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# SDM-L613 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**

## **1.1 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.

## **1.2 Motherboard Picture**



## 1.3 Spec

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

	GPU	Intel <sup>®</sup> UHD Graphics (Core i3)	
Oranhiaa	GPU	Intel <sup>®</sup> IRIS <sup>®</sup> Xe Graphics (Core i5, Core i7)	
Graphics	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)	
	Controller	1 x Intel <sup>®</sup> Ethernet Controller I225-LM	
Network	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	
		1 x USB Type-C3.2 Gen1,	
	000	2 x USB3.2 Gen2, 2 x USB2.0	
	Serial Port	NA	
	Audio	1 × MIC-IN, 1 × AUDIO-OUT	
I/O Interface	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	
ТРМ	PM Optional: TPM2.0		
JAHC	Watchdog Timer / Auto pov	wer on / RTC	
Power	DC-IN, 12 V		
Requirement	SDM IO: 12 V		
Machanical	Construction	Metal	
wechanical	Dimensions	175mm x 110mm (6.89" x 4.33" )	
Operation System	Windows 11 (64bit) / Linux	11 (64bit) / Linux Ubuntu (64bit)	
	Operating Temperature	0°C ~ 60°C (32°F ~ 113°F) @0.7m/s Air Flow	
Environment	Storage Temperature	-20°C ~ 75°C (-4 ~ 167°F)	
	Humidity	95% @ 60°C (non-condensing)	

## 2. Hardware Usage Instruction

## 2.1 Dimension Chart



### 2.2 Interface Definition

## 2.2.1 Board Jumper, Header And Interface Diagram



## **3. Accessories Installation Steps**

▲ For safety reasons, please ensure that the board is disconnected from power before installation.



## 3.1 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.



### 3.2 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.



## 3.3 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.





## 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 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.

#### **B.** Function Keys definitions

Hot Key	Description
1	(Up key) Move to the previous item
$\downarrow$	(Down key) Move to the next item
$\leftarrow$	(Left key) Move to the left item
$\rightarrow$	(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

#### 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 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 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.

Main Advanced Security Boot	Aptio Setup – AMI Save & Exit MEBx	
BIOS Information BIOS Vendor Core Version Project Version Build Date and Time Access Level	American Megatrends 5.27 RPLN01BJ 06/20/2024 16:34:54 Administrator	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 yary.
Processor Information Name Type Speed	RaptorLake ULT 13th Gen Intel(R) Core(TM) i5–1335U 1300 MHz	
Total Memory Memory Frequency	16384 MB 5200 MHz	++: Select Screen 14: Select Item Enter: Select
ME FW Version System Date System Time	16.1.25.2020 [Wed 07/17/2024] [01:52:53]	+/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
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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.

## 4.1 Main (Standard CMOS setting)

Main Advanced Security Boot	Aptio Setup – AMI Save & Exit MEBx	
BIDS Information BIDS Vendor Core Version Project Version Build Date and Time Access Level	American Megatrends 5.27 RPLN01BJ 06/20/2024 16:34:54 Administrator	Set the Date. Use Tab to switch between Date elements. Default Ranges: Year: 1998-2099 Months: 1-12 Days: Dependent on month Bange of Years may yeary
Processor Information		Hange of fears may vary.
Name Type Speed	RaptorLake ULT 13th Gen Intel(R) Core(TM) i5–1335U 1300 MHz	
Total Memory Memory Frequency	16384 MB 5200 MHz	++: Select Screen 14: Select Item Enter: Select
ME FW Version	16.1.25.2020	+/-: Change Opt.
System Date System Time	[Wed 07/17/2024] [01:52:53]	F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
L	ion 2 22 1284 Conunight (C) 2	0.94 AMT
VEI's	100 C.CC.1204 Cobartant (C) C	VCA NNL

#### 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)

Aptio Setup – AMI Main Advanced Security Boot Save & Exit MEBx	
<ul> <li>ACPI Setting</li> <li>CPU Configuration</li> <li>WAKE Configuration</li> <li>Trusted Computing</li> <li>IT8613 Super IO Configuration</li> <li>HM monitor &amp; Smart fan</li> <li>System Devices Configuration</li> </ul>	ACPI information and configuration parameters ++: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help
	F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
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#### 4.2.1 ACPI Setting

Main Advanced Security Boot	Aptio Setup – AMI ave & Exit MEBx	
<ul> <li>ACPI Setting</li> <li>CPU Configuration</li> <li>WAKE Configuration</li> <li>Trusted Computing</li> <li>IT8613 Super IO Configuration</li> <li>HM monitor &amp; Smart fan</li> <li>System Devices Configuration</li> </ul>		ACPI information and configuration parameters ++: Select Screen fl: 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	Aptio Setup — AMI	
ACPI Sleep State State After G3 JAHC Enable Eup Support	[S3 (Suspend to RAM)] [S5 State] [Disabled] [Disabled]	Select the highest ACPI sleep state the system will enter when the SUSPEND button is pressed. ++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
	Venetice 0 00 1001 Comunisht (0) 00	04 AUT

ACPI Configuration menu	Description	
ACPI Sleep State	<ul> <li>Select the highest ACPI sleep state the system will enter when SUSPEND button is pressed.</li> </ul>	
State After G3	<ul> <li>State After G3 means after restore power supply.</li> <li>S5 State (Default): If set it as S5 State, it means the system will remain shutdown state</li> <li>S0 State: If set it as S0 State, it means the system will be power on automatically.</li> <li>Last State: If set it as Last State, it means the system will keep State of last setup.</li> </ul>	
JAHC Enabled	<ul> <li>JIEHE Active Hardware Control (JAHC) management system includes both hardware Micro</li> <li>Control Unit (MCU) and software (JAHC Technology Manager).</li> <li>Disabled: The JAHC is disable by default.</li> <li>Enabled.</li> </ul>	

#### 4.2.2 CPU Configuration

Aptio Setup – AMI Main <mark>Advanced</mark> Security Boot Save & Exit MEBx	
<ul> <li>ACPI Setting</li> <li>CPU Configuration</li> <li>MAKE Configuration</li> <li>Trusted Computing</li> <li>IT8613 Super IO Configuration</li> <li>HM monitor &amp; Smart fan</li> <li>System Devices Configuration</li> </ul>	CPU information and configuration parameters **: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
	A MARK

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Advanced	Aptio Setup – AMI	
CPU Configuration		Select the performance state that the BIOS will set
Туре	13th Gen Intel(R)	starting from reset vector.
	Core(TM) i5—1335U	
ID	0×B06A3	
Speed	1300 MHz	
Efficient-core Information		
L1 Data Cache	32 KB x 8	
L1 Instruction Cache	64 KB × 8	
L2 Cache	2048 KB x 2	
L3 Cache	12 MB	
Performance-core Information		
		→+: Select Screen
L1 Data Cache	48 KB x 2	↑↓: Select Item
L1 Instruction Cache	32 KB × 2	Enter: Select
L2 Cache	1280 KB × 2	+/-: Change Opt.
L3 Cache	12 MB	F1: General Help
VMX	Supported	F2: Previous Values
SMX/TXT	Supported	F9: Optimized Defaults
Boot performance mode	[Turbo Performance]	FIG: Save & Exit
Intel (VMX) Virtualization	[Enabled]	LOOP LITTE
Technology		
Intel(R) SpeedStep(tm)	[Enabled]	▼
Vopois	up 2 22 1204 Conunidht (P) 5	0.94 OMT

The menu	Description	
CPU Configuration		
Boot performance mode	<ul> <li>Ma× Non-Turbo Performance: the best performance.</li> <li>Ma× Battery.</li> <li>Turbo performance.</li> </ul>	
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)	Intel (R) Speed Step Technology dynamically increases the processor's frequency as needed by taking advantage of thermal and power headroom to give you a burst of speed when you 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 adjust 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 <sup>®</sup> Speed Shift Technology uses hardware-controlled P-states to deliver dramatically quicker responsiveness with single-threaded, transient (short duration) workloads, such as web browsing, by allowing the processor to more quickly select its best operating frequency and voltage for optimal performance and power efficiency.	
Hyper-Threading	Intel Hyper-Threading technology is enabled by default. Intel <sup>®</sup> Hyper-Threading Technology (Intel <sup>®</sup> HT Technology) delivers two processing threads per physical core. Highly threaded applications can get more work done in parallel, completing tasks sooner.	
Turbo Mode	<ul><li>Disabled.</li><li>Enabled.</li></ul>	

#### 4.2.3 WAKE Configuration

Aptio Setup – AM. Main <mark>Advanced</mark> Security Boot Save & Exit MEBx	I
<ul> <li>ACPI Setting</li> <li>CPU Configuration</li> <li>WAKE Configuration</li> <li>Trusted Computing</li> <li>IT8613 Super IO Configuration</li> <li>HM monitor &amp; Smart fan</li> <li>System Devices Configuration</li> </ul>	WAKE Configuration setting ++: Select Screen 1: Select Item Enter: Select +/-: Change Opt. Fi: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
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Aptio Setup – AM	I

Advanced	Aptio Setup – AMI	
HAKE Configuration Hake Up On RLT LAN Wakeup By USB KB/MS Wake system from S5	[Disabled] [Enabled] [Disabled]	Enabled/Disabled Resume On LAN
		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.

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

#### 4.2.4 Trusted Computing

Aptio Setup – AMI Main <mark>Advanced</mark> Security Boot Save & Exit MEBx	
<ul> <li>ACPI Setting</li> <li>CPU Configuration</li> <li>WAKE Configuration</li> <li>Trusted Computing</li> <li>IT8613 Super IO Configuration</li> <li>HM monitor &amp; Smart fan</li> <li>System Devices Configuration</li> </ul>	Trusted Computing Settings ++: Select Screen 11: 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	Aptio Setup — AMI	
TPM 2.0 Device Found Firmware Version: Vendor: Security Device Support Active PCR banks Available PCR banks SHA256 PCR Bank SHA384 PCR Bank SM3_256 PCR Bank	600.18 INTC [Enable] SHA256 SHA256,SHA384,SM3 [Enabled] [Disabled] [Disabled]	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.
Pending operation Platform Hierarchy Storage Hierarchy Endorsement Hierarchy Physical Presence Spec Version TPM 2.0 InterfaceType Device Select	[None] [Enabled] [Enabled] [Inabled] [1.3] [CRB] [Auto]	<pre> ++: Select Screen  14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save &amp; Exit ESC: Exit</pre>
Version	2 22 1284 Conveight (C) 2	124 AMT

TPM20 Device Found	Description	
Firmware Version	• TPM FW version is 600.18	
Vendor	The vendor is INTC	
Security Device Support	<ul><li>Disabled</li><li>Enabled. This item is enabled by default.</li></ul>	
SHA256 PCR Bank	<ul><li>Disabled.</li><li>Enabled. This item is Enabled by default</li></ul>	
SHA384 PCR Bank	<ul><li>Disabled This item is Disabled by default.</li><li>Enabled.</li></ul>	
SM3_256 PCR Bank	<ul><li>Disabled This item is Disabled by default.</li><li>Enabled.</li></ul>	
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.	

#### 4.2.5 IT8786 Super IO Configuration

Main Advanced Security Boot	Aptio Setup – AMI ave & Exit MEBx
<ul> <li>ACPI Setting</li> <li>CPU Configuration</li> <li>WAKE Configuration</li> <li>Trusted Computing</li> <li>IT8613 Super IO Configuration</li> <li>HM monitor &amp; Smart fan</li> <li>System Devices Configuration</li> </ul>	System Super ID Chip Parameters. ++: Select Screen 14: 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	Hptio Setup - HMi	
IT8613 Super IO Configuration		Set Parameters of Serial Port
Super IO Chip ▶ Serial Port 1 Configuration	IT8613	I (CUMH)
		<pre> ++: Select Screen  11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save &amp; Exit ESC: Exit</pre>
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Serial Port	Description	
Serial Port 1 Config	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;	

#### 4.2.6 HM monitor & Smart Fan

Aptio Setup – AMI Main <mark>Advanced</mark> Security Boot Save & Exit MEBx	
<ul> <li>ACPI Setting</li> <li>CPU Configuration</li> <li>WAKE Configuration</li> <li>Trusted Computing</li> <li>IT8613 Super ID Configuration</li> <li>HM monitor &amp; Smart fan</li> <li>System Devices Configuration</li> </ul>	HM monitor and Smart fan configuration ++: Select Screen 11: 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	Aptio Setup – AMI	
Advanced CPU Temperature CPU FAN1 System Fan Control CPU Fan1 Setting Smart Fan 1 Mode Fan off temperature limit Fan start temperature limit Fan start PWM PWM SLOPE SETTING	: +47 °C : 2986 RPM [DN] [Automatic Mode] 16 50 90 100 [4 PWM]	System Fan ON/OFF Control **: Select Screen 11: 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	<ul> <li>It includes "Automatic mode" and "software mode".</li> <li>Automatic mode. Automatic mode is enabled by default.</li> <li>Software mode.</li> </ul>	
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	<ul> <li>If the temperature is higher than the FAN start PWM value, the FAN will start work.</li> </ul>	
PWM slope setting	• NA	

#### 4.2.7 System Devices Configuration

Main Advanced Security Bo	Aptio Setup – AMI ot Save & Exit MEBx	
<ul> <li>ACPI Setting</li> <li>CPU Configuration</li> <li>WAKE Configuration</li> <li>Trusted Computing</li> <li>IT8613 Super IO Configuration</li> <li>HM monitor &amp; Smart fan</li> <li>System Devices Configuration</li> </ul>		Configure Sytem Device related functions
		<pre>++: Select Screen f↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save &amp; Exit ESC: Exit</pre>
Ve	rsion 2.22.1284 Copyright (C) 20	D24 AMI
Advanced	Hptio Setup – HMI	
SATA Controller(s) SATA Mode Selection HD Audio Network Stack	[Enabled] [AHCI] [Enabled] [Disabled]	Enable/Disable SATA Device.
		++: Select Screen fl: 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
	SATA Controller.
Serial ATA(SATA)	• Disabled.
	• Enabled: The SATA controller is enabled by default.
SATA Mode Selection	• Determines how SATA controller(s) operate.
	Control Detection of the HD Audio device. Disabled = HAD will be
	unconditionally disabled; Enabled = HAD will be unconditionally
HD Audio	enabled.
	Enabled
	• Disabled
	Enabled/Disabled UEFI P×E ROM
Network Stack	Enabled
	Disabled

#### 4.3 Security

Main Advanced Security	Aptio Setup – AMI Boot Save & Exit MEBx	[
Password Description If ONLY the Administrator's then this only limits acces only asked for when enterin If ONLY the User's password is a power on password and boot or enter Setup. In Set have Administrator rights. The password length must be in the following range: Minimum length Maximum length Administrator Password User Password Secure Boot	password is set, s to Setup and is g Setup. is set, then this must be entered to up the User will 3 20	Set Administrator Password ++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values 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.

#### 4.4 Boot Menu

Main Advanced Security Boot Sa	Aptio Setup - AMI ve & Exit MEBx	
Boot Configuration Setup Prompt Timeout Bootup NumLock State Quiet Boot	1 [On] [Enabled]	Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.
FIXED BOOT ORDER Priorities Boot Option #1 Boot Option #2 Boot Option #3 Boot Option #4 Boot Option #5 Boot Option #6 Boot Option #7 Boot Option #7 Boot Option #8 Boot Option #9 Boot Option #10 Boot Option #11 > UEFI NVME Drive BBS Priorities > UEFI Application Boot Priorities > UEFI USB Key Drive BBS Priorities	[Hand Disk] [NVME] [UEFI AP] [CD/DVD] [SD] [USB Hand Disk] [USB CD/OVD] [USB Key] [USB Floppy] [USB Lan] [Network]	++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
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Boot Item	Description
Boot Configuration	
	This item is use to set the wait time of entering the
	operation system. During the BIOS post, if user
Setup Prompt Timeout	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 Item	Description	
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].	
FI×ED 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.	

#### 4.5 Save & Exit

Aptio Setup – AMI Main Advanced Security Boot <mark>Save &amp; Exit</mark> MEBx	
Save Options Save Changes and Reset Discard Changes and Exit Restore Defaults	Reset the system after saving the changes.
Boot Override Windows Boot Manager (PCIe SSD) UEFI: Built-in EFI Shell UEFI: KingstonDataTraveler 3.00000, Partition 1 (KingstonDataTraveler 3.00000)	
	<pre>++: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values E9: Optimized Defaults</pre>
	F10: Save & Exit ESC: Exit
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Save Exit Item	Description	
Save Options		
Save Changes and E×it	Save all changes and e×it	
Discard Changes and E×it	Give up the settings and e×it.	
Boot Override	Whole Boot devices	

## 4.6 MEBx

Aptio Setup – AMI Main Advanced Security Boot Save & Exit MEBx	
Configuration locked after EndOfPost	<pre>++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save &amp; Exit ESC: Exit</pre>
Version 2.22.1284 Copyright	(C) 2024 AMI

## **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.

## 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.

BIOS Information BIOS VendorAmerican Megatrends S.27Set 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.Processor Information NameRaptorLake ULT TypeDays: Dependent on month Range of Years may vary.Processor Information NameRaptorLake ULT TypeDays: Dependent on month Range of Years may vary.Processor Information NameRaptorLake ULT TypeDays: Dependent on month Range of Years may vary.Protessor Information NameRaptorLake ULT Total Memory16384 MB Select ItemTotal Memory Memory Frequency16.1.25.2020 (Wed 07/17/2024]+*: Select Screen the Protessor Item Enter: SelectME FW Version System Time16.1.25.2020 (Wed 07/17/2024]+: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit	Main Advanced Security Boot	Aptio Setup – AMI Save & Exit MEBx	
Processor InformationRaptorLake ULTNameRaptorLake ULTType13th Gen Intel(R)Core(TM) 15-1335USpeed1300 MHzTotal Memory16384 MBMemory Frequency5200 MHzME FW Version16.1.25.2020System Date[Wed 07/17/2024]System Time[01:52:53]F2: Previous ValuesF9: Optimized DefaultsF10: Save & ExitESC: Exit	BIOS Information BIOS Vendor Core Version Project Version Build Date and Time Access Level	American Megatrends 5.27 RPLN01BJ 06/20/2024 16:34:54 Administrator	Set the Date. Use Tab to switch between Date elements. Default Ranges: Year: 1998-2099 Months: 1-12 Days: Dependent on month
NameRaptorLake ULTType13th Gen Intel(R) Core(TM) 15-1335USpeed1300 MHzTotal Memory16384 MBMemory Frequency5200 MHzME FW Version16.1.25.2020System Date[Wed 07/17/2024]System Time[01:52:53]F2: Previous ValuesF9: Optimized DefaultsF10: Save & ExitESC: Exit	Processor Information		Range of Years may Vary.
Speed1300 MHzTotal Memory16384 MBMemory Frequency5200 MHzME FW Version16.1.25.2020System Date[Wed 07/17/2024]System Time[01:52:53]F2: Previous ValuesF9: Optimized DefaultsF10: Save & ExitESC: Exit	Name Type	RaptorLake UL⊤ 13th Gen Intel(R) Core(TM) i5−1335U	
Total Memory16384 MB++: Select ScreenMemory Frequency5200 MHz11: Select ItemME FW Version16.1.25.2020+/-: Change Opt.System Date[Wed 07/17/2024]F1: General HelpSystem Time[01:52:53]F2: Previous ValuesF9: Optimized DefaultsF10: Save & ExitESC: ExitESC: Exit	Speed	1300 MHz	
ME FW Version16.1.25.2020+/-: Change Opt.System Date[Wed 07/17/2024]F1: General HelpSystem Time[01:52:53]F2: Previous ValuesF9: Optimized DefaultsF10: Save & ExitESC: ExitESC: Exit	Total Memory Memory Frequency	16384 MB 5200 MHz	<pre>++: Select Screen 1↓: Select Item Enter: Select</pre>
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     ESC: Exit	ME FW Version	16.1.25.2020	+/−: Change Opt.
	System Date System Time	[Wed 07/17/2024] [01:52:53]	F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
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b. Select Advanced- > ACPI Setting- > JAHC Enable- > Enabled.



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

Advanced	Aptio Setup – AMI	
ACPI Sleep State State After G3 JAHC Enable	<pre>[S3 (Suspend to RAM)] [S5 State] [Enabled]</pre>	Enable/Disabled JAHC Controller. ++: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
Version 2	.22.1284 Copyright (C) 2024	AMI



#### 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: <u>www.giadatech.com</u>, 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.

谩 Setup - JAHC	– 🗆 🗙
Select Destination Location Where should JAHC be installed?	
Setup will install JAHC into the following folder.	
To continue, click Next. If you would like to select a different folder, cli	ck Browse.
C:\Program Files (x86)\JAHC	Browse
At least 6.7 MB of free disk space is required.	
<u>N</u> ext >	Cancel

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

etup - JAne			
Select Start Menu Folde	21°		
Where should Setup pl	ace the program's shortcuts?		©
Setup will crea	te the program's shortcuts in the	following Start M	enu <mark>fold</mark> er.
To continue, click Next	. If you would like to select a diffe	rent folder, click	Browse.
JAHC			Browse
			1.
h			

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

🕼 Setup - JAHC	- 🗆 🗙
Select Additional Tasks	
Which additional tasks should be performed	?
Select the additional tasks you would like Se click Next.	etup to perform while installing JAHC, then
Additional shortcuts:	
Create a desktop shortcut	
English	
	< <u>B</u> ack <u>N</u> ext > Cancel

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

ady to Install			
Setup is now ready to begin installing	JAHC on your computer.		Q
Click Install to continue with the instal change any settings.	llation, or click Back if you v	vant to review or	3
Destination location: C:\Program Files (x86)\JAHC			^
Start Menu folder: JAHC			
Additional tasks: Additional shortcuts: Create a desktop shortcut			
<			>

谩 Setup - JAHC	47 <u>—</u>	
Installing		
Please wait while Setup installs JAHC on your computer.		Č.
Extracting files		
C:\Program Files (x86)\JAHC\skin\MainWndE\min.png		
		10
English		
		Cancel
		1

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.

AC	HC	JEHE Active Hard	lware Control	Technolo	gy Manage	r		- X
		Mon	Tue	Wed	Thur	Fri		at
		Schedule	Resume T	ïme		Shutdown	Time	
	0	First	, <mark>00 : 0</mark>	0		, <mark>00 : 0</mark>	0 <mark>0</mark>	
	0	Second	, <mark>00</mark> : 0	0		, <u>00</u> : 0	0	
	0	Third	, <u>00</u> : 0	0		<u>, 00 : 0</u>	0	
	Plan to	Shutdown Time:		Plan	to Resume Tim	e:		
			Confi		Cancel	2019.09.06	14:08:39	Fri.
								v1.22

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.

ЭНАНС	JEHE Active H	lardware Contr	ol Technolog	y Manager		ui dui	- X
Sun	Mon	Tue	Wed	Thur	Fri	Sa	at
	Schedule	Resume	Time	S	hutdown	Time	
0	First	, <mark>05</mark> :	<mark>, 00</mark>	_ [	, <mark>1</mark> 2 : 0	0	
0	Second	, <mark>1</mark> 3 :	<u>00</u> -	_ [	, <u>17 : 3</u>	3 <b>0</b>	
0	Third	, <mark>1</mark> 9 :	<u>- 100</u>	— į	, <u>2</u> 3 : C	0	
Plan to	Shutdown Time:	17:30 Fri	Plan t	o Resume Time :	19:00	Fri	
		Co	nfim (C	ancel 2	2019.09.06	14:13:52	Fri.
							V1.22

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 [e×it] 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: +86-755-33300336 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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