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**ASRock®**

— Industrial —

NUC-1165G7

NUC-1135G7

NUC-1115G4

NUC-1185G7E

NUC-1145G7E

NUC-1115G4E

NUC-6305E

## User Manual

Version 1.3

Updated February 7, 2024

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Version 1.0

Published January 2021

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- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

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### WARNING

THIS PRODUCT CONTAINS A BUTTOON BATTERY  
If swallowed, a button battery can cause serious injury or death.  
Please keep batteries out of sight or reach of children.

### CALIFORNIA, USA ONLY

The Lithium battery adopted on this motherboard contains Perchlorate, a toxic substance controlled in Perchlorate Best Management Practices (BMP) regulations passed by the California Legislature. When you discard the Lithium battery in California, USA, please follow the related regulations in advance.

“Perchlorate Material-special handling may apply, see [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)”

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ASRockInd follows the green design concept to design and manufacture our products, and makes sure that each stage of the product life cycle of ASRockInd product is in line with global environmental regulations. In addition, ASRockInd disclose the relevant information based on regulation requirements.



DO NOT throw the motherboard in municipal waste. This product has been designed to enable proper reuse of parts and recycling. This symbol of the crossed out wheeled bin indicates that the product (electrical and electronic equipment) should not be placed in municipal waste. Check local regulations for disposal of electronic products.



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## Button Battery Safety Notice

# **WARNING**

- **INGESTION HAZARD:** This product contains a button cell or coin battery.
- **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as **2 hours**.
- **KEEP** new and used batteries **OUT OF REACH of CHILDREN**
- **Seek immediate medical attention** if a battery is suspected to be swallowed or inserted inside any part of the body.



- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- Battery type: CR2032
- Battery voltage: 3.3V
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat above (manufacturer's specified temperature rating) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.
- This product contains an irreplaceable battery.
- This icon indicates that a swallowed button battery can cause serious injury or death. Please keep batteries out of sight or reach of children.

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# Chapter 1: Introduction

Thank you for purchasing ASRockInd **NUC-1165G7 / NUC-1135G7 / NUC-1115G4 / NUC-1185G7E / NUC-1145G7E / NUC-1115G4E / NUC-6305E** motherboard, a reliable motherboard produced under ASRockInd's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRockInd's commitment to quality and endurance.

In this manual, chapter 1 and 2 contain introduction of the motherboard and step-by-step guide to the hardware installation. Chapter 3 and 4 contain the configuration guide to BIOS setup and software support.



Because the motherboard specifications and the BIOS software might be updated, the content of this manual will be subject to change without notice. In case any modifications of this manual occur, the updated version will be available on ASRockInd website without further notice. You may find the latest VGA cards and CPU support lists on ASRockInd website as well. ASRockInd website:

<https://www.asrockind.com/NUC-1165G7>

<https://www.asrockind.com/NUC-1135G7>

<https://www.asrockind.com/NUC-1115G4>

<https://www.asrockind.com/NUC-1185G7E>

<https://www.asrockind.com/NUC-1145G7E>

<https://www.asrockind.com/NUC-1115G4E>

<https://www.asrockind.com/NUC-6305E>

If you require technical support related to this motherboard, please visit our website for specific information about the model you are using.

<https://www.asrockind.com/technical-support>

## 1.1 Package Contents

ASRockInd **NUC-1165G7 / NUC-1135G7 / NUC-1115G4 / NUC-1185G7E / NUC-1145G7E / NUC-1115G4E / NUC-6305E** Motherboard (NUC 4.09" x 4.02" (104 x 102mm))

ASRockInd **NUC-1165G7 / NUC-1135G7 / NUC-1115G4 / NUC-1185G7E / NUC-1145G7E / NUC-1115G4E / NUC-6305E** Jumper setting instruction

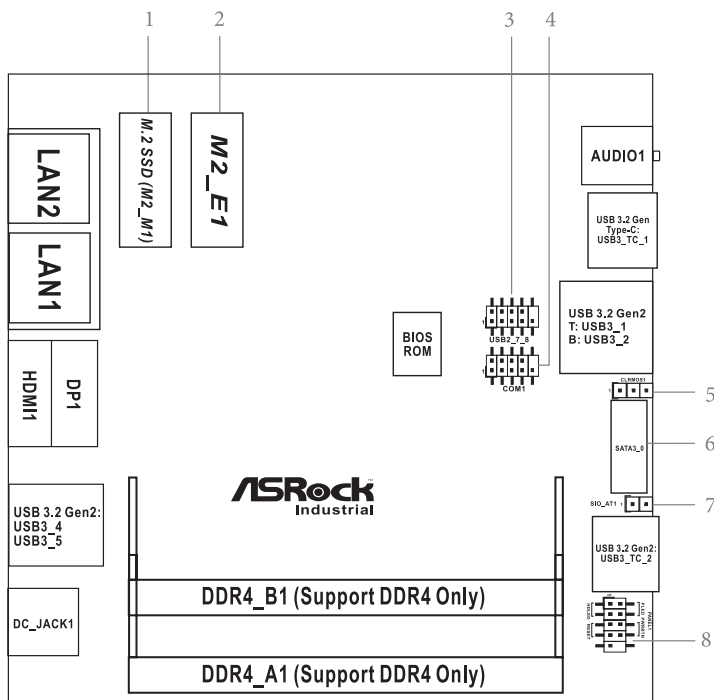
## 1.2 Specifications

<b>Form Factor</b>	Dimensions	NUC 4.09" x 4.02" (104 x 102mm)
<b>Processor System</b>	CPU	Intel® 11th Gen (Tiger Lake-UP3) Core™ Processors I7-1185G7E QC, Max Speed up to 4.4GHz
	Chipset	MCP
	BIOS	AMI SPI 256 Mbit
<b>Graphics</b>	Controller	Intel® Iris® Xe Graphics
	HDMI	HDMI 2.0a Max resolution up to 4096x2160@60Hz
	DisplayPort	DisplayPort 1.4, DP++ Max resolution up to 4096x2160@60Hz
	Multi Display	Max 4 display (Included 2 outputs from Type-C)
<b>Expansion Slot</b>	M.2	1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi for Wireless
<b>Audio</b>	Interface	Realtek ALC233, High Definition Audio
<b>Ethernet</b>	Controller/Speed	NUC-1185G7E/ NUC-1145G7E: LAN1: Intel® I219LM with 10/100/1000 Mbps, supports AMT/vPro LAN2: Intel® I 225LM/I225V with 10/100/1000/2500 Mbps NUC-1165G7/ NUC-1135G7/ NUC-1115G4/ NUC-1115G4E/NUC-6305E : LAN1: Intel® I219V with 10/100/1000 Mbps LAN2: Intel® I225LM/I225V with 10/100/1000/2500 Mbps
	Controller	2 x RJ-45
<b>Front I/O</b>	USB	2 x USB3.2 Gen2 (TypeA) 1 x USB4/Thunderbolt™ 4 (5V/3A, supports DP1.4 display output) *For Thunderbolt support, please refer to support list. 1 x USB3.2 Gen2 (Type-C, 5V/3A, supports DP1.4a displayoutput)
	Audio	1 (headphone & microphone jack)

<b>Rear I/O</b>	HDMI	1 x HDMI 2.0a
	DisplayPort	1 x DP 1.4
	Ethernet	1 x 1 Gigabit LAN, 1 x 2.5 Gigabit LAN
	USB	2 x USB 3.2 Gen2 (Type A)
	DC Jack	1
<b>Internal Connector</b>	USB	2 x USB 2.0 (1 x 2.00 pitch header)
	COM	1 x COM(RS-232)
	TPM	N/A, support onboard TPM
<b>Storage</b>	M.2	1 x M.2 (KEY M, 2242/2260/2280) with PCIe Gen4 x4 and SATA3 for SSD *M.2 Key M 2280(Supported by bracket)
	SATA	1 x SATA3.0 (6.0 Gb/s)
<b>Watchdog Timer</b>	Output	From Super I/O to drag RESETCON#
	Interval	256 Segments, 0, 1, 2, ...255sec
<b>Power Requirements</b>	Input PWR	12V~19V DC-In Jack
	Power On	AT/ATX Supported
		AT: Directly PWR on as power input ready ATX: Press button to PWR on after power input ready
<b>Environment</b>	Operating Temp	-20°C ~ 70°C
	Storage Temp	-40°C ~ 85°C
	Operating Humidity	5% ~ 90%
	Storage Humidity	5% ~ 90%



### 1.3 Motherboard Layout



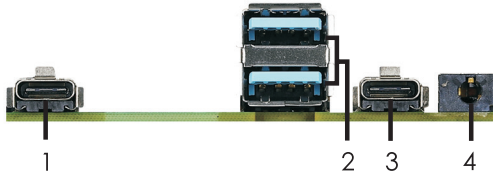
- 1 : M.2 Key-M Socket (M2\_M1)
- 2 : M.2 Key-E Socket (M2\_E1)
- 3 : USB2.0 Connector (USB2\_7\_8)
- 4 : COM Port Header (RS232)
- 5 : Clear CMOS Header (CLRCMOS1)
- 6 : SATA3 Port (SATA3\_0)
- 7 : SIO\_AT1
- 8 : System Panel Header (PANEL1)

Back Side :

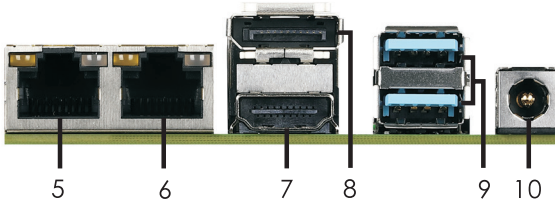
- Power Button (PWR\_BTN1)
- Fan Connector (FAN1)
- Battery Connector (BAT1)
- ESPI Connector (ESPI)

## 1.4 I/O Panel

### Front I/O:




### Rear I/O:



- |   |   |   |                               |
|---|---|---|-------------------------------|
| 1 | USB 3.2 Gen2 Type-C Port (USB3_TC_2)        | 6 | RJ-45 LAN Port (LAN1)**       |
| 2 | USB 3.2 Gen2 Ports (USB3_1_2)               | 7 | Top : DisplayPort (DP1)       |
| 3 | USB4/Thunderbolt™ 3 Type-C Port (USB3_TC_1) |   | Bottom : HDMI Port (HDMI1)    |
| 4 | Audio Jack (AUDIO1)                         | 8 | USB 3.2 Gen2 Ports (USB3_4_5) |
| 5 | RJ-45 LAN Port (LAN2)*                      | 9 | DC-In Jack (DC_IN1)           |

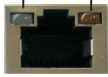
\* There are two LED next to the LAN port. Please refer to the table below for the LAN port LED indications.

#### LAN Port LED Indications

Activity/Link LED		SPEED LED		ACT/LINK LED	SPEED LED
Status	Description	Status	Description	 LAN Port	
Off	No Link	Off	10Mbps connection		
Blinking	Data Activity	Orange	100Mbps/1Gbps connection		
On	Link	Green	2.5Gbps connection		

\*\* There are two LED next to the LAN port. Please refer to the table below for the LAN port LED indications.

#### LAN Port LED Indications

Activity/Link LED		SPEED LED		ACT/LINK LED	SPEED LED
Status	Description	Status	Description	 LAN Port	
Off	No Link	Off	10Mbps connection		
Blinking	Data Activity	Orange	100Mbps connection		
On	Link	Green	1Gbps connection		

---

## Chapter 2: Installation

Before you install the motherboard, study the configuration of your chassis to ensure that the motherboard fits into it.



Make sure to unplug the power cord before installing or removing the motherboard. Failure to do so may cause physical injuries to you and damages to motherboard components.

### 2.1 Screw Holes

Place screws into the holes to secure the motherboard to the chassis.



Do not over-tighten the screws! Doing so may damage the motherboard.

### 2.2 Pre-installation Precautions

Take note of the following precautions before you install motherboard components or change any motherboard settings.

1. Unplug the power cord from the wall socket before touching any component.
2. To avoid damaging the motherboard components due to static electricity, NEVER place your motherboard directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before you handle components.
3. Hold components by the edges and do not touch the ICs.
4. Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that comes with the component.



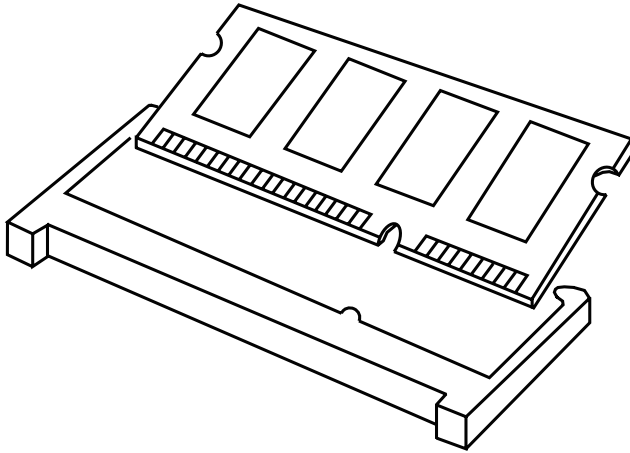
Before you install or remove any component, ensure that the power is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, and/or components.

---

## 2.3 Installation of Memory Modules (SO-DIMM)

This motherboard provides two 204-pin DDR4 (Double Data Rate 4) SO-DIMM slots.

- Step 1. Align a SO-DIMM on the slot such that the notch on the SO-DIMM matches the break on the slot.



1. The SO-DIMM only fits in one correct orientation. It will cause permanent damage to the motherboard and the SO-DIMM if you force the SO-DIMM into the slot at incorrect orientation.
2. Please do not intermix different voltage SO-DIMMs on this motherboard.

- Step 2. Firmly insert the SO-DIMM into the slot until the retaining clips at both ends fully snap back in place and the SO-DIMM is properly seated.

## 2.4 Expansion Slots (M.2 Slots)

There are 2 M.2 slots on this motherboard.

**M.2 for SSD:** 1 x M.2 (KEY M, 2242/2260/2280) with PCIe Gen4 x4 and SATA3 for SSD.

\* M.2 Key M 2280(Supported by bracket)

**M.2 for Wi-Fi:** 1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi for Wireless.

### M.2 Key-M Socket (M2\_M1)

Pin	Signal Name	Signal Name	Pin
1	GND	+3.3V	2
3	GND	+3.3V	4
5	PERn3	NC	6
7	PERp3	NC	8
9	GND	SATA_LED	10
11	PETn3	+3.3V	12
13	PETp3	+3.3V	14
15	GND	+3.3V	16
17	PERn2	+3.3V	18
19	PERp2	NA	20
21	GND	NA	22
23	PETn2	NA	24
25	PETp2	NA	26
27	GND	NA	28
29	PERn1	NA	30
31	PERp1	NA	32
33	GND	NA	34
35	PETn1	NA	36
37	PETp1		38
39	GND	NA	40
41	PERn0/SATA-B+	NA	42
43	PERp0/SATA-B-	NA	44
45	GND	NA	46
47	PETn0/SATA-A-	NA	48
49	PETp0/SATA-A+	PERST#	50
51	GND	CLKREQ#	52
53	PEFCLKn	WAKE#	54
55	PEFCLKp	NA	56
57	GND	NA	58
59			60
61			62
63			64
65			66
67	NA	NA	68
69	PEDET	+3.3V	70
71	GND	+3.3V	72
73	GND	+3.3V	74
75	GND		

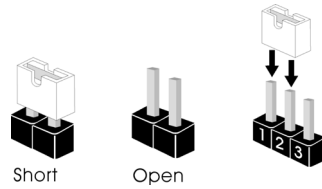
### M.2 Key-E Socket (M2\_E1)

Pin	Signal Name	Signal Name	Pin
1	GND	+3.3V	2
3	USB D+	+3.3V	4
5	USB D-	NA	6
7	GND	NA	8
9	CNV_WGR_D1-	CNV_RF_RESET	10
11	CNV_WGR_D1+	NA	12
13	GND	MODEM_CLKREQ	14
15	CNV_WGR_D0-	NA	16
17	CNV_WGR_D0+	GND	18
19	GND	NA	20
21	CNV_WGR_CLK-	CNV_BRI_RSP	22
23	CNV_WGR_CLK+		
		CNV_BGI_DT	32
33	GND	CNV_RGI_RSP	34
35	PETp	CNV_BRI_DT	36
37	PETn	NA	38
39	GND	NA	40
41	PERp	NA	42
43	PERn	NA	44
45	GND	NA	46
47	PEFCLKp	NA	48
49	PEFCLKn	SUSCLK	50
51	GND	PERST0#	52
53	CLKREQ#	W_DISABLE1#	54
55	WAKE#	W_DISABLE2#	56
57	GND	NA	58
59	CNV_WT_D1-	NA	60
61	CNV_WT_D1+	NA	62
63	GND		64
65	CNV_WT_D0-	NA	66
67	CNV_WT_D0+	NA	68
69	GND	NA	70
71	CNV_WT_CLK-	+3.3V	72
73	CNV_WT_CLK+	+3.3V	74
75	GND		

---

## 2.5 Jumpers Setup

The illustration shows how jumpers are setup. When the jumper cap is placed on pins, the jumper is “Short”. If no jumper cap is placed on pins, the jumper is “Open”. The illustration shows a 3-pin jumper whose pin1 and pin2 are “Short” when jumper cap is placed on these 2 pins.



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### Clear CMOS Jumper

(3-pin CLRCMOS1)

(see p. 9, No. 5)



1-2: Auto Clear (PWR OFF)

2-3: Clear CMOS

**Note:** CLRCMOS1 allows you to clear the data in CMOS. To clear and reset the system parameters to default setup, please turn off the computer and unplug the power cord from the power supply. After waiting for 15 seconds, use a jumper cap to short pin2 and pin3 on CLRCMOS1 for 5 seconds. However, please do not clear the CMOS right after you update the BIOS. If you need to clear the CMOS when you just finish updating the BIOS, you must boot up the system first, and then shut it down before you do the clear-CMOS action. Please be noted that the password, date, time, user default profile and MAC address will be cleared only if the CMOS battery is removed.

CLRCMOS1 allows you to clear the data in CMOS automatically when AC power on. The data in CMOS includes system setup information such as system password, date, time, and system setup parameters. To clear and reset the system parameters to default setup, please turn off the computer and unplug the power cord, then use a jumper cap to short pin 1 and pin 2 on CLRCMOS1.

---

### SIO\_AT1

(2-pin SIO\_AT1)

(see p. 9, No. 7)



Open: ATX Mode

Short: AT Mode

## 2.6 Onboard Headers and Connectors



Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage of the motherboard!

### SATA3 Connector

(SATA3\_0: see p. 9, No. 6)

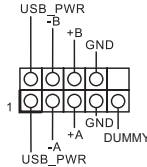


This Serial ATA3 (SATA3) connector supports SATA data cables for internal storage devices. The current SATA3 interface allows up to 6.0 Gb/s data transfer rate.

### USB 2.0 Connector

(9-pin USB2\_7\_8)

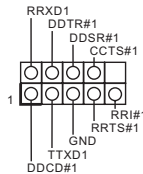
(see p. 9 No. 3)



There is one USB 2.0 connector on this motherboard.

### COM Port Header (RS232)

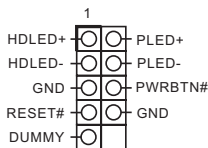
(9-pin COM1: see p. 9, No. 4)



### System Panel Header

(9-pin PANEL1)

(see p. 9, No. 8)



This header accommodates several system front panel functions.



Connect the power switch, reset switch 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.

#### **PWRBTN (Power Switch):**

Connect to the power switch on the chassis front panel. You may configure the way to turn off your system using the power switch.

---

**RESET (Reset Switch):**

Connect 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.

**PLED (System Power LED):**

Connect to the power status indicator on the chassis front panel. The LED is on when the system is operating. The LED keeps blinking when the system is in S1 sleep state. The LED is off when the system is in S4 sleep state or powered off (S5).

**HDLED (Hard Drive Activity LED):**

Connect to the hard drive activity LED on the chassis front panel. The LED is on when the hard drive is reading or writing data.

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.



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**Back Side:**

Power Button Header

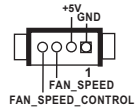
(PWR\_BTN1)



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Fan Connector

(FAN1)



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Battery Connector

(BAT1)

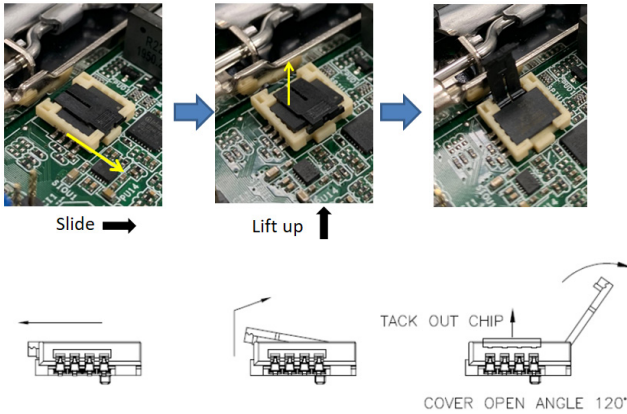
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ESPI Connector

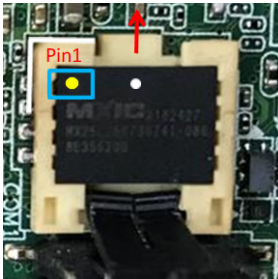
(ESPI1)

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## 2.7 Installation of ROM Socket



- \* Do not apply force to the actuator cover after ic inserted.
- \* Do not apply force to actuator cover when it is opening over 120 degree, Otherwise, the actuator cover may be broken.



- \* The yellow dot (Pin1) on the ROM must be installed at pin1 position of the socket.
  - \* Make sure the white dot on the ROM is installed outwards of the socket.
  - \* For further details of how to install ROM, please refer to ASRI website.
- Warning: If the installation does not follow as the picture, then it may cause severe damage to chipset & MB.**

---

# Chapter 3: UEFI SETUP UTILITY

## 3.1 Introduction

This section explains how to use the UEFI SETUP UTILITY to configure your system. The UEFI chip on the motherboard stores the UEFI SETUP UTILITY. You may run the UEFI SETUP UTILITY when you start up the computer. Please press <F2> or <Del> during the Power-On-Self-Test (POST) to enter the UEFI SETUP UTILITY, otherwise, POST will continue with its test routines.

If you wish to enter the UEFI SETUP UTILITY after POST, restart the system by pressing <Ctl> + <Alt> + <Delete>, or by pressing the reset button on the system chassis. You may also restart by turning the system off and then back on.



Because the UEFI software is constantly being updated, the following UEFI setup screens and descriptions are for reference purpose only, and they may not exactly match what you see on your screen.

### 3.1.1 UEFI Menu Bar

The top of the screen has a menu bar with the following selections:

<b>Main</b>	To set up the system time/date information
<b>Advanced</b>	To set up the advanced UEFI features
<b>H/W Monitor</b>	To display current hardware status
<b>Security</b>	To set up the security features
<b>Boot</b>	To set up the default system device to locate and load the Operating System
<b>Exit</b>	To exit the current screen or the UEFI SETUP UTILITY

Use <←> key or <→> key to choose among the selections on the menu bar, and then press <Enter> to get into the sub screen. You can also use the mouse to click your required item.

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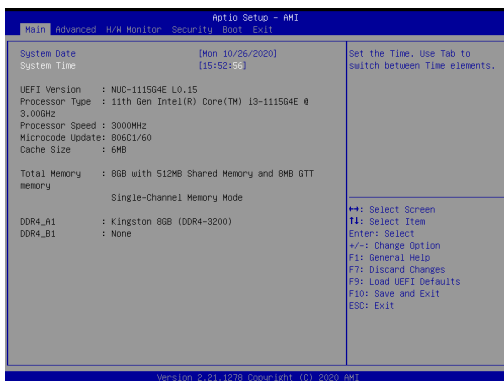
## 3.1.2 Navigation Keys

Please check the following table for the function description of each navigation key.

Navigation Key(s)	Function Description
← / →	Moves cursor left or right to select Screens
↑ / ↓	Moves cursor up or down to select items
+ / -	To change option for the selected items
<Enter>	To bring up the selected screen
<F1>	To display the General Help Screen
<F7>	Discard changes
<F9>	To load optimal default values for all the settings
<F10>	To save changes and exit the UEFI SETUP UTILITY
<F12>	Print screen
<ESC>	To jump to the Exit Screen or exit the current screen

## 3.2 Main Screen

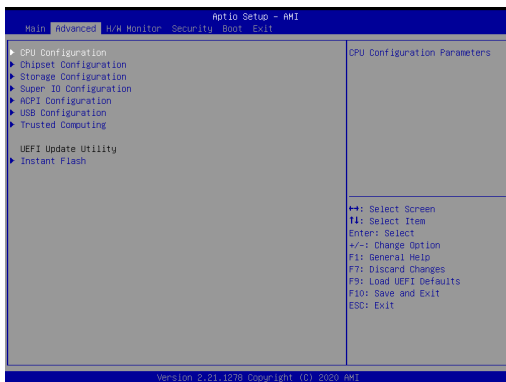
When you enter the UEFI SETUP UTILITY, the Main screen will appear and display the system overview.



---

### 3.3 Advanced Screen

In this section, you may set the configurations for the following items: CPU Configuration, Chipset Configuration, Storage Configuration, Super IO Configuration, ACPI Configuration, USB Configuration, Trusted Computing, CPU Configuration Parameters, and Instant Flash.



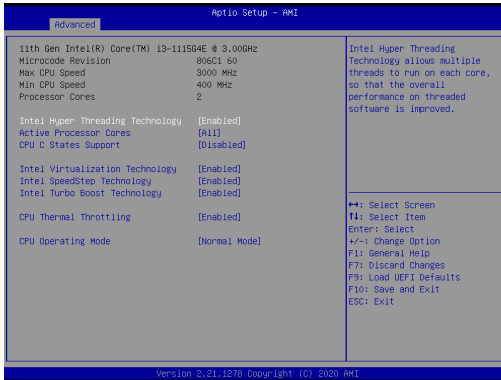
Setting wrong values in this section may cause the system to malfunction.

#### Instant Flash

Instant Flash is a UEFI flash utility embedded in Flash ROM. This convenient UEFI update tool allows you to update system UEFI without entering operating systems first like MS-DOS or Windows®. Just launch this tool and save the new UEFI file to your USB flash drive, floppy disk or hard drive, then you can update your UEFI only in a few clicks without preparing an additional floppy diskette or other complicated flash utility. Please be noted that the USB flash drive or hard drive must use FAT32/16/12 file system. If you execute Instant Flash utility, the utility will show the UEFI files and their respective information. Select the proper UEFI file to update your UEFI, and reboot your system after UEFI update process completes.

---

### 3.3.1 CPU Configuration



#### Intel Hyper-Threading Technology

To enable this feature, a computer system with an Intel processor that supports Hyper-Threading technology and an operating system that includes optimization for this technology, such as Microsoft® Windows® 10 64-bit / 8.1 64-bit / 7 32-bit / 7 64-bit is required. Set to [Enabled] if using Microsoft® Windows® 10 64-bit / 8.1 64-bit / 7 32-bit / 7 64-bit or Linux kernel version 2.4.18 or higher. This option will be hidden if the installed CPU does not support Hyper-Threading technology.

#### Active Processor Cores

Select the number of cores to enable in each processor package.

#### CPU C States Support

Enable CPU C States Support for power saving. It is recommended to keep C3, C6 and C7 all enabled for better power saving.

#### Intel Virtualization Technology

When this option is set to [Enabled], a VMM (Virtual Machine Architecture) can utilize the additional hardware capabilities provided by Vanderpool Technology. This option will be hidden if the installed CPU does not support Intel Virtualization Technology.

#### Intel SpeedStep Technology

Intel SpeedStep technology is Intel's new power saving technology. Processors can switch between multiple frequencies and voltage points to enable power saving. The default value is [Enabled]. Configuration options: [Enabled] and [Disabled]. If you install Windows® 10 64-bit / 8.1 64-bit / 7 32-bit / 7 64-bit and want to enable this function, please set this item to [Enabled]. This item will be hidden if the current CPU does not support Intel SpeedStep technology.



Please note that enabling this function may reduce CPU voltage and lead to system stability or compatibility issues with some power supplies. Please set this item to [Disabled] if above issues occur.

### **Intel Turbo Boost Technology**

Use this item to enable or disable Intel Turbo Boost Mode Technology. Turbo Boost Mode allows processor cores to run faster than marked frequency in specific conditions. The default value is [Enabled].

### **CPU Thermal Throttling**

You may select [Enabled] to enable CPU internal thermal control mechanism to keep the CPU from overheating.

### **CPU Operation Mode**

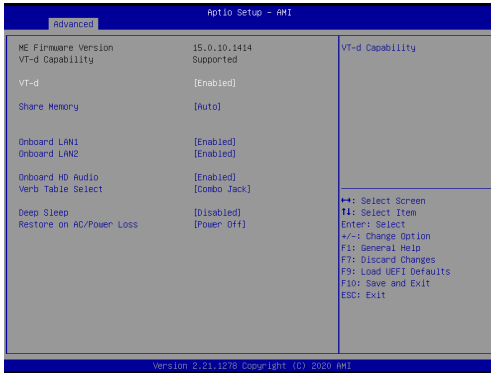
Use this item to select CPU Operating Mode, [Normal Mode] or [Performance Mode]. The default mode is [Normal Mode].

If working at [Normal Mode], M/B works with default Smart Fan setting and can provide you better cooler experience.

If [Performance Mode] is selected, CPU can provide optimal performance, but the CPU fan speed will work at full speed.

---

## 3.3.2 Chipset Configuration



### VT-d

Use this to enable or disable Intel® VT-d technology (Intel® Virtualization Technology for Directed I/O). The default value of this feature is [Disabled].

### Share Memory

Configure the size of memory that is allocated to the integrated graphics processor when the system boots up.

### Onboard LAN1

This allows you to enable or disable the Onboard LAN1 feature.

### Onboard LAN2

This allows you to enable or disable the Onboard LAN2 feature.

### Onboard HD Audio

Enable/disable onboard HD audio. Set to Auto to enable onboard HD audio and automatically disable it when a sound card is installed.

### Verb Table Select

The default value is [Combo Jack].

### Deep Sleep

Mobile platforms support Deep S4/S5 in DC only and desktop platforms support Deep S4/S5 in AC only. The default value is [Disabled].

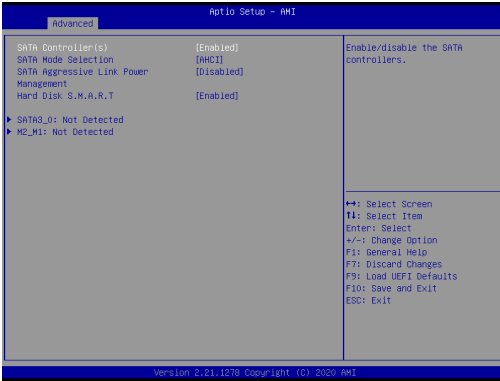
### Restore on AC/Power Loss

Select the power state after a power failure. If [Power Off] is selected, the power will remain off when the power recovers. If [Power On] is selected, the system will start to boot up when the power recovers.



---

### 3.3.3 Storage Configuration



#### **SATA Controller(s)**

Use this item to enable or disable the SATA Controller feature.

#### **SATA Mode Selection**

Use this to select SATA mode. The default value is [AHCI Mode].



AHCI (Advanced Host Controller Interface) supports NCQ and other new features that will improve SATA disk performance but IDE mode does not have these advantages.

#### **SATA Aggressive Link Power Management**

Use this item to configure SATA Aggressive Link Power Management.

#### **Hard Disk S.M.A.R.T.**

Use this item to enable or disable the S.M.A.R.T. (Self-Monitoring, Analysis, and Reporting Technology) feature. Configuration options: [Disabled] and [Enabled].

---

### 3.3.4 Super IO Configuration



#### COM1 Configuration

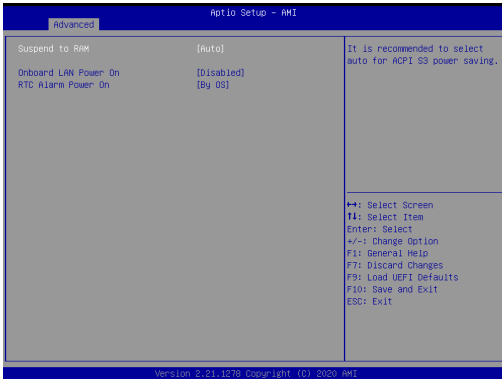
Use this to set parameters of COM1.

#### WDT Timeout Reset

Use this to set the Watch Dog Timer.

---

### 3.3.5 ACPI Configuration



#### **Suspend to RAM**

Use this item to select whether to auto-detect or disable the Suspend-to-RAM feature. Select [Auto] will enable this feature if the OS supports it.

#### **Onboard LAN Power On**

Use this item to enable or disable onboard LAN to turn on the system from the power-soft-off mode.

#### **RTC Alarm Power On**

Use this item to enable or disable RTC (Real Time Clock) to power on the system.

---

### 3.3.6 USB Configuration



#### Legacy USB Support

Enable or disable Legacy OS Support for USB 2.0 devices. If you encounter USB compatibility issues it is recommended to disable legacy USB support. Select UEFI Setup Only to support USB devices under the UEFI setup and Windows/Linux operating systems only.

#### USB Power Control

Use this item to control USB power.

### 3.3.7 Trusted Computing



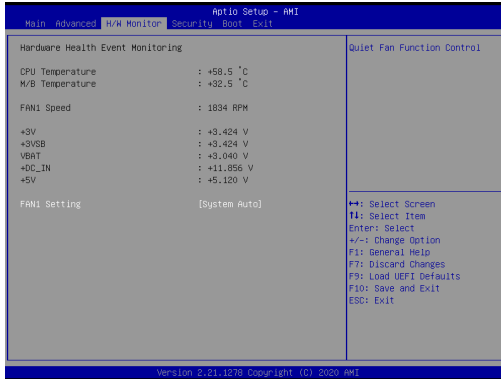
#### Security Device Support

Enable or disable BIOS support for security device.

---

### 3.4 Hardware Health Event Monitoring Screen

In this section, it allows you to monitor the status of the hardware on your system, including the parameters of the CPU temperature, motherboard temperature, CPU fan speed, chassis fan speed, and the critical voltage.



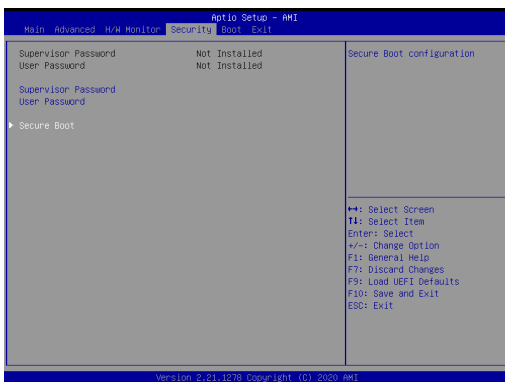
#### FAN1 Setting

This allows you to set FAN1's speed. Configuration options: [Full On] and [Automatic Mode]. The default value is [Full On].

---

## 3.5 Security Screen

In this section, you may set, change or clear the supervisor/user password for the system.



### Supervisor Password

Set or change the password for the administrator account. Only the administrator has authority to change the settings in the UEFI Setup Utility. Leave it blank and press enter to remove the password.

### User Password

Set or change the password for the user account. Users are unable to change the settings in the UEFI Setup Utility. Leave it blank and press enter to remove the password.

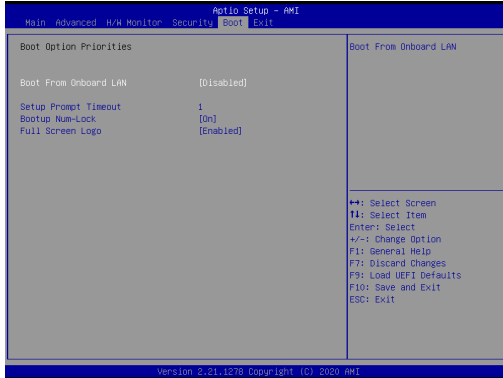
### Secure Boot

Enable to support Windows 8.1 / 8 Secure Boot.

---

## 3.6 Boot Screen

In this section, it will display the available devices on your system for you to configure the boot settings and the boot priority.



### Boot From Onboard LAN

Use this item to enable or disable the Boot From Onboard LAN feature.

### Setup Prompt Timeout

This shows the number of seconds to wait for setup activation key. 65535(0XFFFF) means indefinite waiting.

### Bootup Num-Lock

If this item is set to [On], it will automatically activate the Numeric Lock function after boot-up.

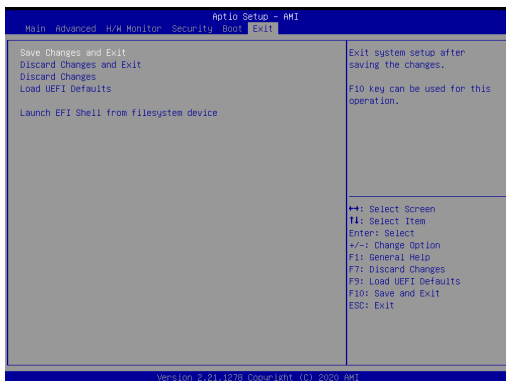
### Full Screen Logo

Use this item to enable or disable OEM Logo. The default value is [Enabled].



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## 3.7 Exit Screen



### Save Changes and Exit

When you select this option, it will pop-out the following message, "Save configuration changes and exit setup?" Select [OK] to save the changes and exit the UEFI SETUP UTILITY.

### Discard Changes and Exit

When you select this option, it will pop-out the following message, "Discard changes and exit setup?" Select [OK] to exit the UEFI SETUP UTILITY without saving any changes.

### Discard Changes

When you select this option, it will pop-out the following message, "Discard changes?" Select [OK] to discard all changes.

### Load UEFI Defaults

Load UEFI default values for all the setup questions. F9 key can be used for this operation.

### Launch EFI Shell from filesystem device

Attempts to Launch EFI Shell application (Shell64.efi) from one of the available filesystem devices.

---

## ***Chapter 4: Software Support***

### **4.1 Install Operating System**

This motherboard supports various Microsoft® Windows® operating systems: 10 64-bit. Because motherboard settings and hardware options vary, use the setup procedures in this chapter for general reference only. Refer your OS documentation for more information.