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Giada
SDM-L613
Intel 13th Gen
CPU Smart Display

Giada SDM-L613 Intel 13th Gen CPU Smart Display User Manual

Contents

Giada

Giada SDM-L613 Intel 13th Gen CPU Smart Display

Product Information

Product Specifications

- Brand: Giada
- Model: SDM-L613
- Processor: Intel 13th-Gen i3, i5, i7
- Memory: Dual-channel SO-DIMM DDR5-5200MHz (Max 64GB)
- Video Output: HDMI 2.1 (supports max. 8K display)

FAQ

- **Q:** Can I upgrade the memory beyond the maximum specified?
    - **A:** No, the maximum memory supported is 64GB of Dual-channel SO-DIMM DDR5-5200MHz.

Product Usage Instructions

Brief Introduction

Complying with Intel Smart Display Module (SDM) standards and based on Raptor Lake-U platform, Giada SDM-L613 is powered by Intel 13th-Gen i3, i5, i7 processors and adopts dual-channel SO-DIMM DDR5-5200MHz memory (Max 64GB). The player supports max. 8K display via the HDMI 2.1 video output. It's an ideal choice for large-format displays and modern interactive whiteboards in 24/7 use.

Interface Definition

- Explain the different interfaces available on the device with diagrams if necessary.

Board Jumper, Header And Interface Diagram

- Provide specific details on board jumpers, headers, and interfaces with diagrams if needed.

Advanced (Advanced BIOS Setup)

- Detailed guide on advanced BIOS setup including ACPI settings, CPU configuration, WAKE configuration, Trusted Computing, and IT8786 Super IO Configuration.

Product Introduction

Brief Introduction

Complying with Intel Smart Display Module (SDM) standards and based on Raptor Lake-U platform, Giada SDM-L613 is powered by Intel 13th-Gen i3, i5, i7 processors and adopts dual-channel SO-DIMM DDR5-5200MHz memory (Max 64GB). The player supports max. 8K display via the HDMI 2.1 video output. It's an ideal choice for large-format displays and modern interactive whiteboards in 24/7 use.

Motherboard Picture
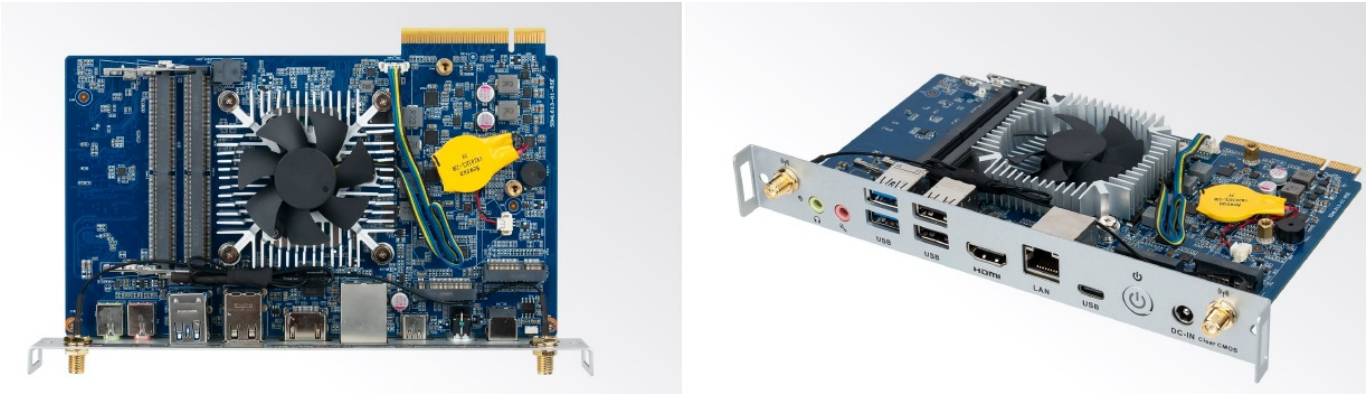
Spec

Processor	CPU	Intel® Core™ i3-1315U processor Intel® Core™ i5-1335U / i5-1345U processor Intel® Core™ i7-1355U processor
	Frequency	By CPU
	BIOS	AMI Source Code
	Chipset	SoC
Memory	Capacity	Up to 64GB
	Socket	2 × SO-DIMM DDR5-5200 MHz

Graphics	**GPU**	Intel® UHD Graphics (Core i3) Intel® IRIS® Xe Graphics (Core i5, Core i7)
	Graphic Engine	DirectX 12.1, OpenGL 4.6, OpenCL 3.0, 8K60fps 12b 4:2:0 HEVC / VP9 / SCC
Display	**Display Interface**	1 x HDMI (Max.7680 x 4320 @60 Hz)
Network	**Controller**	1 x Intel® Ethernet Controller I225-LM
	Interface	1 x 2.5 GbE RJ45
	WiFi+BT	1 x E-Key M.2 (2230) for Wi-Fi/BT, Support Wi-Fi 5, Wi-Fi 6 (CNVi)
Storage	**M.2**	1 x M-Key M.2 (2280) PCIe4.0 X4 for SSD
I/O Interface	**USB**	1 x USB Type-C3.2 Gen1, 2 x USB3.2 Gen2, 2 x USB2.0
	Serial Port	NA
	Audio	1 × MIC-IN, 1 × AUDIO-OUT
	Button	1 x Power on, 1 x CLR-CMOS
	Antenna	2 x Connector for Wi-Fi/BT
	SDM I/O **PCIe X8 Edge Connector**	HDMI (4096 x 2304 @60 Hz), DP (4096 x 2304 @60 Hz), USB3.2 Gen1, UART, GSPI, I2C, PCIe, SYS_FAN
TPM	Optional: TPM2.0	
JAHC	Watchdog Timer / Auto power on / RTC	

Power Requirement	DC-IN, 12 V SDM IO: 12 V	
Mechanical	**Construction**	Metal
	Dimensions	175mm x 110mm (6.89" x 4.33")
Operation System	Windows 11 (64bit) / Linux Ubuntu (64bit)	
Environment	**Operating Temperature**	0°C ~ 60°C (32°F ~ 113°F) @0.7m/s Air Flow
	Storage Temperature	-20°C ~ 75°C (-4 ~ 167°F)
	Humidity	95% @ 60°C (non-condensing)

Hardware Usage Instruction

Dimension Chart
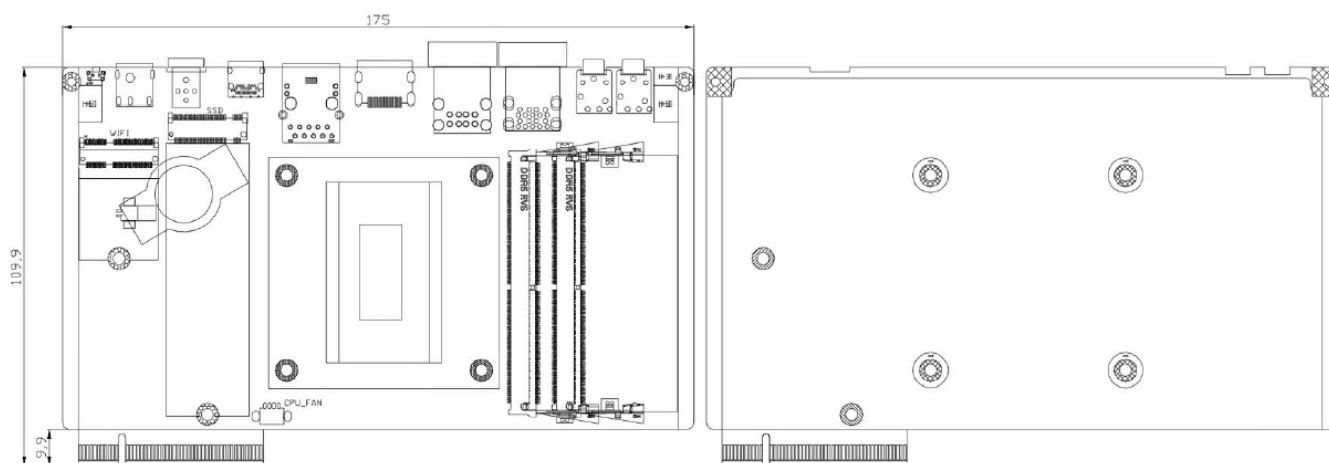
Interface Definition

Board Jumper, Header And Interface Diagram

Audio out
Mic in
2*USB3.2 Gen2
2*USB2.0
HDMI
RJ45
Type-C 3.2 Gen1
ON/OFF
DC-IN
Clear-CMOS
SDM PCIE X8 connector
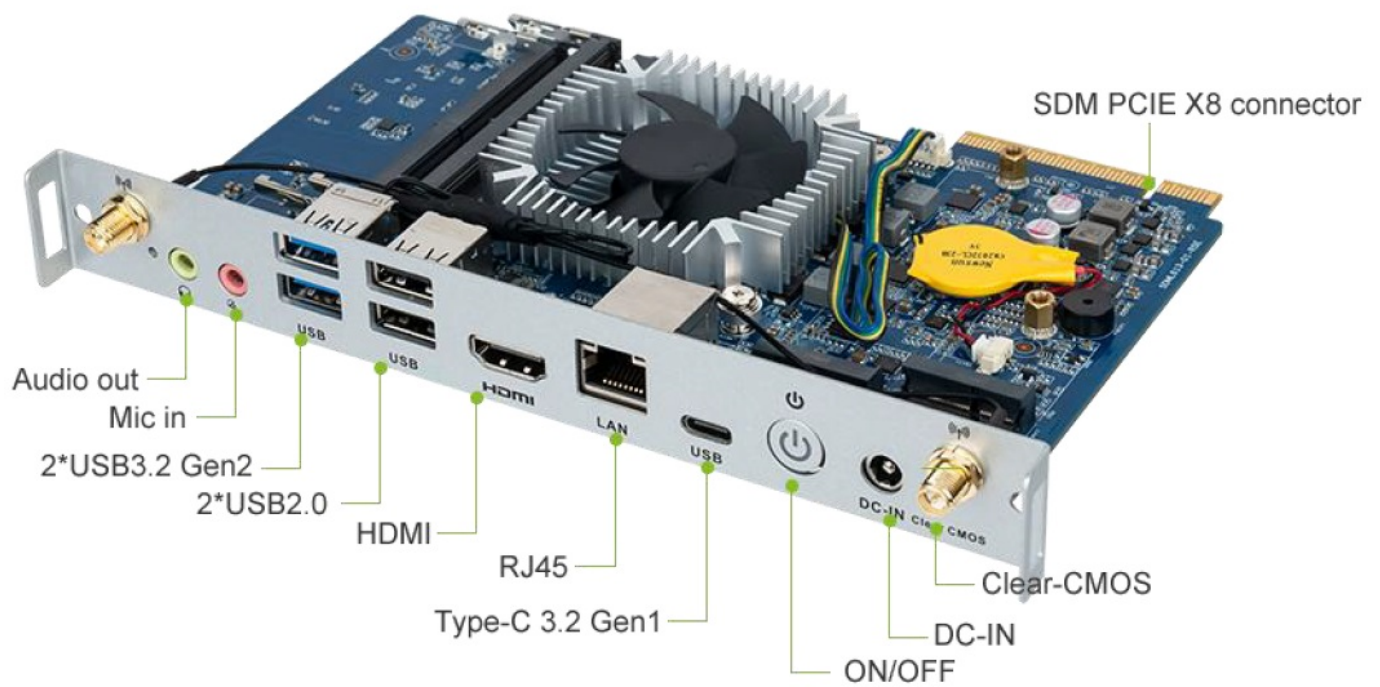
Accessories Installation Steps
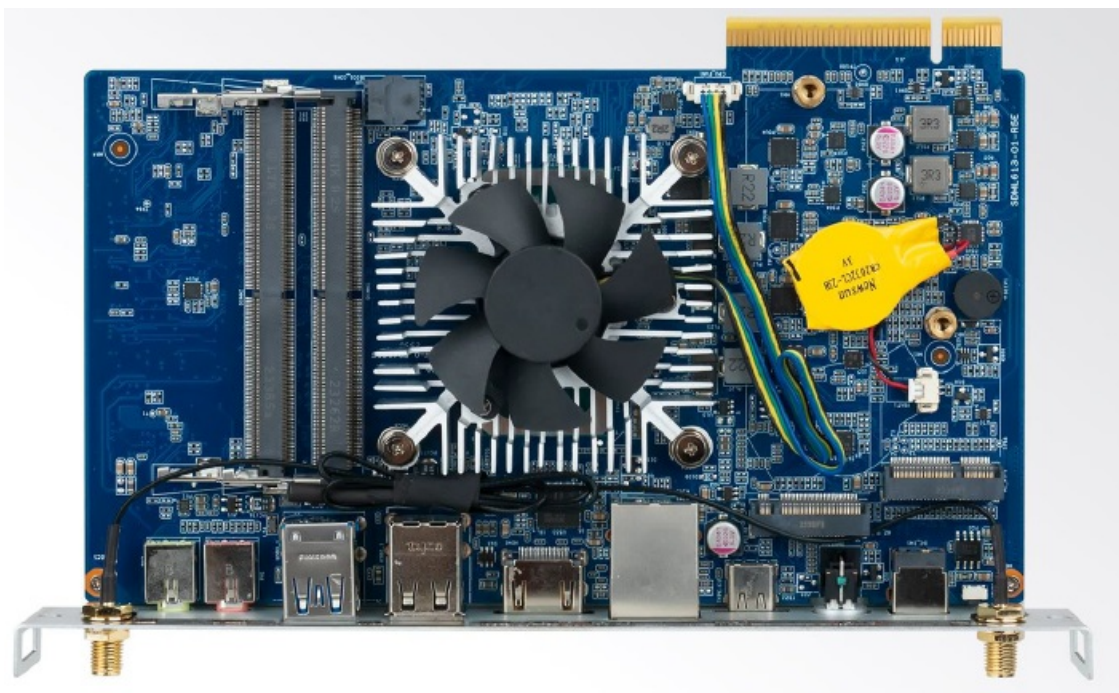
- For safety reasons, please ensure that the board is disconnected from power before installation.

Memory Installation

This product only supports DDR5 SO-DIMM memory modules.

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

WIFI Installation

1. Plug the WIFI module into the M.2 slot.
2. Secure the module to the carrier by tightening up the screw.
3. Connect the black cable to the module. Install the antenna.

SSD (M.2) Installation

1. Plug the M-Key M.2 (2280) SSD (PCIe protocol) into the appropriate slot.
2. Secure the module to the carrier by tightening up the screw.

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

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 DEL; to load the default values and enter the system, you can press DEL to enter the BIOS interface if error occurs. If the indicative information disappears before operating, you can shut down the computer and turn it on again, or you can press the RESET key on the product case. To restart your computer, you can also press < Ctrl > + < Alt > + < Delete > simultaneously.

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	E×it 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 e×it the CMOS SETUP

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 e×ample, the BIOS default values or CMOS Setup values.
To exit the interface for auxiliary information, press [ESC].

1. Main menu

- When the system enters the CMOS Setup menu, you can see the main menu on the upper part of the screen, as shown in Figure 1.
- 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.

```
                          Aptio Setup - AMI
  Main  Advanced  Security  Boot  Save & Exit  MEBx

  BIOS Information                                    Set the Date. Use Tab to
  BIOS Vendor             American Megatrends         switch between Date elements.
  Core Version            5.27                        Default Ranges:
  Project Version         RPLN01BJ                    Year: 1998-2099
  Build Date and Time     06/20/2024 16:34:54         Months: 1-12
  Access Level            Administrator               Days: Dependent on month
                                                      Range of Years may vary.
  Processor Information
  Name                    RaptorLake ULT
  Type                    13th Gen Intel(R)
                          Core(TM) i5-1335U
  Speed                   1300 MHz

  Total Memory            16384 MB                    →←: Select Screen
  Memory Frequency         5200 MHz                   ↑↓: Select Item
                                                      Enter: Select
  ME FW Version           16.1.25.2020                +/-: Change Opt.
  System Date             [Wed 07/17/2024]            F1: General Help
  System Time             [01:52:53]                  F2: Previous Values
                                                      F9: Optimized Defaults
                                                      F10: Save & Exit
                                                      ESC: Exit


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```

Fig 1

2. Main (standard CMOS setup)
   - This item is used for setting the date and time.
3. 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.
4. Chipset
5. Security (set the administrator/user password)
6. Boot (startup configuration characteristics)
7. Save & Exit (option of exit)
   - This item includes load optimal defaults / load failsafe defaults value / discard changes / discard changes and exit.

Main (Standard CMOS setting)

Main Advanced Security Boot Save & Exit MEBx

BIOS Information
BIOS Vendor   American Megatrends
Core Version   5.27
Project Version   RPLN01BJ
Build Date and Time   06/20/2024 16:34:54
Access Level   Administrator

Processor Information
Name   RaptorLake ULT
Type   13th Gen Intel(R)
                               Core(TM) i5-1335U
Speed   1300 MHz

Total Memory   16384 MB
Memory Frequency   5200 MHz

ME FW Version   16.1.25.2020
System Date   [Wed 07/17/2024]
System Time   [01:52:53]

Set the Date. Use Tab to
switch between Date elements.
Default Ranges:
Year: 1998-2099
Months: 1-12
Days: Dependent on month
Range of Years may vary.

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

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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".

Advanced (Advanced BIOS setup)

Main Advanced Security Boot Save & Exit MEBx

▶ ACPI Setting
▶ CPU Configuration
▶ WAKE Configuration
▶ Trusted Computing
▶ IT8613 Super IO Configuration
▶ HM monitor & Smart fan
▶ System Devices Configuration

ACPI information and
configuration parameters

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

ACPI Setting

Main Advanced Security Boot Save & Exit MEBx

▶ ACPI Setting   ACPI information and
▶ CPU Configuration   configuration parameters
▶ WAKE Configuration
▶ Trusted Computing
▶ IT8613 Super IO Configuration
▶ HM monitor & Smart fan
▶ System Devices Configuration

                                                  ↔: Select Screen
                                                  ↑↓: Select Item
                                                  Enter: Select
                                                  +/-: Change Opt.
                                                  F1: General Help
                                                  F2: Previous Values
                                                  F9: Optimized Defaults
                                                  F10: Save & Exit
                                                  ESC: Exit

Advanced

ACPI Sleep State   [S3 (Suspend to RAM)]   Select the highest ACPI sleep
State After G3   [S5 State]   state the system will enter
JAHC Enable   [Disabled]   when the SUSPEND button is
Eup Support   [Disabled]   pressed.

                                                  ↔: Select Screen
                                                  ↑↓: Select Item
                                                  Enter: Select
                                                  +/-: Change Opt.
                                                  F1: General Help
                                                  F2: Previous Values
                                                  F9: Optimized Defaults
                                                  F10: Save & Exit
                                                  ESC: Exit

▶ ACPI Setting

ACPI Configuration menu	Description
ACPI Sleep State	Select the highest ACPI sleep state the system will enter when SUSPEND button is pressed.
State After G3	State After G3 means after restore power supply. S5 State (Default): If set it as S5 State, it means the system will remain shutdown state S0 State: If set it as S0 State, it means the system will be power on automatically. Last State: If set it as Last State, it means the system will keep State of last setup.
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.

CPU Configuration

```
                        Aptio Setup - AMI
     Main  Advanced  Security  Boot  Save & Exit  MEBx

  ▶ ACPI Setting                                 CPU information and
  ▶ CPU Configuration                            configuration parameters
  ▶ WAKE Configuration
  ▶ Trusted Computing
  ▶ IT8613 Super IO Configuration
  ▶ HM monitor & Smart fan
  ▶ System Devices Configuration


                                                 →←: Select Screen
                                                 ↑↓: Select Item
                                                 Enter: Select
                                                 +/-: Change Opt.
                                                 F1: General Help
                                                 F2: Previous Values
                                                 F9: Optimized Defaults
                                                 F10: Save & Exit
                                                 ESC: Exit



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```
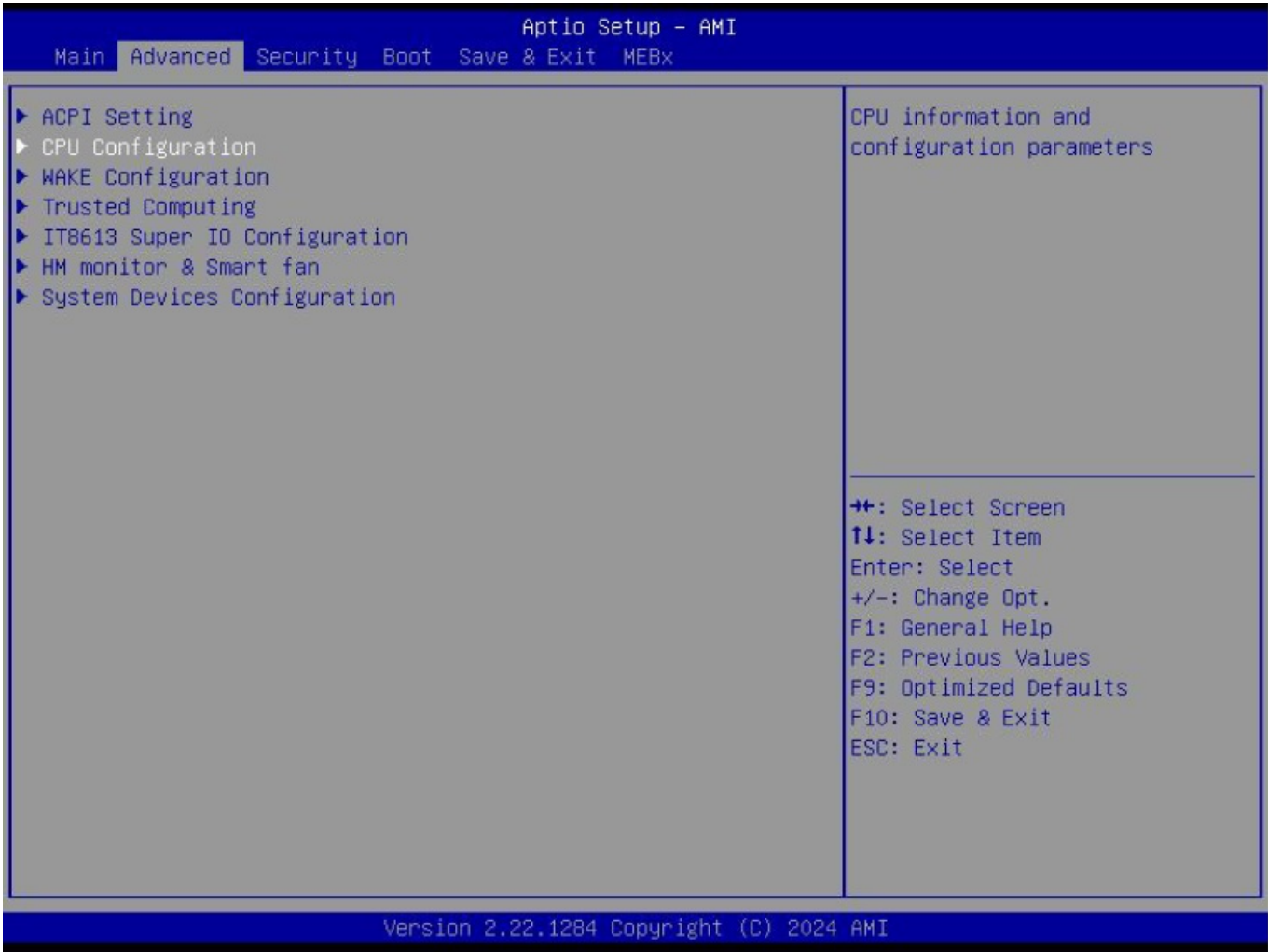
Advanced

CPU Configuration

Type	13th Gen Intel(R) Core(TM) i5-1335U
ID	0xB06A3
Speed	1300 MHz

Efficient-core Information

L1 Data Cache	32 KB x 8
L1 Instruction Cache	64 KB x 8
L2 Cache	2048 KB x 2
L3 Cache	12 MB

Performance-core Information

L1 Data Cache	48 KB x 2
L1 Instruction Cache	32 KB x 2
L2 Cache	1280 KB x 2
L3 Cache	12 MB
VMX	Supported
SMX/TXT	Supported
Boot performance mode	[Turbo Performance]
Intel (VMX) Virtualization Technology	[Enabled]
Intel(R) SpeedStep(tm)	[Enabled]

Select the performance state that the BIOS will set starting from reset vector.

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

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The menu	Description
CPU Configuration	
Boot performance mode	Max Non-Turbo Performance: the best performance. Max Battery. Turbo performance.
Intel (VMX) Virtualization Technology	Intel Virtualization Technology is enabled by default. User can enable and disable the Intel Virtualization Technology function .
Intel R Speed Step tm	Inte l R Speed Step Technology dynamically increases the pr ocessor's frequency as needed by taking advantage of therm al and power headroom to give you a burst of speed when yo u need it, or increased energy efficiency.The option is enabled by default. You can disable the function if it's necessary.
Race To Halt RTH	The Race To Halt RTH function is enable by default. It can ad just the CPU base frequency work in C-state. Optional: C-state.
Intel R Speed Shift Technology	Intel speed shift function is enabled by default. Intel® Speed Shift Technology uses hardware-controlled P-states to deliver dramatically quicker responsiveness with single-threaded, tra nsient (short duration) workloads, such as web browsing, by a llowing the processor to more quickly select its best operating frequency and voltage for optimal performance and power effi ciency.
Hyper-Threading	Intel Hyper-Threading technology is enabled by default. Intel® Hyper-Threading Technology (Intel® HT Technology) delivers t wo processing threads per physical core. Highly threaded app lications can get more work done in parallel, completing tasks sooner.
Turbo Mode	Disabled. Enabled.

WAKE Configuration

Main **Advanced** Security Boot Save & Exit MEBx

▶ ACPI Setting
▶ CPU Configuration
▶ WAKE Configuration
▶ Trusted Computing
▶ IT8613 Super IO Configuration
▶ HM monitor & Smart fan
▶ System Devices Configuration

WAKE Configuration setting

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

Advanced

WAKE Configuration

Wake Up On RLT LAN   [Disabled]
Wakeup By USB KB/MS   [Enabled]
Wake system from S5   [Disabled]

Enabled/Disabled Resume On LAN

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

WAKE Configuration	Description
Wake Up On RLT LAN	Wake On LAN Function.

	Disabled: The WOL is disabled by default. Enabled.
Wake up from USB KB/MS	Enabled/Disabled Wake Up by USB KB/Mouse from S3 Status.
Wake System from S5	The user can set up automatic startup by Fixed Time Enabled. Disabled. The RTC function is disabled by default.

Trusted Computing

```
                         Aptio Setup - AMI
      Main   Advanced   Security   Boot   Save & Exit   MEBx

   ▶ ACPI Setting                                    Trusted Computing Settings
   ▶ CPU Configuration
   ▶ WAKE Configuration
   ▶ Trusted Computing
   ▶ IT8613 Super IO Configuration
   ▶ HM monitor & Smart fan
   ▶ System Devices Configuration


                                                     ▶◀: Select Screen
                                                     ↑↓: Select Item
                                                     Enter: Select
                                                     +/-: Change Opt.
                                                     F1: General Help
                                                     F2: Previous Values
                                                     F9: Optimized Defaults
                                                     F10: Save & Exit
                                                     ESC: Exit


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```

Advanced	

```
TPM 2.0 Device Found
Firmware Version:            600.18
Vendor:                      INTC

Security Device Support      [Enable]
Active PCR banks             SHA256
Available PCR banks          SHA256,SHA384,SM3

SHA256 PCR Bank              [Enabled]
SHA384 PCR Bank              [Disabled]
SM3_256 PCR Bank             [Disabled]

Pending operation            [None]
Platform Hierarchy           [Enabled]
Storage Hierarchy            [Enabled]
Endorsement Hierarchy        [Enabled]
Physical Presence Spec Version  [1.3]
TPM 2.0 InterfaceType        [CRB]
Device Select                [Auto]
```

Enables or Disables BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available.

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

TPM20 Device Found	Description
Firmware Version	TPM FW version is 600.18
Vendor	The vendor is INTC
Security Device Support	Disabled Enabled. This item is enabled by default.
SHA256 PCR Bank	Disabled. Enabled. This item is Enabled by default
SHA384 PCR Bank	Disabled This item is Disabled by default. Enabled.
SM3_256 PCR Bank	Disabled This item is Disabled by default. Enabled.
Pending operation	It includes None and TPM Clear function.
Platform Hierarchy	Disable or Enable the Platform Hierarchy.
Storage Hierarchy	Disable or Enable the Storage Hierarchy.
Endorsement Hierarchy	Disable or Enable the Endorsement Hierarchy.
Physical Presence Spec Version	You can choose 1.2 or 1.3. The version is 1.3 by default.
TPM 20 Interface Type	TPM2.0 Interface Type is CRB by default.
Device Select	You can select TPM1.2 or TPM2.0 or Auto. Auto is set up by default.

IT8786 Super IO Configuration

Main Advanced Security Boot Save & Exit MEBx

▶ ACPI Setting
▶ CPU Configuration
▶ WAKE Configuration
▶ Trusted Computing
▶ IT8613 Super IO Configuration
▶ HM monitor & Smart fan
▶ System Devices Configuration

System Super IO Chip
Parameters.

→←: Select Screen
↑↓: Select Item
Enter: Select
+/−: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

Advanced

IT8613 Super IO Configuration

Super IO Chip   IT8613

▶ Serial Port 1 Configuration

Set Parameters of Serial Port
1 (COMA)

→←: Select Screen
↑↓: Select Item
Enter: Select
+/−: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

Serial Port	Description
Serial Port 1 Configuration	
Device Settings	Set parameters of serial port.IO=3F8H;IRQ=4
Change Settings	Select an optimal settings for super IO device. Auto IO=3F8h; IRQ=4; IO=3F8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2F8h; IRQ=3,4,5,6,7,9,10,11,12; IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12;

HM monitor & Smart Fan

```
                          Aptio Setup - AMI
     Main  Advanced  Security  Boot  Save & Exit  MEBx

   ▶ ACPI Setting                             HM monitor and Smart fan
   ▶ CPU Configuration                        configuration
   ▶ WAKE Configuration
   ▶ Trusted Computing
   ▶ IT8613 Super IO Configuration
   ▶ HM monitor & Smart fan
   ▶ System Devices Configuration




                                              ⁺⁺: Select Screen
                                              ↑↓: Select Item
                                              Enter: Select
                                              +/-: Change Opt.
                                              F1: General Help
                                              F2: Previous Values
                                              F9: Optimized Defaults
                                              F10: Save & Exit
                                              ESC: Exit



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```

```
                              Aptio Setup - AMI
     Advanced

  CPU Temperature                 : +47 °C              System Fan ON/OFF Control
  CPU FAN1                        : 2986 RPM
  System Fan Control              [ON]
  CPU Fan1 Setting
  Smart Fan 1 Mode                [Automatic Mode]
    Fan off temperature limit     16
    Fan start temperature limit   50
    Fan full speed temperature limit  90
    Fan start PWM                 100
    PWM SLOPE SETTING             [4 PWM]

                                                        ++: Select Screen
                                                        ↑↓: Select Item
                                                        Enter: Select
                                                        +/-: Change Opt.
                                                        F1: General Help
                                                        F2: Previous Values
                                                        F9: Optimized Defaults
                                                        F10: Save & Exit
                                                        ESC: Exit

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```
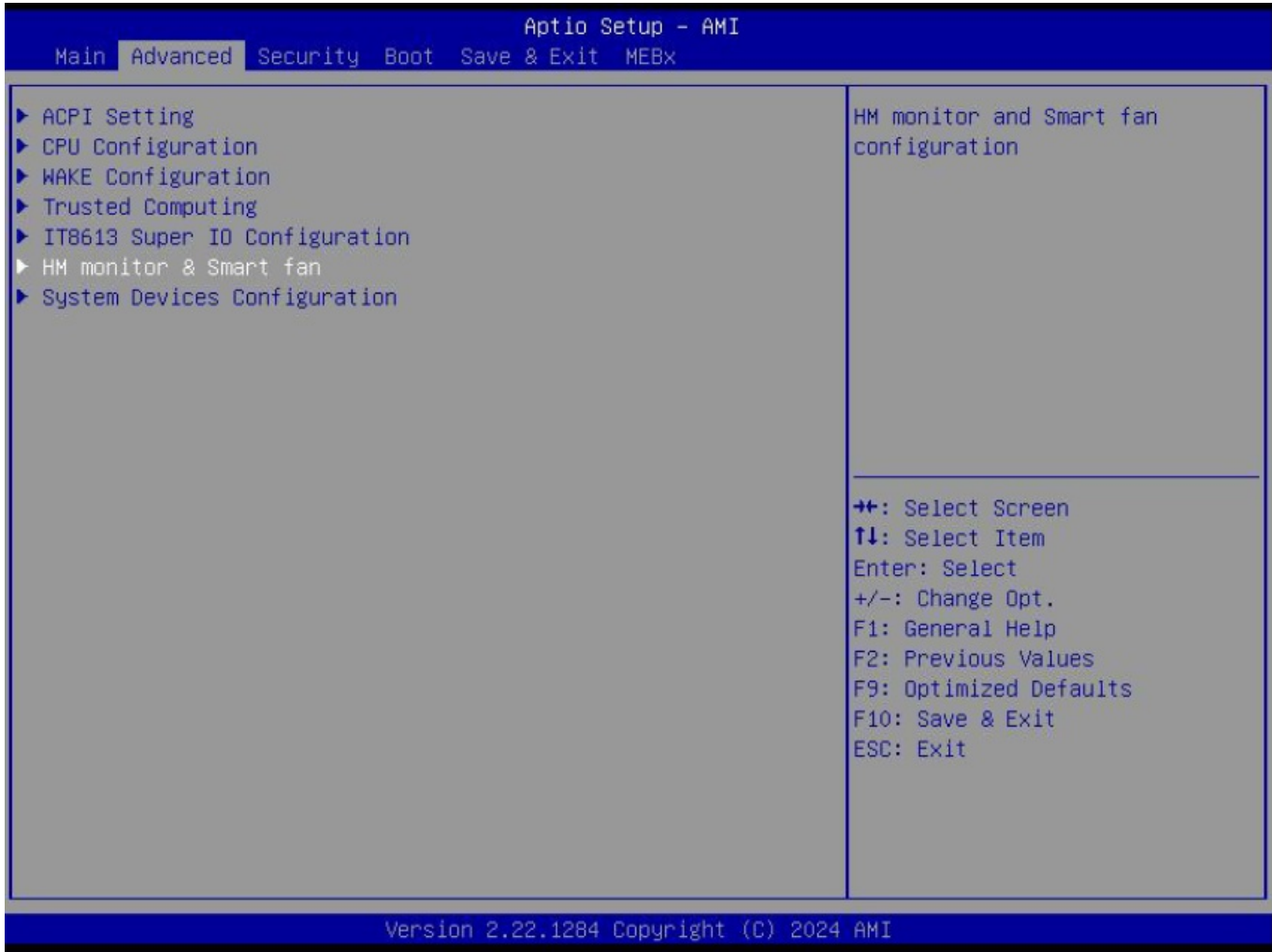
Fan 1 Setting	Description
The Fan1 is used for CPU.	
Smart Fan 1 Mode	It includes "Automatic mode" and "software mode". Automatic mode. Automatic mode is enabled by default. Software mode.
Fan off temperature limit	FAN will stop work If temperature is lower than the Fan off temperature limit value.
Fan start temperature limit	If the temperature is higher than fan off temperature limit, FAN will start work.
Fan Full Speed Temp limit	If the temperature is higher than the FAN Full Speed temp limit value, the FAN will work at full speed.
Fan start PWM	If the temperature is higher than the FAN start PWM value, the FAN will start work.
PWM slope setting	NA

System Devices Configuration

▶ ACPI Setting
▶ CPU Configuration
▶ WAKE Configuration
▶ Trusted Computing
▶ IT8613 Super IO Configuration
▶ HM monitor & Smart fan
▶ System Devices Configuration

Configure Sytem Device related functions

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
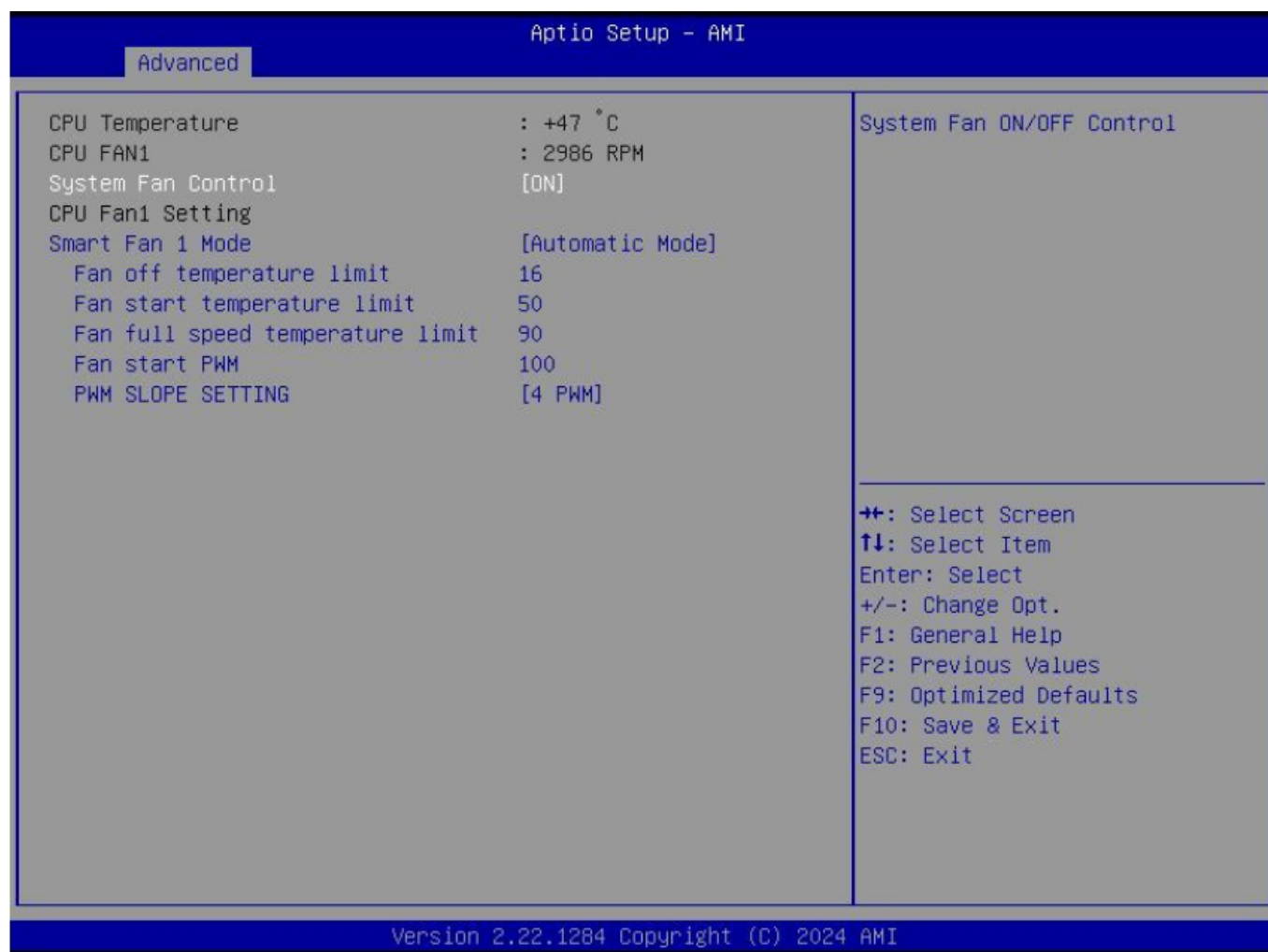F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

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```
                              Aptio Setup - AMI
   Advanced

 SATA Controller(s)                [Enabled]            Enable/Disable SATA Device.
 SATA Mode Selection               [AHCI]
 HD Audio                          [Enabled]
 Network Stack                     [Disabled]




                                                      ↔: Select Screen
                                                      ↑↓: Select Item
                                                      Enter: Select
                                                      +/-: Change Opt.
                                                      F1: General Help
                                                      F2: Previous Values
                                                      F9: Optimized Defaults
                                                      F10: Save & Exit
                                                      ESC: Exit



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```

IDE Configuration menu	Description
Serial ATA(SATA)	SATA Controller. Disabled. Enabled: The SATA controller is enabled by default.
SATA Mode Selection	Determines how SATA controller(s) operate.
HD Audio	Control Detection of the HD Audio device. Disabled = HAD will be unconditionally disabled; Enabled = HAD will be unconditionally enabled. Enabled Disabled
Network Stack	Enabled/Disabled UEFI P×E ROM Enabled Disabled

Security

```
                          Aptio Setup - AMI
    Main  Advanced  Security  Boot  Save & Exit  MEBx

                                                    Set Administrator Password
    Password Description

    If ONLY the Administrator's password is set,
    then this only limits access to Setup and is
    only asked for when entering Setup.
    If ONLY the User's password is set, then this
    is a power on password and must be entered to
    boot or enter Setup. In Setup the User will
    have Administrator rights.
    The password length must be
    in the following range:
    Minimum length                  3
    Maximum length                  20                →←: Select Screen
                                                       ↑↓: Select Item
    Administrator Password                             Enter: Select
    User Password                                      +/-: Change Opt.
                                                       F1: General Help
                                                       F2: Previous Values
    ▶ Secure Boot                                      F9: Optimized Defaults
                                                       F10: Save & Exit
                                                       ESC: Exit



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```
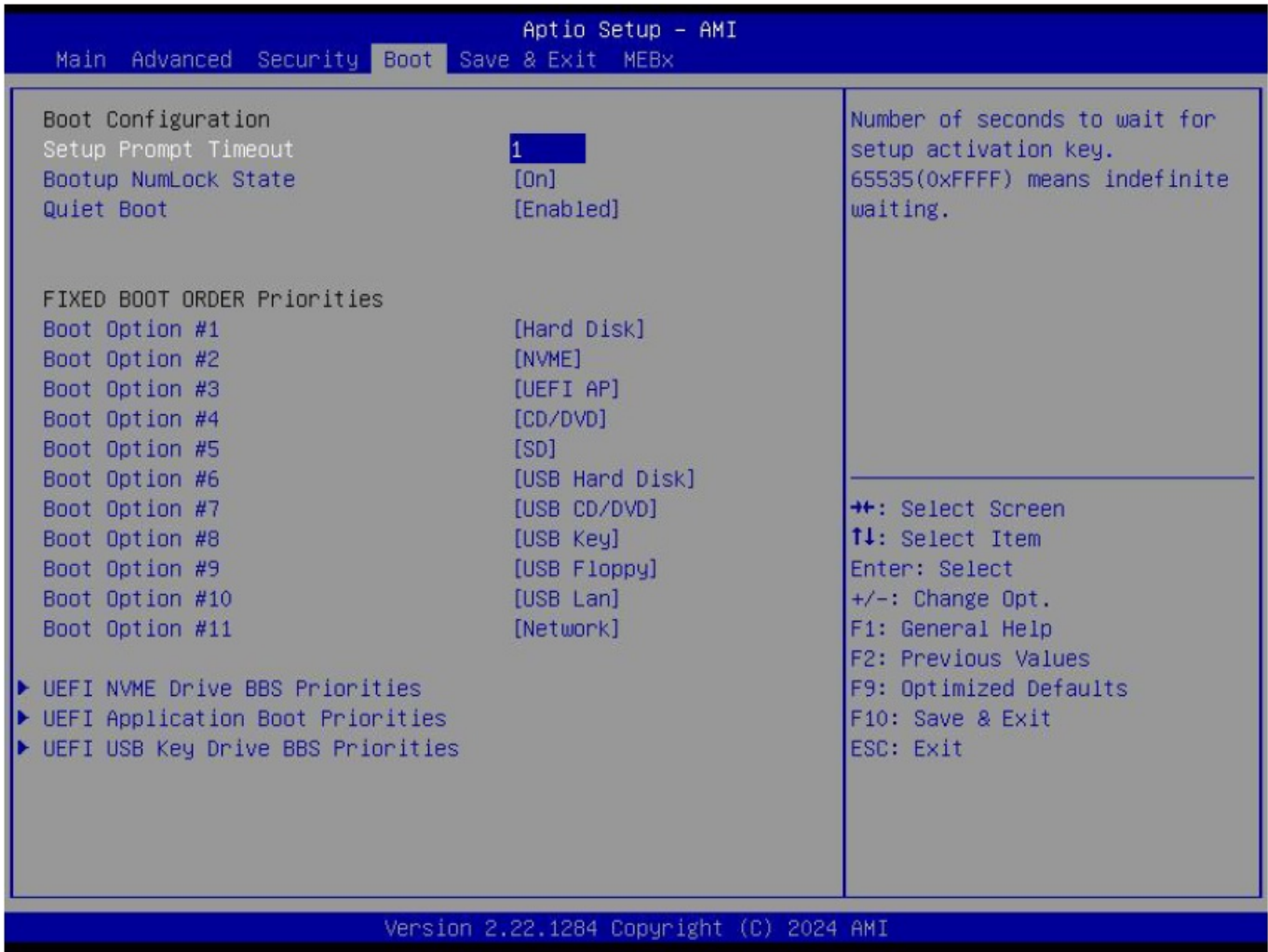
If this function is selected, the following information will appear: Enter New Password hhhhhh
Then enter a password which is no more than eight characters and press <Enter>. BIOS will require to enter the password again.

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.
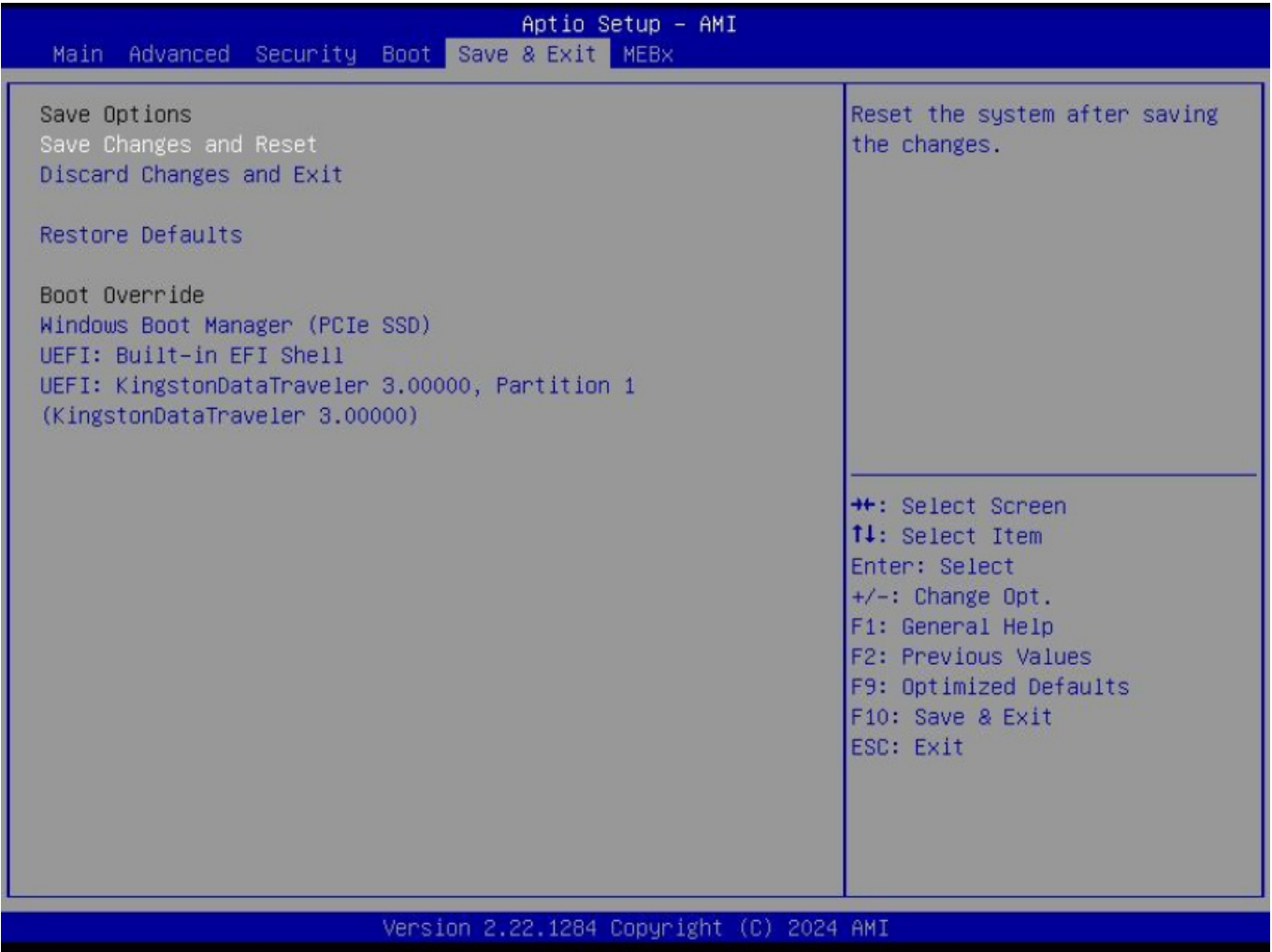
Boot Menu

```
                        Aptio Setup – AMI
   Main   Advanced   Security   Boot   Save & Exit   MEBx

   Boot Configuration                              Number of seconds to wait for
   Setup Prompt Timeout              1             setup activation key.
   Bootup NumLock State              [On]          65535(0xFFFF) means indefinite
   Quiet Boot                        [Enabled]     waiting.


   FIXED BOOT ORDER Priorities
   Boot Option #1                    [Hard Disk]
   Boot Option #2                    [NVME]
   Boot Option #3                    [UEFI AP]
   Boot Option #4                    [CD/DVD]
   Boot Option #5                    [SD]
   Boot Option #6                    [USB Hard Disk]
   Boot Option #7                    [USB CD/DVD]    ↔: Select Screen
   Boot Option #8                    [USB Key]       ↑↓: Select Item
   Boot Option #9                    [USB Floppy]    Enter: Select
   Boot Option #10                   [USB Lan]       +/-: Change Opt.
   Boot Option #11                   [Network]       F1: General Help
                                                     F2: Previous Values
 ▶ UEFI NVME Drive BBS Priorities                    F9: Optimized Defaults
 ▶ UEFI Application Boot Priorities                  F10: Save & Exit
 ▶ UEFI USB Key Drive BBS Priorities                 ESC: Exit




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```

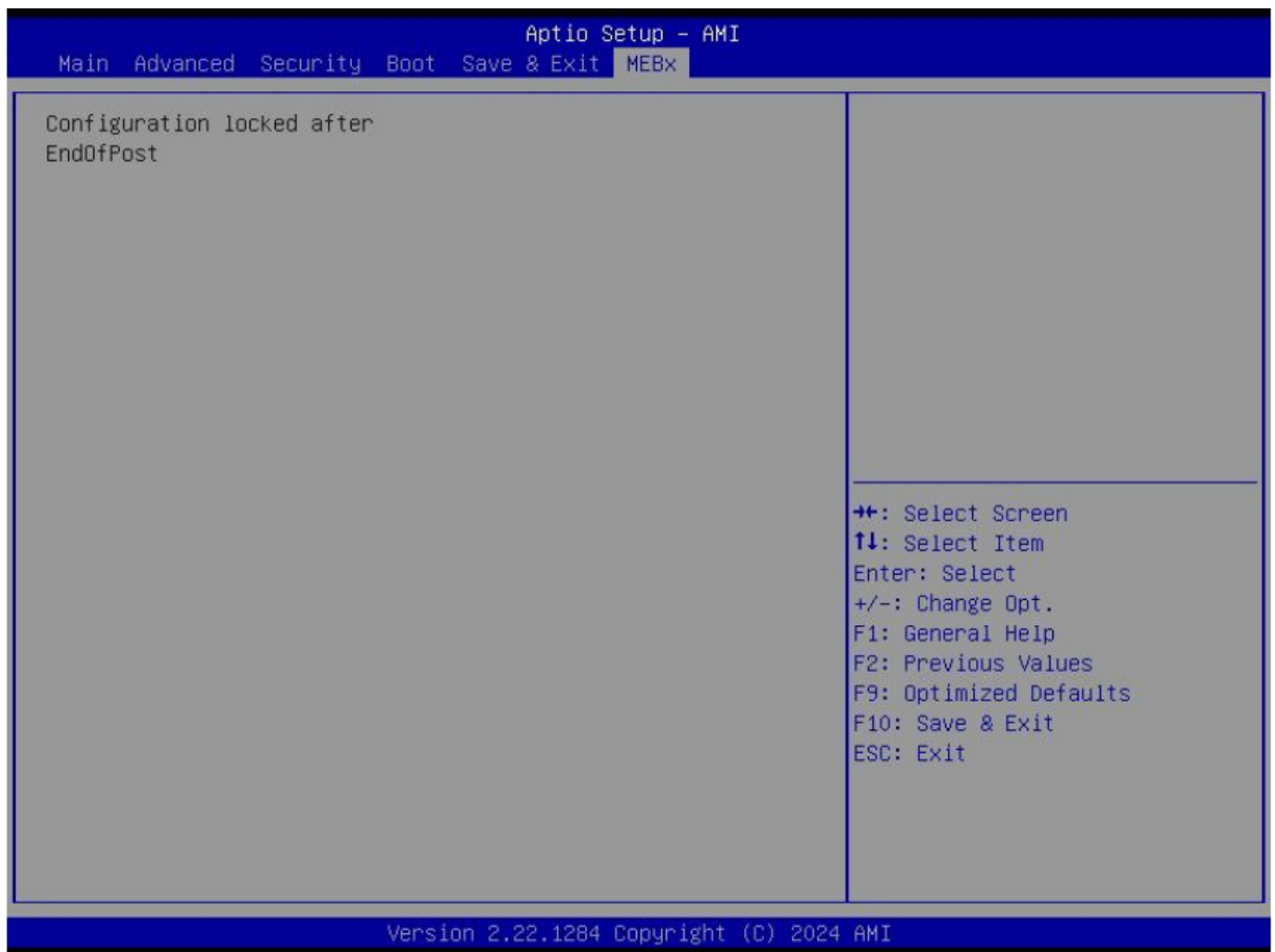| Boot Item	Description
Boot Configuration	
Setup Prompt Timeout	This item is use to set the wait time of entering the operation system. During the BIOS post, if user doesn't press the keyboard, it won't respond unless you reboot the BIOS. The Setup Prompt Timeout is 3s by default. You can set the time as you want.

Boot up Num Lock 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].
FIxED BOOT ORDER 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 Option #2	The second boot device.
Boot Option #3	The third boot device.

Save & Exit

```
                        Aptio Setup - AMI
     Main  Advanced  Security  Boot  Save & Exit  MEBx

   Save Options                             Reset the system after saving
   Save Changes and Reset                   the changes.
   Discard Changes and Exit

   Restore Defaults

   Boot Override
   Windows Boot Manager (PCIe SSD)
   UEFI: Built-in EFI Shell
   UEFI: KingstonDataTraveler 3.00000, Partition 1
   (KingstonDataTraveler 3.00000)

                                            ++: Select Screen
                                            ↑↓: Select Item
                                            Enter: Select
                                            +/-: Change Opt.
                                            F1: General Help
                                            F2: Previous Values
                                            F9: Optimized Defaults
                                            F10: Save & Exit
                                            ESC: Exit




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```

Save Exit Item	Description
Save Options	
Save Changes and Exit	Save all changes and e×it
Discard Changes and Exit	Give up the settings and e×it.
Boot Override	Whole Boot devices

MEBX

```
                              Aptio Setup - AMI
    Main   Advanced   Security   Boot   Save & Exit   MEBx

 Configuration locked after
 EndOfPost

                                                      ++: Select Screen
                                                      ↑↓: Select Item
                                                      Enter: Select
                                                      +/-: Change Opt.
                                                      F1: General Help
                                                      F2: Previous Values
                                                      F9: Optimized Defaults
                                                      F10: Save & Exit
                                                      ESC: Exit



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```

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.
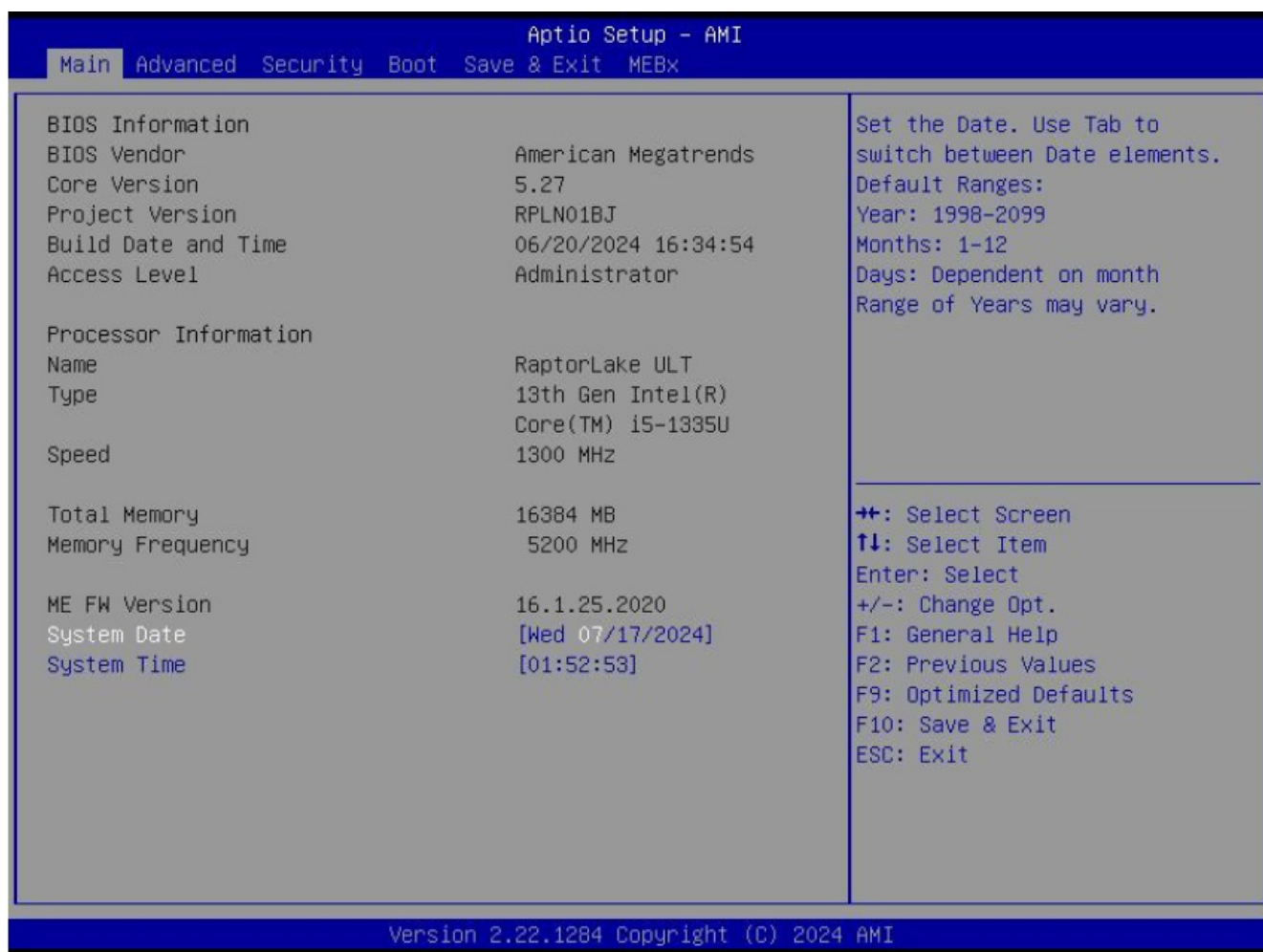3. Watchdog timer. It is a built-in API interface.

How to set up Auto power on function

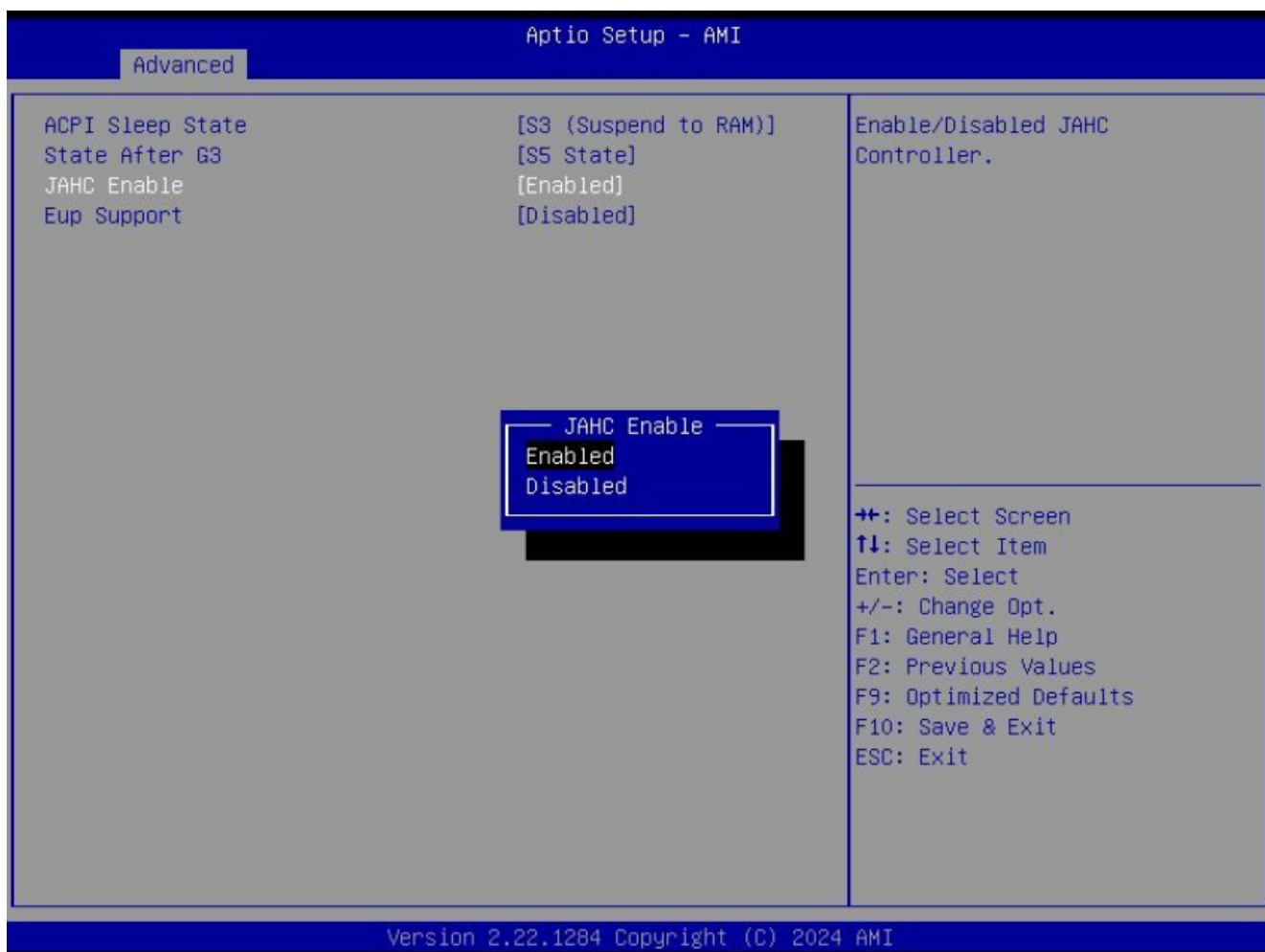**Automatically reboot when power on**

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:
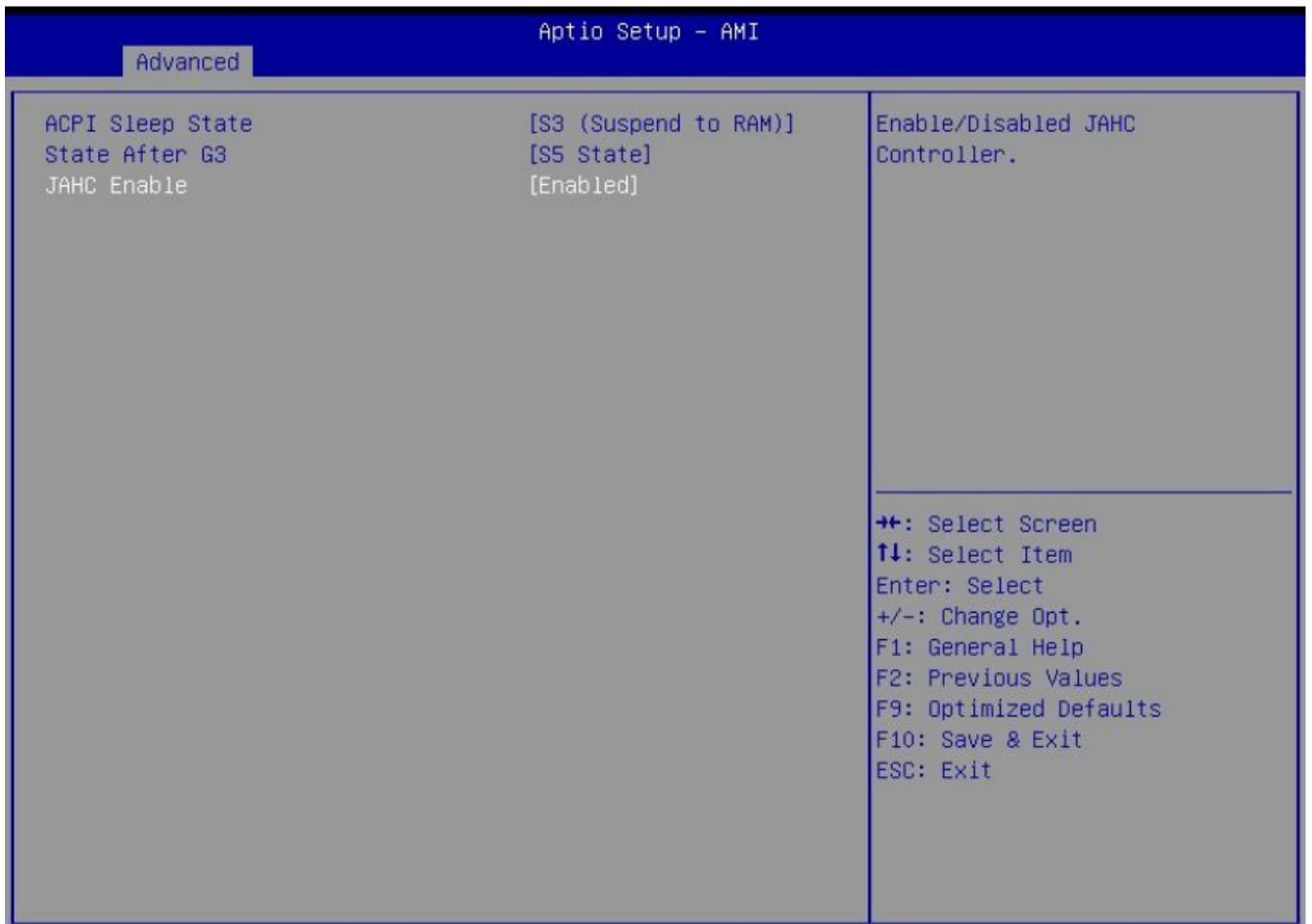
- Turn on the player and continually press 'Del', then it can enter BIOS setup menu.
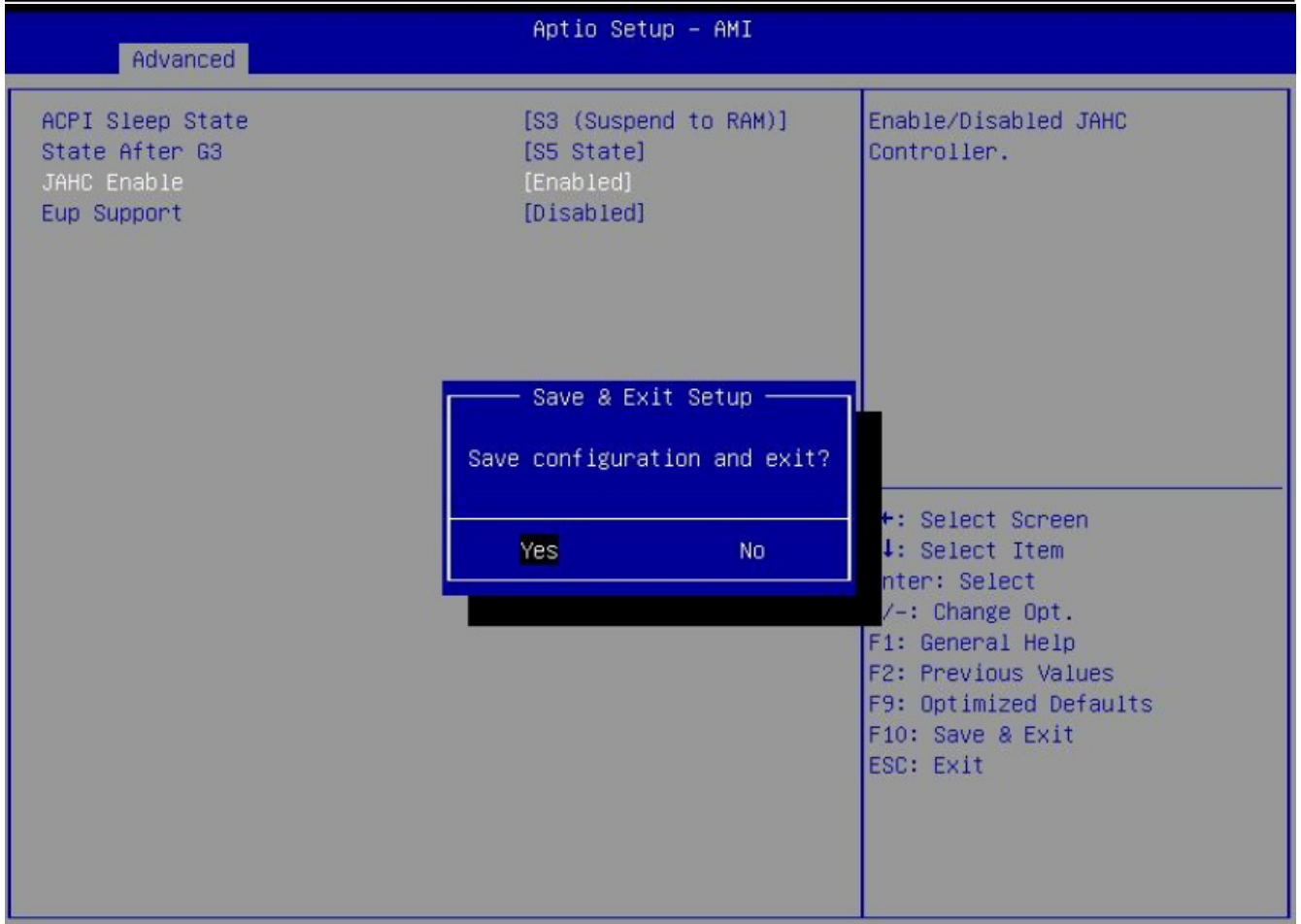
```
                        Aptio Setup - AMI
      Main  Advanced  Security  Boot  Save & Exit  MEBx

BIOS Information                                          Set the Date. Use Tab to
BIOS Vendor              American Megatrends              switch between Date elements.
Core Version             5.27                             Default Ranges:
Project Version          RPLN01BJ                         Year: 1998-2099
Build Date and Time      06/20/2024 16:34:54              Months: 1-12
Access Level             Administrator                    Days: Dependent on month
                                                          Range of Years may vary.
Processor Information
Name                     RaptorLake ULT
Type                     13th Gen Intel(R)
                         Core(TM) i5-1335U
Speed                    1300 MHz
                                                          _____
Total Memory             16384 MB
Memory Frequency          5200 MHz                        ++: Select Screen
                                                          ↑↓: Select Item
                                                          Enter: Select
ME FW Version            16.1.25.2020                     +/-: Change Opt.
System Date             [Wed 07/17/2024]                  F1: General Help
System Time             [01:52:53]                        F2: Previous Values
                                                          F9: Optimized Defaults
                                                          F10: Save & Exit
                                                          ESC: Exit



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```

- Select Advanced- > ACPI Setting- > JAHC Enable- > Enabled.

```
                        Aptio Setup - AMI
      Advanced

ACPI Sleep State            [S3 (Suspend to RAM)]         Enable/Disabled JAHC
State After G3              [S5 State]                     Controller.
JAHC Enable                [Enabled]
Eup Support                [Disabled]




                        ┌─── JAHC Enable ───┐
                        │ Enabled           │
                        │ Disabled          │
                        └───────────────────┘
                                                          _____

                                                          ++: Select Screen
                                                          ↑↓: Select Item
                                                          Enter: Select
                                                          +/-: Change Opt.
                                                          F1: General Help
                                                          F2: Previous Values
                                                          F9: Optimized Defaults
                                                          F10: Save & Exit
                                                          ESC: Exit



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```

- Press "F10" to save change & exit after select "JAHC enabled" option.

```
                          Aptio Setup - AMI
        Advanced

     ACPI Sleep State              [S3 (Suspend to RAM)]     Enable/Disabled JAHC
     State After G3                [S5 State]                Controller.
     JAHC Enable                   [Enabled]




                                                            →←: Select Screen
                                                            ↑↓: Select Item
                                                            Enter: Select
                                                            +/-: Change Opt.
                                                            F1: General Help
                                                            F2: Previous Values
                                                            F9: Optimized Defaults
                                                            F10: Save & Exit
                                                            ESC: Exit




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                          Aptio Setup - AMI
        Advanced

     ACPI Sleep State              [S3 (Suspend to RAM)]     Enable/Disabled JAHC
     State After G3                [S5 State]                Controller.
     JAHC Enable                   [Enabled]
     Eup Support                   [Disabled]




                    ┌─────── Save & Exit Setup ───────┐
                    │                                  │
                    │   Save configuration and exit?   │
                    │                                  │
                    │                                  │
                    │   Yes                   No       │  : Select Screen
                    └──────────────────────────────────┘  : Select Item
                                                            nter: Select
                                                            /-: Change Opt.
                                                            F1: General Help
                                                            F2: Previous Values
                                                            F9: Optimized Defaults
                                                            F10: Save & Exit
                                                            ESC: Exit




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```

JAHC software

JAHC software functions

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

JAHC software installation guide

System Requirements:

- Giada player with JAHC function.
- Switch the JAHC button to "on" or enable it in BIOS if there is no physical button on the chassis.
- 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:

- Double-click the JAHC.EXE file, the setup wizard will pop up, select destination location and click [Next] button to continue the installation.
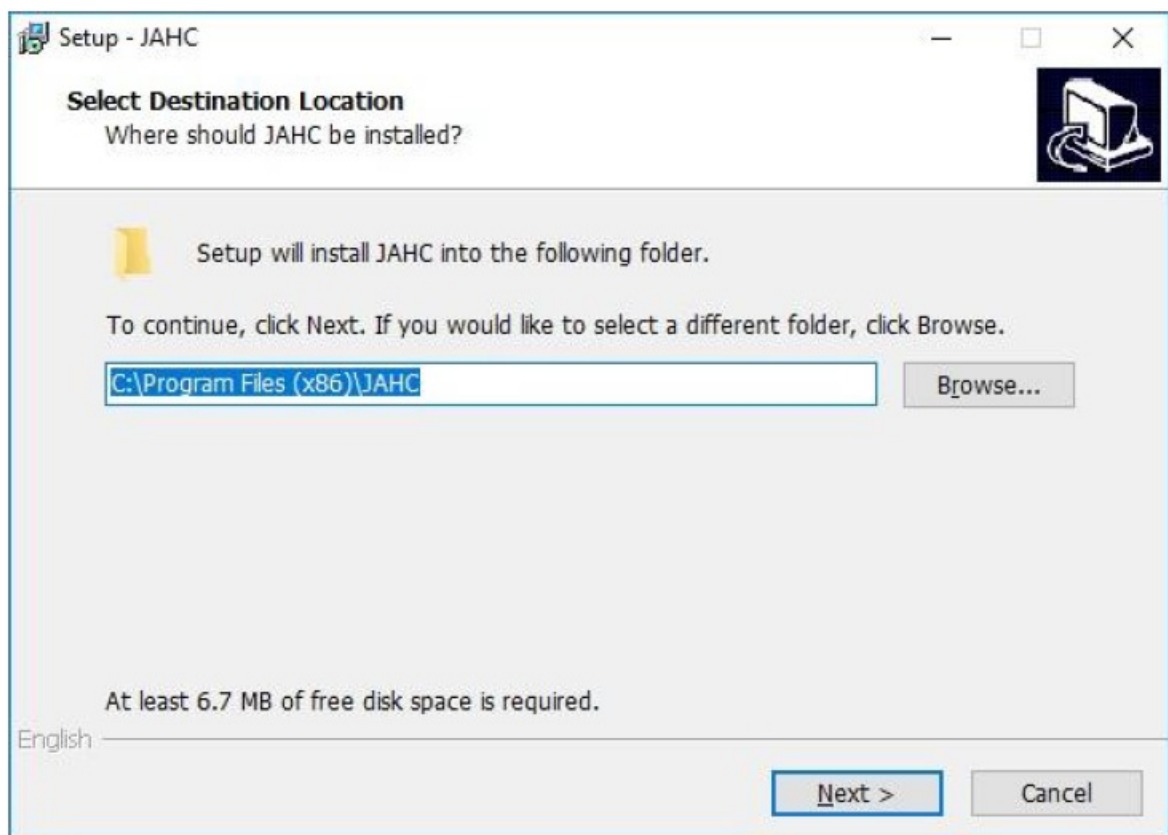
- Click [Next] button to continue the installation.
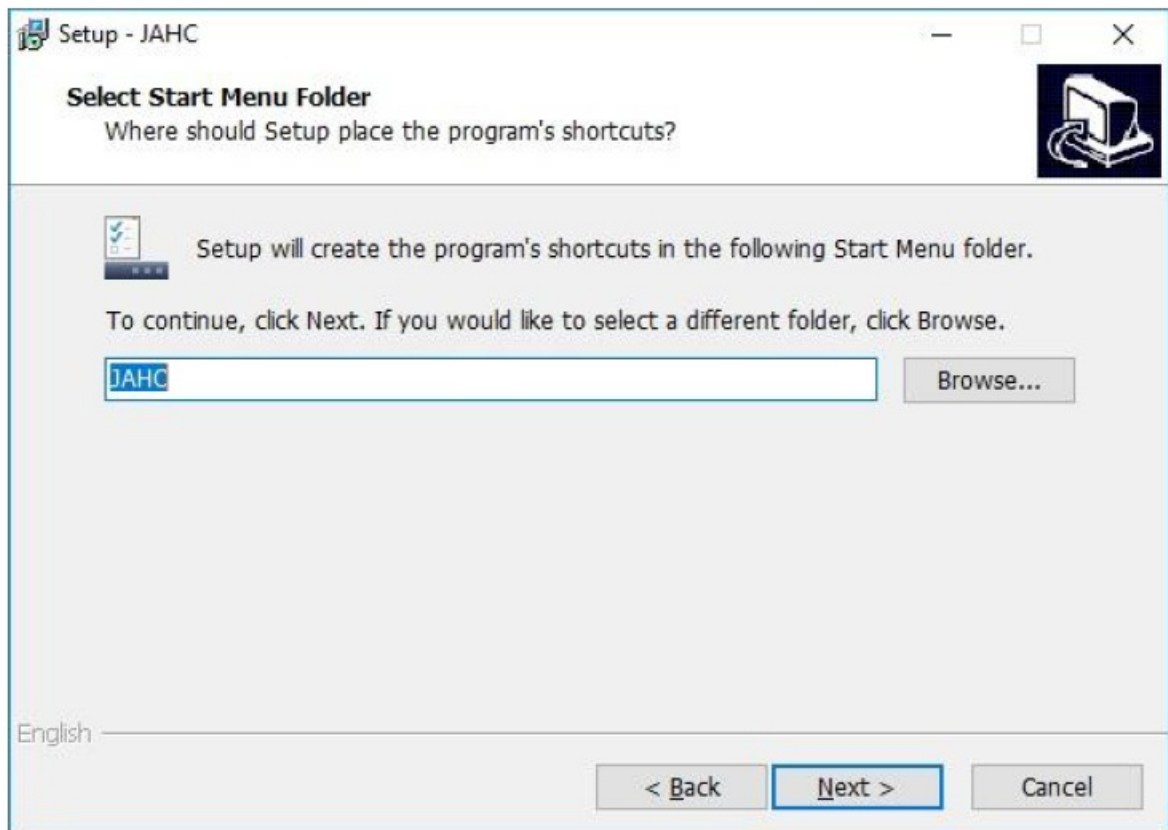
- Select [Create a desktop shortcut] and click [Next] button.
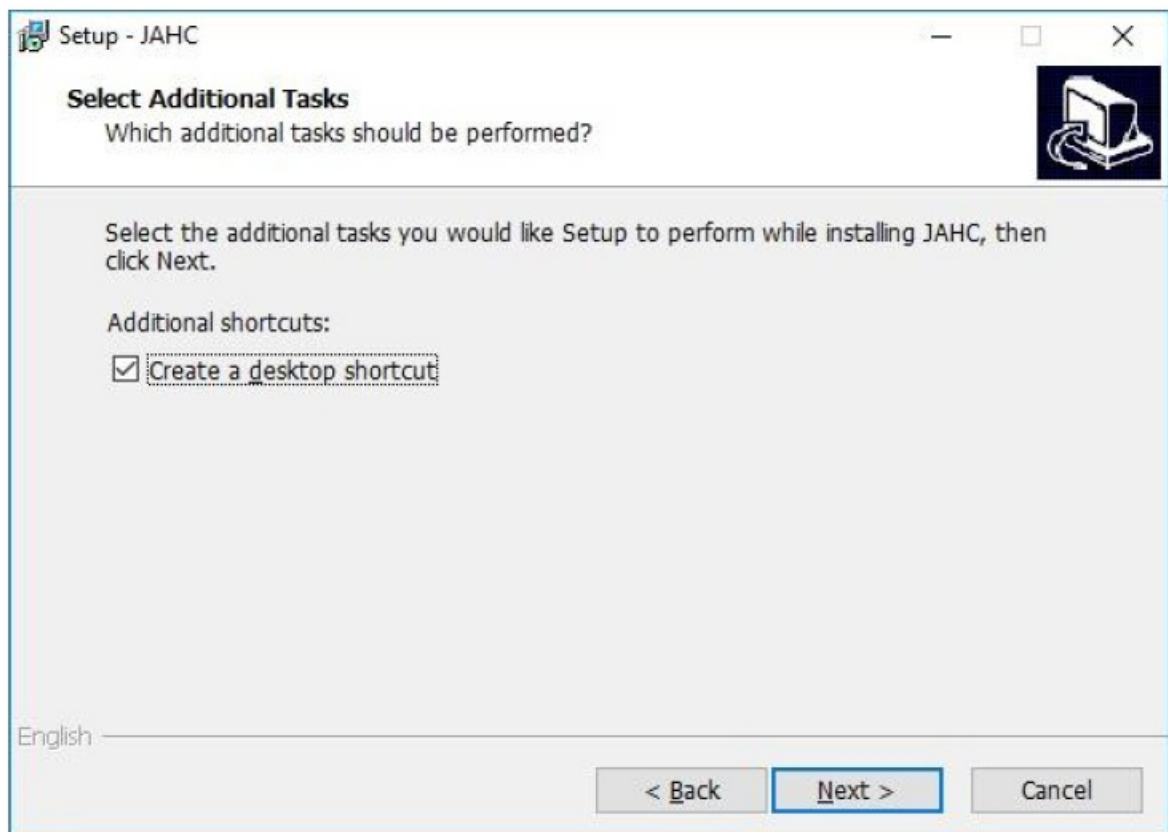
- Click [Install] button to continue the installation.
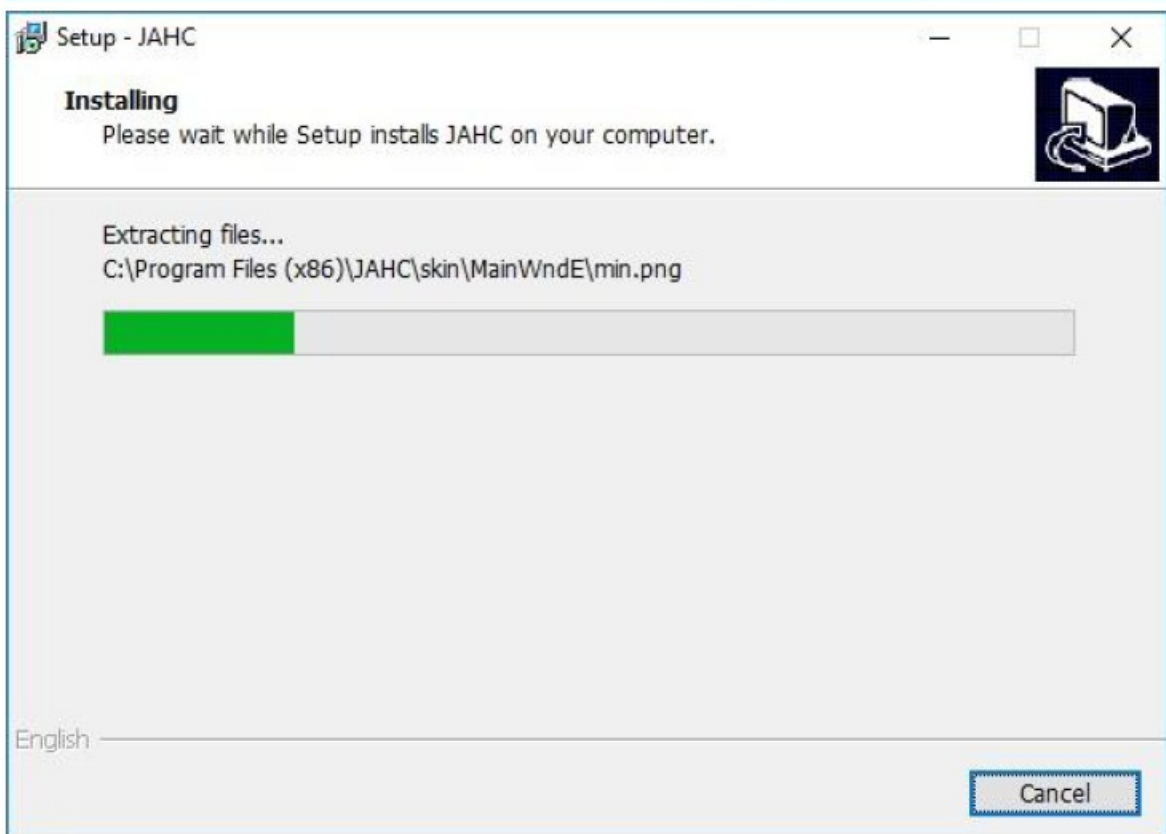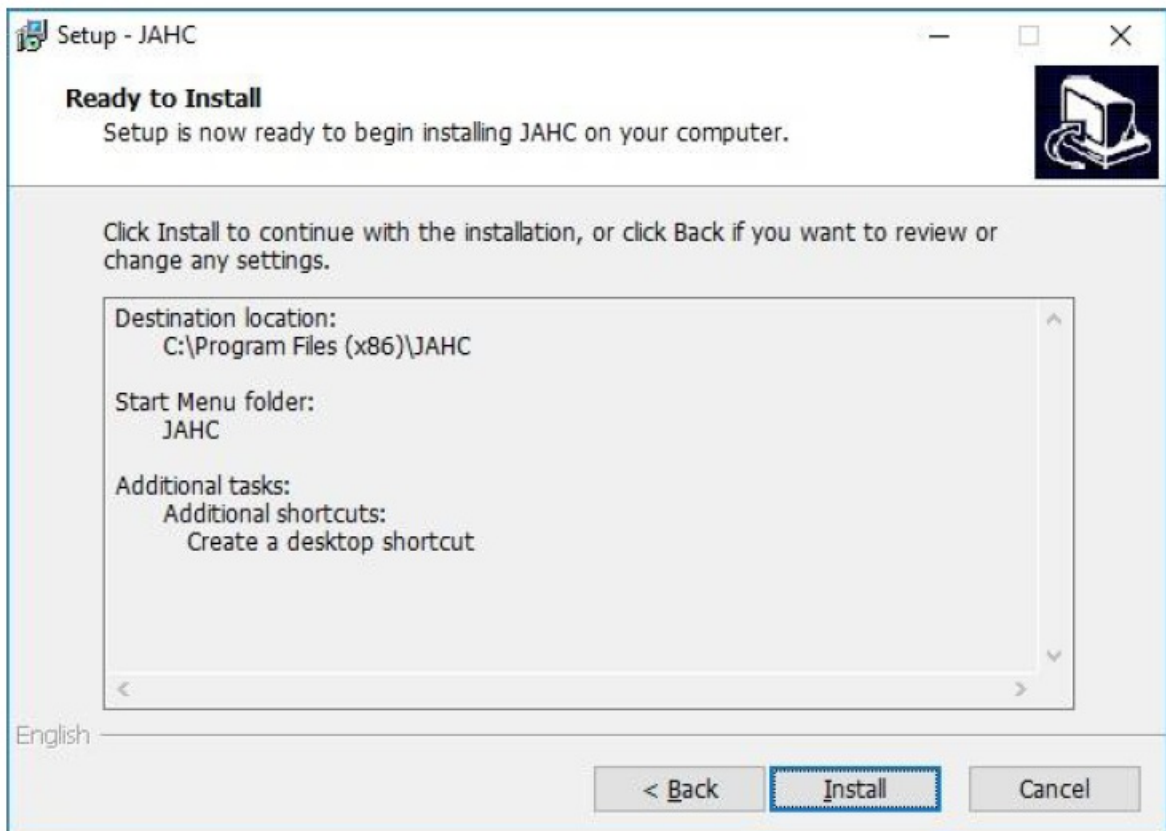
- Click [Finish] button to finish the installation. You can select [Launch JAHC] to run the software automatically after finishing the installation.

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

Startup & shutdown time setup

- After install the JAHC software, double click the JAHC icon on taskbar and the setup menu will pop up.
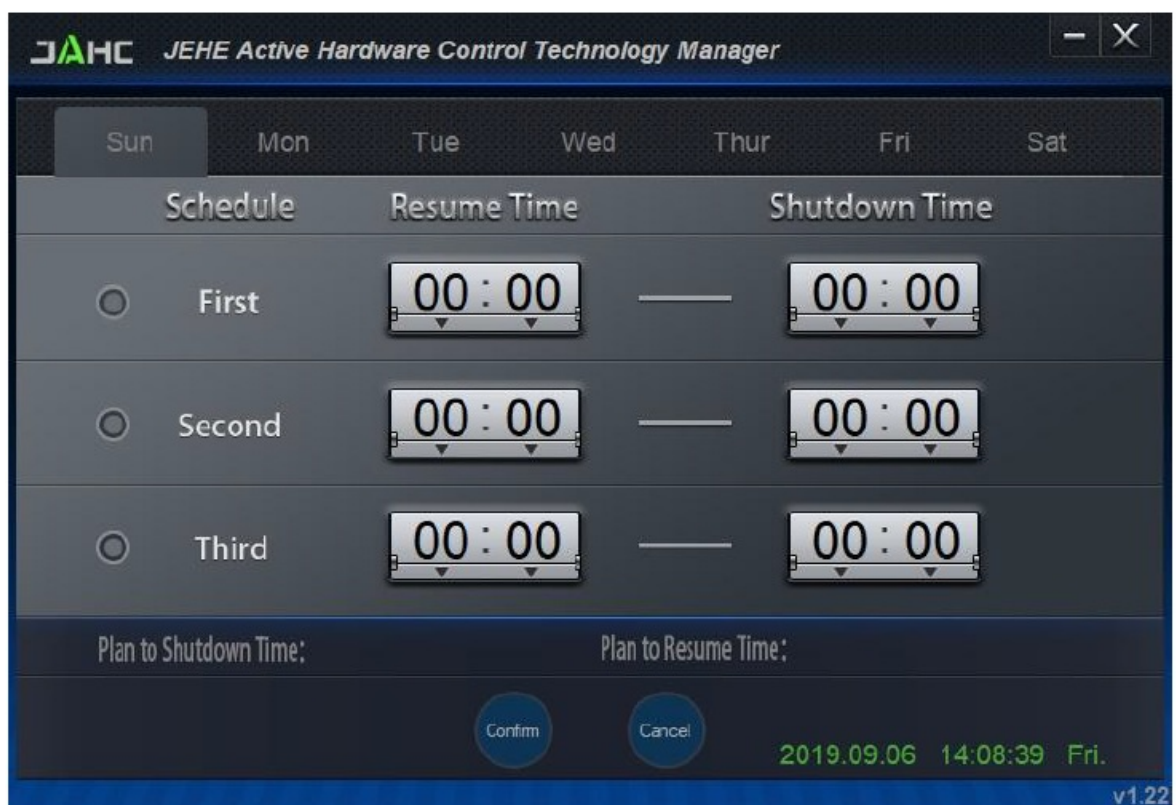
- One week as a circle, maximum 3 schedules per day. Select each schedule to set up the resume time and shutdown time. Click [Confirm] button to launch the schedule.

- 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 [×] 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.
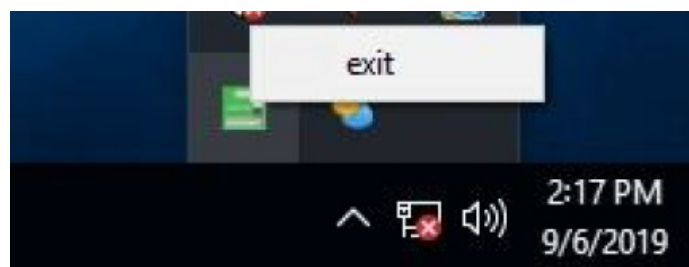
- Shutdown caution: the shutdown caution will pop up before the system shutdown.
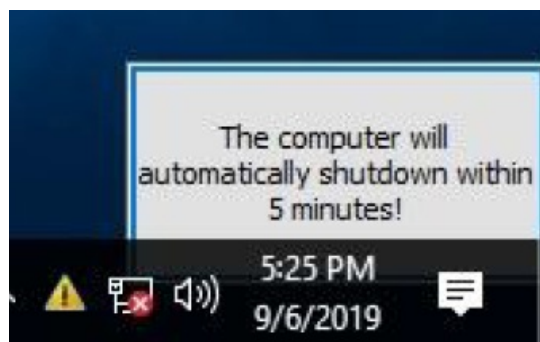
- You can double click the message window and a new dialog box will pop up.
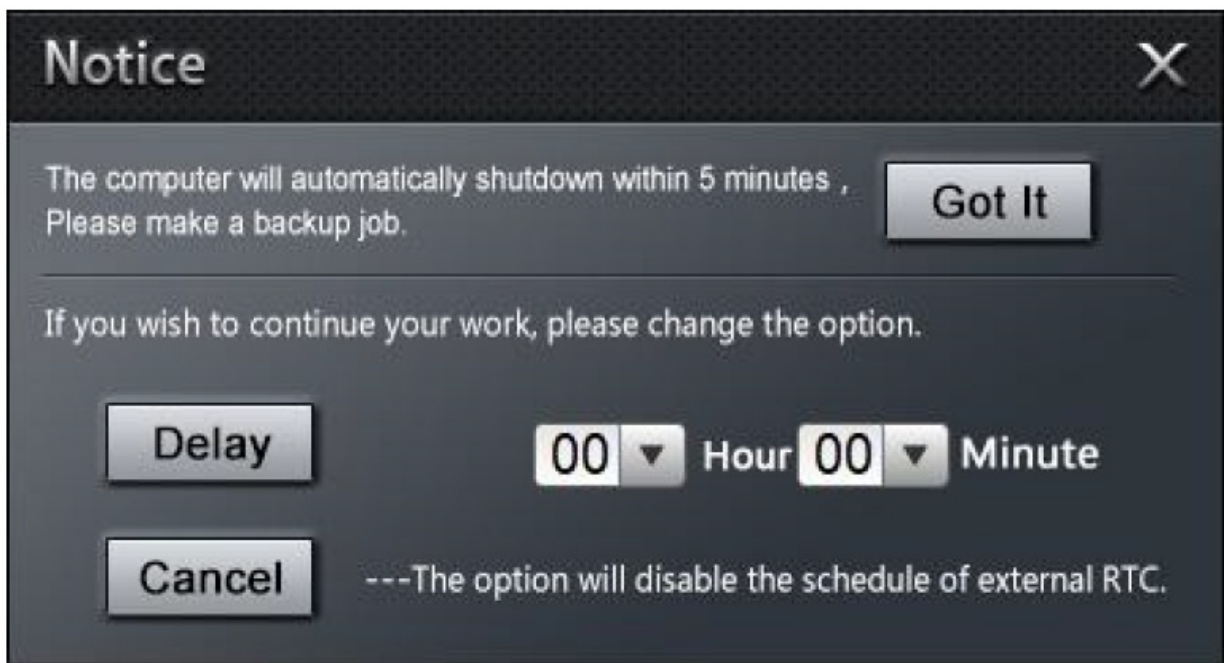
- You can click [Delay] button and set up the time to delay the shutdown or click [Cancel] button to cancel the shutdown.

Watchdog API and instruction

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

Contact

- Shenzhen JIEHE Technology Development Co., Ltd.
- **Website: www.giadatech.com**
- **Phone:** +86-755-33300336
- **Email: support@giadatech.com**
- **Address:** 1~2/F, Block A, Tsinghua Information Harbor, North Section, Shenzhen Hi-tech Park, Nanshan District, Shenzhen, China

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Documents / Resources

 Giada SDM-L613 Intel 13th Gen CPU Smart Display [pdf] User Manual
SDM-L613 Intel 13th Gen CPU Smart Display, SDM-L613, Intel 13th Gen CPU Smart Display, CPU Smart Display, Smart Display, Display

References

- **G Giada Technology | Professional Digital Signage Media Players**
- **User Manual**