N4120I H
N4020I H

User's Manual
Rev. 1001

Copyright

Disclaimer

Information in this manual is protected by copyright laws and is the property of GIGABYTE.

Changes to the specifications and features in this manual may be made by GIGABYTE without prior notice. No part of this manual may be reproduced, copied, translated, transmitted, or published in any form or by any means without GIGABYTE's prior written permission.

- For detailed product information, carefully read the User's Manual.
- For product-related information, check on our website at: https://www.gigabyte.com

Identifying Your Motherboard Revision

The revision number on your motherboard looks like this: "REV: X.X." For example, "REV: 1.0" means the revision of the motherboard is 1.0. Check your motherboard revision before updating motherboard BIOS, drivers, or when looking for technical information.
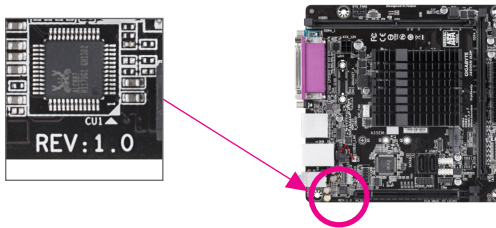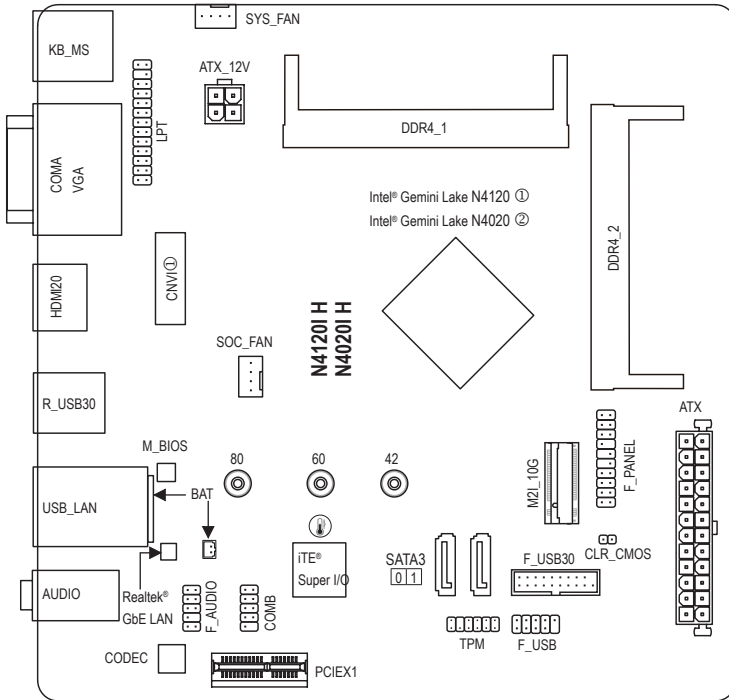
Example:

Table of Contents

Chapter 1   Product Introduction

1-1   Motherboard Layout

Temperature sensor

① Only for N4120I H.
② Only for N4020I H.

Chapter 2   Hardware Installation

2-1   Installation Precautions

The motherboard contains numerous delicate electronic circuits and components which can become damaged as a result of electrostatic discharge (ESD). Prior to installation, carefully read the user's manual and follow these procedures:

- Prior to installation, make sure the chassis is suitable for the motherboard.
- Prior to installation, do not remove or break motherboard S/N (Serial Number) sticker or warranty sticker provided by your dealer. These stickers are required for warranty validation.
- Always remove the AC power by unplugging the power cord from the power outlet before installing or removing the motherboard or other hardware components.
- When connecting hardware components to the internal connectors on the motherboard, make sure they are connected tightly and securely.
- When handling the motherboard, avoid touching any metal leads or connectors.
- It is best to wear an electrostatic discharge (ESD) wrist strap when handling electronic components such as a motherboard, CPU or memory. If you do not have an ESD wrist strap, keep your hands dry and first touch a metal object to eliminate static electricity.
- Prior to installing the motherboard, please have it on top of an antistatic pad or within an electrostatic shielding container.
- Before connecting or unplugging the power supply cable from the motherboard, make sure the power supply has been turned off.
- Before turning on the power, make sure the power supply voltage has been set according to the local voltage standard.
- Before using the product, please verify that all cables and power connectors of your hardware components are connected.
- To prevent damage to the motherboard, do not allow screws to come in contact with the motherboard circuit or its components.
- Make sure there are no leftover screws or metal components placed on the motherboard or within the computer casing.
- Do not place the computer system on an uneven surface.
- Do not place the computer system in a high-temperature or wet environment.
- Turning on the computer power during the installation process can lead to damage to system components as well as physical harm to the user.
- If you are uncertain about any installation steps or have a problem related to the use of the product, please consult a certified computer technician.
- If you use an adapter, extension power cable, or power strip, ensure to consult with its installation and/or grounding instructions.

2-2   Product Specifications

CPU	◆	Built in with an Intel® Quad-Core Celeron® N4120 (2.6 GHz) ①
	◆	Built in with an Intel® Dual-Core Celeron® N4020 (2.8 GHz) ②
		* Do not disassemble the onboard SoC and the heatsinks by yourself to avoid damage to these components.
	◆	4 MB Cache
Memory	◆	2 x DDR4 SO-DIMM sockets supporting up to 16 GB of system memory
	◆	Dual channel memory architecture
	◆	Support for DDR4 2400/2133 MHz memory modules
	◆	Support for non-ECC memory modules
Onboard Graphics	◆	Integrated in the SoC:
	-	1 x D-Sub port, supporting a maximum resolution of 1920x1200@60 Hz
	-	1 x HDMI port, supporting a maximum resolution of 4096x2160@60 Hz
		* Support for HDMI 2.0a version and HDCP 2.2.
Audio	◆	Realtek® Audio CODEC
	◆	High Definition Audio
	◆	2/4/5.1/7.1-channel
		* You can change the functionality of an audio jack using the audio software. To configure 7.1-channel audio, access the audio software for audio settings.
LAN	◆	Realtek® GbE LAN chip (1 Gbps/100 Mbps)
Expansion Slots	◆	1 x PCI Express x1 slot, running at x1
		(The PCIEX1 slot conforms to PCI Express 2.0 standard.)
	◆	1 x M.2 Socket 1 connector for the wireless communication module (CNVI)①
Storage Interface	◆	Integrated in the SoC:
	-	1 x M.2 connector (Socket 3, M key, type 2280/2260/2242 SATA and PCIe 2.0 x2 SSD support)
	-	2 x SATA 6Gb/s connectors
		* Refer to "2-6 Internal Connectors," for the installation notices for the M.2 and SATA connectors.
USB	◆	Integrated in the SoC:
	-	4 x USB 3.2 Gen 1 ports (2 ports on the back panel, 2 ports available through the internal USB header)
	-	4 x USB 2.0/1.1 ports (2 ports on the back panel, 2 ports available through the internal USB header)
Internal Connectors	◆	1 x 24-pin ATX main power connector
	◆	1 x 4-pin ATX 12V power connector
	◆	2 x SATA 6Gb/s connectors
	◆	1 x SoC fan header
	◆	1 x system fan header
	◆	1 x M.2 Socket 3 connector
	◆	1 x front panel header
	◆	1 x front panel audio header
	◆	1 x USB 3.2 Gen 1 header
	◆	1 x USB 2.0/1.1 header
	◆	1 x parallel port header
	◆	1 x serial port header

① Only for N4120I H.
② Only for N4020I H.

Internal Connectors	◆	1 x Trusted Platform Module (TPM) header (2x6 pin, for the GC-TPM2.0_S module only)
	◆	1 x Clear CMOS jumper
Back Panel Connectors	◆	1 x PS/2 keyboard port
	◆	1 x PS/2 mouse port
	◆	1 x serial port
	◆	1 x D-Sub port
	◆	1 x HDMI port
	◆	2 x USB 3.2 Gen 1 ports
	◆	2 x USB 2.0/1.1 ports
	◆	1 x RJ-45 port
	◆	3 x audio jacks
I/O Controller	◆	iTE® I/O Controller Chip
Hardware Monitor	◆	Voltage detection
	◆	Temperature detection
	◆	Fan speed detection
	◆	Fan speed control
		* Whether the fan speed control function is supported will depend on the cooler you install.
BIOS	◆	1 x 128 Mbit flash
	◆	Use of licensed AMI UEFI BIOS
	◆	PnP 1.0a, DMI 2.7, WfM 2.0, SM BIOS 2.7, ACPI 5.0
Unique Features	◆	Support for Xpress Install
	◆	Support for @BIOS
	◆	Support for APP Center
		* Available applications in APP Center may vary by motherboard model. Supported functions of each application may also vary depending on motherboard specifications.
Bundled Software	◆	Norton® Internet Security (OEM version)
	◆	LAN bandwidth management software
Operating System	◆	Support for Windows 11 64-bit
	◆	Support for Windows 10 64-bit
Form Factor	◆	Mini-ITX Form Factor; 17.0cm x 17.0cm

* GIGABYTE reserves the right to make any changes to the product specifications and product-related information without prior notice.

☞ Please visit GIGABYTE's website for support lists of CPU, memory modules, SSDs, and M.2 devices.
https://www.gigabyte.com/Motherboard/N4120I-H-rev-10?m=dl#support-dl
https://www.gigabyte.com/Motherboard/N4020I-H-rev-10?m=dl#support-dl

☞ Please visit the **SERVICE/SUPPORT\Utility** page on GIGABYTE's website to download the latest version of apps.
https://www.gigabyte.com/Support/Utility/Motherboard?m=ut

2-3   Installing the Memory

Read the following guidelines before you begin to install the memory:
•   Make sure that the motherboard supports the memory. It is recommended that memory of the same capacity, brand, speed, and chips be used.
    (Go to GIGABYTE's website for the latest supported memory speeds and memory modules.)
•   Always turn off the computer and unplug the power cord from the power outlet before installing the memory to prevent hardware damage.
•   Memory modules have a foolproof design. A memory module can be installed in only one direction. If you are unable to insert the memory, switch the direction.

Dual Channel Memory Configuration

This motherboard provides two memory sockets and supports Dual Channel Technology. After the memory is installed, the BIOS will automatically detect the specifications and capacity of the memory. Enabling Dual Channel memory mode will double the original memory bandwidth.

The two memory sockets are divided into two channels and each channel has one memory socket as following:
▸ Channel A: DDR4_1
▸ Channel B: DDR4_2

Due to SoC limitations, read the following guidelines before installing the memory in Dual Channel mode.
When enabling Dual Channel mode with two memory modules, it is recommended that memory of the same capacity, brand, speed, and chips be used for optimum performance.

2-4   Installing an Expansion Card

Read the following guidelines before you begin to install an expansion card:
•   Make sure the motherboard supports the expansion card. Carefully read the manual that came with your expansion card.
•   Always turn off the computer and unplug the power cord from the power outlet before installing an expansion card to prevent hardware damage.

Do not disassemble the onboard SoC and the heatsinks by yourself to avoid damage to these components.

2-5   Back Panel Connectors
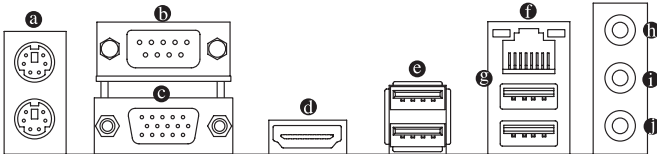
ⓐ **PS/2 Keyboard and PS/2 Mouse Port**

Use the upper port (green) to connect a PS/2 mouse and the lower port (purple) to connect a PS/2 keyboard.

ⓑ **Serial Port**

Use the serial port to connect devices such as a mouse, modem or other peripherals.

ⓒ **D-Sub Port**

The D-Sub port supports a 15-pin D-Sub connector and supports a maximum resolution of 1920x1200@60 Hz (the actual resolutions supported depend on the monitor being used). Connect a monitor that supports D-Sub connection to this port.

◉ **HDMI 2.0 Port**

HDMI™ The HDMI port is HDCP compliant and supports Dolby TrueHD and DTS HD
HIGH-DEFINITION MULTIMEDIA INTERFACE Master Audio formats. It also supports up to 192KHz/16bit 8-channel LPCM audio
output. You can use this port to connect your HDMI-supported monitor. The maximum supported resolution
is 4096x2160@60 Hz, but the actual resolutions supported are dependent on the monitor being used.

After installing the HDMI device, make sure to set the default sound playback device to HDMI. (The
item name may differ depending on your operating system.)

◉ **USB 3.2 Gen 1 Port**

The USB 3.2 Gen 1 port supports the USB 3.2 Gen 1 specification and is compatible to the USB 2.0
specification. Use this port for USB devices.

◉ **RJ-45 LAN Port**

The Gigabit Ethernet LAN port provides Internet connection at up to 1 Gbps data rate. The following
describes the states of the LAN port LEDs.

Speed LED   Activity LED

LAN Port

Speed LED:

State	Description
Orange	1 Gbps data rate
Green	100 Mbps data rate
Off	10 Mbps data rate

Activity LED:

State	Description
Blinking	Data transmission or receiving is occurring
Off	No data transmission or receiving is occurring

◉ **USB 2.0/1.1 Port**

The USB port supports the USB 2.0/1.1 specification. Use this port for USB devices.

◉ **Line In/Rear Speaker Out (Blue)**

The line in jack. Use this audio jack for line in devices such as an optical drive, walkman, etc.

◉ **Line Out/Front Speaker Out (Green)**

The line out jack.

◉ **Mic In/Center/Subwoofer Speaker Out (Pink)**

The Mic in jack.

Audio Jack Configurations:

Jack	Headphone/ 2-channel	4-channel	5.1-channel	7.1-channel
◉ Line In/Rear Speaker Out		✔	✔	✔
◉ Line Out/Front Speaker Out	✔	✔	✔	✔
◉ Mic In/Center/Subwoofer Speaker Out			✔	✔
Front Panel Line Out/Side Speaker Out				✔

You can change the functionality of an audio jack using the audio software. To configure
5.1-channel audio, access the audio software for audio settings.

☞ Please visit GIGABYTE's website for details on configuring the audio software.
https://www.gigabyte.com/WebPage/697/realtek897-audio.html

⚠ • When removing the cable connected to a back panel connector, first remove the cable from
your device and then remove it from the motherboard.
• When removing the cable, pull it straight out from the connector. Do not rock it side to side
to prevent an electrical short inside the cable connector.

2-6 Internal Connectors
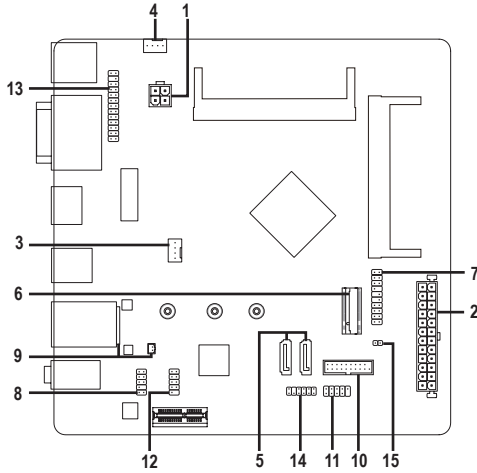
1)	ATX_12V	9)	BAT
2)	ATX	10)	F_USB30
3)	SOC_FAN	11)	F_USB
4)	SYS_FAN	12)	COMB
5)	SATA3 0/1	13)	LPT
6)	M2I_10G	14)	TPM
7)	F_PANEL	15)	CLR_CMOS
8)	F_AUDIO		

Read the following guidelines before connecting external devices:
- First make sure your devices are compliant with the connectors you wish to connect.
- Before installing the devices, be sure to turn off the devices and your computer. Unplug the power cord from the power outlet to prevent damage to the devices.
- After installing the device and before turning on the computer, make sure the device cable has been securely attached to the connector on the motherboard.

1/2) ATX_12V/ATX (2x2 12V Power Connector and 2x12 Main Power Connector)

With the use of the power connector, the power supply can supply enough stable power to all the components on the motherboard. Before connecting the power connector, first make sure the power supply is turned off and all devices are properly installed. The power connector possesses a foolproof design. Connect the power supply cable to the power connector in the correct orientation.

The 12V power connector mainly supplies power to the CPU. If the 12V power connector is not connected, the computer will not start.
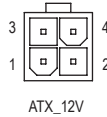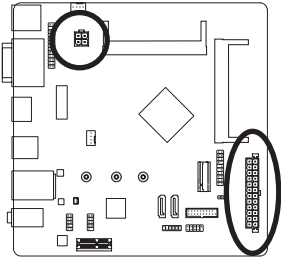
ATX_12V:

Pin No.	Definition
1	GND
2	GND
3	+12V
4	+12V
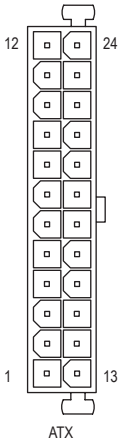
ATX:

Pin No.	Definition	Pin No.	Definition
1	3.3V	13	3.3V
2	3.3V	14	-12V
3	GND	15	GND
4	+5V	16	PS_ON (soft On/Off)
5	GND	17	GND
6	+5V	18	GND
7	GND	19	GND
8	Power Good	20	NC
9	5VSB (stand by +5V)	21	+5V
10	+12V	22	+5V
11	+12V (Only for 2x12-pin ATX)	23	+5V (Only for 2x12-pin ATX)
12	3.3V (Only for 2x12-pin ATX)	24	GND (Only for 2x12-pin ATX)

3/4) SOC_FAN/SYS_FAN (Fan Headers)

All fan headers on this motherboard are 4-pin. Most fan headers possess a foolproof insertion design. When connecting a fan cable, be sure to connect it in the correct orientation (the black connector wire is the ground wire). The speed control function requires the use of a fan with fan speed control design. For optimum heat dissipation, it is recommended that a system fan be installed inside the chassis.
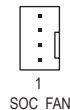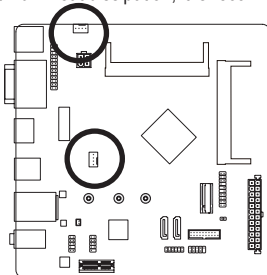
Pin No.	Definition
1	GND
2	Voltage Speed Control
3	Sense
4	PWM Speed Control

These fan headers are not configuration jumper blocks. Do not place a jumper cap on the headers.

5) SATA3 0/1 (SATA 6Gb/s Connectors)

The SATA connectors conform to SATA 6Gb/s standard and are compatible with SATA 3Gb/s and SATA 1.5Gb/s standard. Each SATA connector supports a single SATA device.
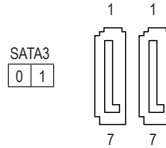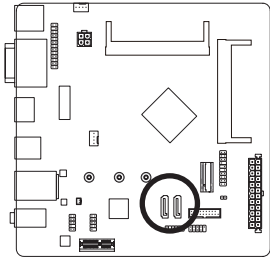
Pin No.	Definition
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND

6) M2I_10G (M.2 Socket 3 Connector)

The M.2 connector supports M.2 SATA SSDs and M.2 PCIe SSDs.
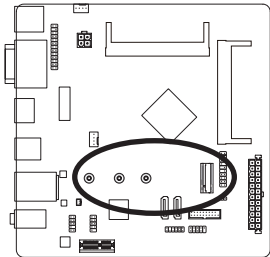
Follow the steps below to correctly install an M.2 SSD in the M.2 connector.

Step 1:
Use a screw driver to unfasten the screw and nut from the motherboard. Locate the proper mounting hole for the M.2 SSD to be installed and then screw the nut first.

Step 2:
Slide the M.2 SSD into the connector at an angle.

Step 3:
Press the M.2 SSD down and then secure it with the screw.

Select the proper hole for the M.2 SSD to be installed and refasten the screw and nut.

Installation Notices for the M.2 and SATA Connectors:

Due to the limited number of lanes provided by the Chipset, the availability of the SATA connectors may be affected by the type of device installed in the M.2 connector. The M2I_10G connector shares bandwidth with the SATA3 1 connector. Refer to the following table for details.

Type of M.2 SSD \ Connector	SATA3 0	SATA3 1
M.2 SATA SSD	✔	✘
M.2 PCIe SSD	✔	✔
No M.2 SSD Installed	✔	✔

✔: Available, ✘: Not available

- 12 -

7) F_PANEL (Front Panel Header)

Connect the power switch, reset switch, speaker, chassis intrusion switch/sensor and system status indicator on the chassis to this header according to the pin assignments below. Note the positive and negative pins before connecting the cables.
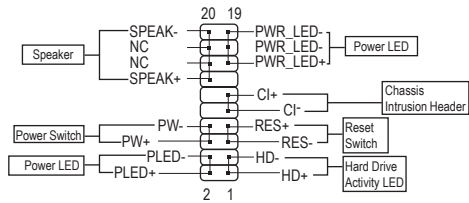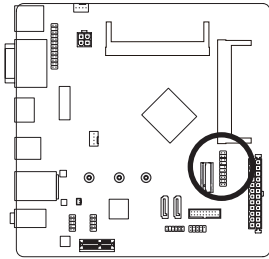
• **PLED/PWR_LED** (Power LED):

System Status	LED
S0	On
S3/S4/S5	Off

Connects to the power status indicator on the chassis front panel. The LED is on when the system is operating. The LED is off when the system is in S3/S4 sleep state or powered off (S5).

• **PW** (Power Switch):
Connects to the power switch on the chassis front panel. You may configure the way to turn off your system using the power switch (refer to Chapter 3, "BIOS Setup," "Power," for more information).

• **SPEAK** (Speaker):
Connects to the speaker on the chassis front panel. The system reports system startup status by issuing a beep code. One single short beep will be heard if no problem is detected at system startup.

• **HD** (Hard Drive Activity LED):
Connects to the hard drive activity LED on the chassis front panel. The LED is on when the hard drive is reading or writing data.

• **RES** (Reset Switch):
Connects to the reset switch on the chassis front panel. Press the reset switch to restart the computer if the computer freezes and fails to perform a normal restart.

• **CI** (Chassis Intrusion Header):
Connects to the chassis intrusion switch/sensor on the chassis that can detect if the chassis cover has been removed. This function requires a chassis with a chassis intrusion switch/sensor.

• **NC:** No connection.

The front panel design may differ by chassis. A front panel module mainly consists of power switch, reset switch, power LED, hard drive activity LED, speaker and etc. When connecting your chassis front panel module to this header, make sure the wire assignments and the pin assignments are matched correctly.

8) F_AUDIO (Front Panel Audio Header)

The front panel audio header supports High Definition audio (HD). You may connect your chassis front panel audio module to this header. Make sure the wire assignments of the module connector match the pin assignments of the motherboard header. Incorrect connection between the module connector and the motherboard header will make the device unable to work or even damage it.
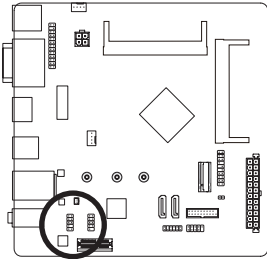
Pin No.	Definition	Pin No.	Definition
1	MIC L	6	MIC Detection
2	GND	7	SENSE_SEND
3	MIC R	8	No Pin
4	NC	9	Head Phone L
5	Head Phone R	10	Head Phone Detection

Some chassis provide a front panel audio module that has separated connectors on each wire instead of a single plug. For information about connecting the front panel audio module that has different wire assignments, please contact the chassis manufacturer.

9) BAT (Battery)

The battery provides power to keep the values (such as BIOS configurations, date, and time information) in the CMOS when the computer is turned off. Replace the battery when the battery voltage drops to a low level, or the CMOS values may not be accurate or may be lost.

2 (-)

1 (+)
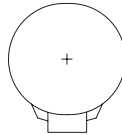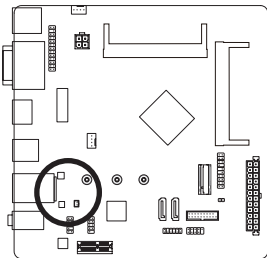
Pin No.	Definition
1(+)	RTC Power
2(-)	GND

You may clear the CMOS values by removing the battery cable:
1. Turn off your computer and unplug the power cord.
2. Unplug the the battery cable from the battery cable header and wait for one minute.
3. Plug in the battery cable.
4. Plug in the power cord and restart your computer.

- Always turn off your computer and unplug the power cord before replacing the battery.
- Replace the battery with an equivalent one. Damage to your devices may occur if the battery is replaced with an incorrect model.
- Contact the place of purchase or local dealer if you are not able to replace the battery by yourself or uncertain about the battery model.
- Used batteries must be handled in accordance with local environmental regulations.

10) F_USB30 (USB 3.2 Gen 1 Header)

The header conforms to USB 3.2 Gen 1 and USB 2.0 specification and can provide two USB ports. For purchasing the optional 3.5" front panel that provides two USB 3.2 Gen 1 ports, please contact the local dealer.
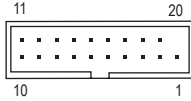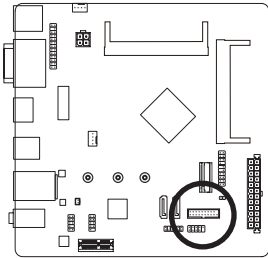
Pin No.	Definition	Pin No.	Definition
1	VBUS	11	D2+
2	SSRX1-	12	D2-
3	SSRX1+	13	GND
4	GND	14	SSTX2+
5	SSTX1-	15	SSTX2-
6	SSTX1+	16	GND
7	GND	17	SSRX2+
8	D1-	18	SSRX2-
9	D1+	19	VBUS
10	NC	20	No Pin

11) F_USB (USB 2.0/1.1 Header)

The header conforms to USB 2.0/1.1 specification. Each USB header can provide two USB ports via an optional USB bracket. For purchasing the optional USB bracket, please contact the local dealer.
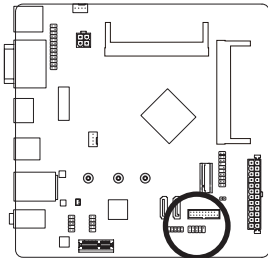
Pin No.	Definition	Pin No.	Definition
1	Power (5V)	6	USB DY+
2	Power (5V)	7	GND
3	USB DX-	8	GND
4	USB DY-	9	No Pin
5	USB DX+	10	NC

• Do not plug the IEEE 1394 bracket (2x5-pin) cable into the USB 2.0/1.1 header.
• Prior to installing the USB bracket, be sure to turn off your computer and unplug the power cord from the power outlet to prevent damage to the USB bracket.

12) COMB (Serial Port Header)

The COM header can provide one serial port via an optional COM port cable. For purchasing the optional COM port cable, please contact the local dealer.
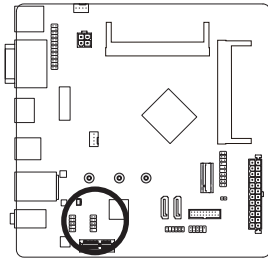
Pin No.	Definition	Pin No.	Definition
1	NDCD-	6	NDSR-
2	NSIN	7	NRTS-
3	NSOUT	8	NCTS-
4	NDTR-	9	NRI-
5	GND	10	No Pin

13) LPT (Parallel Port Header)

The LPT header can provide one parallel port via an optional LPT port cable. For purchasing the optional LPT port cable, please contact the local dealer.
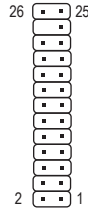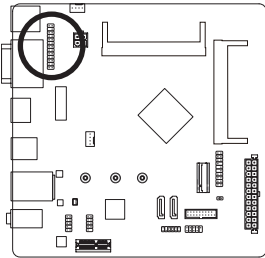
Pin No.	Definition	Pin No.	Definition	Pin No.	Definition
1	STB-	10	GND	19	ACK-
2	AFD-	11	PD4	20	GND
3	PD0	12	GND	21	BUSY
4	ERR-	13	PD5	22	GND
5	PD1	14	GND	23	PE
6	INIT-	15	PD6	24	No Pin
7	PD2	16	GND	25	SLCT
8	SLIN-	17	PD7	26	GND
9	PD3	18	GND		

14) TPM (Trusted Platform Module Header)

You may connect a TPM (Trusted Platform Module) to this header.
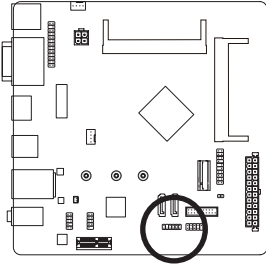
Pin No.	Definition	Pin No.	Definition
1	LAD0	7	LAD3
2	VCC3	8	GND
3	LAD1	9	LFRAME
4	No Pin	10	NC
5	LAD2	11	SERIRQ
6	LCLK	12	LRESET

15) CLR_CMOS (Clear CMOS Jumper)

Use this jumper to clear the BIOS configuration and reset the CMOS values to factory defaults. To clear the CMOS values, use a metal object like a screwdriver to touch the two pins for a few seconds.
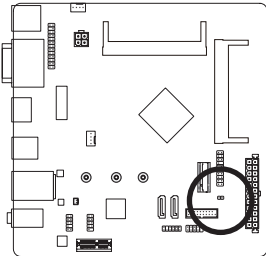
Open: Normal

Short: Clear CMOS Values

- Always turn off your computer and unplug the power cord from the power outlet before clearing the CMOS values.
- After system restart, go to BIOS Setup to load factory defaults (select Load Optimized Defaults) or manually configure the BIOS settings (refer to Chapter 3, "BIOS Setup," for BIOS configurations).

Chapter 3   BIOS Setup

BIOS (Basic Input and Output System) records hardware parameters of the system in the CMOS on the motherboard. Its major functions include conducting the Power-On Self-Test (POST) during system startup, saving system parameters and loading operating system, etc. BIOS includes a BIOS Setup program that allows the user to modify basic system configuration settings or to activate certain system features.

When the power is turned off, the battery on the motherboard supplies the necessary power to the CMOS to keep the configuration values in the CMOS.

To access the BIOS Setup program, press the <Delete> key during the POST when the power is turned on.

To upgrade the BIOS, use the GIGABYTE @BIOS utility, which is a Windows-based utility that searches and downloads the latest version of BIOS from the Internet and updates the BIOS.

> • Because BIOS flashing is potentially risky, if you do not encounter problems using the current version of BIOS, it is recommended that you not flash the BIOS. To flash the BIOS, do it with caution. Inadequate BIOS flashing may result in system malfunction.
> • It is recommended that you not alter the default settings (unless you need to) to prevent system instability or other unexpected results. Inadequately altering the settings may result in system's failure to boot. If this occurs, try to clear the CMOS values and reset the board to default values. (Refer to the "Restore Defaults" section in this chapter or introductions of the battery/clear CMOS jumper in Chapter 2 for how to clear the CMOS values.)

3-1   Startup Screen

The following startup Logo screen will appear when the computer boots.

3-2 Main

Once you enter the BIOS Setup program, the Main Menu (as shown below) appears on the screen. Use arrow keys to move among the items and press <Enter> to accept or enter a sub-menu.

Main Menu Help
The on-screen description of a highlighted setup option is displayed on the bottom line of the Main Menu.
Submenu Help
While in a submenu, press <F1> to display a help screen (General Help) of function keys available for the menu. Press <Esc> to exit the help screen. Help for each item is in the Item Help block on the right side of the submenu.

(Sample BIOS Version: F1)

- When the system is not stable as usual, select the **Optimized Defaults** item to set your system to its defaults.
- The BIOS Setup menus described in this chapter are for reference only and may differ by BIOS version.

```
                    Aptio Setup Utility - Copyright (C) 2022 American Megatrends, Inc.
      Main    Advanced    Security    Boot    Save & Exit

      BIOS Information
      BIOS Vendor                    American Megatreds
      Access Level                   Administrator
      BIOS Version                   F1
      Build Date and Time            08/19/2022 15:26:57
      Project Name                   N4120IH
      BIOS ID                        8A0GAG0F

      Memory Information
      Total Memory                   8192 MB
      Memory Speed                   2400 MHz
                                                          →←: Select Screen
      System Language                [English]            ↑↓: Select Item
                                                          Enter: Select
      System Date                    [Thu  09/05/2022]    +/-: Change Opt.
      System Time                    [15:44:04]           F1: General Help
                                                          F2: Previous Values
                                                          F3: Optimized Defaults
                                                          F4: Save & Exit
                                                          ESC: Exit

                    Version 2.19.1268. Copyright (C) 2022 American Megatrends, Inc.
```

This section provides information on your motherboard model and BIOS version. You can also select the default language used by the BIOS and manually set the system time.

☞ **System Language**
    Selects the default language used by the BIOS.

☞ **System Date**
    Sets the system date. The date format is week (read-only), month, date, and year. Use <Tab> to switch between the Month, Date, and Year fields and use the <+> or <-> key to set the desired value.

☞ **System Time**
    Sets the system time. The time format is hour, minute, and second. For example, 1 p.m. is 13:00:00. Use <Tab> to switch between the Hour, Minute, and Second fields and use the <+> or <-> key to set the desired value.

☞ **Access Level**
    Displays the current access level depending on the type of password protection used. (If no password is set, the default will display as **Administrator**.) The Administrator level allows you to make changes to all BIOS settings; the User level only allows you to make changes to certain BIOS settings but not all.

3-3 Advanced


```
                    Aptio Setup Utility - Copyright (C) 2022 American Megatrends, Inc.
      Main     Advanced     Security     Boot     Save & Exit

   OnBoard LAN Controller              [Enabled]
   Power Loading                       [Auto]
   Soft-Off by PWR-BTTN                [Instant-off]
   Primary Display                     [IGD]
   ErP                                 [Disabled]

 ▶ Trusted Computing
 ▶ IT8686 Super IO Configuration
 ▶ Hardware Monitor
 ▶ SIO Misc Functions
 ▶ CPU Configuration
 ▶ USB Configuration
                                                    →←: Select Screen
 ▶ APP Center Download & Install Configuration      ↑↓: Select Item
                                                    Enter: Select
 ▶ Network Stack Configuration                      +/-: Change Opt.
 ▶ CSM Configuration                                F1: General Help
 ▶ NVMe Configuration                               F2: Previous Values
 ▶ Platform Trust Technology                        F3: Optimized Defaults
 ▶ SATA Controller Configuration                    F4: Save & Exit
                                                    ESC: Exit
 ▶ Realtek PCIe GBE Family Controller
 ▶ Security Configuration

                    Version 2.19.1268. Copyright (C) 2022 American Megatrends, Inc.
```

☞ **OnBoard LAN Controller**
Enables or disables the onboard LAN function. (Default: Enabled)
If you wish to install a 3rd party add-in network card instead of using the onboard LAN, set this item to **Disabled**.

☞ **Power Loading**
Enables or disables dummy load. When the power supply is at low load, a self-protection will activate causing it to shutdown or fail. If this occurs, please set to **Enabled**. **Auto** lets the BIOS automatically configure this setting. (Default: Auto)

☞ **Soft-Off by PWR-BTTN**
Configures the way to turn off the computer in MS-DOS mode using the power button.
▸ Instant-Off   Press the power button and then the system will be turned off instantly. (Default)
▸ Delay 4 Sec.   Press and hold the power button for 4 seconds to turn off the system. If the power button is pressed for less than 4 seconds, the system will enter suspend mode.

☞ **Primary Display**
Specifies the first initiation of the monitor display from the installed PCI graphics card or the onboard graphics.
▸ IGD   Sets the onboard graphics as the first display. (Default)
▸ PCI   Sets the graphics card on the PCIe Slot as the first display.

☞ **ErP**
Determines whether to let the system consume least power in S5 (shutdown) state. (Default: Disabled)
Note: When this item is set to Enabled, the following functions will become unavailable: Resume by Alarm, power on by mouse, and power on by keyboard.

▶ **Trusted Computing**
Enables or disables Trusted Platform Module (TPM).

▶ **IT8686 Super IO Configuration**
This section provides information on the super I/O chip and allows you to configure the serial port and parallel port.

▶ **Hardware Monitor**

☞ **SOC_FAN/SYS_FAN1 mode**
   ▶▶ PWM   PWM mode is recommended for a 4-pin fan. (Default)
   ▶▶ Voltage   Voltage mode is recommended for a 3-pin fan.

☞ **CPU Temperature/System Temperature**
Displays current CPU/system temperature.

☞ **SOC_FAN/SYS_FAN1 Speed**
Displays current CPU/system fan speeds.

☞ **VCCGI/VCC3/+12V/VCC/Vnn/DDR_VDDQ**
Displays the current system voltages.

▶ **SIO Misc Functions**

☞ **AC BACK**
Determines the state of the system after the return of power from an AC power loss.
   ▶▶ Memory   The system returns to its last known awake state upon the return of the AC power.
   ▶▶ Always On The system is turned on upon the return of the AC power.
   ▶▶ Always Off The system stays off upon the return of the AC power. (Default)

☞ **Case Open**
Displays the detection status of the chassis intrusion detection device attached to the motherboard CI header. If the system chassis cover is removed, this field will show "Open", otherwise it will show "Close." To clear the chassis intrusion status record, set **Reset Case Open Status** to **Enabled**, save the settings to the CMOS, and then restart your system.

☞ **Reset Case Open Status**
   ▶▶ Disabled   Keeps or clears the record of previous chassis intrusion status. (Default)
   ▶▶ Enabled   Clears the record of previous chassis intrusion status and the **Case Open** field will show "No" at next boot.

▶ **CPU Configuration**

▶ **CPU Power Management**

☞ **EIST**
Enables or disables Enhanced Intel® Speed Step Technology (EIST). Depending on CPU loading, Intel® EIST technology can dynamically and effectively lower the CPU voltage and core frequency to decrease average power consumption and heat production. **Auto** lets the BIOS automatically configure this setting. (Default: Enabled)

☞ **Turbo Mode**
Allows you to determine whether to enable the Intel® CPU Turbo Boost technology. (Default: Enabled)

☞ **C-States**
Enables or disables this function. (Default: Enabled)

☞ **Enhanced C-states**
Allows you to determine whether to let the CPU enter C states. When enabled, the CPU core frequency will be reduced during system halt state to decrease power consumption. This item is configurable only when **C-States** is enabled. (Default: Enabled)

◽ **Power Limit 1 Enable**
Allows you to set a power limit for CPU Turbo mode. When the CPU power consumption exceeds the specified power limit, the CPU will automatically reduce the core frequency in order to reduce the power. (Default: Enabled)

◽ **Active Processor Cores**
Allows you to determine whether to manually enable/disable CPU cores. (Default: Disabled)

◽ **Intel Virtualization Technology**
Enables or disables Intel® Virtualization Technology. Virtualization enhanced by Intel® Virtualization Technology will allow a platform to run multiple operating systems and applications in independent partitions. With virtualization, one computer system can function as multiple virtual systems. (Default: Enabled)

◽ **VT-d**
Enables or disables Intel® Virtualization Technology for Directed I/O. (Default: Enabled)

◽ **Thermal Monitor**
Enables or disables Intel® Thermal Monitor function, a CPU overheating protection function. When enabled, the CPU core frequency and voltage will be reduced when the CPU is overheated. **Auto** lets the BIOS automatically configure this setting. (Default: Enabled)

▶ **USB Configuration**

◽ **Onboard USB Feature**
Enables or disables the onboard LAN function. (Default: Enabled)

◽ **Legacy USB Support**
Allows USB keyboard/mouse to be used in MS-DOS. (Default: Enabled)

◽ **XHCI Hand-off**
Determines whether to enable XHCI Hand-off feature for an operating system without XHCI Hand-off support. (Default: Enabled)

◽ **USB Mass Storage Driver Support**
Enables or disables support for USB storage devices. (Default: Enabled)

◽ **USB Storage Devices**
Displays a list of connected USB mass storage devices. This item appears only when a USB storage device is installed.

▶ **APP Center Download & Install Configuration**

◽ **APP Center Download & Install**
Allows you to determine whether to automatically download and install GIGABYTE APP Center after entering the operating system. Before installing APP Center, make sure the system is connected to the Internet.

▶ **Network Stack Configuration**

◽ **Network Stack**
Disables or enables booting from the network to install a GPT format OS, such as installing the OS from the Windows Deployment Services server. (Default: Disabled)

◽ **Ipv4 PXE Support**
Enables or disables IPv4 PXE Support. This item is configurable only when Network Stack is enabled.

◽ **Ipv4 HTTP Support**
Enables or disables HTTP boot support for IPv4. This item is configurable only when **Network Stack** is enabled.

◽ **Ipv6 PXE Support**
Enables or disables IPv6 PXE Support. This item is configurable only when **Network Stack** is enabled.

Ipv6 HTTP Support
Enables or disables HTTP boot support for IPv6. This item is configurable only when **Network Stack** is enabled.

IP6 Configuration Policy
Allows you to change IP6 Configuration Policy to Automatic or Manual. This item is configurable only when **Network Stack** is enabled.

PXE boot wait time
Allows you to configure how long to wait before you can press <Esc> to abort the PXE boot. This item is configurable only when **Network Stack** is enabled. (Default: 0)

Media detect count
Allows you to set the number of times to check the presence of media. This item is configurable only when **Network Stack** is enabled. (Default: 1)

▶ **CSM Configuration**

CSM Support
Enables or disables UEFI CSM (Compatibility Support Module) to support a legacy PC boot process.
▶▶ Enabled   Enables UEFI CSM.
▶▶ Disabled   Disables UEFI CSM and supports UEFI BIOS boot process only. (Default)

Network
Allows you to select whether to enable the UEFI or legacy option ROM for the LAN controller.
▶▶ Do not launch   Disables option ROM.
▶▶ UEFI   Enables UEFI option ROM only. (Default)
▶▶ Legacy   Enables legacy option ROM only.
This item is configurable only when **CSM Support** is set to **Enabled**.

Storage
Allows you to select whether to enable the UEFI or legacy option ROM for the storage device controller.
▶▶ Do not launch   Disables option ROM.
▶▶ UEFI   Enables UEFI option ROM only. (Default)
▶▶ Legacy   Enables legacy option ROM only.
This item is configurable only when **CSM Support** is set to **Enabled**.

Video
Allows you to select whether to enable the UEFI or legacy option ROM for the graphics controller.
▶▶ Do not launch   Disables option ROM.
▶▶ UEFI   Enables UEFI option ROM only.
▶▶ Legacy   Enables legacy option ROM only. (Default)
This item is configurable only when **CSM Support** is set to **Enabled**.

Other PCI devices
Allows you to select whether to enable the UEFI or Legacy option ROM for the PCI device controller other than the LAN, storage device, and graphics controllers.
▶▶ Do not launch   Disables option ROM.
▶▶ UEFI   Enables UEFI option ROM only. (Default)
▶▶ Legacy   Enables legacy option ROM only.
This item is configurable only when **CSM Support** is set to **Enabled**.

▶ **NVMe Configuration**
Displays information on your M.2 NVME PCIe SSD if installed.

▶ **Platform Trust Technology (PTT)**
Enables or disables Intel® PTT Technology.

▶ **SATA Controller Configuration**

☞ **Chipset SATA**
Enables or disables the integrated SATA controllers.

☞ **SATA Mode Selection**
Configures the SATA controllers to AHCI mode. Advanced Host Controller Interface (AHCI) is an interface specification that allows the storage driver to enable advanced Serial ATA features such as Native Command Queuing and hot plug. (Default)

☞ **Port**
Enables or disables each SATA port.

☞ **SATA Port Hot Plug Capability**
Enables or disable the hot plug capability for each SATA port.

☞ **SATA Device Type**
Allows you to select the type of the device connected to the SATA port. (Default: Hard Disk Drive)

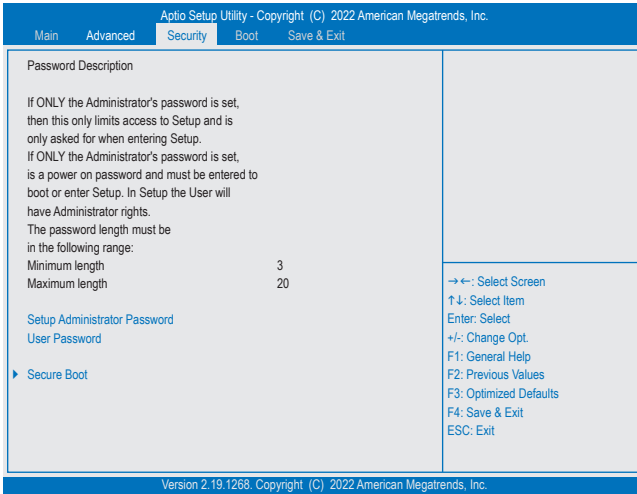▶ **Realtek PCIe GBE Family Controller**
This sub-menu provides information on LAN configuration and related configuration options.

▶ **Security Configuration**
This sub-menu provides information on Intel® Software Guard Extensions technology and related configuration options. This feature allows legal software to operate in a safe environment and protects the software against attacks from malicious software.

3-4 Security

Main	Advanced	Security	Boot	Save & Exit

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 Administrator's password is set,
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

Setup Administrator Password
User Password

▶ Secure Boot

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit

☞ **Setup Administrator Password**

Allows you to configure an administrator password. Press <Enter> on this item, type the password, and then press <Enter>. You will be requested to confirm the password. Type the password again and press <Enter>. You must enter the administrator password (or user password) at system startup and when entering BIOS Setup. Differing from the user password, the administrator password allows you to make changes to all BIOS settings.

☞ **User Password**

Allows you to configure a user password. Press <Enter> on this item, type the password, and then press <Enter>. You will be requested to confirm the password. Type the password again and press <Enter>. You must enter the administrator password (or user password) at system startup and when entering BIOS Setup. However, the user password only allows you to make changes to certain BIOS settings but not all. To cancel the password, press <Enter> on the password item and when requested for the password, enter the correct one first. When prompted for a new password, press <Enter> without entering any password. Press <Enter> again when prompted to confirm.
NOTE: Before setting the User Password, be sure to set the Administrator Password first.

☞ **HDD Security Configuration**

Displays a list of connected hard drives and allows you to set a password for a specific hard drive. This item appears only when a hard drive is installed.

▶ **Secure Boot**

☞ **System Mode**

Displays the current system mode.

☞ **Vendor Keys**

Displays the vendor keys.

☞ **Secure Boot**

Displays the current secure boot state. (Default: Disabled)

☞ **Secure Boot Customization**

Allows you to configure the secure boot mode. (Default: Custom)

▶ **Restore Factory Keys**
Revert to the factory default Secure Boot key. This item is configurable only when **Secure Boot Customizatio**n is set to **Custom**.
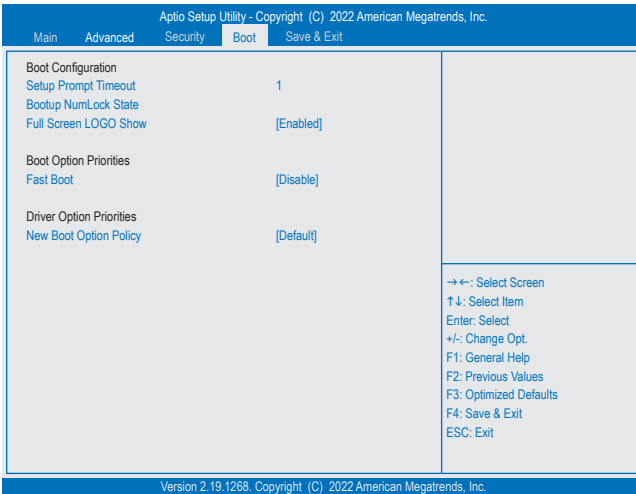
▶ **Reset To Setup Mode**
Delete the previously saved Secure Boot key and revert to setup mode.

▶ **Key Management**
This section provides you with configuration options for secure boot key management.

3-5 Boot

☞ **Setup Prompt Timeout**
Allows you to configure the number of seconds to stay in BIOS setup prompt screen. (Default: 1)

☞ **Bootup NumLock State**
Enables or disables Numlock feature on the numeric keypad of the keyboard after the POST. (Default: On)

☞ **Full Screen LOGO Show**
Allows you to determine whether to display the GIGABYTE Logo at system startup. **Disabled** skips the GIGABYTE Logo when the system starts up. (Default: Enabled)

☞ **Boot Option Priorities #1/2**
Specifies the overall boot order from the available devices.
Removable storage devices that support GPT format will be prefixed with "UEFI:" string on the boot device list. To boot from an operating system that supports GPT partitioning, select the device prefixed with "UEFI:" string.
Or if you want to install an operating system that supports GPT partitioning such as Windows 10 64-bit, select the optical drive that contains the Windows 10 64-bit installation disk and is prefixed with "UEFI:" string.

☞ **Hard Drive/CD/DVD ROM Drive/Floppy Drive/Network Device BBS Priorities**
Specifies the boot order for a specific device type, such as hard drives, optical drives, floppy disk drives, and devices that support Boot from LAN function, etc. Press <Enter> on this item to enter the submenu that presents the devices of the same type that are connected. This item is present only if at least one device for this type is installed.

☞ **Fast Boot**
Enables or disables Fast Boot to shorten the OS boot process. (Default: Disabled)

☞ **SATA Support**
↠ All Sata Devices   All SATA devices are functional in the operating system and during the POST. (Default)
↠ Last Boot HDD Only Except for the previous boot drive, all SATA devices are disabled before the OS boot process completes.
This item is configurable only when **Fast Boot** is set to **Enabled**.

☞ **VGA Support**
Allows you to select which type of operating system to boot.
↠ Auto   Enables legacy option ROM only.
↠ EFI Driver   Enables EFI option ROM. (Default)
This item is configurable only when **Fast Boot** is set to **Enabled**.

☞ **USB Support**
↠ Disable   All USB devices are disabled before the OS boot process completes.
↠ Full Initial   All USB devices are functional in the operating system and during the POST.
↠ Partial Initial   Part of the USB devices are disabled before the OS boot process completes. (Default)
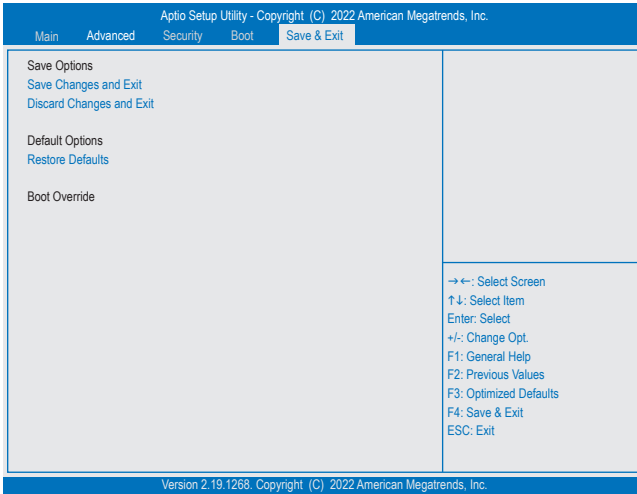This item is configurable only when **Fast Boot** is set to **Enabled**.

☞ **NetWork Stack Driver Support**
↠ Disable   Disables booting from the network. (Default)
↠ Enable   Enables booting from the network.
This item is configurable only when **Fast Boot** is set to **Enabled**.

☞ **New Boot Option Policy**
Allows you to determine whether to change the boot order when a new device is added.
↠ Dedault   Keeps the previous boot order settings. (Default)
↠ Place First   Set the newly added device as the first boot device.
↠ Place Last   Set the newly added device as the last boot device.

3-6   Save & Exit

Aptio Setup Utility - Copyright (C) 2022 American Megatrends, Inc.

Main	Advanced	Security	Boot	Save & Exit

Save Options
Save Changes and Exit
Discard Changes and Exit

Default Options
Restore Defaults

Boot Override

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit

Version 2.19.1268. Copyright (C) 2022 American Megatrends, Inc.

☞ **Save Changes and Exit**
Press <Enter> on this item and select **Yes**. This saves the changes to the CMOS and exits the BIOS Setup program. Select **No** or press <Esc> to return to the BIOS Setup Main Menu.

☞ **Discard Changes and Exit**
Press <Enter> on this item and select **Yes**. This exits the BIOS Setup without saving the changes made in BIOS Setup to the CMOS. Select **No** or press <Esc> to return to the BIOS Setup Main Menu.

☞ **Restore Defaults**
Press <Enter> on this item and select **Yes** to load the BIOS factory default settings. The BIOS defaults settings help the system to operate in optimum state. Always load the Optimized defaults after updating the BIOS or after clearing the CMOS values.

☞ **Boot Override**
Allows you to select a device to boot immediately. Press <Enter> on the device you select and select **Yes** to confirm. Your system will restart automatically and boot from that device.

Chapter 4   Appendix

Drivers Installation

After you install the operating system, a dialog box will appear on the bottom-right corner of the desktop asking if you want to download and install the drivers and GIGABYTE applications via APP Center. Click **Install** to proceed with the installation. (In BIOS Setup, make sure **Advanced\APP Center Download & Install Configuration\ APP Center Download & Install** is set to **Enabled**.)
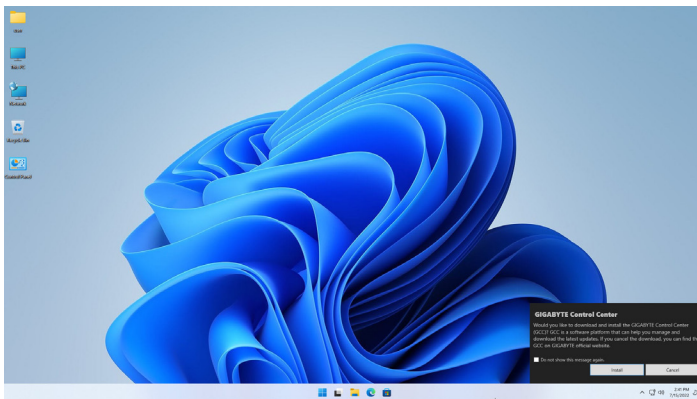
When the End User License Agreement dialog box appears, press <Accept> to install APP Center. On the APP Center screen, select the drivers and applications you want to install and click **Install**.
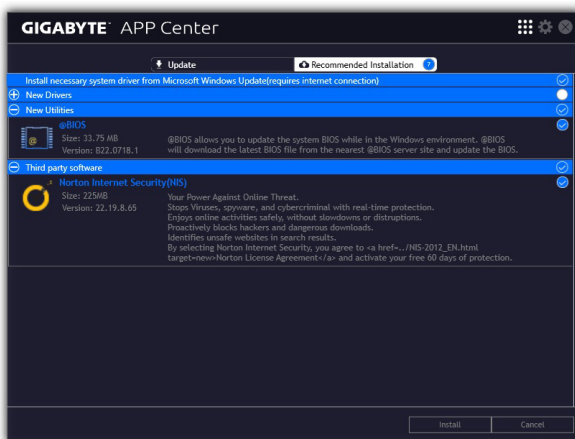
Before the installation, make sure the system is connected to the Internet.

☞ Please visit GIGABYTE's website for more troubleshooting information.
https://www.gigabyte.com/WebPage/351/faq.html

Regulatory Notices

United States of America, Federal Communications Commission Statement

**Supplier's Declaration of Conformity
47 CFR § 2.1077 Compliance Information**

Product Name: **Motherboard**
Trade Name: **GIGABYTE**
Model Number: **N4120I H/N4020I H**

Responsible Party – U.S. Contact Information: **G.B.T. Inc.**
Address: 17358 Railroad street, City Of Industry, CA91748
Tel.: 1-626-854-9338
Internet contact information: https://www.gigabyte.com

FCC Compliance Statement:
This device complies with Part 15 of the FCC Rules, Subpart B, Unintentional Radiators.
Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

Canadian Department of Communications Statement
This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications. This class B digital apparatus complies with Canadian ICES-003.

Avis de conformité à la réglementation d'Industrie Canada
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

European Union (EU) CE Declaration of Conformity
This device complies with the following directives: Electromagnetic Compatibility Directive 2014/30/EU, Low-voltage Directive 2014/35/EU, RoHS directive (recast) 2011/65/EU & the 2015/863 Statement. This product has been tested and found to comply with all essential requirements of the Directives.

European Union (EU) RoHS (recast) Directive 2011/65/EU & the European Commission Delegated Directive (EU) 2015/863 Statement
GIGABYTE products have not intended to add and safe from hazardous substances (Cd, Pb, Hg, Cr+6, PBDE, PBB, DEHP, BBP, DBP and DIBP). The parts and components have been carefully selected to meet RoHS requirement. Moreover, we at GIGABYTE are continuing our efforts to develop products that do not use internationally banned toxic chemicals.

European Union (EU) Community Waste Electrical & Electronic Equipment (WEEE) Directive Statement
GIGABYTE will fulfill the national laws as interpreted from the 2012/19/EU WEEE (Waste Electrical and Electronic Equipment) (recast) directive. The WEEE Directive specifies the treatment, collection, recycling and disposal of electric and electronic devices and their components. Under the Directive, used equipment must be marked, collected separately, and disposed of properly.

WEEE Symbol Statement
The symbol shown below is on the product or on its packaging, which indicates that this product must not be disposed of with other waste. Instead, the device should be taken to the waste collection centers for activation of the treatment, collection, recycling and disposal procedure.

For more information about where you can drop off your waste equipment for recycling, please contact your local government office, your household waste disposal service or where you purchased the product for details of environmentally safe recycling.

Battery Information
European Union—Disposal and recycling information
GIGABYTE Recycling Program (available in some regions)

This symbol indicates that this product and/or battery should not be disposed of with household waste. You must use the public collection system to return, recycle, or treat them in compliance with the local regulations.

End of Life Directives-Recycling
The symbol shown below is on the product or on its packaging, which indicates that this product must not be disposed of with other waste. Instead, the device should be taken to the waste collection centers for activation of the treatment, collection, recycling and disposal procedure.

Déclaration de Conformité aux Directives de l'Union européenne (UE)
Cet appareil portant la marque CE est conforme aux directives de l'UE suivantes: directive Compatibilité Electromagnétique 2014/30/UE, directive Basse Tension 2014/35/UE et directive RoHS II 2011/65/UE. La conformité à ces directives est évaluée sur la base des normes européennes harmonisées applicables.

European Union (EU) CE-Konformitätserklärung
Dieses Produkte mit CE-Kennzeichnung erfüllen folgenden EU-Richtlinien: EMV-Richtlinie 2014/30/EU, Niederspannungsrichtlinie 2014/30/EU und RoHS-Richtlinie 2011/65/EU erfüllt. Die Konformität mit diesen Richtlinien wird unter Verwendung der entsprechenden Standards zurEuropäischen Normierung beurteilt.

CE declaração de conformidade
Este produto com a marcação CE estão em conformidade com das seguintes Diretivas UE: Diretiva Baixa Tensão 2014/35/EU; Diretiva CEM 2014/30/EU; Diretiva RSP 2011/65/UE. A conformidade com estas diretivas é verificada utilizando as normas europeias harmonizadas.

CE Declaración de conformidad
Este producto que llevan la marca CE cumplen con las siguientes Directivas de la Unión Europea: Directiva EMC (2014/30/EU), Directiva de bajo voltaje (2014/35/EU), Directiva RoHS (recast) (2011/65/EU). El cumplimiento de estas directivas se evalúa mediante las normas europeas armonizadas.

Dichiarazione di conformità CE
Questo prodotto è conforme alle seguenti direttive: Direttiva sulla compatibilità elettromagnetica 2014/30/UE, Direttiva sulla bassa tensione 2014/35/UE, Direttiva RoHS (rifusione) 2011/65/UE. Questo prodotto è stato testato e trovato conforme a tutti i requisiti essenziali delle Direttive.

**D33006
RoHS**

Contact Us

GIGA-BYTE TECHNOLOGY CO., LTD.
Address: No.6, Baoqiang Rd., Xindian Dist., New Taipei City 231
TEL: +886-2-8912-4000, FAX: +886-2-8912-4005
Tech. and Non-Tech. Support (Sales/Marketing) : https://esupport.gigabyte.com
WEB address (English): https://www.gigabyte.com
WEB address (Chinese): https://www.gigabyte.com/tw

- **GIGABYTE eSupport**

  To submit a technical or non-technical (Sales/Marketing) question, please link to:
  https://esupport.gigabyte.com