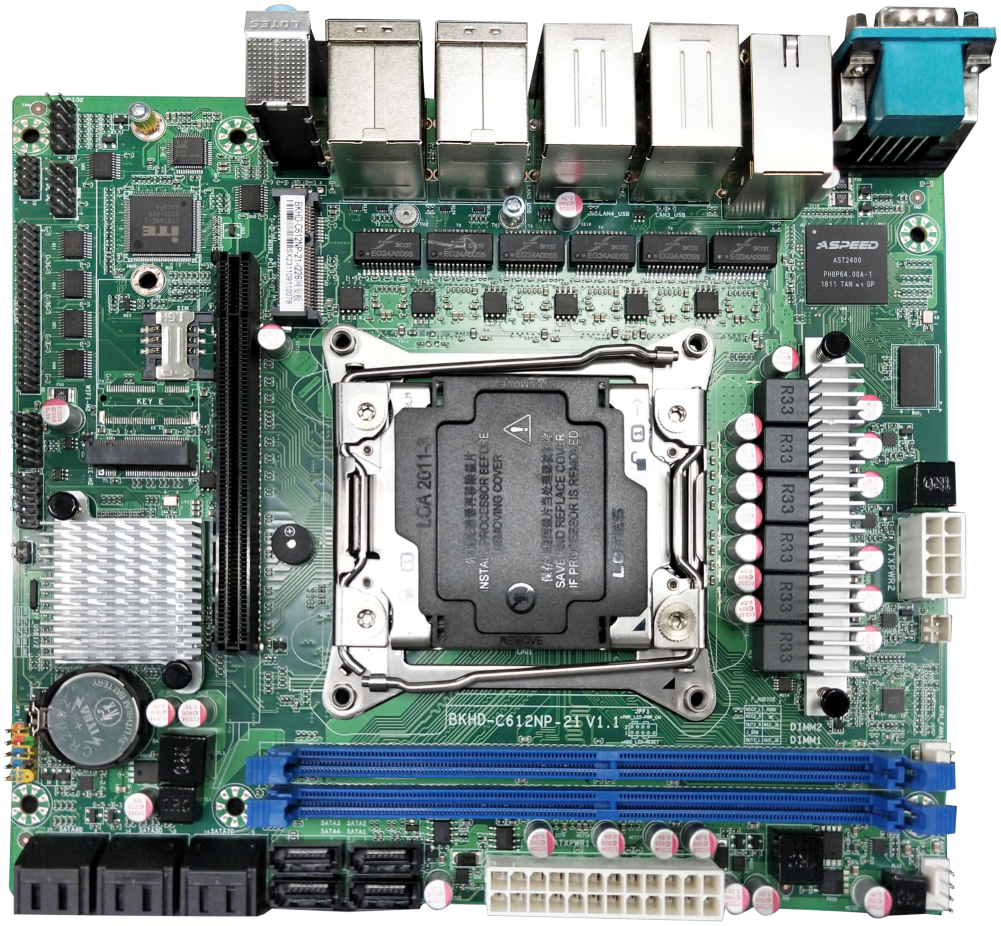
Before moving the board or the whole machine, the power must be turned off;

For a complete machine, when adding or removing a motherboard, be sure to turn off the power first;

Before you need to connect or remove any equipment, be sure to turn off the AC power first;

In order to avoid unnecessary damage to the product caused by frequent switching on and off, after turning off the power, wait at least 30 seconds before turning it on.

实物照片 Physical Photos



***不同批次生产的产品可能存在差异，请以实际收到货物为准**
***There may be differences in products produced in different batches, please refer to the actual received goods**

I、产品简介 Product Profile

C612NP-21 MB 为倍控工控服务器系列主板，支持 LGA2011-3 Intel Xeon E5 V3/V4 系列 CPU。可应用于数据存储、网络通讯、服务器等领域。

BKHD B760 NAS MB is a Server series motherboard of the Beikong Industrial Control, supporting LGA2011-3 Intel Xeon E5 V3/V4 series CPU. It can be used in data storage, network communication, servers and other fields.

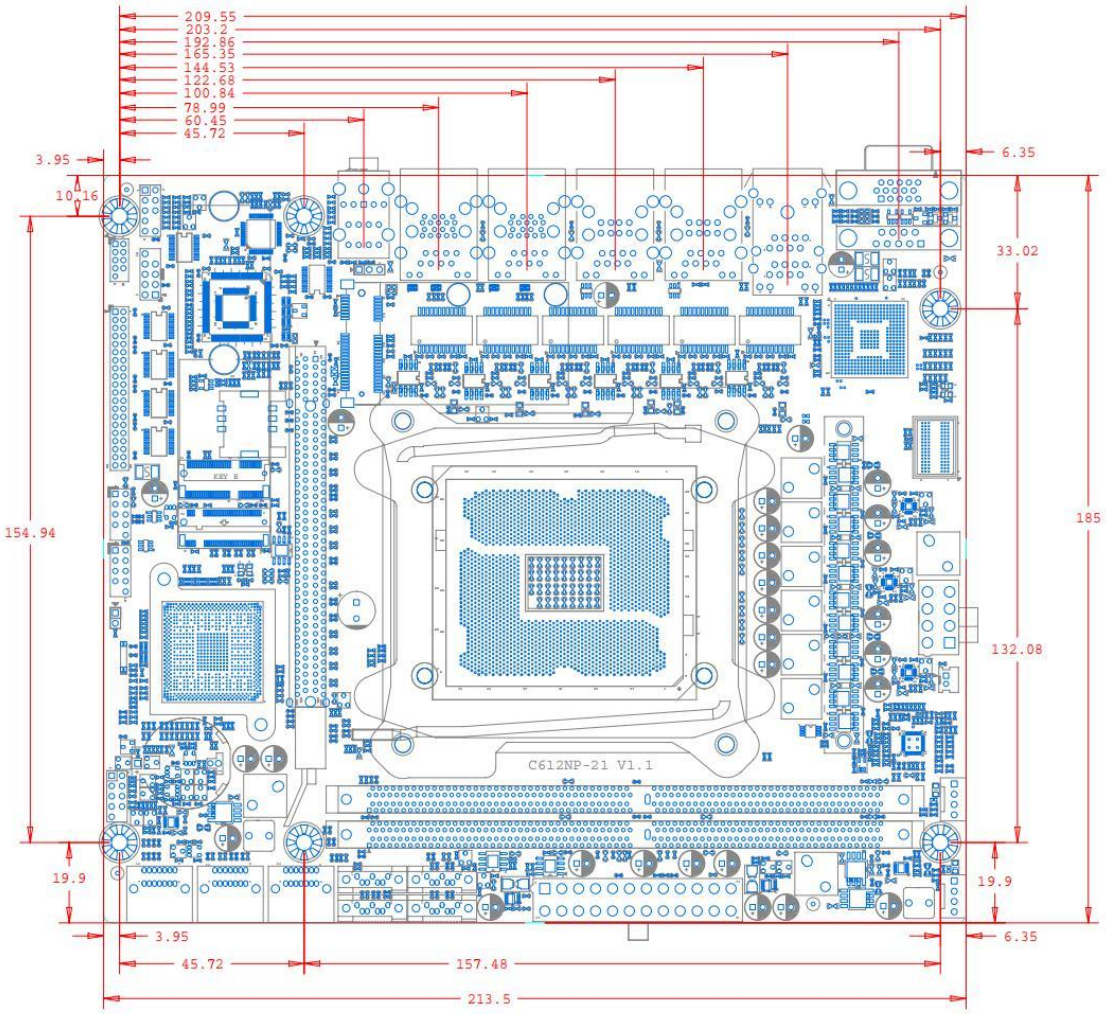
C612NP-21 MB 主要特点如下 The main features of C612NP-21 MB are as follows:

兼容 LGA2011-3 Intel Xeon E5 V3/V4 系列 CPU；
支持双通道 DDR4 DIMM 内存，单根最大支持 32GB,支持 RDIMM；
支持 VGA 显示输出；
支持 6 个 2.5G 以太网；
支持 4 个 USB3.0 接口和 4 个 USB2.0 接口；
支持 1 个 mPCIe，1 个 PCIe x16 拓展插槽；
支持 1 个 NVMe 2280(M.Key)可用于存储；
支持 10 个 SATA，其中 6 个支持 RAID 0/1/5/10；

Compatible with LGA2011-3 Intel Xeon E5 V3/V4 series CPU;
Supports dual-channel DDR4 DIMM memory, single-slot supports up to 32GB, supports RDIMM;
Supports VGA display output;
Supports 6 2.5G Ethernet;
Supports 4 USB3.0 interfaces and 4 USB2.0 interfaces;
Supports 1 mPCIe, 1 PCIe x16 expansion slot;
Supports 1 NVMe 2280 (M.Key) for storage;
Supports 10 SATA, 6 of which support RAID 0/1/5/10;

II、主板详细规格 Motherboard Specifications

Item	Description
Processor	Supports LGA2011-3 Intel Xeon E5-V3/V4 series processors Recommended power consumption is less than 90W
Memory	2*DDR4 DIMM memory slot, Single supports up to 32GB , 2400MHz
Display	Integrated VGA display output
	1*VGA
Network	6*Intel i226 2.5Gigabit Ethernet port
Storage	1*NVMe 2280 (M.Key)
	10*SATA 6Gb/s slot (6x of which support RAID 0/1/5/10)
Expansion slot	1*PCIe x16 Gen3
	1*mPCIe
Backplane I/O interface	6*Ethernet ports
	4*USB3.0; 4*USB2.0
	1*VGA; 1*COM RS232; 1*Audio port
On-board I/O interface	10*SATA slot;
	2*USB2.0 pins (can expand 4*USB2.0 ports); 1*F_PANEL Pins
	1*CPU_FAN Socket; 1*SYS_FAN Socket
	1*2×20 PIN COM (can expand 4 external COM ports)
Power type	ATX 24+8 Power input
Working Temperature	0℃～50℃
Working Humidity	5%-90% Relative humidity, Non-condensing
Size	213.5mm*185mm



III、主板安装 Motherboard Installation

安全须知:

- 安装前请勿任意撕毁主板上的序列号及代理商保修贴纸等,否则会影响到产品保修期限的认定标准。
- 要安装或移除主板以及其他硬件设备之前请务必先闭电源,并且将电源线处插座中拔除。
- 安装其他硬件设备至主板内的插座时,请确认接头和插座已紧密结合。
- 拿取主板时请尽量不要触碰金属接线部份以避免线路发生短路。
- 拿取主板、中央处理器（CPU）或内存条时，最好戴上防静电手环。若无防静电手环，请确保双手干燥，并先碰触金属物以消除静电。
- 主板在未安装之前，请先置放在防静电垫或防静电袋内。
- 当您要拔除主板电源插座上的插头时，请确认电源供应器是关闭的。
- 在开启电源前请 确定电源供应器的电压值是设定在所在窗口的电压标准值。
- 在开启电源前请 确定所有硬件设备的排线及电源线都已正确地连接。
- 请勿让螺丝接触到主板上的线路或零件，避免造成主板损坏或故障。
- 请确保没有遗留螺丝或金属制品在主板上或电脑机箱内。
- 请勿将电脑主机放置在不平稳处。
- 请勿将电脑主机放置在温度过高的环境中。
- 在安装时若开启电源可能会造成主板、其他设备或您自己本身的伤害。
- 如果您对执行安装不熟悉，或使用本产品发生任何技术性问题时，请咨询专业技术人员。

Safety Note：

- Before installation, please do not arbitrarily tear up the serial number on the main board and the dealer's warranty sticker, otherwise it will affect the certification standard of the product warranty period.
- Before installing or removing the motherboard and other hardware devices, please be sure to turn off the power and unplug the power cord from the socket.
- When installing other hardware devices to the sockets on the motherboard, please make sure the connectors and sockets are tightly combined.
- Please try not to touch the metal wiring part when picking up the motherboard to avoid short circuits.
- When handling the motherboard, processing unit (CPU) or memory module, it is best to wear an anti-static wrist strap. If you do not have an anti-static wrist strap, make sure your hands are dry, and touch a metal object first to eliminate static electricity.
- Before installing the motherboard, please place it in an antistatic mat or antistatic bag.
- When you unplug the motherboard power socket, please make sure the power supply is turned off.
- Before turning on the power, please make sure that the voltage value of the power supply is the voltage standard value set in the window.
- Before turning on the power, please make sure that the cables and power cables of all hardware devices are properly connected.
- Do not let the screws touch the circuit or parts on the main board to avoid damage or malfunction of the main board.
- Please make sure there are no screws or metal products left on the motherboard or inside the computer case.
- Do not place the main computer in an unstable place.
- Do not place the host computer in an environment with excessive temperature.
- Turning on the power during installation may cause damage to the motherboard, other devices or yourself.
- If you are not familiar with performing installation, or if you have any technical problems with this product, please consult a professional technician.

IV、内存安装 Memory Installation

主板提供 2 根 DDR4 DIMM 内存插槽。

This motherboard provides 2 DDR4 DIMM memory slots.

安装内存前：

1、请先确认您所购买的内存适用本主板所支持的规格。

2、在安装或移除内存之前，请先确定电脑的电源已经关闭以免造成损毁。

3、内存设计有防呆标示，若您插入方向错误，内存将无法插入，此时请立刻更改插入方向。

Before installing memory:

1. Please confirm that the memory you purchased is compatible with the specifications supported by this motherboard.

2. Before installing or removing the memory, please make sure that the power of the computer is turned off to avoid damage.

3. The memory design has a fool-proof mark. If you insert the memory in the wrong direction, the memory cannot be inserted. At this time, please change the insertion direction immediately.

安装内存时:

1、在安装或移除内存之前请先关掉电源，并且拔下 AC 电源线。

2、小心握住内存条的两端，不要触碰到上面的金属接点。

3、将内存条的金手指对齐内存条插槽，并且在方向上要注意金手指凹孔对上插槽的凸起点；

4、将内存条斜 30 度插入内存槽处，然后将内存条往下压，压至可以听到“咔”的声响,说明内存已安装成功，可以使用。（注意：将内存条下压的力度不可过大，以免损坏内存）

5、要移除内存条，请将 DIMM 插槽两端的卡榫同时向外推，然后取出内存条。

When installing memory:

1. Before installing or removing memory, please turn off the power and unplug the power cord.

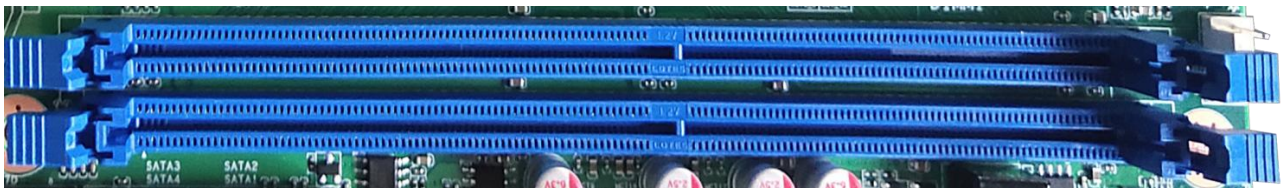
2. Carefully hold the two ends of the memory stick and do not touch the metal contacts on it.

3. Align the metal contacts of the memory with the memory slot, and pay attention to the orientation of the concave hole to the convex point of the upper slot.

4. Insert the memory into the memory slot at an angle of 30 degrees, and then press down the memory stick until you can hear a "click" sound, indicating that the memory has been installed successfully and can be used. (Note: Do not press the memory stick too hard to avoid damage to the memory)

5. To remove the memory stick, please push the tenons at both ends of the memory slot outward at the same time, and then take out the memory stick.

安装图示仅供参考
Installation diagram reference:

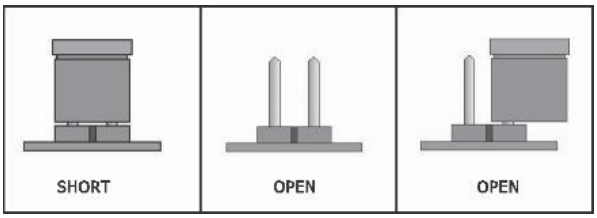


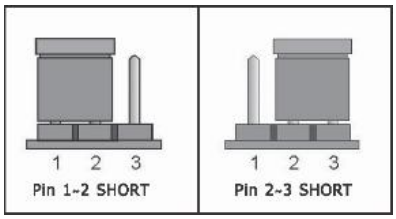
V、跳线设置 Jumper Setting

跳线说明 Jumper description

2 针脚的接头：将跳线帽插入两个针脚将使其关闭（短路）。
2 pin headers: Inserting a jumper cap into both pins will turn them off (short).

3 针脚的接头：跳线帽可插入针脚 1～2 或针脚 2～3 使其关闭（短路）。
3 pin connector: A jumper cap can be inserted into pins 1-2 or pins 2-3 to close (short)





参照以下说明确定跳线第一针的位置。

- 检查主板。标有“1”或带有粗白线的针脚为第一针。
- 查看后面板上的焊盘。方形焊盘通常是第一针。

清除 CMOS 跳帽：主板提供 1*3PIN JBAT1 接口，用于 CMOS 内容清除/保持设置。CMOS 由板载纽扣电池供电，清除 CMOS 会永久清除之前的系统配置，恢复为原始（出厂设置）系统设置。

Refer to the following instructions to identify the position of the first pin of the jumper.

- Check the motherboard. The pin marked with "1" or with a thick white line is the first pin.
- Look at the solder pad on the back panel. The square solder pad is usually the first pin.

Clear CMOS Jumper: The motherboard provides 1*3PIN JBAT1 interface to clear/preserve CMOS content. CMOS is powered by an onboard button battery. Clearing CMOS will permanently erase the previous system configuration and restore the original (factory) system settings.

步骤如下：

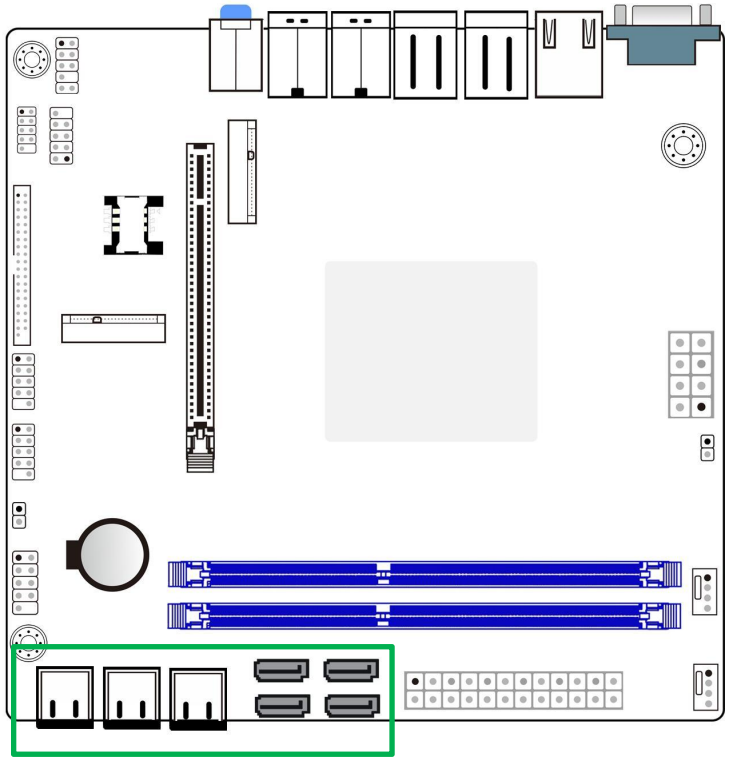
（1）关闭电脑，断开电源；
（2）将 JBAT1 2-3pin 短路约 5 秒；
（3）开启电脑；
（4）开机过程中按屏幕上的按钮进入 BIOS 设置，重新加载最佳默认值；
（5）保存并退出设置。

The steps are as follows:

(1) Turn off the computer and disconnect the power supply;
(2) Short-circuit JBAT1 2-3pin for about 5 seconds;
(3) Turn on the computer;
(4) Press the button on the screen during startup to enter the BIOS setup and reload the optimal default values;
(5) Save and exit the settings.

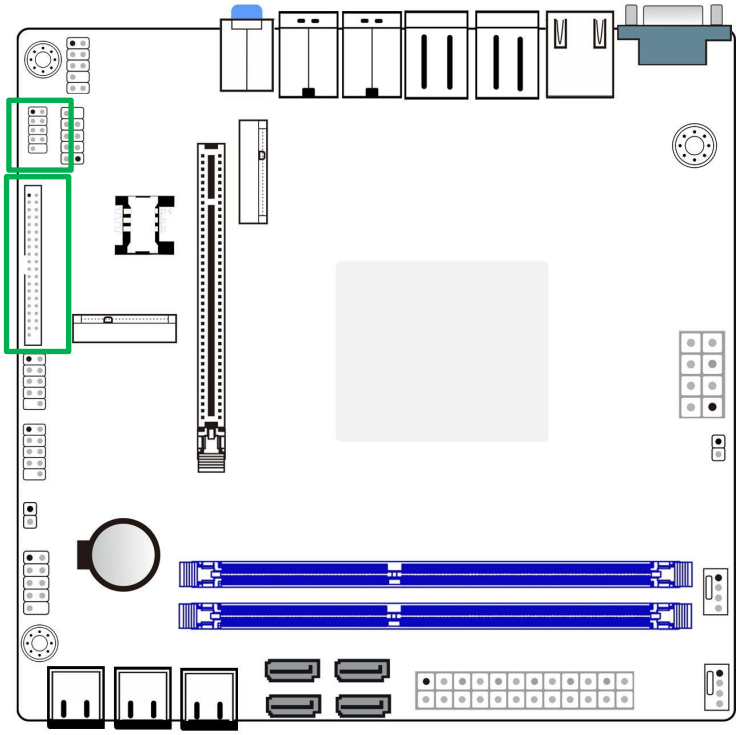
VI、各插针定义 Each pin definition

1、主板提供 8*7 针 SATA 接口。
The motherboard provides 8*7-pin SATA interfaces.

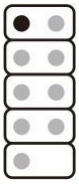


SATA	PIN	Definition	PIN	Definition
	1	GND	5	SATA_RXN
	2	SATA_TXP	6	SATA_RXP
	3	SATA_TXN	7	GND
	4	GND		

2、主板提供串口拓展插针。
The motherboard provides COM port expansion pins



COM (2x5 pin 间距 2.54mm 第 10pin 空) RS232
COM (2x5 pin pitch 2.54mm 10th pin empty) RS232

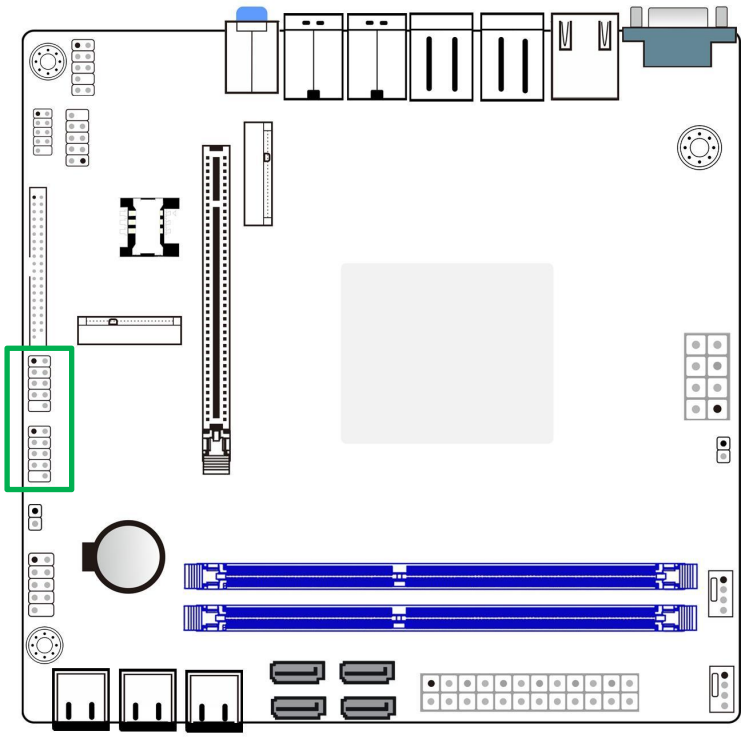
COM	PIN	Definition	PIN	Definition
	1	-NDCD	2	SIN
	3	SOUT	4	DTR
	5	GND	6	DSR
	7	RTS	8	CTS
	9	RI	10	

COM_CON (2x20 pin 间距 2.00mm 第 40pin 空) RS232
COM_CON (2x20 pin pitch 2.00mm 40th pin empty) RS232

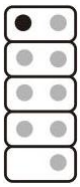
COM_CON	PIN	Definition	PIN	Definition
	1	DCD#	2	RXD
	3	TXD	4	DTR#
	5	GND	6	DSR#
	7	RTS#	8	CTS#
	9	RI#	10	
	11	DCD#	12	RXD
	13	TXD	14	DTR#
	15	GND	16	DSR#
	17	RTS#	18	CTS#
	19	RI#	20	
	21	DCD#	22	RXD
	23	TXD	24	DTR#
	25	GND	26	DSR#
	27	RTS#	28	CTS#
	29	RI#	30	
	31	DCD#	32	RXD
	33	TXD	34	DTR#
	35	GND	36	DSR#
	37	RTS#	38	CTS#
	39	RI#	40	

3、主板提供两个个 USB2 插针（F_USB1/F_USB2)。
The motherboard provides 1*USB2 pin (F_USB1/F_USB2).

连接 USB 扩展挡板前，请务必将电脑的电源关闭，并且将电源线自插座中拔除，以免造成 USB 扩展挡板的毁损。
Before connecting the USB expansion shield, please be sure to turn off the power of the computer and unplug the power cord from the socket to avoid damage to the USB expansion shield.

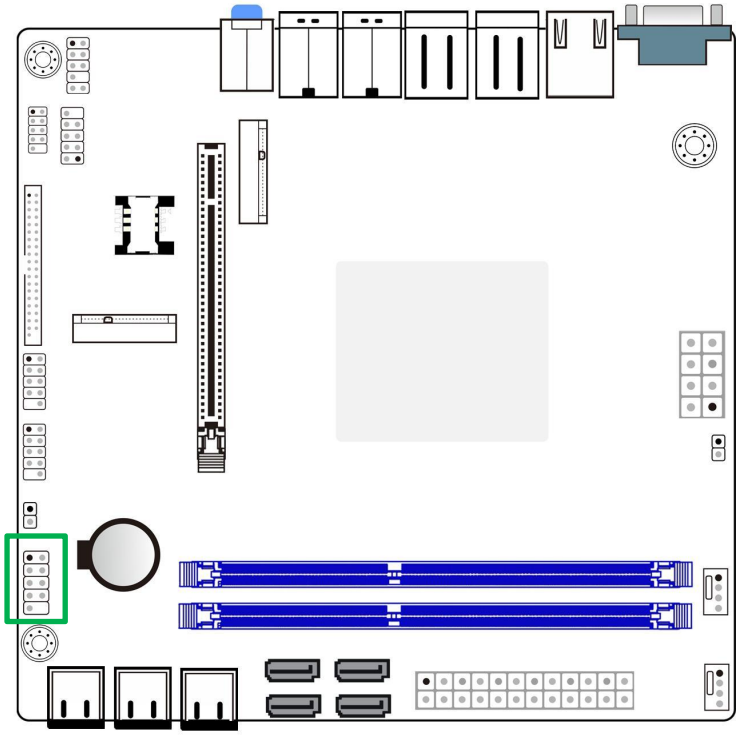


F_USB (2x5 pin 间距 2.54mm，第 9pin 空)
F_USB (2x5 pin spacing 2.54mm 9th pin empty)

F_USB	PIN	Definition	PIN	Definition
	1	+5V	2	+5V
	3	USB1_DATA-	4	USB2_DATA-
	5	USB1_DATA+	6	USB2_DATA+
	7	GND	8	GND
	9		10	GND

4、主板提供一个前面板连接器（F_PANEL）。
The motherboard provides one front panel connector (F_PANEL).

该 8pin 插针包括上电，复位，硬盘指示灯，电源指示灯，允许用户连接系统的前面板开关功能。
The 8pin header includes power on, reset, hard disk indicator, power indicator, allowing users to connect the system's front panel switch functions.

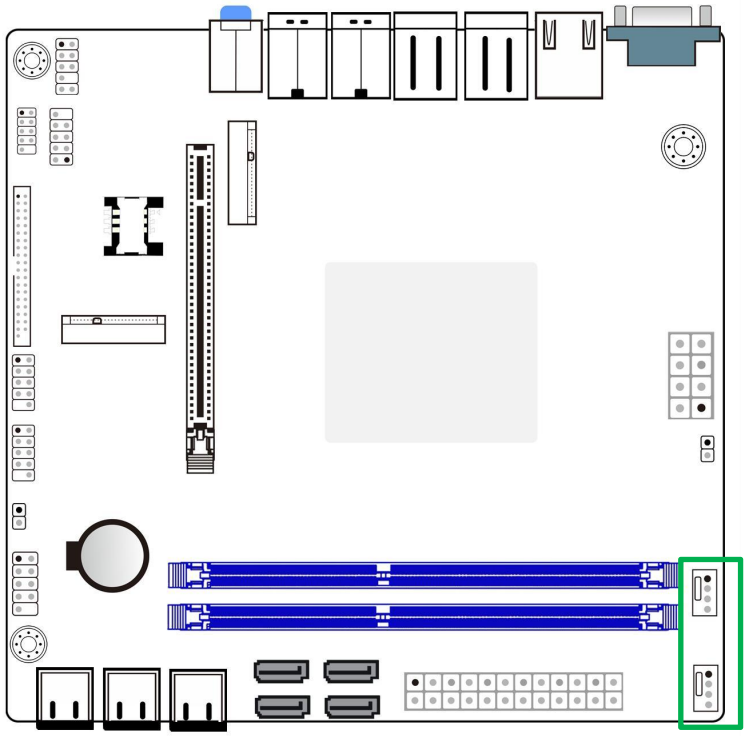


F_PANEL (2x5pin 间距 2.54mm 第 10pin 空)
F_PANEL (2x5pin pitch 2.54mm 10th pin empty)

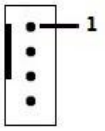
F_PANEL	PIN	Definition	PIN	Definition
	1	HDD_LED +	2	PWR_LED+
	3	HDD_LED -	4	GND
	5	GND	6	GND
	7	RESET	8	PWR_ON
	9	GND	10	

5、主板提供 2 个风扇接口（CPU_FAN/SYS_FAN）。
The motherboard provides 2 fan connectors (CPU_FAN/SYS_FAN).

此主板的散热风扇电源插座为 4pin。电源插座皆有防呆设计，安装时请注意方向。
The cooling fan power socket of this motherboard is 4 pin. All power sockets have foolproof design, please pay attention to the direction when installing.



CPU_FAN SYS_FAN (1x4 pin 全靠背)
CPU_FAN SYS_FAN (1x4 pin full backrest)

SYS/CPU_FAN	PIN	Definition
	1	GND
	2	+12V
	3	FAN_DET
	4	FAN_PWM

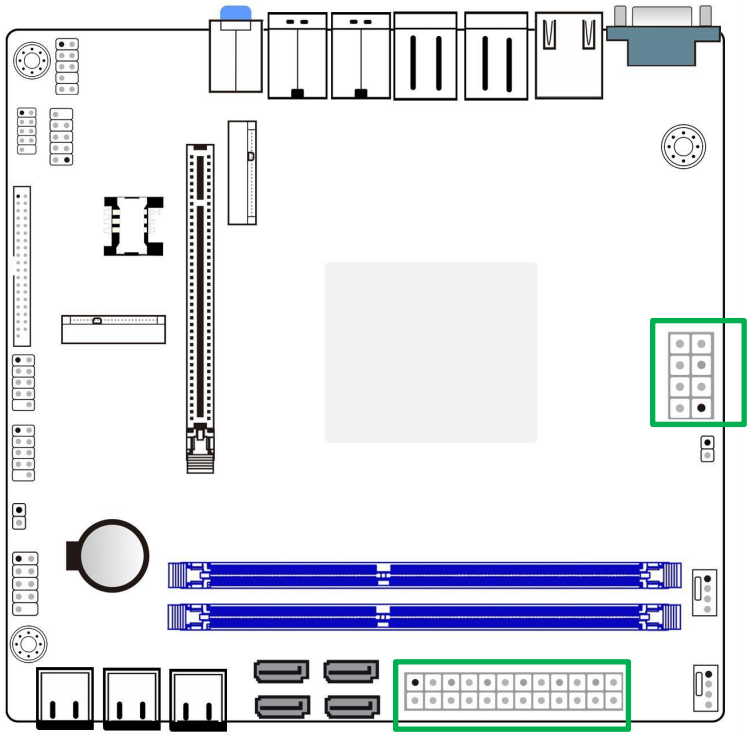
注意：请务必接上散热风扇的电源插座，以避免 CPU 及系统处于过热的工作环境，若温度过高可能导致 CPU 烧毁或是系统死机。
这些散热风扇电源插座并非跳线，请勿放置跳帽在针脚上。

Note: Be sure to connect the power outlet of the cooling fan to avoid overheating of the CPU and system. If the temperature is too high, it may cause the CPU to burn out or the system to crash.
These cooling fan power sockets are not jumpers, please do not put jumper caps on the pins.

6、主板电源接口-ATX 供电
Motherboard power interface - ATX power supply

电源插座可使电源供应器提供充足且稳定的电源给主板上的所有元件。在插入电源插座前，请先确定电源供应器的电源是关闭的，且所有设备皆已正确安装。电源插座有防呆设计，确认正确的方向后插入即可。

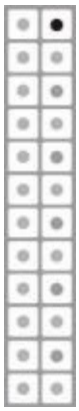
The power socket allows the power supply to provide sufficient and stable power to all components on the motherboard. Before plugging into the power outlet, please make sure the power supply is turned off and all devices are installed correctly. The power socket has a fool-proof design, just confirm the correct direction and plug it in.



ATX PWR2 (2x4pin 带透明外包围)
ATX PWR2 (2x4pin with transparent enclosure)

ATX_PWR2	PIN	Definition	PIN	Definition
	1	+12V	5	GND
	2	+12V	6	GND
	3	+12V	7	GND
	4	+12V	8	GND

ATX PWR1 (2x12pin 带透明外包围)
ATX PWR1 (2x12pin with transparent enclosure)

ATX	PIN	Definition	PIN	Definition
	1	+3.3V	2	+3.3V
	3	GND	4	+5V
	5	GND	6	+5V
	7	GND	8	PW_OK
	9	+V5SB	10	+12V
	11	+12V	12	+3.3V
	13	+3.3V	14	-12V
	15	GND	16	PS_ON
	17	GND	18	GND
	19	GND	20	N/A
	21	+5V	22	+5V
	23	+5V	24	GND

VII、BIOS 使用说明 BIOS instructions

本主板使用 AMI BIOS。BIOS 全称为 Basic Input Output System(基本输入输出系统）。它是一组固化到计算机内主板上一个 ROM 芯片上的程序，它保存着计算机最重要的基本输入输出的程序、开机后自检程序和系统自启动程序，它可从 CMOS 中读写系统设置的具体信息。 其主要功能是为计算机提供最底层的、最直接的硬件设置和控制。

注：由于主板的 BIOS 版本不断更新，本说明书中相关 BIOS 信息仅供参考。

This motherboard uses AMI BIOS. BIOS stands for Basic Input Output System. It is a set of programs stored on a ROM chip on the computer's motherboard. It stores the computer's most important basic I/O programs, the power-on self-test program, and the system startup program. It can read and write specific information about system settings from the CMOS. Its primary function is to provide the most basic and immediate hardware settings and control for the computer.

Note: Because the BIOS version of the motherboard is constantly updated, the BIOS information in this manual is for reference only.

请按照以下步骤进入 BIOS 界面

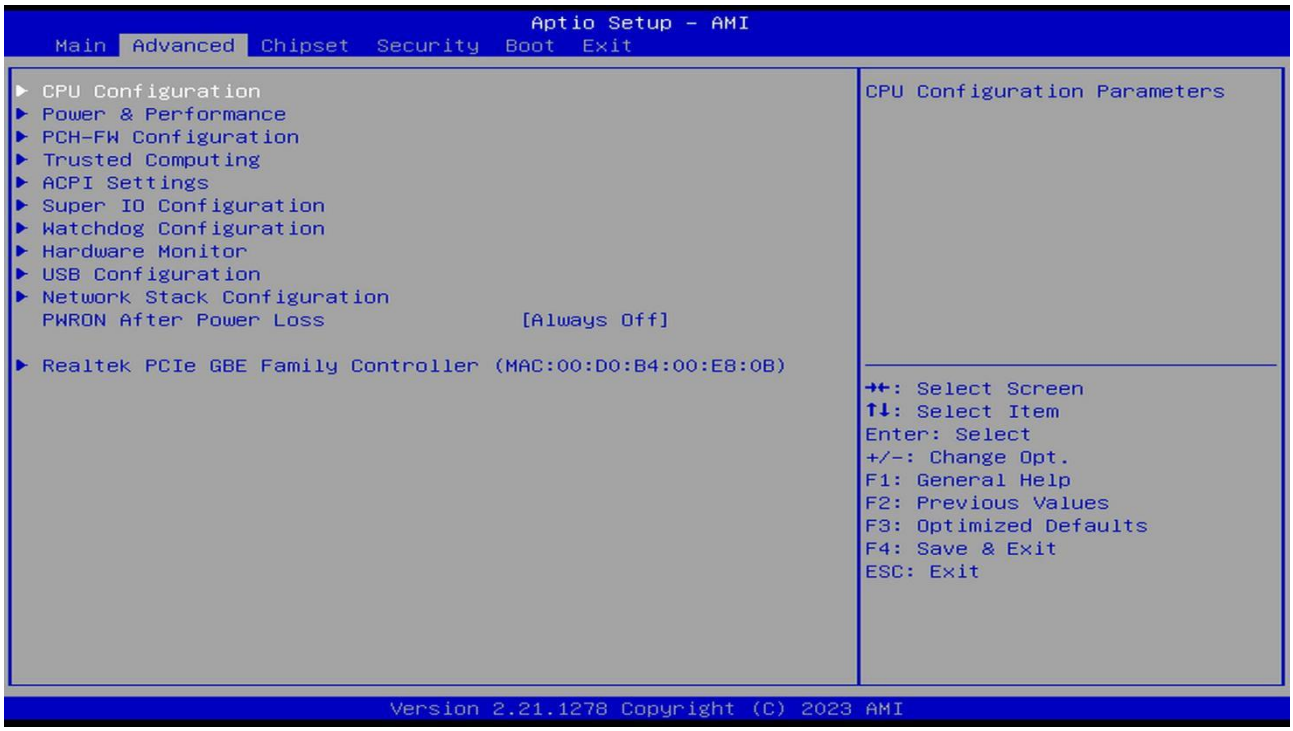
打开电源，当显示器屏幕出现 POST 界面时，按<DEL>键进入 BIOS 设置程序。
使用方向键<↑><↓><←><→>移动要修改的选项，按<Enter>键进入该选项的子界面。
使用 Enter 键选中要修改的项，按 Enter 键进行修改。

<Page Up/+>增加数值或更改
<Page Down/->减少数值或更改
<F1>设置子菜单帮助
<F3>设置为默认值（恢复出厂设置）
<F4>保存 BIOS 设置

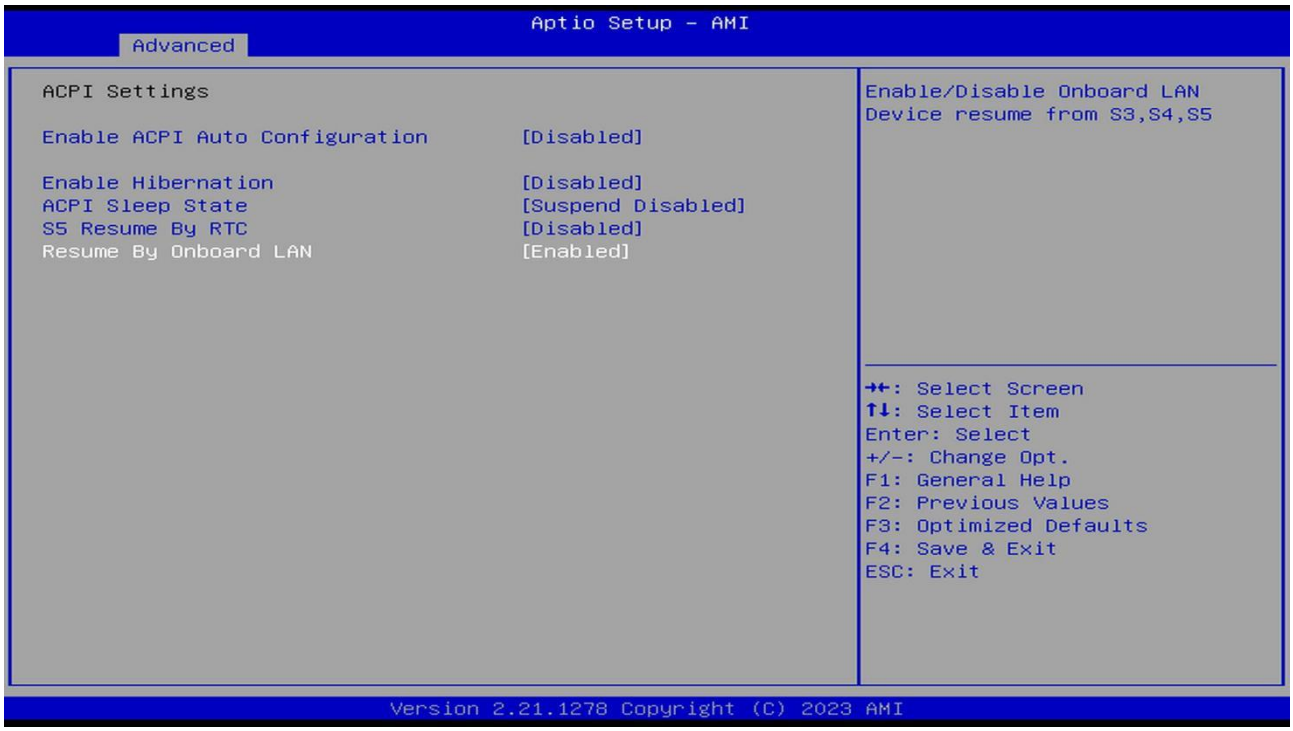
Follow these steps to access the BIOS interface.
Turn on the power, and when the POST interface appears on the monitor screen, press the <DEL> key to enter the BIOS setup program.
Use the arrow keys <↑><↓><←><→> to move the option you want to modify and press the <Enter> key to enter the sub-interface of the option.
Use the Enter key to select the item you want to modify, and press the Enter key to modify it.

<Page Up/+> Increase the numeric value or change
<Page Down/-> Decrease the numeric value or change
<F1> Set submenu help
<F3> Set to default value (restore to factory settings)
<F4> Save BIOS settings

高级 BIOS 功能设置 (Advanced)

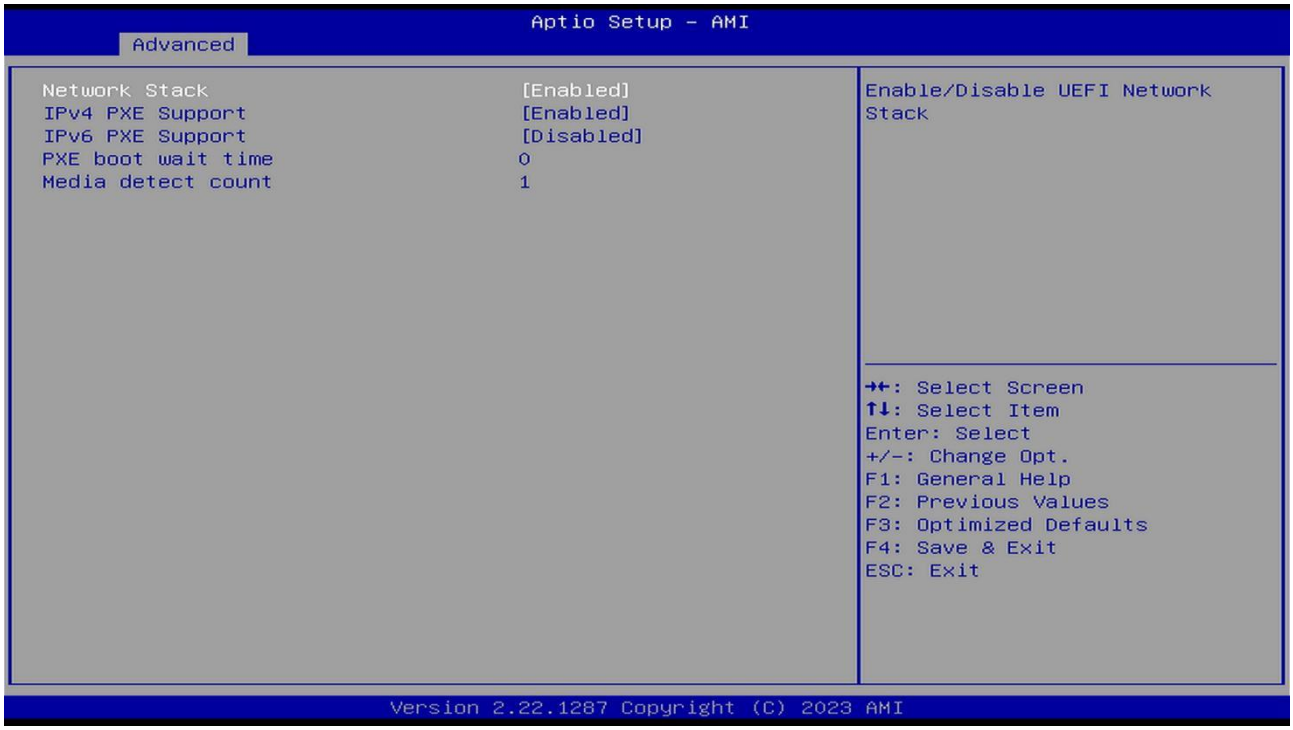


ACPI 设置 (ACPI Settings)



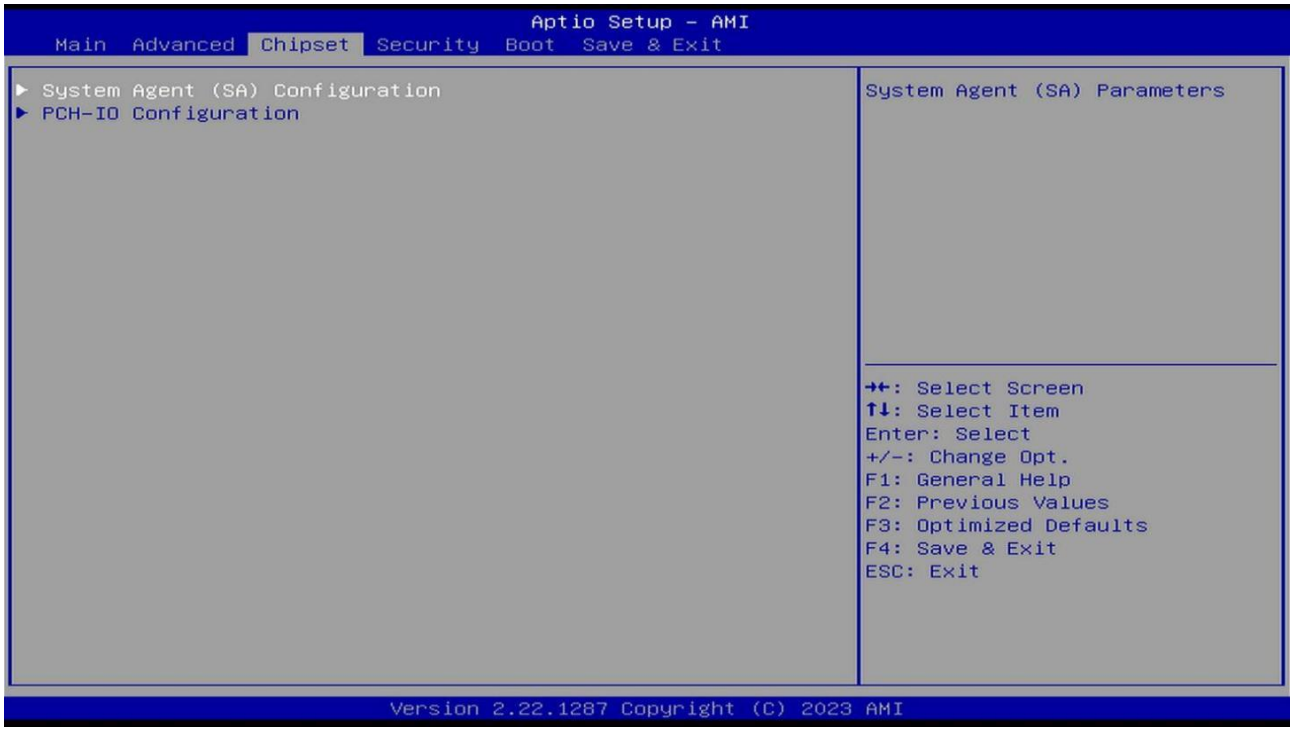
Resume By onboard LAN 此选项用于设置网络唤醒。
Resume By onboard LAN This option is used to set up Wake-up on LAN.

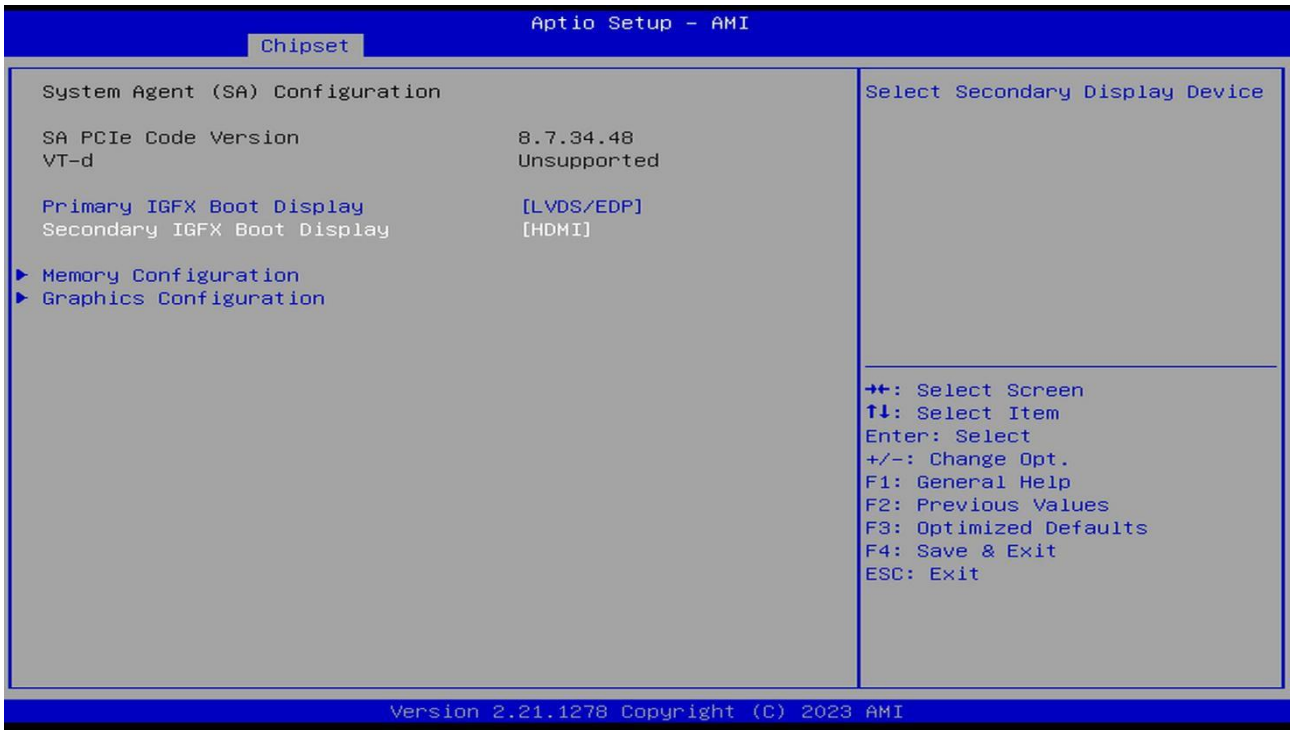
网络堆栈 (Network stack)



IPv4 PXE Support 此选项用于设置网络唤醒。
IPv4 PXE Support This option is used to set up Wake on LAN.

芯片组设置 (Chipset)

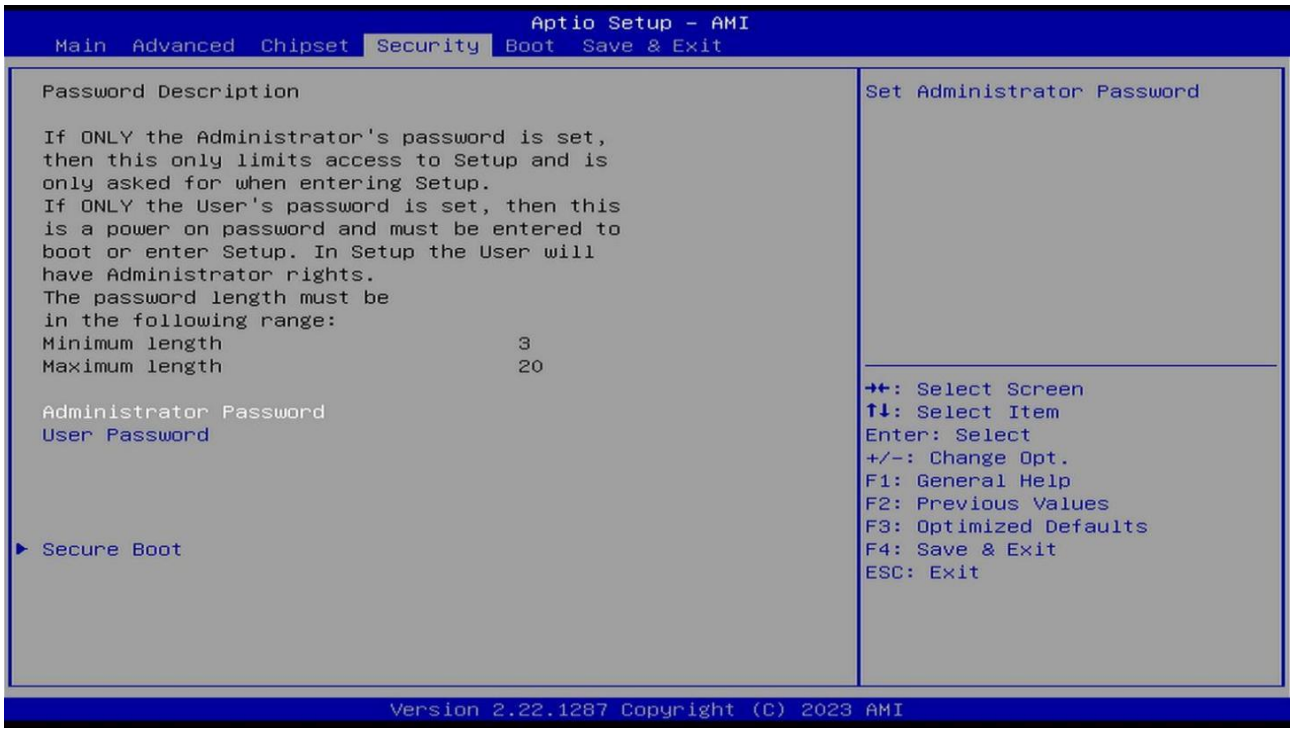




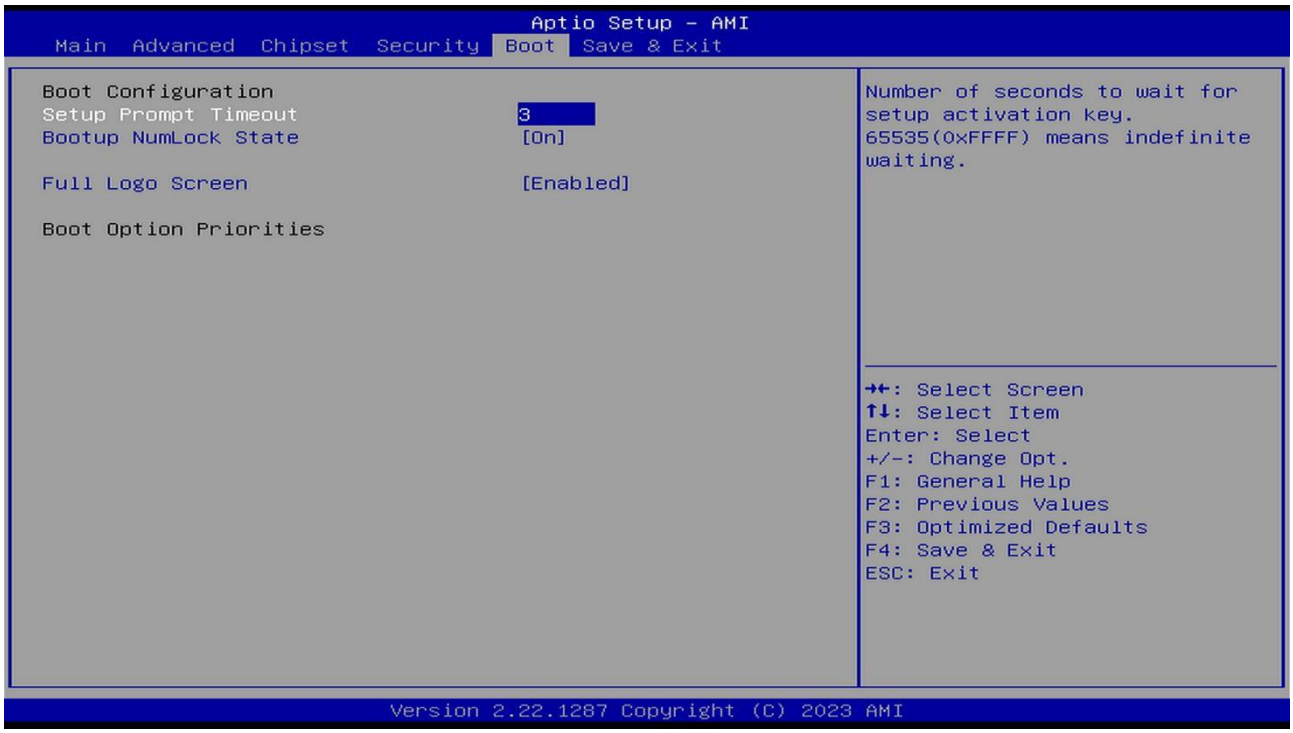
IPv4 PXE SupportPrimary IGFX Boot Display，此选项用于设置为第一显示。
Secondary IGFX Boot Display，此选项用于设置为第二显示。

IPv4 PXE SupportPrimary IGFX Boot Display, this option is used to set as the primary display.
Secondary IGFX Boot Display, this option is used to set as the secondary display.

安全设置（Security)



启动设置（Boot)



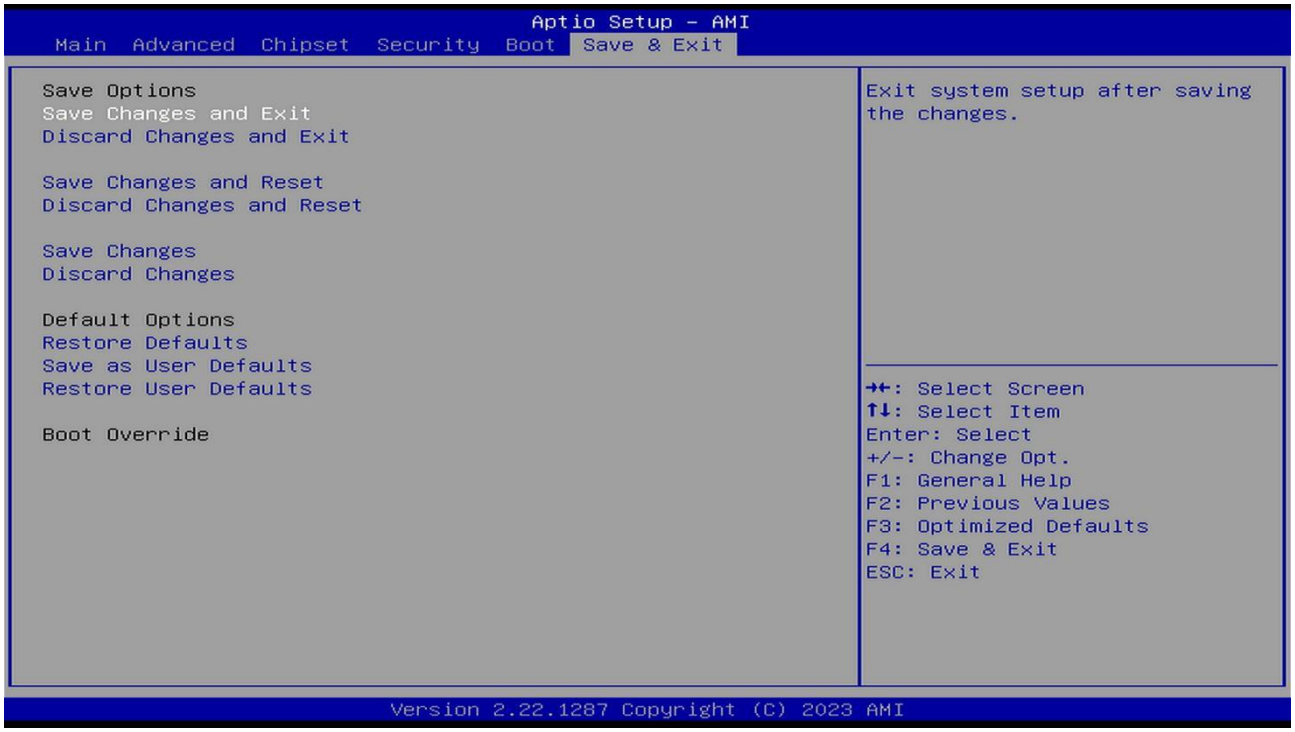
Setup Prompt Timeout，此选项用于设置开机 POST 界面停留时间长短。

Bootup Numlock State，用来设定系统启动后，Numlock 的状态。当设定为 On 时，系统启动后将打开 NumLock，小键盘的数字键有效。当设定为 Off 的时候，系统启动后将关闭 Numlock，小键盘方向键有效。

Setup Prompt Timeout: This option is used to set the duration of the POST interface.

Bootup Numlock State is used to set the state of Numlock after the system starts. When it is set to On, Numlock will be turned on after the system starts, and the numeric keys on the keypad will be valid. When it is set to Off, Numlock will be turned off after the system starts, and the direction keys on the keypad will be valid.

保存退出(Save&Exit)



•Save Changes and Exit
保存所做变更并离开 **BIOS** 程序。
•Discard Changes and Exit
离开 **BIOS** 程序，而不保存变更。
•Save Changes and Reset
保存变更并重启主板。
•Discard Changes and Reset
不保存变更并重启 **BIOS** 程序。
•Save Changes
保存变更。
•Discard Changes
不保存变更。
•Restore Defaults
恢复默认设置。
•Save as User Defaults
保存作为用户默认设置。
•Restore User Defaults
恢复用户默认设置。

VIII、常见故障分析与解决方法 Common fault analysis and solutions

常见故障	检查方法
通电之后无法启动	请确认电源连接线是否连接正常 请确认所用电源是否满足主板的供电要求 请尝试重新插拔内存条 请尝试更换内存条 请尝试清除主板 CMOS 请确认是否有外接拓展卡，移除外接卡后是否正常
通电之后无法显示	请检查显示器是否打开 请检查显示器和主机电源线是否正确连接 请检查显示器和主机线缆是否正确连接 请检查显示器是否处于“节电”模式 请尝试更换显示接口或更换显示器
BIOS 设置不能保存	请检查 CMOS 电池是否安装 请尝试更换 CMOS 电池（CR2032） 在 BIOS 设置中调整时间和日期
提示无法找到可引导设备	请检查硬盘电源线、数据线是否连接正常 请检查硬盘是否有物理损坏 请检查硬盘中是否已经安装操作系统
进入系统过程中蓝屏或死机	请确认内存条及外接卡是否松动 请尝试移除新安装的硬件，卸载新安装的驱动或软件 请尝试更换不同规格的内存
进入操作系统缓慢	请检查 CPU 散热风扇是否正常转动 请确认系统所在分区剩余空间是否不足 请使用软件检查硬盘是否有坏道
系统自动重启	请确认 CPU 散热风扇是否正常转动 请确认是否误触开关/复位按钮 请确认内存条及外接卡是否松动 请确认所用电源负载能力是否足够，可尝试更换电源 请确认系统是否感染病毒
无法检测到 USB 设备	请确认 USB 设备是否需要单独供电 请确认 USB 接口是否存在接触不良 请确认 BIOS Setup 中 USB 控制器是否打开

Common error	Inspection Method
Unable to start after power on	● Make sure the power cord is properly connected. ● Make sure that the power supply you are using meets the power supply requirements of the motherboard. ● Try to reinsert the Memory Stick. ● Try to replace the Memory Stick. ● Try to clear the CMOS of the main board. ● Please confirm if there is an external expansion card and if it is normal after removing the external card.
Unable to display after power on	● Make sure the monitor is turned on. ● Make sure the monitor and host power cables are properly connected. Make sure the monitor and host cables are properly connected. ● Check to see if the monitor is in "Sleep" mode. ● Try changing the monitor interface or replacing the monitor.
BIOS Setup cannot be saved	● Check that the CMOS battery is installed ● Try to replace the CMOS battery (CR2032) ● Adjust the time and date in BIOS setup
Unable to find a bootable device	● Make sure the drive's power and data cables are properly connected. ● Make sure the operating system is installed on the drive. ● Make sure the hard drive is not physically damaged.
Blue screen or freeze when logging on to the system	● Check if the Memory Stick and External Card are loose. ● Try removing the newly installed hardware and uninstalling the newly installed driver or software. ● Try replacing the memory with a different specification.
Slow entry into the operating system	● Check if the CPU cooling fan is running normally. ● Check if the remaining space of the system partition is insufficient. ● Use software to check for bad sectors on the hard drive.
System restarts automatically	● Confirm that the CPU cooling fan is rotating normally. ● Confirm that the switch/reset button has not been accidentally touched. ● Confirm that the Memory Stick and external card are loose. ● Confirm that the power supply has sufficient load capacity, try to replace the power supply ● Check if the system is infected with viruses.
Unable to detect USB device	● Confirm that the USB device requires separate power. ● Confirm that the USB interface has poor contact. ● Confirm that the USB controller is enabled in the BIOS setup.

