Giada

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DM6-R User Manual

Shenzhen JIEHE Technology Development Co., Ltd.

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Safety Notice

• Read the user manual carefully before setting up the Giada product.
• Disconnect the power cord before installing the internal components
• Most electronic components are sensitive to static electrical charge, please wear a wrist-grounding strap when installing the internal components.
• Don't disconnect the power cord when the system is running to avoid damage to the sensitive components by instantaneous surge voltage.

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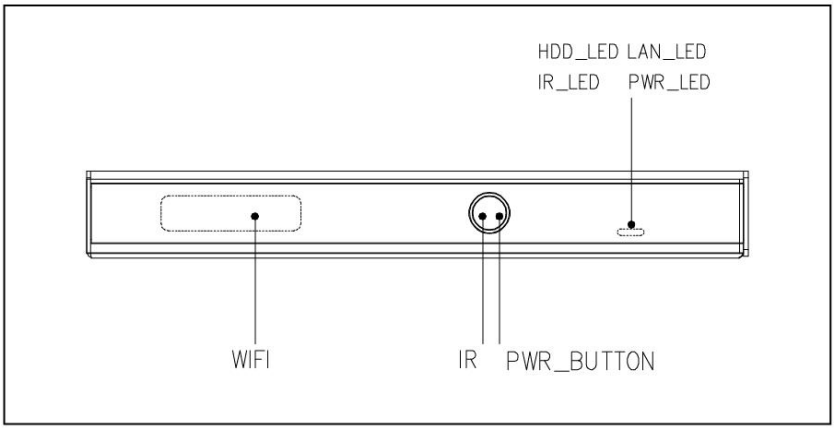
1. Product Introduction

Based on AMD Ryzen platform, Giada DM6-R adopts DDR4 dual-channel memory as well as M.2 storage interface design. With four HDMI display outputs, it supports 4K resolution. The player is suitable for multiple outputs applications.

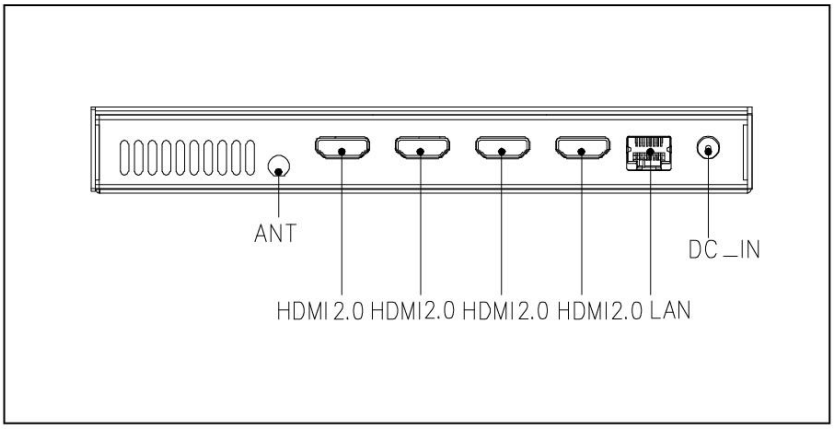
2. Interface Description and Hardware Specifications

2.1 Interface Description

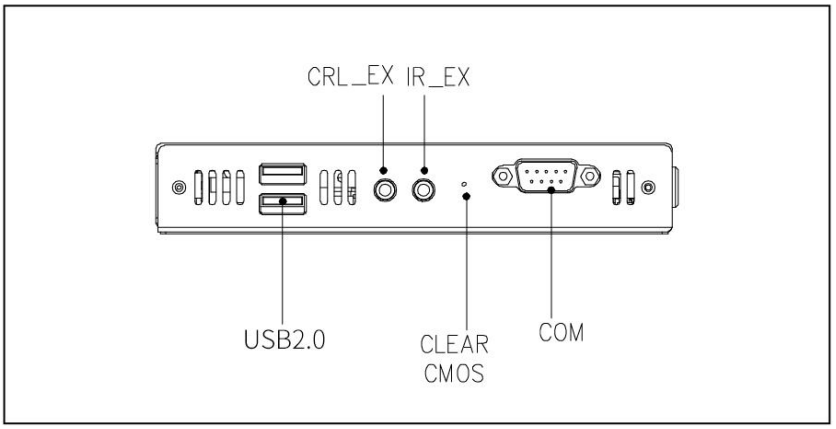
Front I/O Port



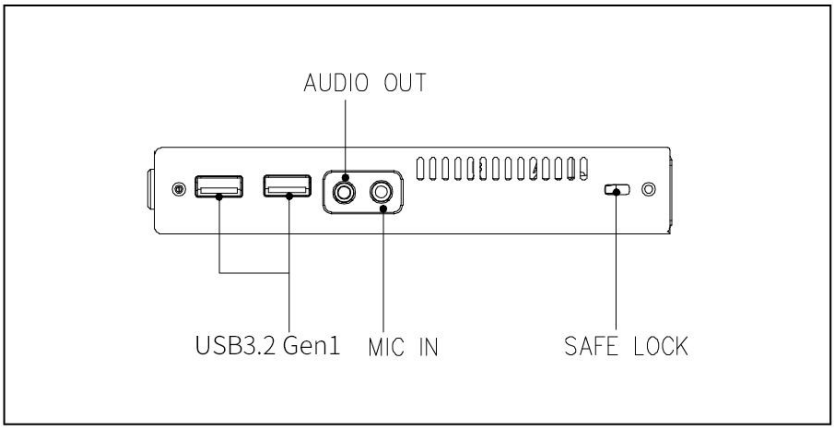
Rear I/O Port



Left I/O Port



Right I/O port



2.2 Hardware Specifications

DM6-R		DM6-R231440N0G-4*HDMI-GIA
CPU	**CPU**	AMD® Ryzen Embedded 2314
	Frequency	3.50 GHz
	Chipset	SoC
	Processing Units	4 Cores
	TDP	25 W

Memory	**Size**	Up to 32 GB
	Type	2 x SO-DIMM DDR4-2666 MHz
Storage	**Socket**	1 x M-Key M.2(2280) PCIe3.0 X4 for SSD
Display	**GPU**	AMD® Radeon™ RX Vega 6 Graphics
	Multi-media	H.265 / VP9 video decode, up to 4K@60fps H.264 8-bit decode and encode
	Display Interface	4 x HDMI (Max.3840 x 2160 @60 Hz)
Network	**Network Controller**	1 x Realtek RTL 8111H Gigabit Ethernet
	Ethernet Interface	1 x 1GbE RJ45
	Wi-Fi/BT	1 x E-Key M.2 (2230) for Wi-Fi/BT
	Mobile Network	1 x B-Key M.2 (3042) for 3G/4G 1 x SIM Slot
I/O interface	**USB**	2 x USB3.2 Gen1, 2 x USB2.0
	Serial Port	1 x RS232
	Audio	1 x MIC-IN, 1 x AUDIO-OUT
	Button	1 x Power on, 1 x CLR-CMOS
	Antenna	1 x Connector for Wi-Fi/BT
System	**TPM**	Optional: TPM2.0
	Watchdog Timer	Yes
	Auto Power On	Yes
	RTC	Set up independently every day, a week as a cycle
	Power Requirement	DC-IN, 19 V/3.42 A
	Dimensions	189.6mm x 148.3mm x 26mm (7.46” x 5.83” x 1.02”)
	Construction	Metal, Black
	Operating System	Windows 10 (64bit) /Windows 11 (64bit) /Linux Ubuntu (64bit)
	Operating Temperature	0°C ~45°C (32°F~114°F) @0.7m/s Air Flow
	Humidity	95% @ 45°C (non-condensing)
	Certifications	CE, FCC Class B, UKCA

3. Accessories Installation Steps

⚠ For safety reasons, please ensure that the power cord is disconnected before opening the case.

How to open the top cover and bottom cover

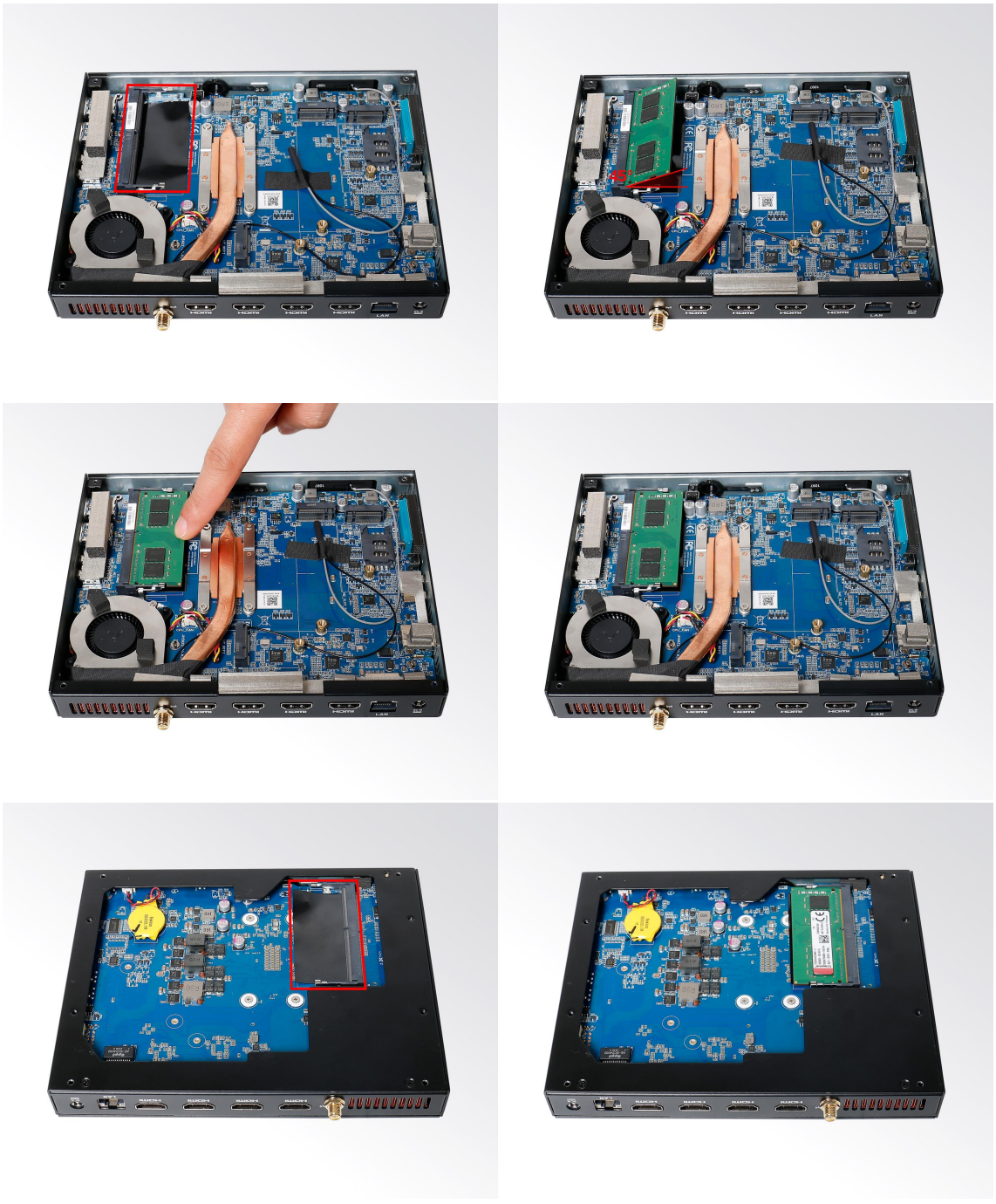
Unscrew the four screws and remove the top cover. (SO-DIMM #1, 1 x M-Key M.2(2280) PCIe3.0 X4 for SSD, 1 x E-Key M.2 (2230) for Wi-Fi/BT, 1 x B-Key M.2 (3042) for 3G/4G, 1 x SIM Slot are on top side)

Unscrew the four screws, push the bottom cover and remove it. (SO-DIMM#2 is on bottom side)

3.1 Memory Installation

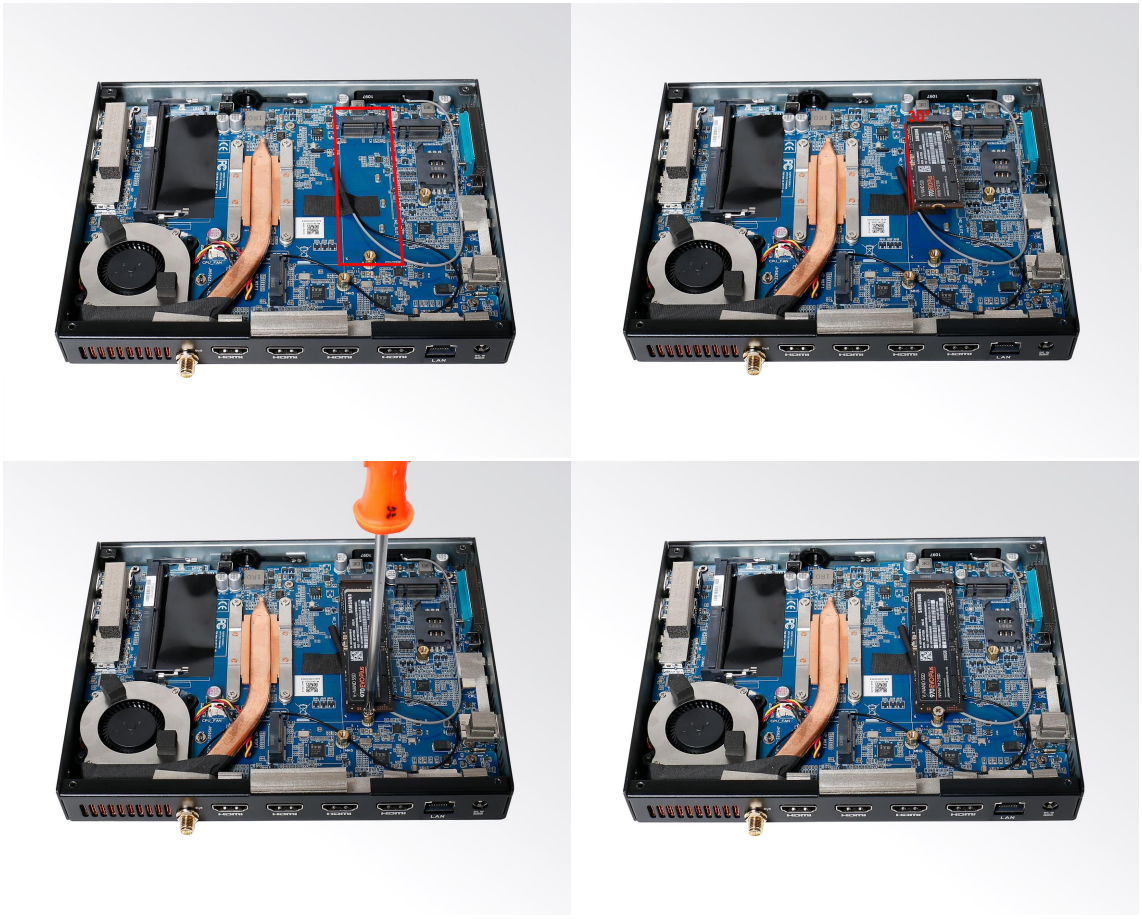
⚠ This product only supports DDR4 SO-DIMM memory modules.

1. Locate the SO-DIMM slot on the board.
2. Gently insert the module into the slot in a 45-degree angle.
3. Carefully push down the memory module until it snaps into the locking mechanism.



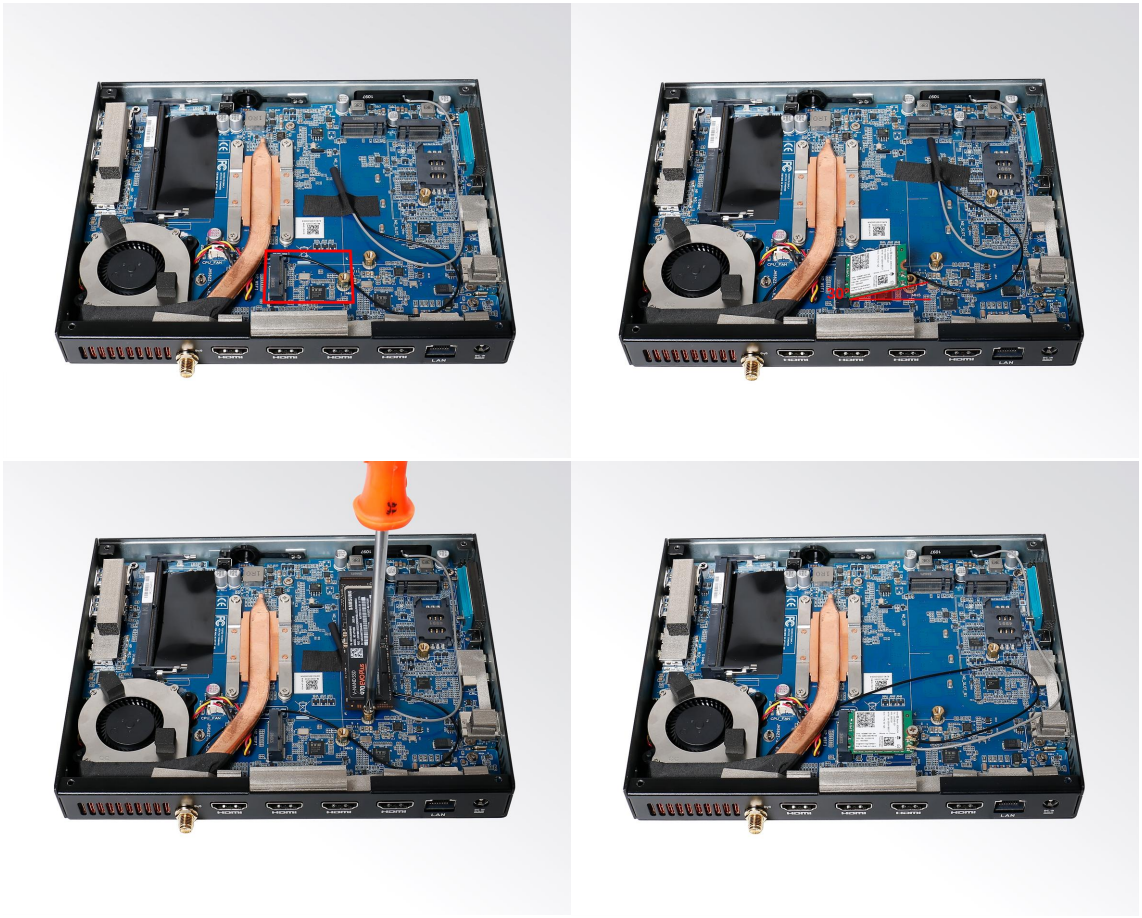
3.2 M.2 SSD Installation

1. Plug the SSD (M.2) into the appropriate slot.
2. Secure the module to the carrier by tightening up the screw.



3.3 WiFi Installation

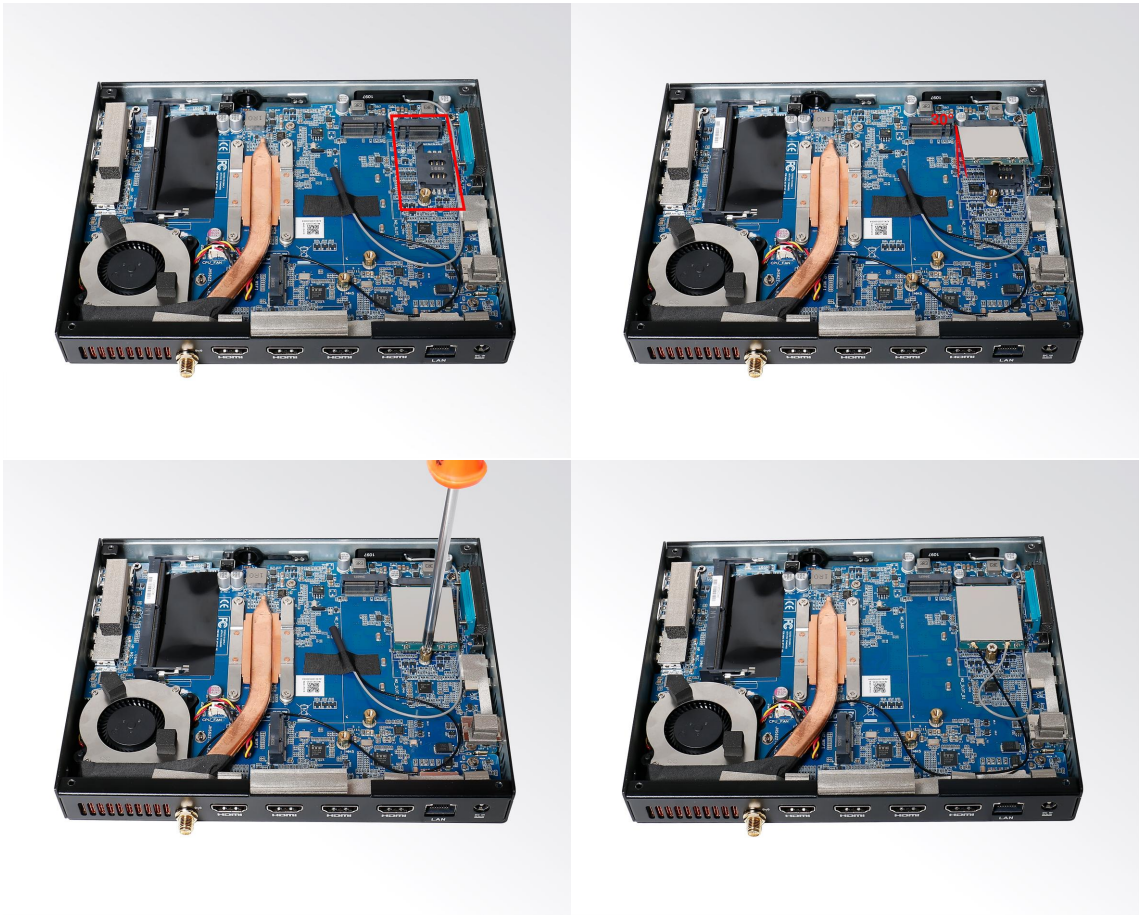
1. Tighten the WIFI module and WIFI module bracket with screws.
2. Plug the WIFI module into the E-Key M.2 (2230) slot.
3. Secure the module to the carrier by tightening up the screw.
4. Connect the black cable to **Main** and grey cable to **AUX**. Install the antenna.



3.4 3G/4G Installation

⚠ Defaut SMA connector and cable is for WIFI. Please change to 3G/4G SMA connector and cable.

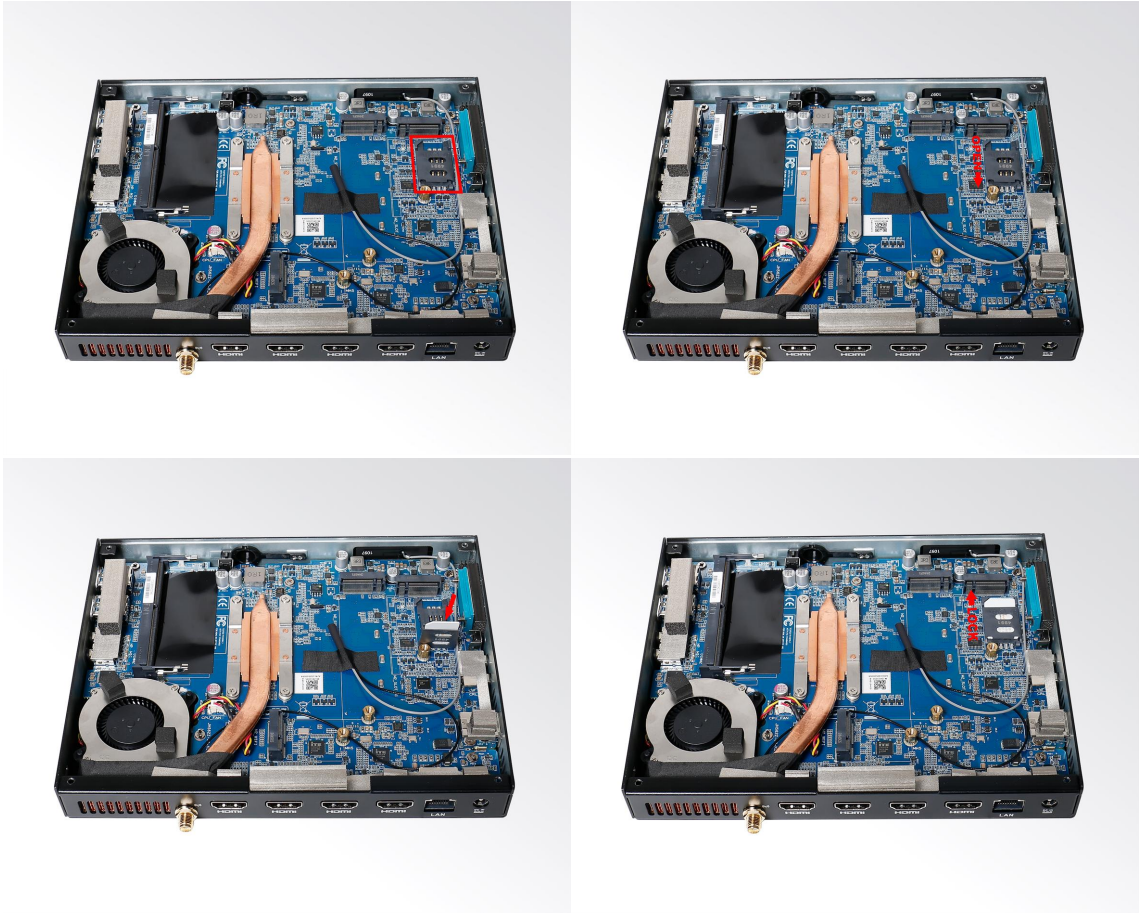
1. Plug the 3G/4G module into the B-Key M.2 (3042) slot.
2. Secure the module to the carrier by tightening up the screw.
3. Connect the cable to **Main** and install the antenna.



3.5 SIM Card Installation

⚠ This product supports standard SIM card with the size of 25mm × 15mm.

1. [Open] the SIM card holder and pull it up.
2. Insert the SIM card.
3. [Lock] the card holder.



4. Bios Setup

Notice:

The descriptions relating to BIOS setup in this Manual is for reference only since the BIOS version of the product might be upgraded. Giada provides no guarantee that all the contents in this Manual are consistent with the information you acquired.

BIOS is a basic I/O control program saved in the Flash Memory. Bridging the motherboard and the operation system, BIOS is used for managing the setup of the related parameters between them.

When the computer is activated, the system is first controlled by the BIOS program. Firstly, a self-detection called POST is performed to check all hard devices and confirm the parameters of the synchronous hardware.

Once all detections are completed, BIOS will hand over the controlling to the operation system (OS).

As BIOS serves as the only channel that connects the hardware and software, whether your computer can run stably and work in optimized state will hinge on how to properly set the parameters in BIOS. Therefore, the correct setup of BIOS plays a key role in stably running the system and optimizing its performance.
The CMOS Setup will save the set parameters in the built-in CMOS SRAM on the motherboard. When the power is shut off, the lithium battery on the motherboard will provide continuously power to CMOS SRAM.

The BIOS setup program will allow you to configure the following items:
1. HD drive and peripheral devices
2. Video display type and display items
3. Password protection
4. Power management characteristics

A. State of BIOS Setup

When the computer is started up, BIOS will run the self-detection (Post) program. This program includes series of diagnosis fixed in BIOS. When this program is executed, the following information will appear if any error is found:
Press [F1] to Run General help
Press [F2] to Load previous values and continue

To enter BIOS, you can Press F2; to load the default values and enter the system, you can press DEL to enter the BIOS interface if no error occurs. If the indicative information disappears before operating, you can shut down the computer and turn it on again, or you can pressing the RESET key on the product housing. To restart the computer, you can also press < Ctrl > + < Alt > + < Delete > simultaneously.

B. Function Keys definitions

Hot Key	Description
↑	(Up key) Move to the previous item
↓	(Down key) Move to the next item
←	(Left key) Move to the left item
→	(Right key) Move to the right item
ESC	Exit the current interface
Page Up	Change the setup state, or add the values
Page Down	Change the setup state, or deduct the values
F1	Display the information of the current function Keys definitions.
F9	Load the optimized values
F10	Save the settings and exit the CMOS SETUP

C. Auxiliary information Main interface

When the system enters the main interface of Setup, the major selected contents will be displayed at the lower part of the interface with the change of the options.

When you set the value for each column, you can view the preset value of the column and the values that can be set if you press F2, for example, the BIOS default values or CMOS Setup values.
To exit the interface for auxiliary information, press [ESC].

D. Main menu

When the system enters the BIOS Setup menu, you can see the main menu on the upper part of the screen, as shown in Figure1.

In this main menu, you can use the left and right direction keys to select the setup items.

Once the item is selected, the lower part of the computer screen will show the details of setting.

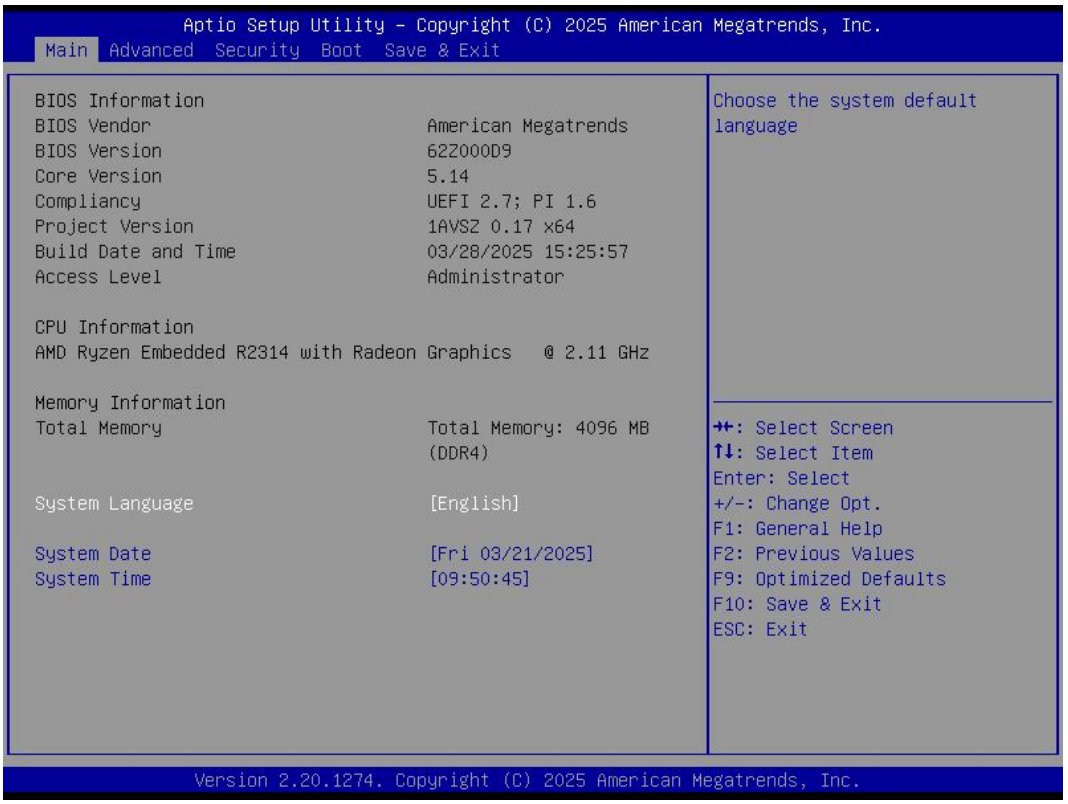


Fig 1

1) Main (standard CMOS setup)

This item is used for setting the date and time.

2) Advanced (advanced BIOS setup)

This item is used for setting the advanced functions provided by BIOS, such as specifications of PCIe facilities, CPU, HDD, etc.

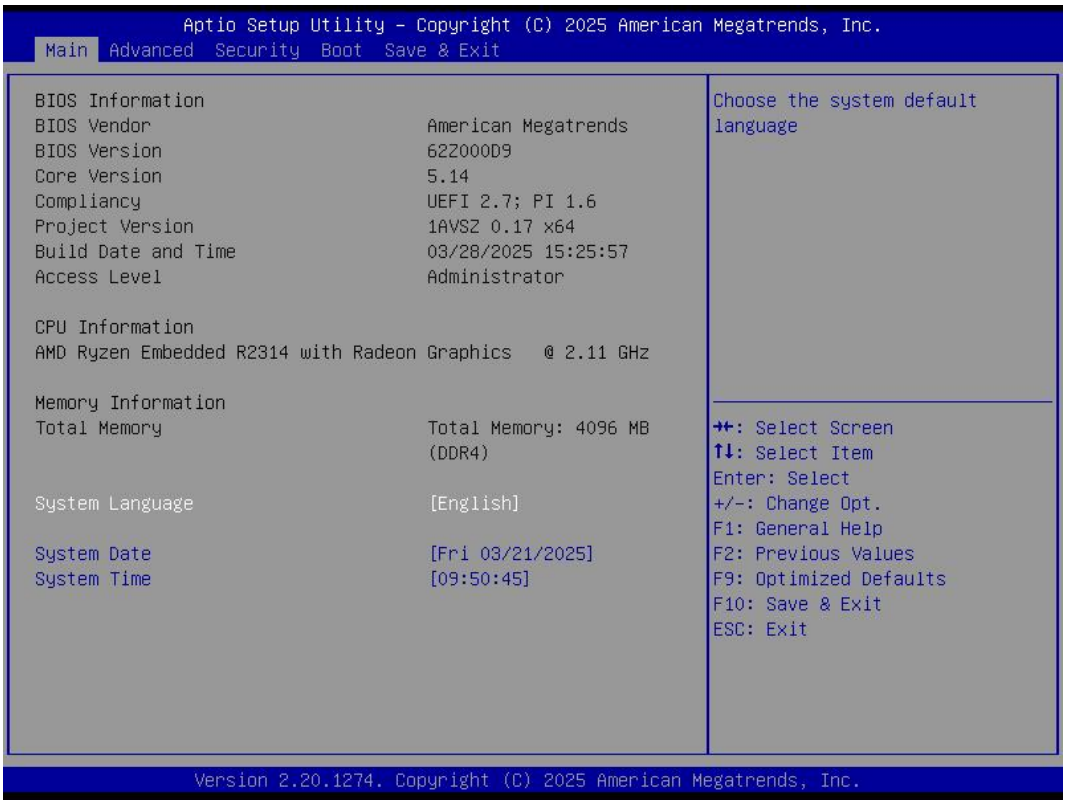
3) Security (set the administrator/user password)

4) Boot (startup configuration characteristics)

5) Save & Exit (option of exit)

This item includes load optimal defaults / load failsafe defaults value / discard changes / discard changes and exit.

4.1 Main (Standard CMOS Setup)



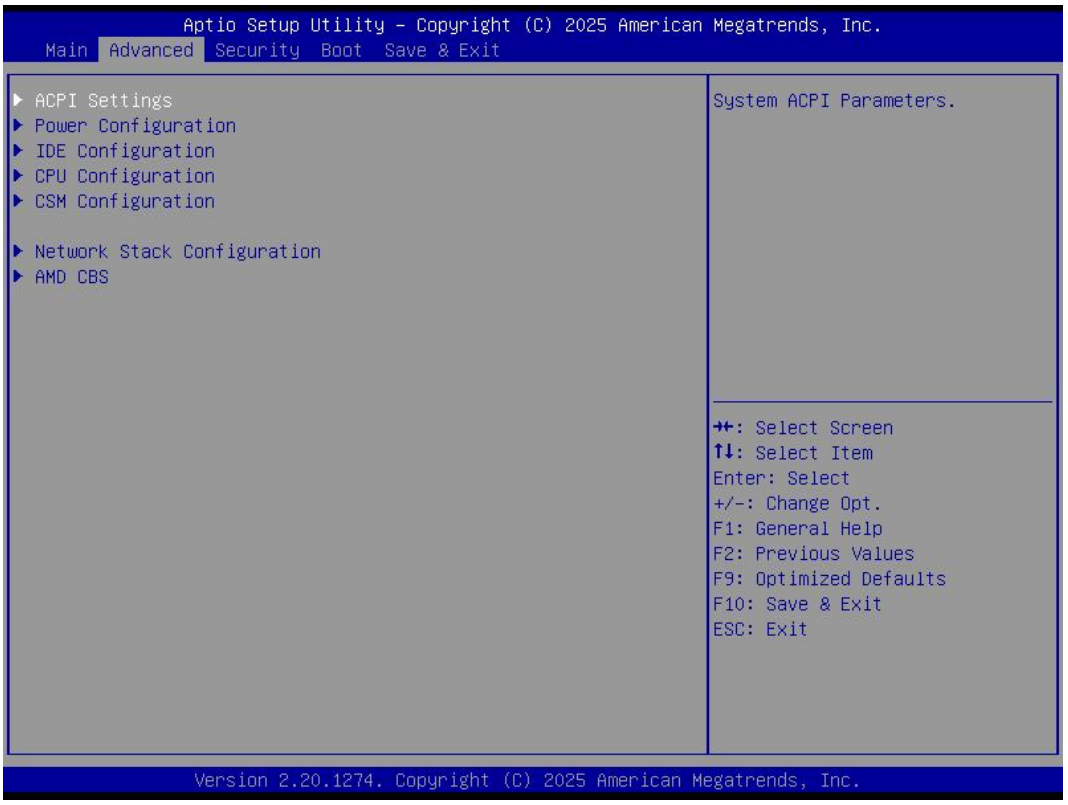
1) System time (hh:mm:ss)

Use this item to set the time for the computer, with the format as "HH / MM / SS".

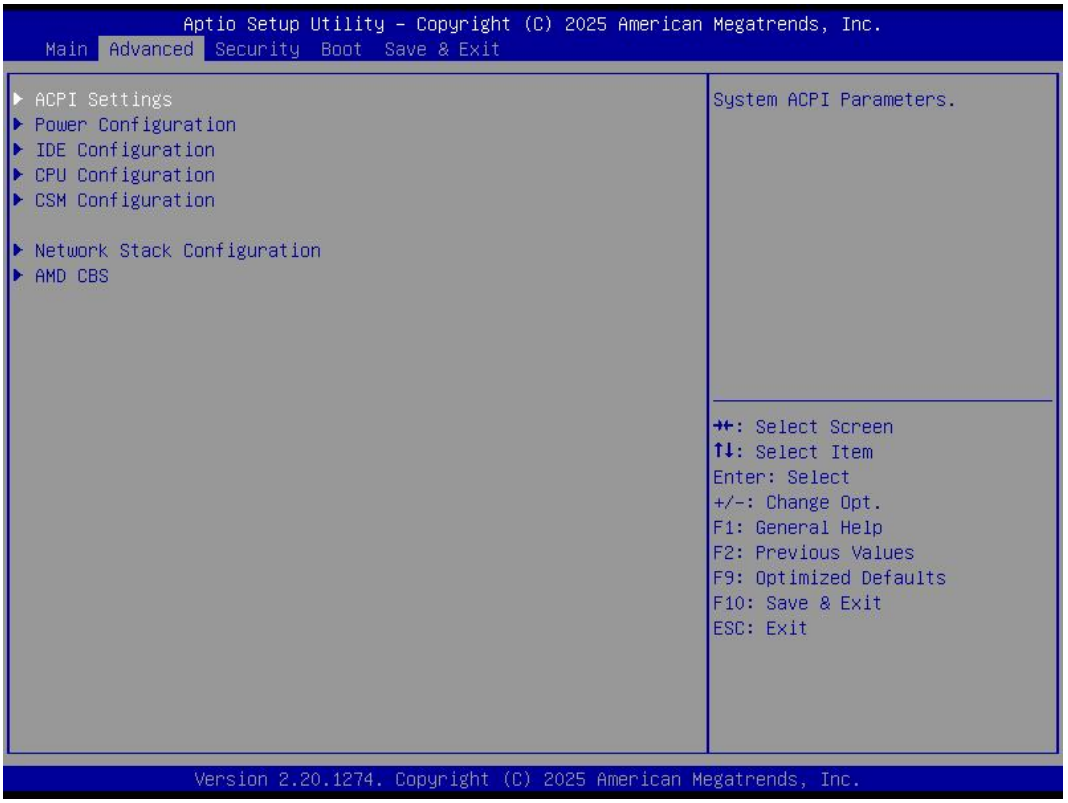
2) System date (mm:dd:yy)

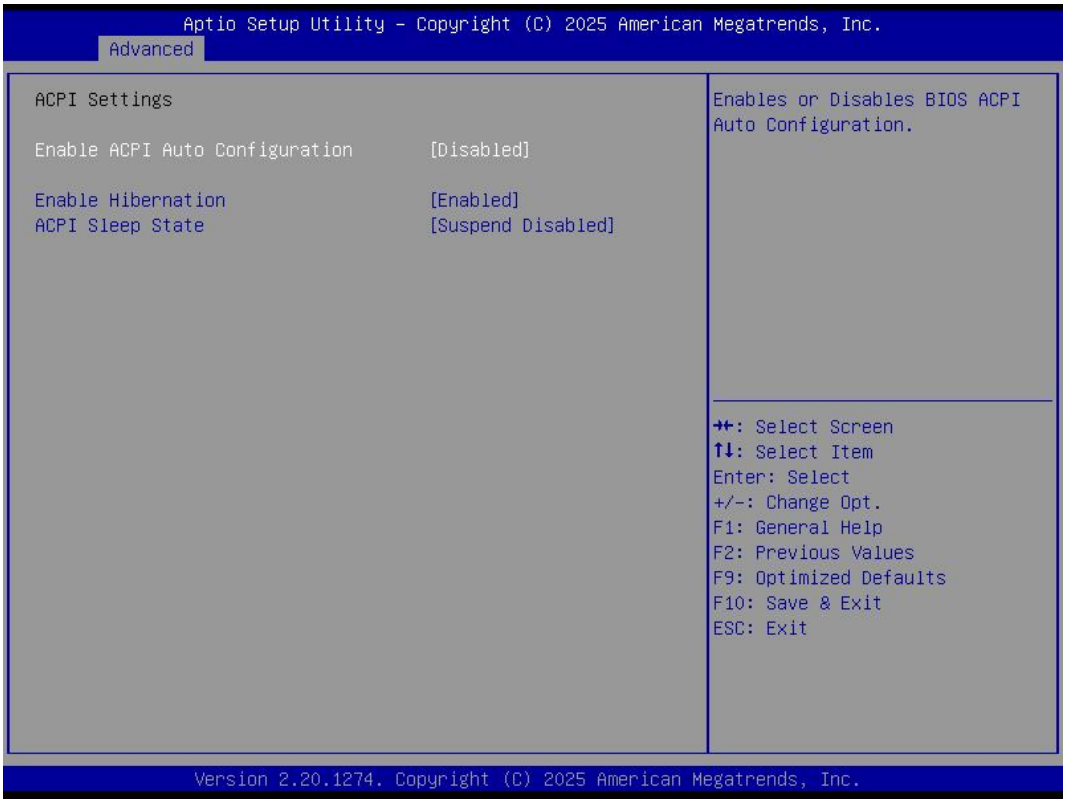
Use this item to set the date for the computer, with the format as "week, MM / DD / YY".

4.2 Advanced (Advanced BIOS Setup)



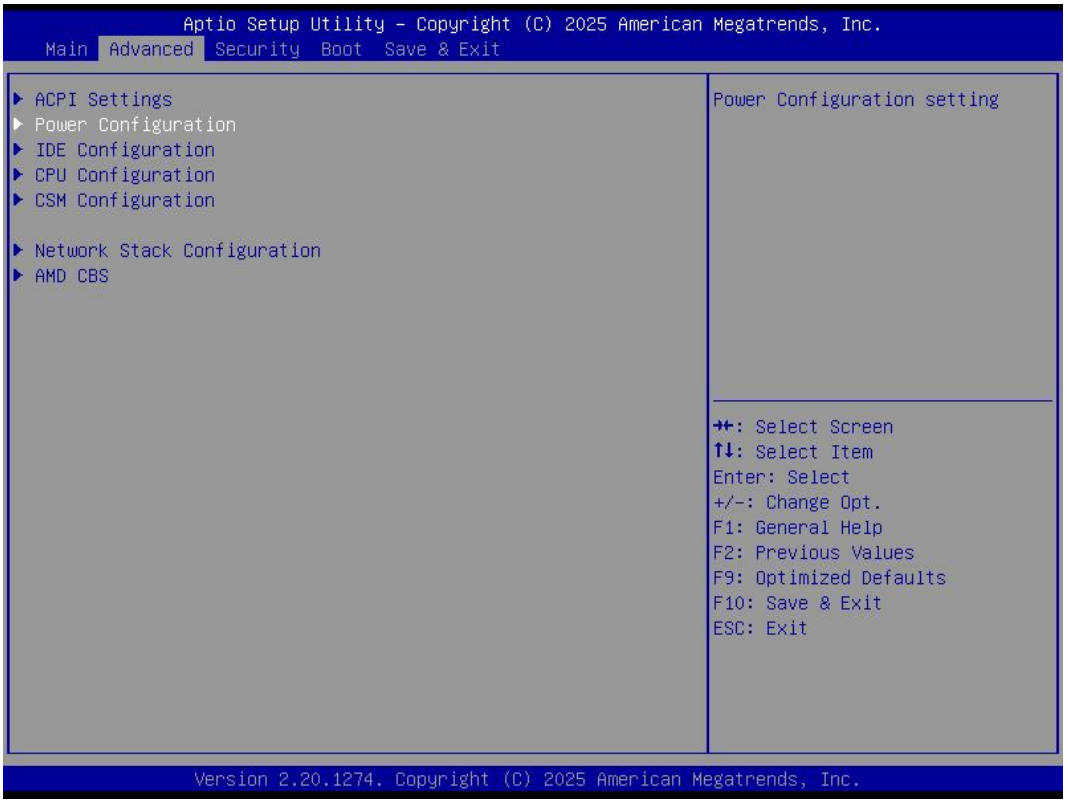
4.2.1 ACPI Settings

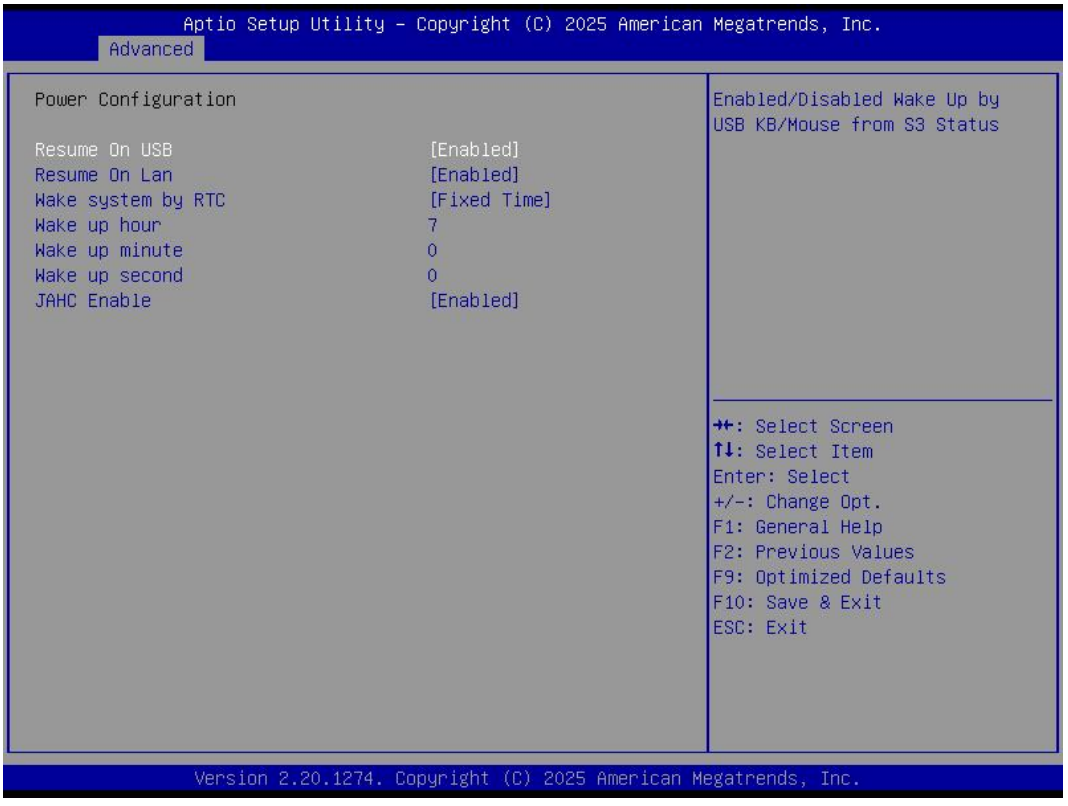




ACPI Options	Description
Enable ACPI Auto Configuration	Enable or Disable BIOS ACPI AUTO Configuration
Enable Hibernation	Enable or Disabled Hibernation
ACPI Sleep state	You can use the ACPI Sleep state option to control system hibernation ● Suspend Disabled: Disable system Suspend. ● S3 (Suspend to RAM): Enable S3(Suspend to RAM)

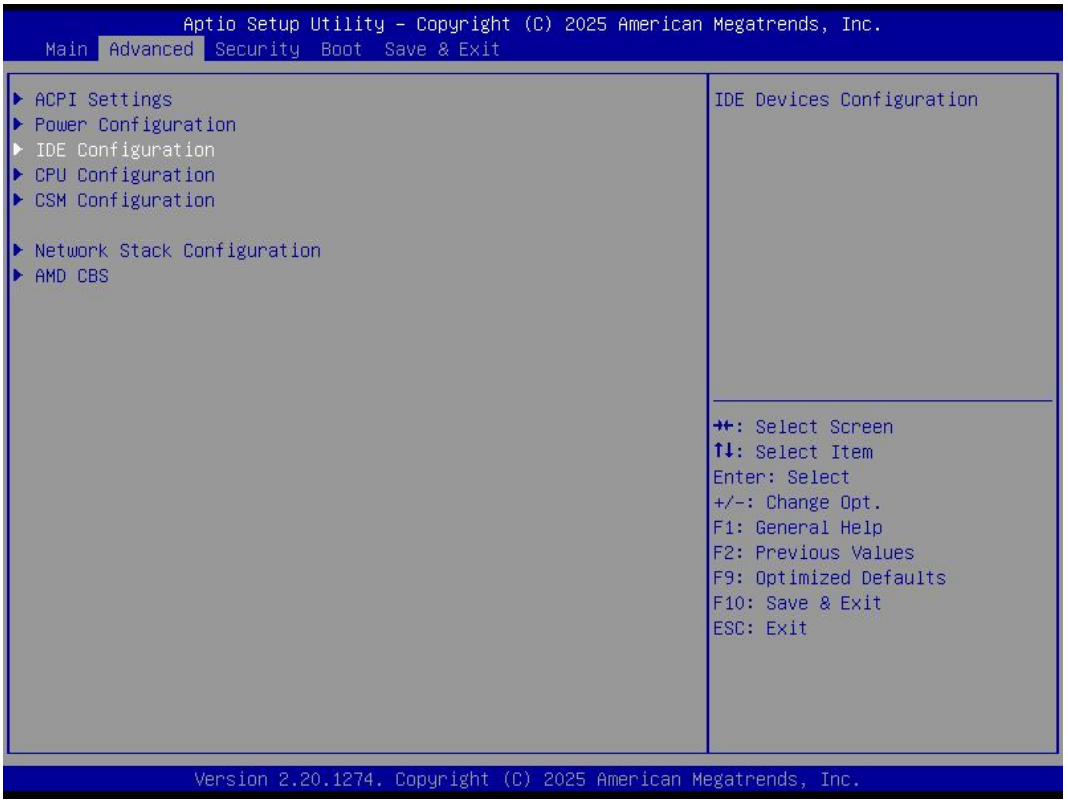
4.2.2 Power Configuration

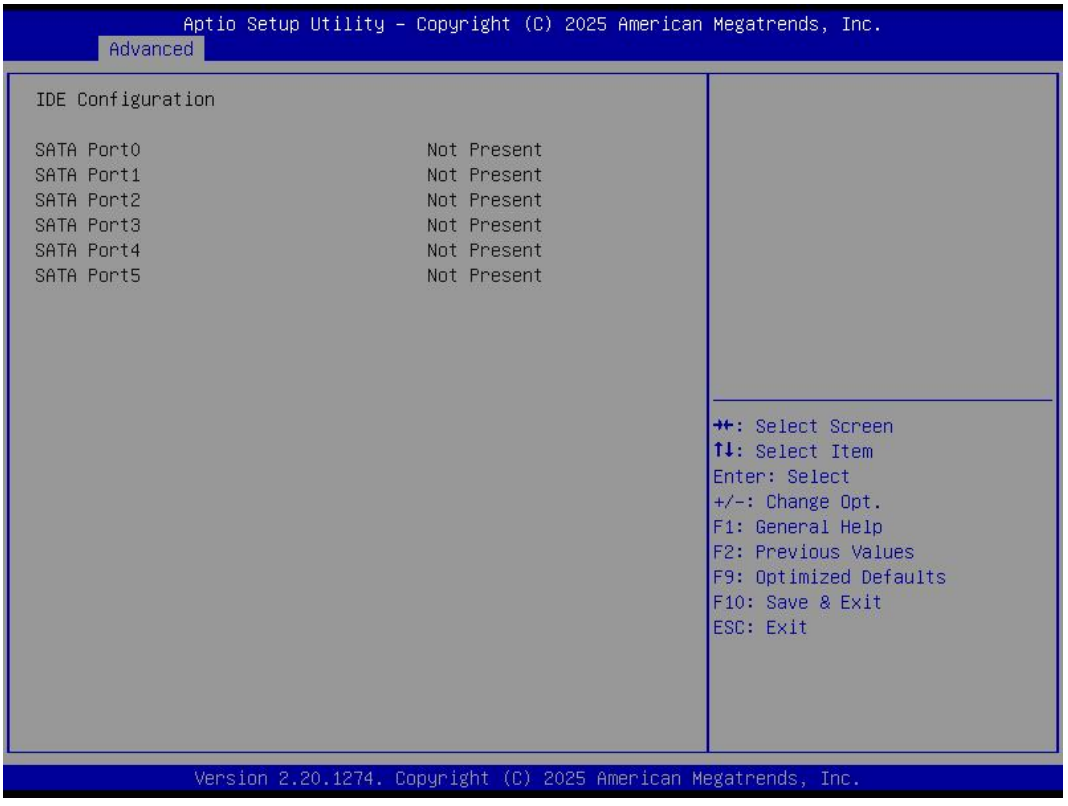




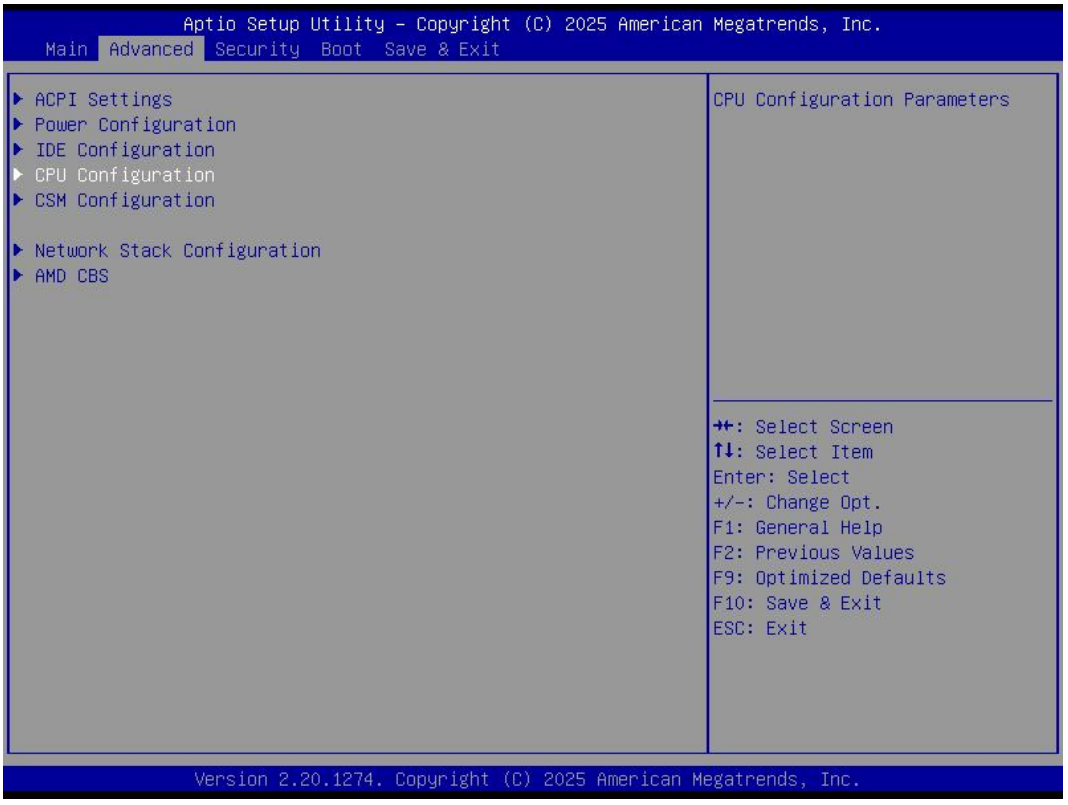
Power Configuration	Functions Description
Power Configuration	
Resume On USB	Wake On by USB KB/Mouse from S3 status. ● Disabled: The WOL is disabled by default. ● Enabled.
Resume On Lan	Wake On LAN Function. ● Disabled: The WOL is disabled by default. ● Enabled.
Wake system by RTC	Enable or disable System wake on alarm event. Select FixedTime, system will wake up at the hr::min::sec specified time. Select DynamicTime, System will wake up at the current time + Increase minute(s).
JAHC Enabled	JIEHE Active Hardware Control (JAHC) management system includes both hardware Micro Control Unit (MCU) and software (JAHC Technology Manager). ● Disabled: The JAHC is disable by default. ● Enabled.

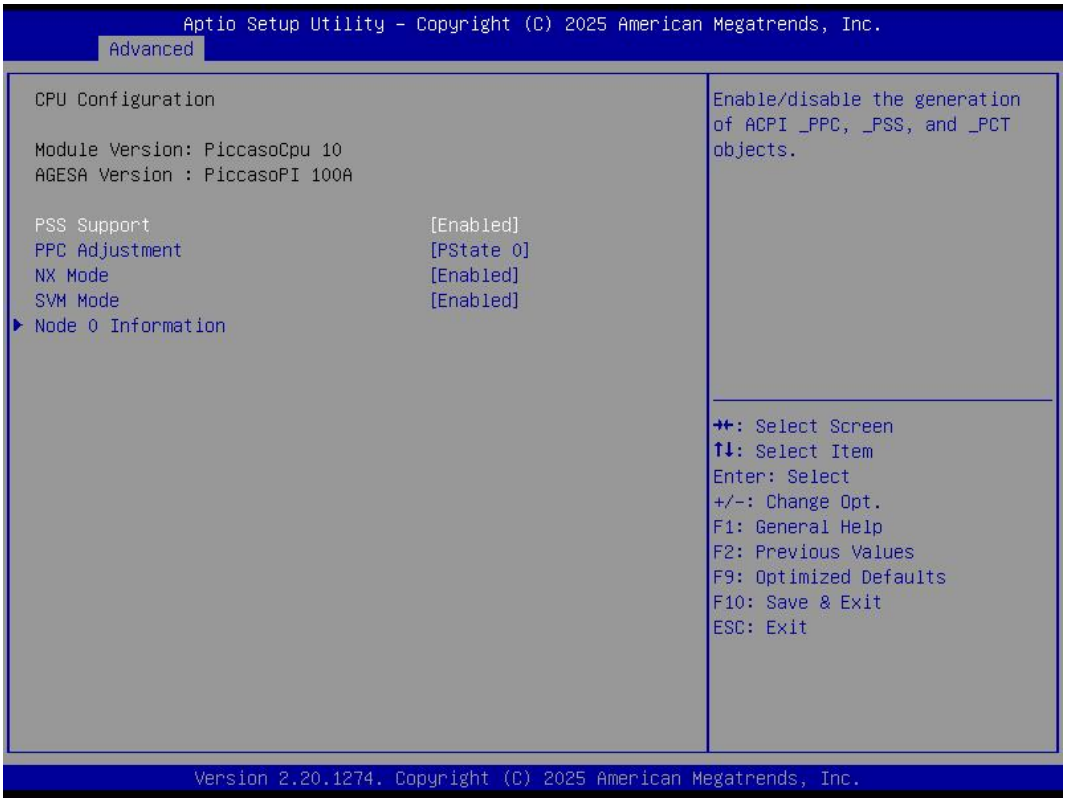
4.2.3 IDE Configuration





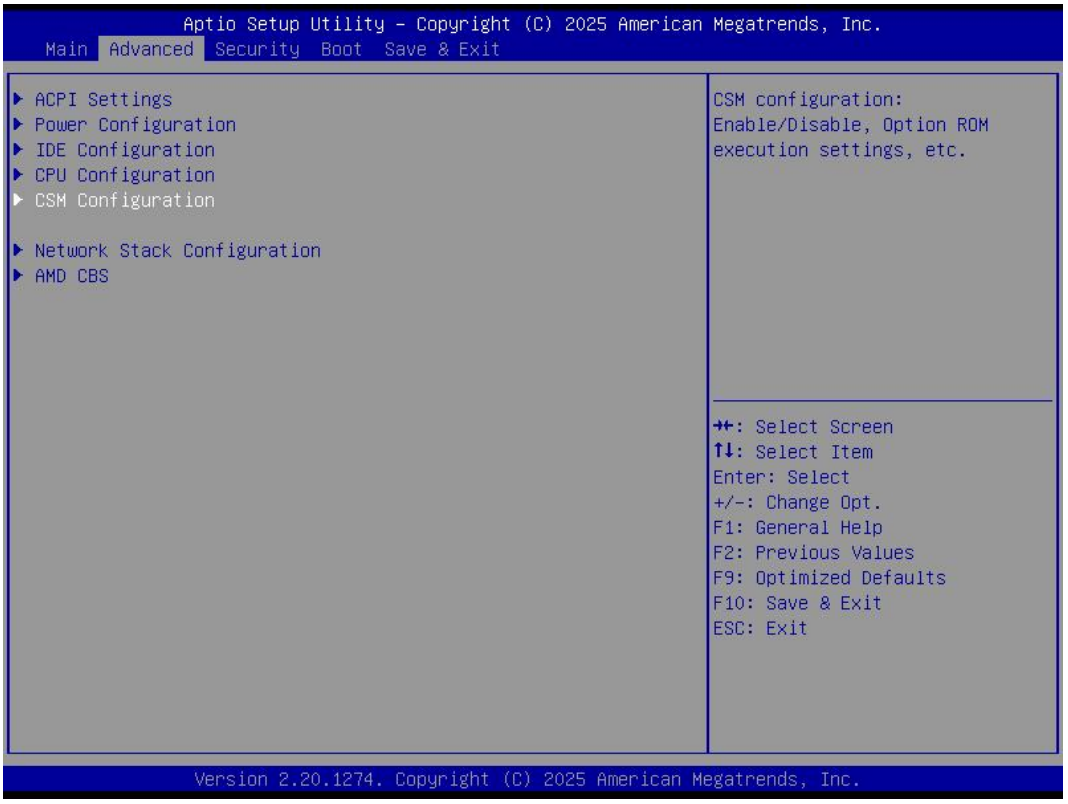
4.2.4 CPU Configuration

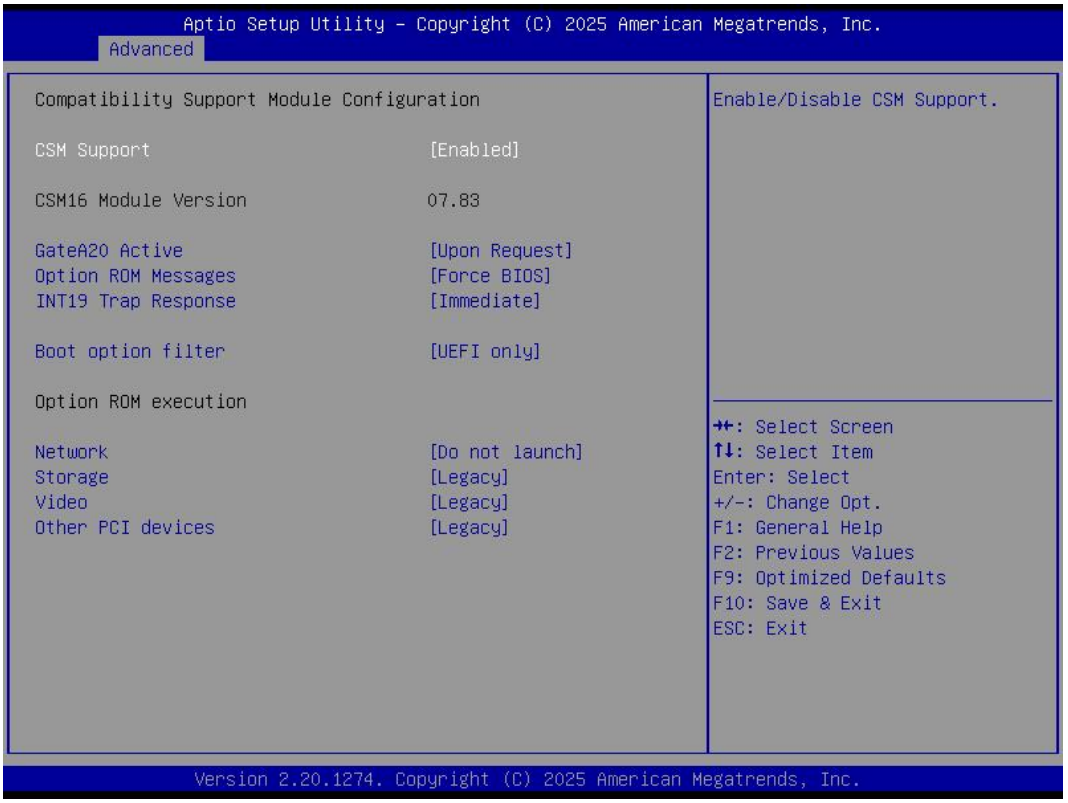




The menu	Description
CPU Configuration	
PSS Support	Enable/Disable the generation of APCI _PPC,_PSS and _PCT Objects
PPC Adjustment	The PPC Adjustment is PState by default.
NX Mode	Enable/disable No-execute page protection Function
SVM Mode	Enabled/disable CPU virtualization
Node 0 information	View Memory Information related to node 0.

4.2.5 CSM Configuration

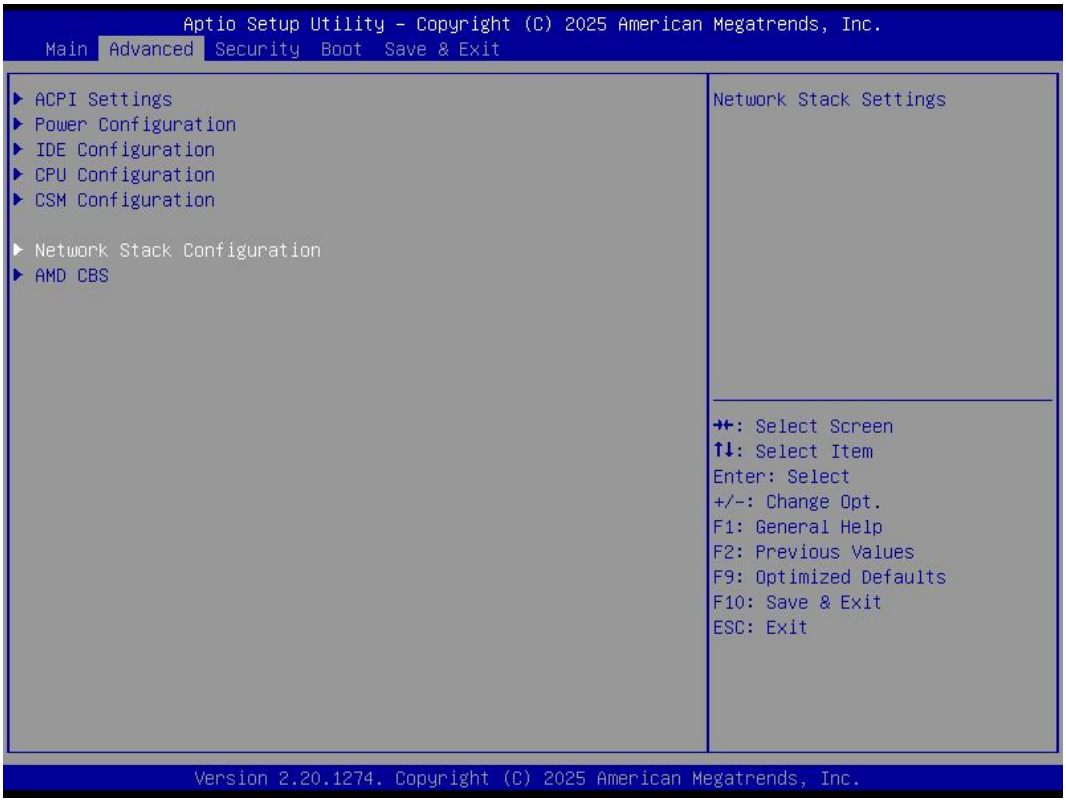


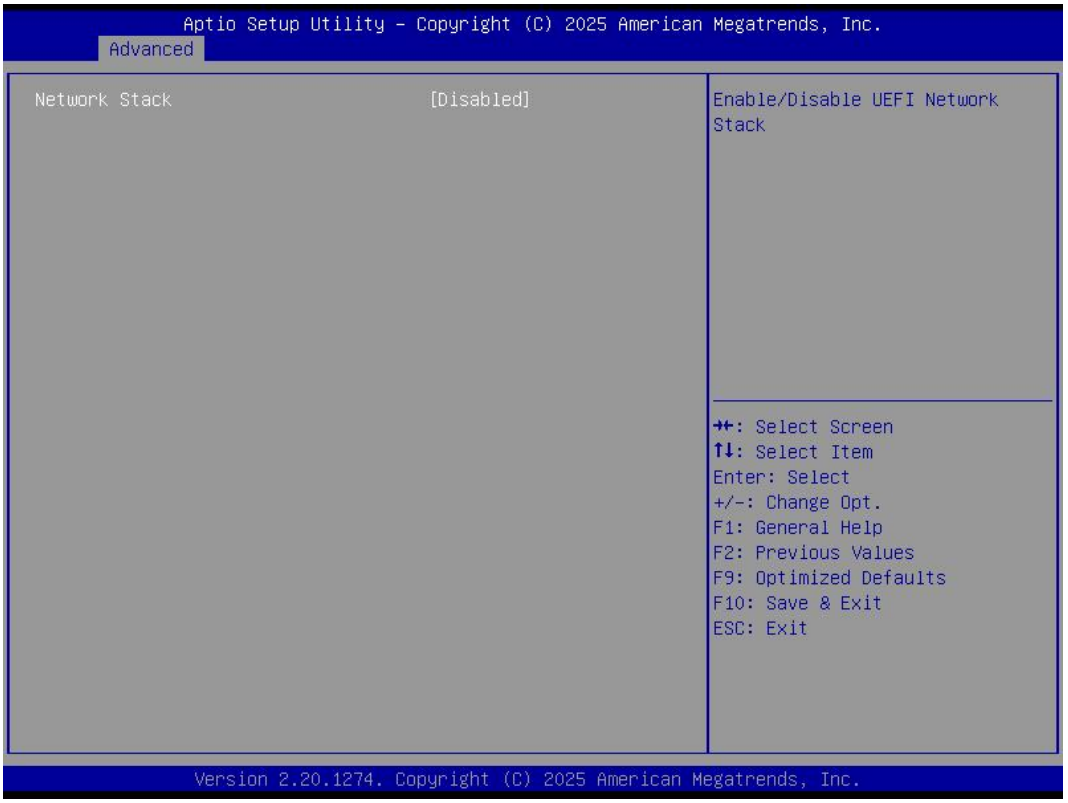


CSM Options	Description
Compatibility Support Module Configuration	
CSM Support	● Enabled: The CSM support function is enable by default. ● Disabled.
CSM16 Module Version	The Current CMS Version.
GateA20 Active	● Upon Request. (This option is set by default) ● Always.
Option ROM Messages	● Force BIOS. (This option is set by default) ● Keep Current.
INT19 Trap Response	● Immediate (This option is set by default) ● Postponed.
Boot option filter	● UFEI and Legacy: It will support both UEFI and legacy mode. ● Legacy only: It only supports legacy mode. ● UEFI only: It only supports UEFI mode.

Option ROM Execution	
Network	Network ROM Boot. ● Do not launch: Do not Boot. ● UEFI: It will support UEFI mode network ROM. ● Legacy: It will support legacy mode network ROM.
Storage	Storage ROM Boot. ● Do not launch: Do not Boot. ● UEFI: It will support UEFI mode storage ROM. ● Legacy: It will support legacy mode storage ROM.
Video	Video ROM Boot. ● UEFI: It will support UEFI mode Video ROM. ● Legacy: It will support Legacy mode Video ROM.
Other PCI devices	● Do not launch: Do not Boot. ● UEFI: It will support UEFI mode PCI ROM. ● Legacy: It will support Legacy mode PCI ROM.

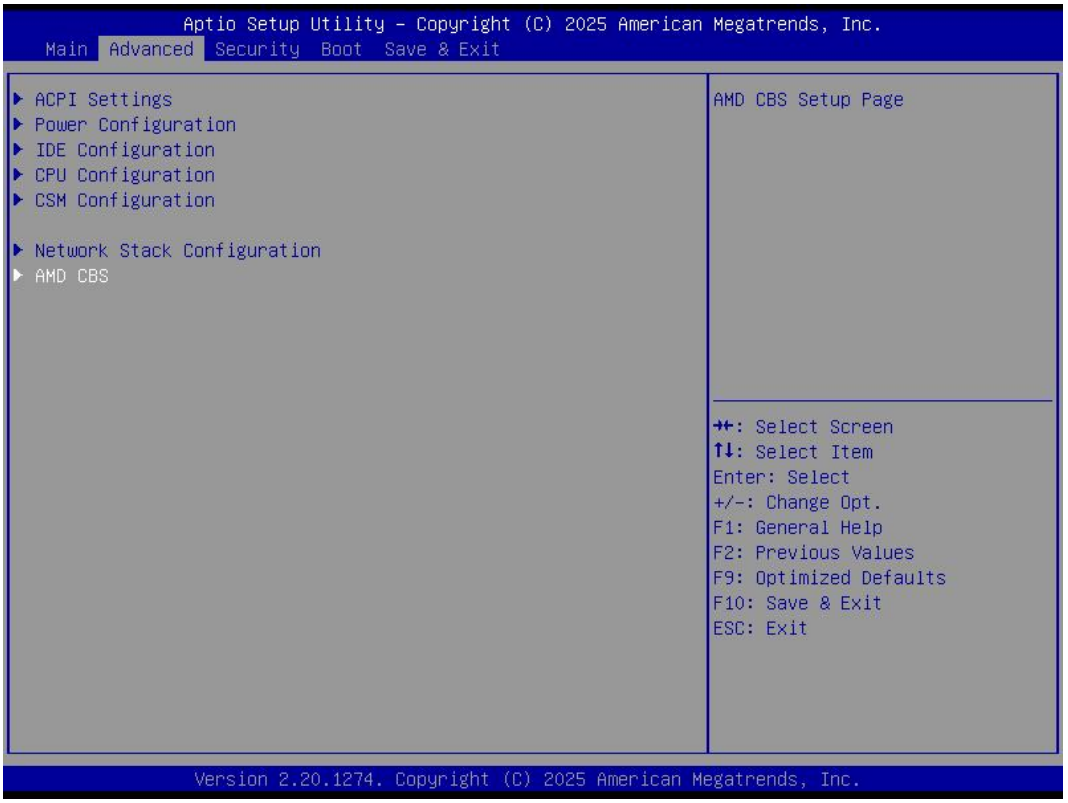
4.2.6 Network State Configuration

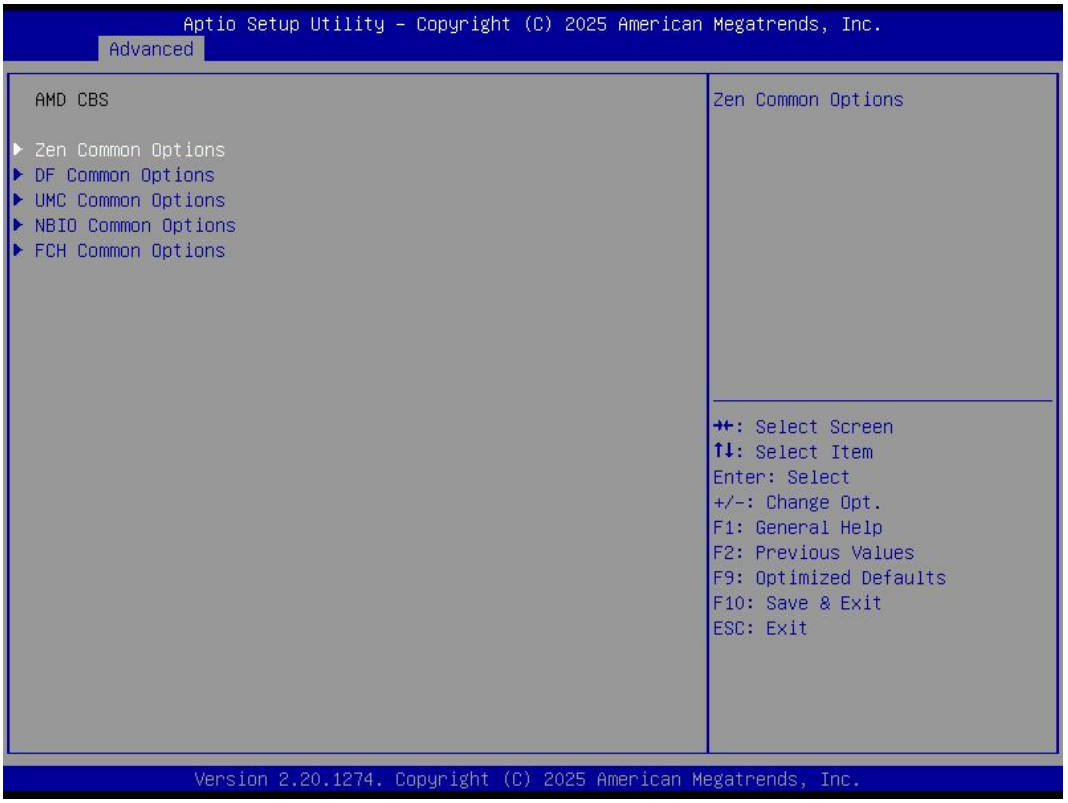




You can enable or disable IPV4 PXE and IPV6 PXE Boot function.

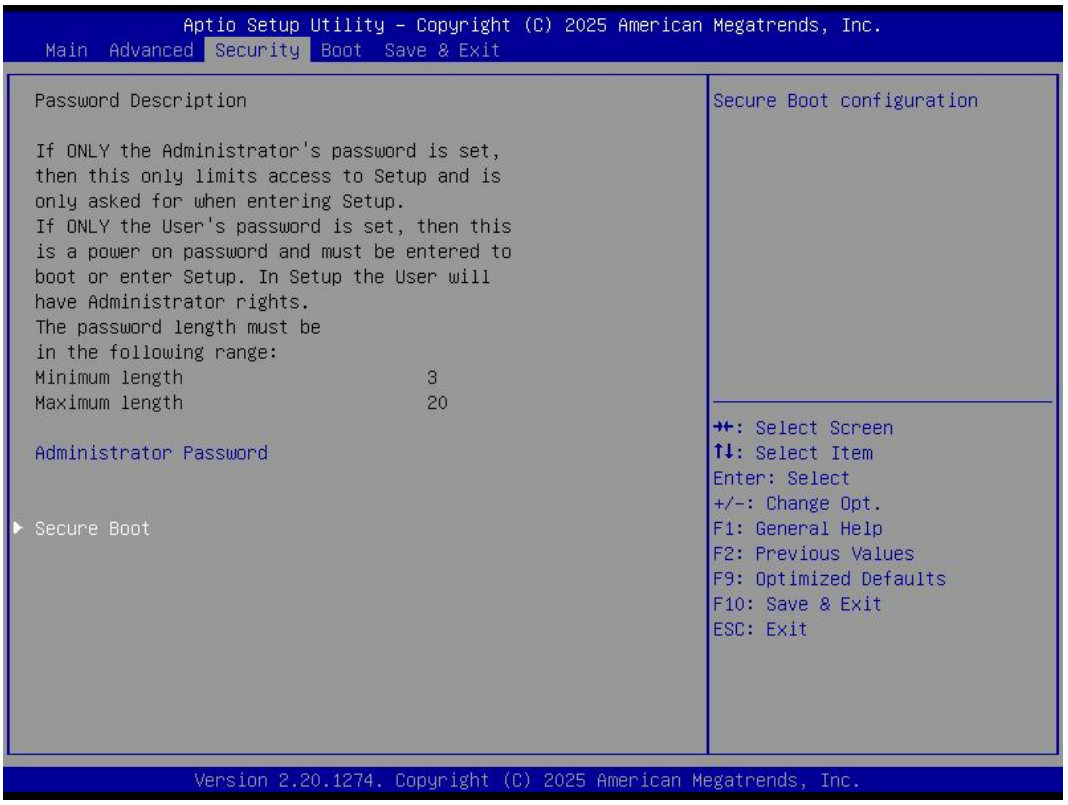
4.2.7 AMD CBS





Options	Description
AMD CBS	
Zen Common Option	● Zen Common Option
DF Common Option	● DF Common Option
NBIO Common Options	● NBIO Common Options
FCH Common Options	● FCH Common Options

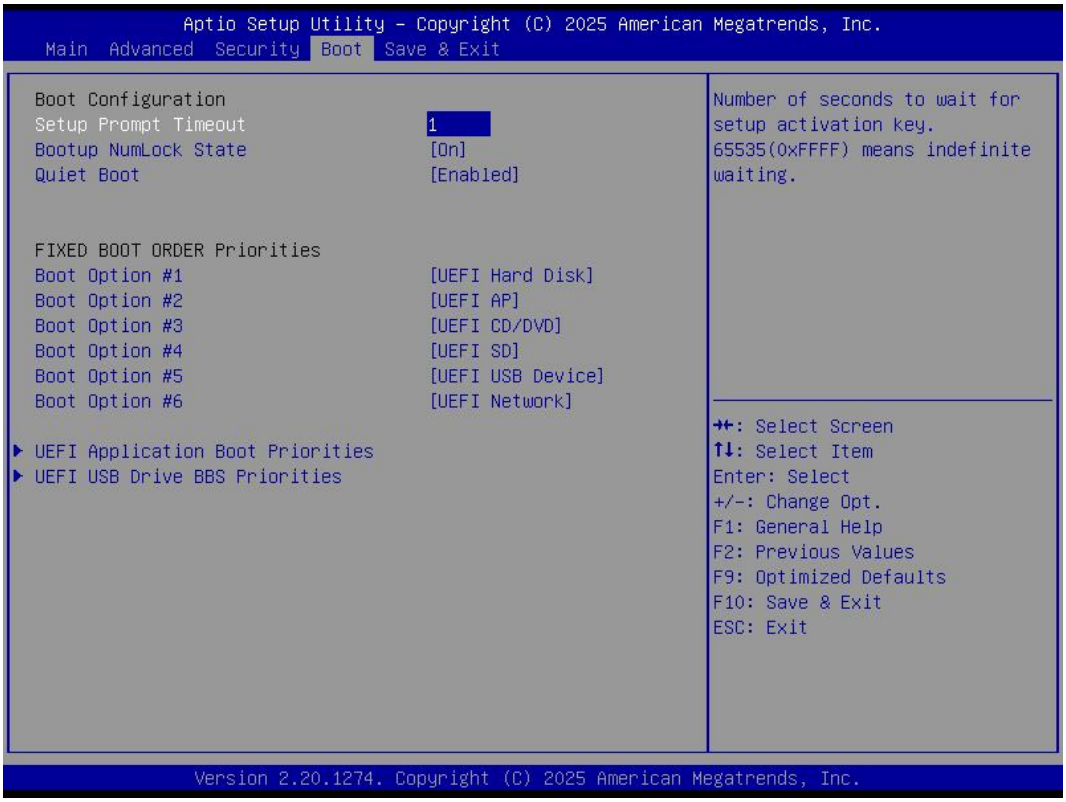
4.3 Security Setup (set the administrator/user password)



If this function is selected, the following information will appear:
Enter New Password hhhhhh
Then enter a password which is no more than eight characters and press <Enter>. BIOS will require to enter the password again.
Once you enter it again, BIOS will save the set password. Once the password item is enabled, you will be required to enter the password every time before the system entering to the setup program of BIOS. The user can set this item through the Security Option in advanced BIOS properties. If the Security Option is set as System, the password will be required to be entered before both the system guides and entering to the setup program of BIOS. If it is set as Setup, the password will be required to be entered only before the system entering to the setup program of BIOS.
To delete the password, press <Enter> in the popped-up window that requires to enter the password. Then information for confirmation will appear on the screen to allow you decide whether the password will be disabled. Once the password is disabled, you can enter the setup program directly without password when the system is restarted.

Boot Sector Virus Protection. This item is used for setting the alarm function in case of virus attack in IDE disk sector. If this item is set as Enable and some program writes information in the sector, BIOS will display alarm information on the screen and buzz.

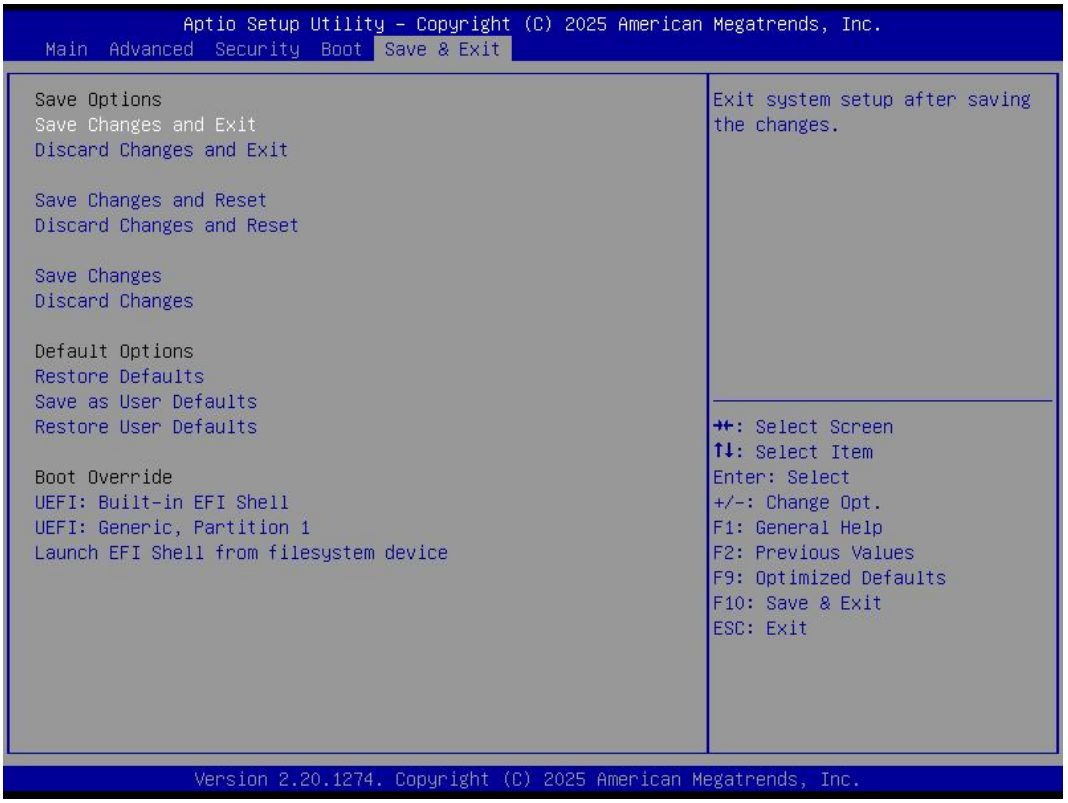
4.4. Boot Menu



Boot Item	Description
Boot Configuration	
Setup Prompt Timeout	This item is use to set the wait time of entering the operation system. During the BIOS post, if user doesn't press the keyboard, it won't respond unless you reboot the BIOS. The Setup Prompt Timeout is 3s by default. You can set the time as you want.
Bootup NumLock State	Options are OFF and ON. In other words, this item can be used to set the state of Num Lock after entering the system. It can be set according to user's needs and doesn't affect the performance of the computer.
Quiet Boot	If this item is set as Enabled, the system can be started within five seconds and some detection items will be ignored. The options are [Disabled] and [Enabled].
BOOT Option Priorities	
Boot Option #1	The first boot device. If BIOS doesn't detect the first boot device, it will check the second boot device.

Boot Item	Description
Boot Option #2	The second boot device.
Boot Option #3	The third boot device.
UEFI Application Boot Priorities	Specifies the Boot Device Priority sequence from available UEFI Application.
UEFI USB Drive BBS Priorities	Specifies the Boot Device Priority sequence from available UEFI USB drives.

4.5 Save&Exit



Save Exit Item	Description
Save Options	
Save Changes and Reset	Save all changes and exit
Discard Changes and Reset	Give up the settings and exit.
Restore Defaults	Recover it to default.
Boot Override	Whole Boot devices

5. JAHC Introduction

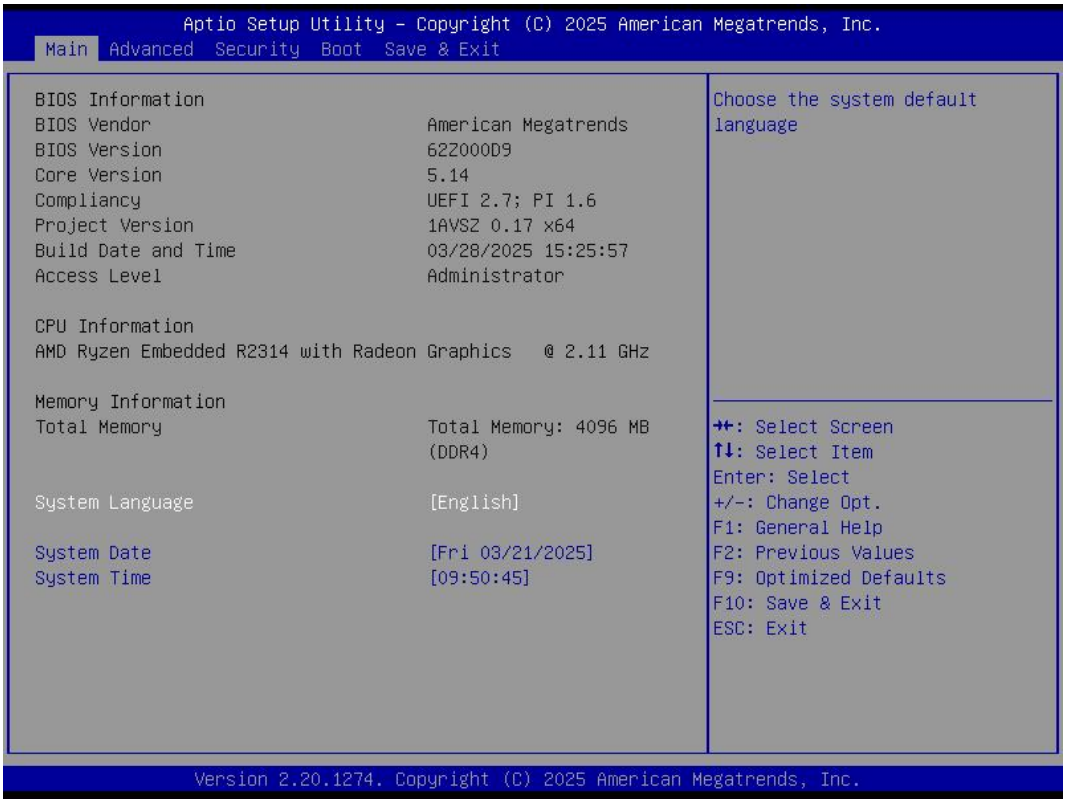
JIEHE Active Hardware Control (JAHC) management system includes both hardware Micro Control Unit (MCU) and software (JAHC Technology Manager). It can support following functions:
1. Automatically boot up when power on. It is controlled by the Micro Control Unit (MCU) chip.
2. Real Timer Controller (RTC) wake up: user can install the JAHC software to set up automatic startup and shutdown, one week as a circle.
3. Watchdog timer. It is a built-in API interface.
4. Infrared remote control (Optional IR controller).

5.1 How to set up Auto power on function

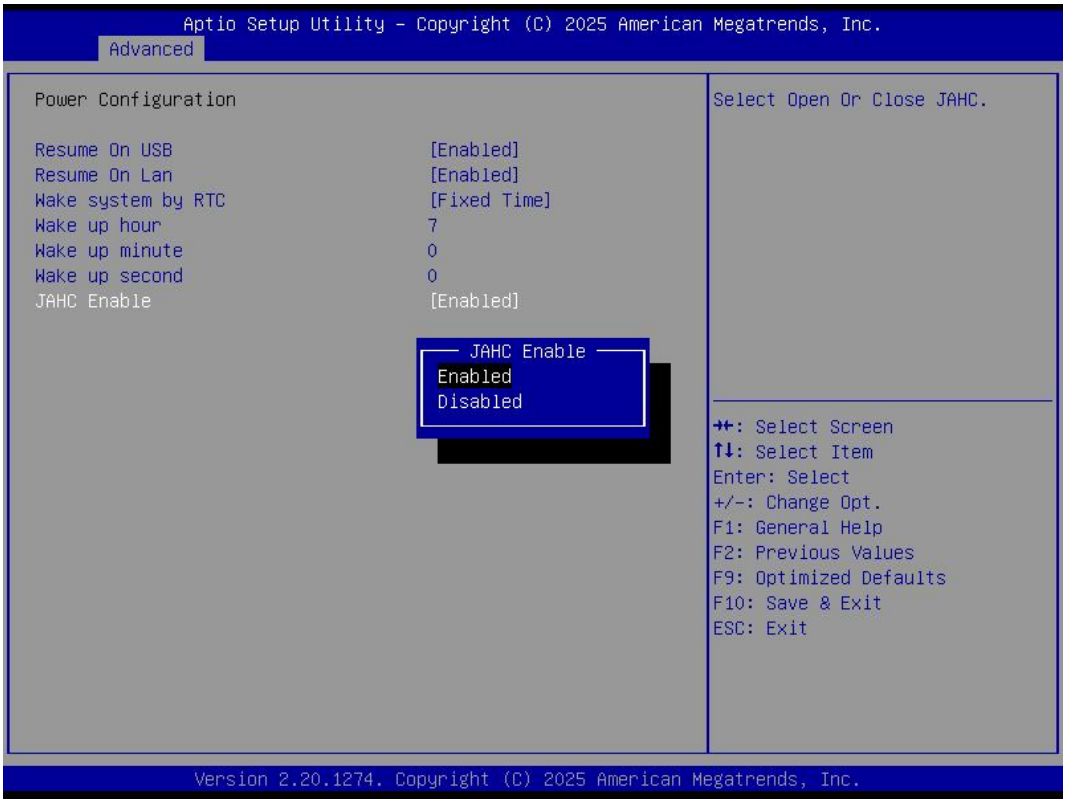
Automatically reboot when power on

The function of automatically reboot when power on is controlled by hardware. You can enable it by switching the JAHC button to “on”.
If you cannot find the physical switch on the player, then you can go into the BIOS to enable it by following steps:

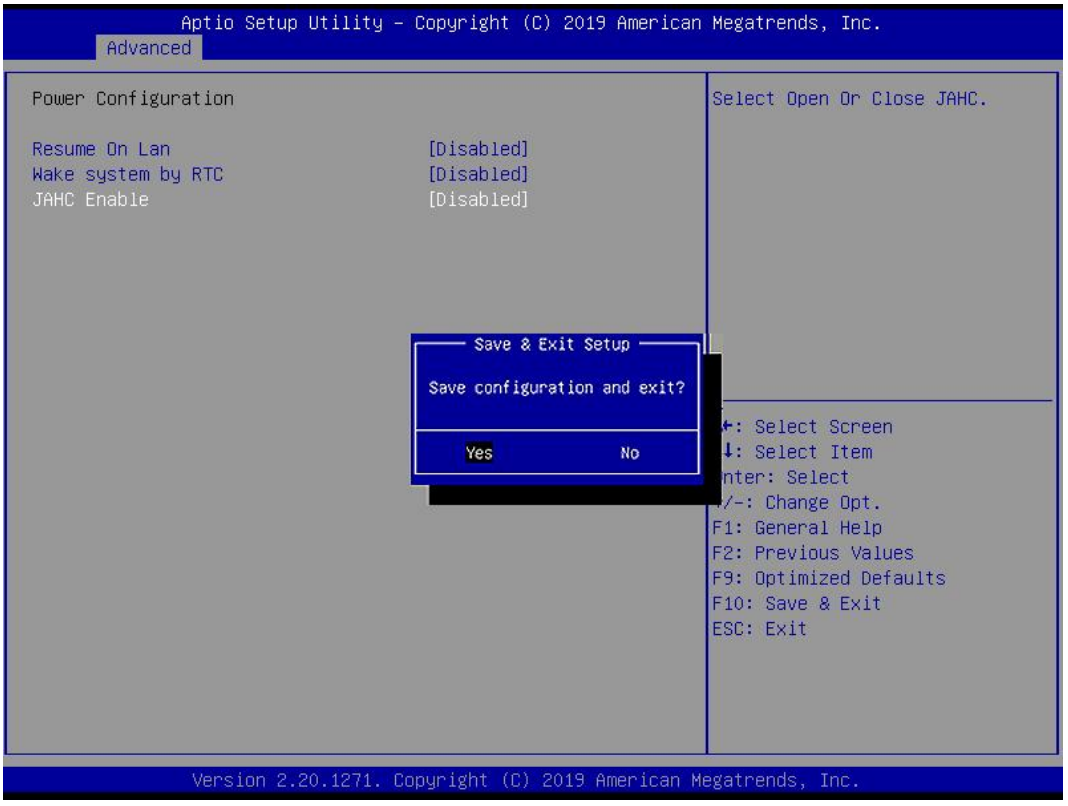
a. Turn on the player and continually press ‘Del’, then it can enter BIOS setup menu.



b. Select Advanced- > Power Configuration- > JAHC Enable- > Enabled.



c. Press ‘F10’ to save change & exit after select “JAHC Enabled” option.



5.2 JAHC software

5.2.1 JAHC software functions

a. RTC wake up. The user can set up automatic startup and shutdown, one week as a circle
b. Caution message prior to shutdown to remind user to save the data. User can also choose to postpone the shutdown process.
c. When JAHC is running, it can support reboot automatically when system is crashed. No additional settings needed.

5.2.2 JAHC software installation guide

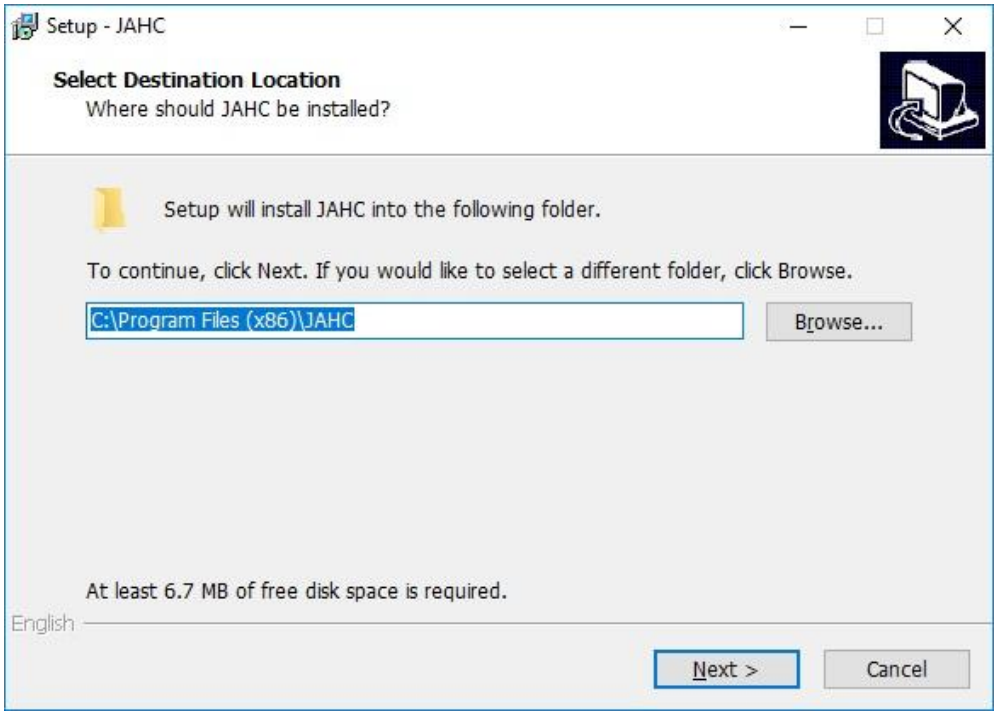
System Requirements:

a. Giada player with JAHC function.
b. Switch the JAHC button to “on” or enable it in BIOS if there is no physical button on the chassis.
c. Supported operation system: Windows 10 64bit, Linux 64bit.

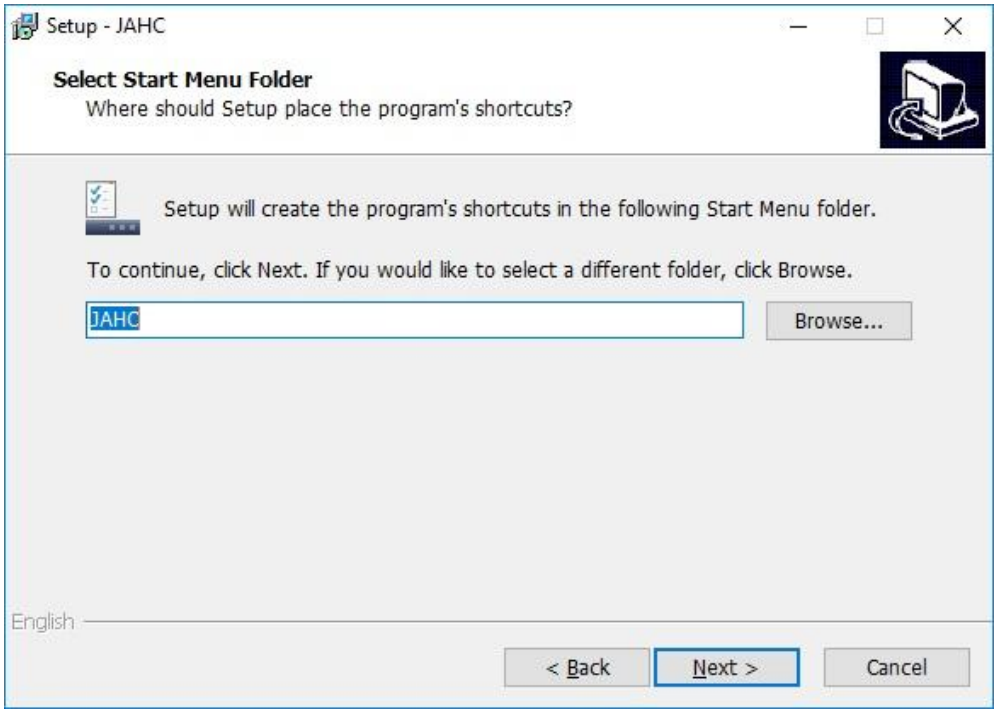
How to install JAHC software:

Please download the JAHC.EXE from Giada website: www.giadatech.com, then follow up below steps:

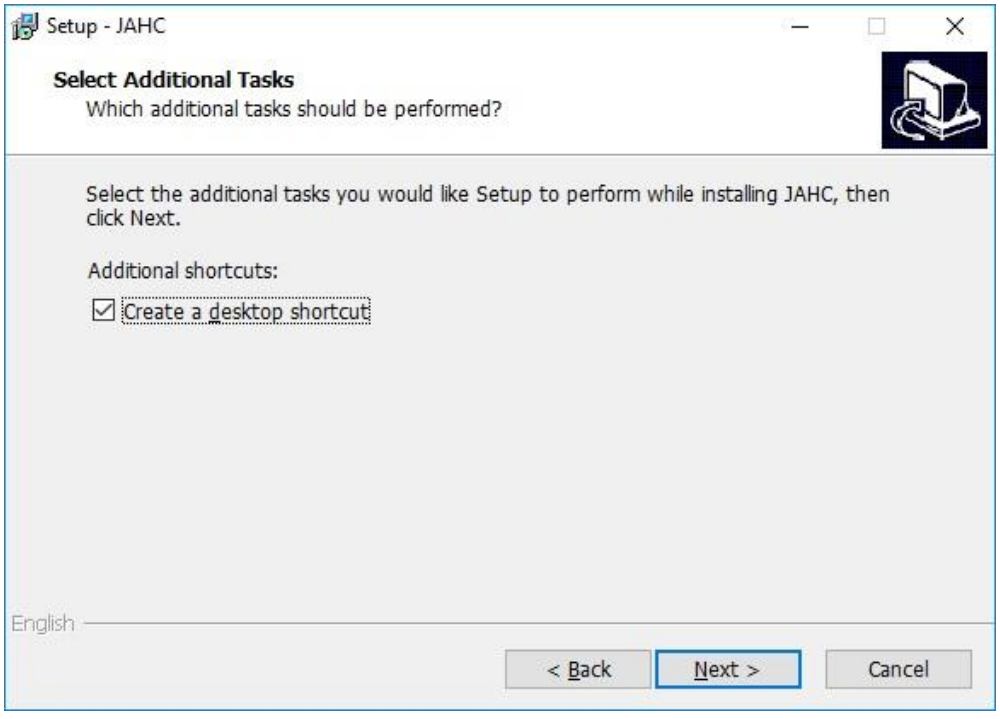
a. Double-click the JAHC.EXE file, the setup wizard will pop up, select destination location and click [Next] button to continue the installation.



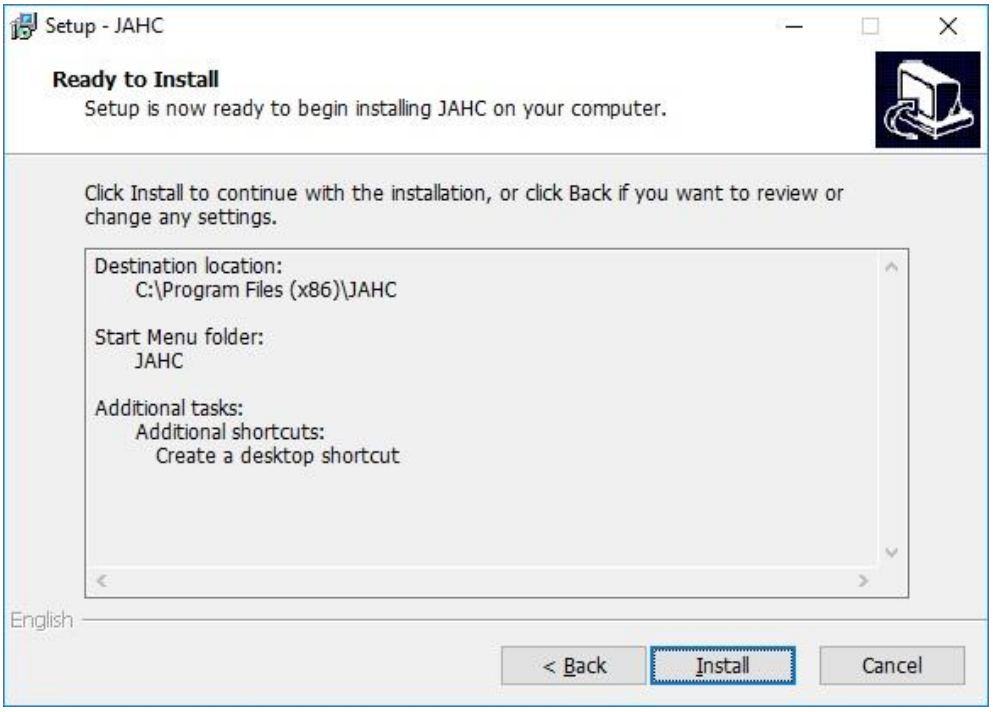
b. Click [Next] button to continue the installation.

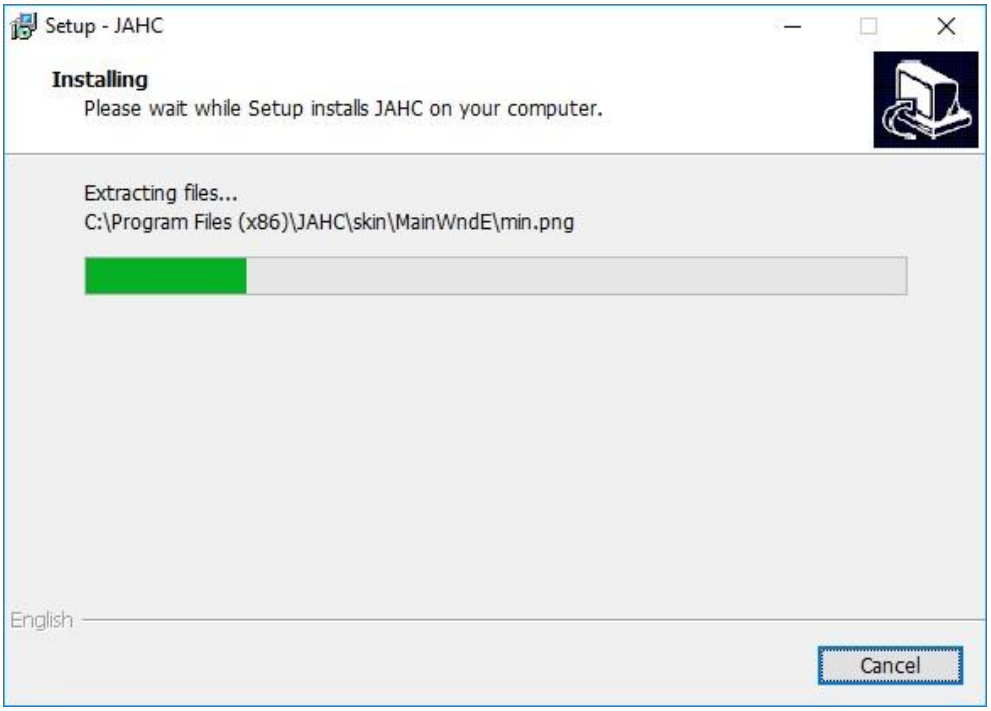


c. Select [Create a desktop shortcut] and click [Next] button.



d. Click [Install] button to continue the installation.



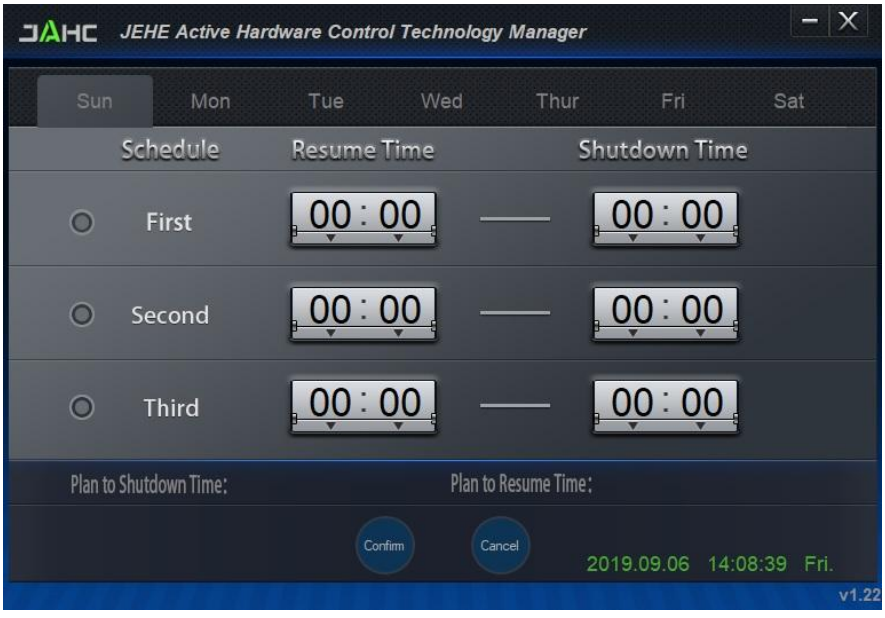


e. Click [Finish] button to finish the installation. You can select [Launch JAHC] to run the software automatically after finishing the installation.

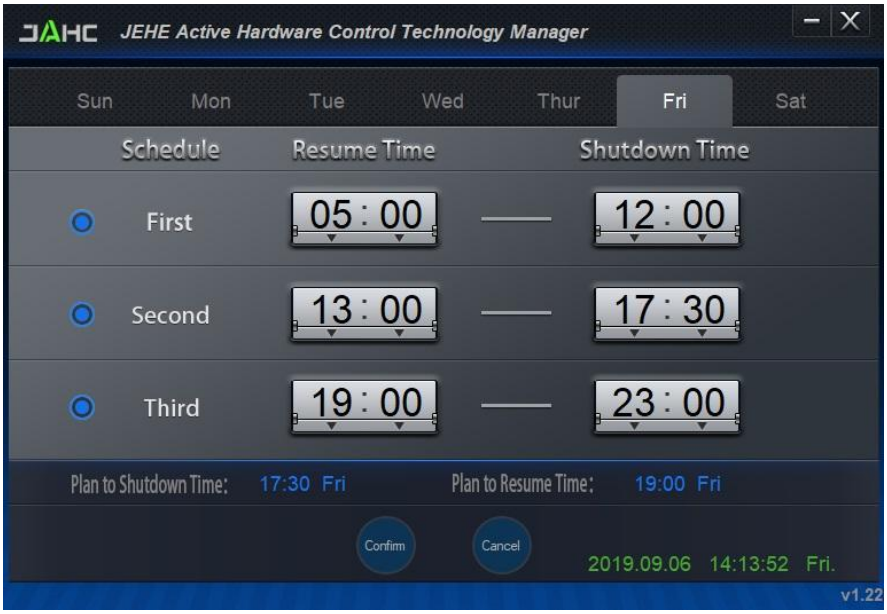
Notice: The JAHC will be added into boot item when it is installed. It will start up when system boot up.

5.2.3 Startup & shutdown time setup

After install the JAHC software, double click the JAHC icon on taskbar and the setup menu will pop up.



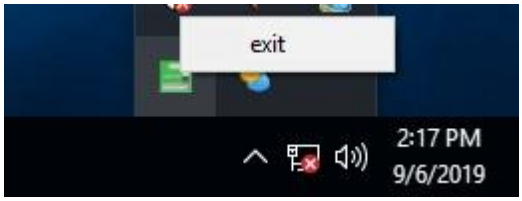
One week as a circle, maximum 3 schedules per day. Select each schedule to set up the resume time and shutdown time. Click [Confirm] button to launch the schedule.



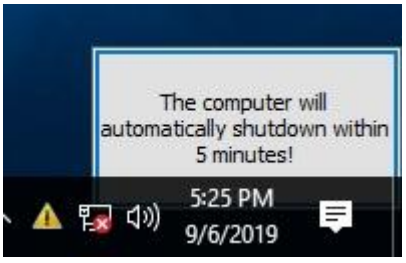
After finishing the setup, the menu window will notice the resume time and shutdown time.

⚠ Caution: If the interval from shutdown time to next resume time is less than 3 minutes, the system will not shut down.

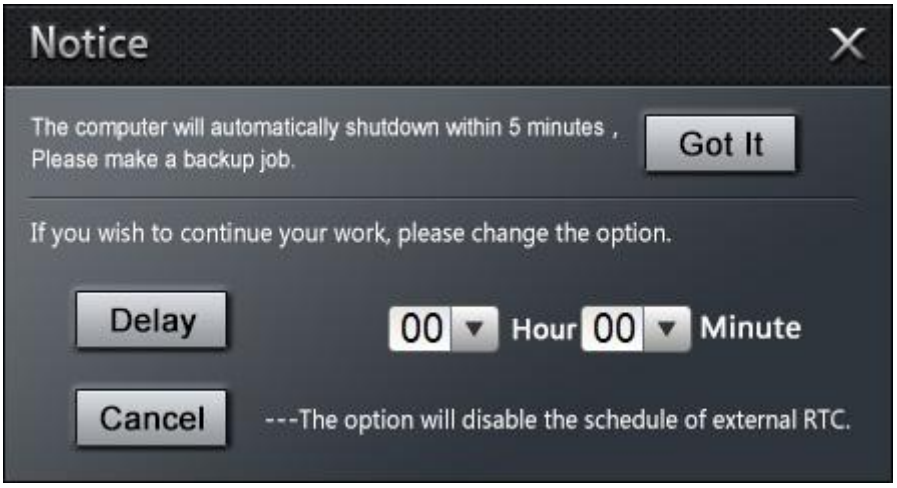
Click [Cancel] button to restore the time settings and cancel the shutdown status.
Click [X] button to hide the menu. You can find it on taskbar.
Right click the JAHC icon on taskbar and select [exit] to exit the software.



Shutdown caution: the shutdown caution will pop up before the system shutdown.



You can double click the message window and a new dialog box will pop up.



You can click [Delay] button and set up the time to delay the shutdown or click [Cancel] button to cancel the shutdown.

5.3 Watchdog API and instruction

Please contact Giada FAE (email:support@giadatech.com) for watchdog API software and instruction.

Shenzhen JIEHE Technology Development Co., Ltd.

Website: www.giadatech.com

Phone: +86-755-3330 0326

Email: support@giadatech.com

Address: 37F, Holdfound Sky Plaza Office Building, 11008 Beihuan Blvd., Nanshan, SZ, China, 518051

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