

NUCS-1360P/D4 NUCS-1340P/D4

User Manual

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Chapter 1 Introduction

Thank you for purchasing ASRockInd *NUCS-1360P/D4 / NUCS-1340P/D4* 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-bystep guide to the hardware installation. Chapter 3 contains the configuration guide to BIOS setup.



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 CPU support lists on ASRockIndind website as well.

ASRockIndind website https://www.asrockind.com/

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/support/index.asp

1.1 Package Contents

ASRockInd *NUCS-1360P/D4 / NUCS-1340P/D4* Motherboard (NUC 4.09" x 4.02" x 10.8" (104 x 102 x 276mm))

ASRockInd NUCS-1360P/D4 / NUCS-1340P/D4 Jumper Setting Instruction

1.2 Specifications

Form Factor	Dimensions	NUC 4.09" x 4.02" x 10.8" (104 x 102 x 276mm)	
Processor	CPU	Intel® 13th Gen (Raptor Lake-P) Core™ Processors NUCS-1360P/D4(i7-1360P, 4P+8E) NUCS-1340P/D4(i5-1340P, 4P+8E)	
System	Chipset	MCP	
	BIOS	AMI SPI 256 Mbit	
Expansion Slot	M.2	1 x Wi-Fi 6E 802.11ax (2.4Gbps) + BT 5.2 (M.2 Key E, 2230 PCIe x1, USB 2.0 for Wireless)	
	Technology	Dual Channel DDR4 3200 MHz	
Memory	Capacity	64GB (32GB per DIMM)	
	Socket	2 x 260-pin SO-DIMM	
	Controller	Intel [®] Iris [®] Xe Graphics	
	UDM	HDMI 2.0b	
Carabian	HDMI	Max resolution up to 4096 x 2160@60Hz	
Graphics	DisplayPort	DisplayPort 1.4a, DP++	
		Max resolution up to 4096x2160@60Hz	
	Multi Display	Quad display (Included 2 output from Type-C)	
Audio	Interface	Realtek ALC233/ALC256 , High Definition Audio	
	Controller/	Intel® I226LM with 10/100/1000/2500 Mbps	
Ethernet	Speed		
	Controller	1 x RJ-45	
		2 x USB 3.2 Gen2 (Type A)	
	USB	1 x USB4 (Supports DP1.4a display output)	
Front I/O		1 x USB3.2 Gen2 (Type-C, Supports DP1.4a display	
		output	
	Audio	1 (headphone & microphone jack)	
	HDMI	2 x HDMI 2.0b	
Rear I/O	Ethernet	1 x 2.5 Gigabit LAN	
	USB	2 x USB 3.2 Gen2 (Type-A)	
	DC Jack	1	
Internal	TPM	TPM 2.0 onboard IC	
Storage	M.2	1 x M.2 (KEY M, 2242/2280) with PCIe Gen4 x4 for SSD	
Storage Watchdog	M.2 Output	1 x M.2 (KEY M, 2242/2280) with PCIe Gen4 x4 for SSD From Super I/O to drag RESETCON#	

	Input PWR	12V~19V DC-In Jack	
Down		AT/ATX Supported	
Power Do automanto	Power On	- AT : Directly PWR on as power input ready	
Requirements		- ATX : Press button to PWR on after power	
		input ready	
	Operating	000 4000	
	Temp	0°C - 40°C	
	Storage Temp	-40°C - 85°C	
Environment	Operating	E9% 0.09%	
	Humidity	5% - 90%	
	Storage	E9% 000%	
	Humidity	3% - 90%	

1.3 Motherboard Layout



1: M.2 Key-M Socket (M2_M1)

2 : M.2 Key-E Socket (M2_E1)

3: JP1

JP1_21: SIO AT Mode

JP1_35: DACC

JP1_46: CMOS2

JP1_68: CMOS

4 : System Panel Header (PANEL1)

Back Side: Power Button (PWR_BTN1) Fan Connector (FAN1) Battery Connector (BAT1) ESPI Connector (ESPI1)

1.4 I/O Panel

Front I/O



Rear I/O



- 1 USB3/DP Type-C Port (TC_UD2)
- 2 Thunderbolt Type-C Port (TC_T0)
- 3 USB 3.2 Gen2 Ports (USB3_3_4)
- 4 Audio Jack (AUDIO1)
- 5 RJ-45 LAN Port (LAN1)
 - (Supports vPro)*
- 6 USB 3.2 Gen2 Ports (USB3_1_2)
- 7 HDMI Port (HDMI1)
- 8 HDMI Port (HDMI2)
- 9 DC-In Jack (DC_JACK1)
- * 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



Chapter 2 Installation

This is a NUC 4.09" x 4.02" x 10.8" (104 x 102 x 276mm) form factor motherboard. 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.
- To avoid damaging the motherboard components due to static electricity, NEV-ER 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.
- Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that comes with the component.
- Heatsink (The thermal solution of whole system needs to be designed additionally.)



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)

NUCS-1360P/D4 / NUCS-1340P/D4 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.





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

There are 2 M.2 sockets on this motherboard.

M.2 sockets:

1 x M.2 (Key M, 2242/2260/2280) with PCIex4 for SSD *M.2 Key M 2280(Supported by bracket) 1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi for Wireless.

M.2 Key-M Socket

(M2_M1)

SIGNAL SIGNAL PIN GND 73 GND +3.3V 74 71 GND +3.3V 72 69 PEDET +3.3V 70 67 NA NA 68 GND NA 58 55 PEFCLKp 56 NA WAKE# PEFCLKn 54 51 GND CLKREQ# 52 49 PETP0 PERST# 50 47 48 PETn0 NA 45 GND NA 46 43 PERp0 NA 44 41 PERn0 SMB_DATA 42 39 GND SMB_CLK 40 37 PETp1 GND 38 35 PETn1 USB2 DN 36 33 GND USB2_DP 34 31 PERp1 GND 29 PERn1 NA 30 GND NA 28 26 PETp2 NA PETn2 NA 24 21 GND NA 19 PERp2 NA 20 17 +3.3V 18 PERn2 15 GND +3.3V 16 PETp3 +3.3V 14 11 PETn3 +3.3V 12 9 LED# 10 GND PERp3 NA 8 PERn3 NA 6 3 GND +3.3V 4 GND +3.3V 2

M.2 Key-E Socket

(M2_E1)

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

2.5 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!

JP1 Header

(10-pin JP1) (see p. 4 No. 3)



JP1_21: SIO AT Mode JP1_35: DACC* JP1_46: CMOS2 JP1_68: CMOS

Auto clear CMOS when system boot improperly.

System Panel Header

(9-pin PANEL1)

(see p. 4 No. 4)

	1		
HDLED+ -	Ю	О	PLED+
HDLED	Ю	Ò	PLED-
GND -	Ю	Q	PWRBTN#
RESET# -	Ю	Q	GND
DUMMY -	Ю		

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 S3/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.

Backside:

Power Button (PWR_BTN1)



Fan Connector (FAN1)



Battery Connector (BAT1)

ESPI Connector (ESPI1)

Chapter 3 UEFI SETUP UTILITY

3.1 Introduction

ASRock Industrial UEFI (Unified Extensible Firmware Interface) is a BIOS utility which offers tweak-friendly options in an advanced viewing interface. The UEFI system works with a USB mouse and offers users a faster, sleeker experience.

This BIOS utility can perform the Power-On Self-Test (POST) during system startup, record hardware parameters of the system, load operating system, and so on. The battery on the motherboard supplies the power needed to the CMOS when the system power is turned off, and the values configured in the UEFI utility are kept in the CMOS.

Please note that inadequate BIOS settings may cause system instability, mulfunction or boot failure. We strongly recommend that you do not alter the UEFI default configurations or change the settings only with the assistance of a trained service person.

If the system becomes unstable or fails to boot after you change the setting, try to clear the CMOS values and reset the board to default values. See your motherboard manual for instructions.

3.1.1 Entering BIOS Setup

You may run the UEFI SETUP UTILITY by pressing $\langle F2 \rangle$ or $\langle Delete \rangle$ right after you power on the computer; otherwise, the Power-On-Self-Test (POST) will continue with its test routines. If you wish to enter the UEFI SETUP UTILITY after POST, restart the system by pressing $\langle Ctl \rangle + \langle Alt \rangle + \langle Delete \rangle$, or by pressing the reset button on the system chassis. You may also restart by turning the system off and then back on.

This setup guide explains how to use the UEFI SETUP UTILITY to configure all the supported system. The screenshots in this manual are for reference only. UEFI Settings and options may vary owing to different BIOS release versions or CPU installed. Please refer to the actual BIOS version of the motherboard you purchased for detailed screens, settings and options.

3.1.2 UEFI Menu Bar

 (\pm)

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

Main	For setting system time/date information
Advanced	For advanced system configurations
H/W Monitor	Displays current hardware status
Security	For security settings
Boot	For configuring boot settings and boot priority
Exit	Exit the current screen or the UEFI Setup Utility

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

3.1.3 Navigation Keys

Use $\langle \longleftarrow \rangle$ key or $\langle \longrightarrow \rangle$ key to choose among the selections on the menu bar, and use $\langle \uparrow \rangle$ key or $\langle \downarrow \rangle$ key to move the cursor up or down to select items, then press \langle Enter \rangle to get into the sub screen. You can also use the mouse to click your required item.

Please check the following table for the descriptions of each navigation key.

Navigation Key(s)	Description
+ / -	To change option for the selected items
<tab></tab>	Switch to next function
<pgup></pgup>	Go to the previous page
<pgdn></pgdn>	Go to the next page
<home></home>	Go to the top of the screen
<end></end>	Go to the bottom of the screen
<f1></f1>	To display the General Help Screen
<f7></f7>	Discard changes and exit the SETUP UTILITY
<f9></f9>	Load optimal default values for all the settings
<f10></f10>	Save changes and exit the SETUP UTILITY
<f12></f12>	Print screen
<esc></esc>	Jump to the Exit Screen or exit the current screen

3.2 Main Screen (Advanced Mode)

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

Main Advanced	Aptio Setup – AMI H/W Monitor Security Boot Exit		
System Date System Time UEFI Version Processor Type Processor Speed Cache Size Total Memory	[Tue 05/21/2021] [13:46:49] : NUCS-1370P/D4 L0.16 : 13th Gen Intel(R) CoreT i7-1370P : 1900HH2 : 24MB : 8GB with 64MB Shared Memory	Set the Date. Use Tab to suitch between Date elements. Default Ranges: Year: 1998-9399 Months: 1-12 Days: Dependent on month Range of Years may vary.	
	and 8MB GTT memory Single-Channel Memory Mode		
DDR4_B1	: Kingston oud (DDR4-2133)	↔: Select Screen 11: Select Item Enter: Select +/-: Charge Option F1: General Help F7: Discard Charges F9: Load UEFI Defaults F10: Save and Exit ESC: Exit	
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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. Options may also vary depending on the features of your motherboard.

3.3 Advanced Screen

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



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, and then you can update your UEFI in only 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.

Configuration options: [Easy Mode] [Advanced Mode]

3.3.1 CPU Configuration

Advanced	Aptio Setup – AMI		
13th Gen Intel(R) CoreT 17-1370P Processor ID Microcode Revision Processor Max Speed Processor Min Speed Processor P-Cores Processor E-Cores	80682 4107 1300 MHz 400 MHz 6Core(s) / 12Thread(s) 8Core(s) / 8Thread(s)	Intel Hyper Threading Technology allows multiple threads to run on each core, so that the overall performance on threaded software is improved.	
Intel Hyper Threading Technology Active Processor P-Cores Active Processor E-Cores CPU C States Support Enhanced Halt State(CIE)	[Enabled] [All] [All] [Enabled] [Enabled]		
Package C State Support CFG Lock	[Enabled] [Disabled]	↔: Select Screen ↑↓: Select Item Enter: Select	
Intel Virtualization Technology	[Enabled]	+∕-: Change Option	
Intel SpeedStep Technology Intel Turbo Boost Technology	[Enabled] [Enabled]	F1: General Help F7: Discard Changes F9: Load UEFI Defaults	
CPU Thermal Throttling	(Enabled)	F10: Save and Exit ESC: Exit	
Version 2.22.1287 Copyright (C) 2022 AMI			

Intel Hyper Threading Technology

Intel Hyper Threading Technology allows multiple threads to run on each core, so that the overall performance on threaded software is improved.

Configuration options: [Enabled] [Disabled]

Active Processor P-Cores

Allows you to select the number of cores to enable in each processor package.

Active Processor E-Cores

Allows you to select the number of E-Cores to enable in each processor package. NOTE: Number of P-Cores and E-Cores are looked at together. When both are {0,0}, Pcode will enable all cores.

CPU C States Support

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

Configuration options: [Enabled] [Disabled]

Enhanced Halt State (C1E)

Allows you to enable Enhanced Halt State (C1E) for lower power consumption.

Configuration options: [Auto] [Enabled] [Disabled]

Package C State Support

Allows you to enable CPU, PCIe, Memory, Graphics C State Support for power saving.

Configuration options: [Auto] [Enabled] [Disabled]

CFG Lock

Allows you to enable or disable the CFG Lock.

Configuration options: [Enabled] [Disabled]

Intel Virtualization Technology

Intel Virtualization Technology allows a platform to run multiple operating systems and applications in independent partitions, so that one computer system can function as multiple virtual systems.

Configuration options: [Enabled] [Disabled]

Intel SpeedStep Technology

Intel SpeedStep technology allows processors to switch between multiple frequencies and voltage points for better power saving and heat dissipation. CPU turbo ratio can be fixed when Intel SpeedStep Technology is set to [Disabled] and Intel Turbo Boost Technology is set to [Enabled].

Configuration options: [Enabled] [Disabled].

If you install Windows^{*} 7 / 8 / 8.1 / 10 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

Intel Turbo Boost Technology enables the processor to run above its base operating frequency when the operating system requests the highest performance state. The default value is [Enabled].

Configuration options: [Enabled] [Disabled]

CPU Thermal Throttling

CPU Thermal Throttling allows you to enable CPU internal thermal control mechanisms to keep the CPU from overheating.

Configuration options: [Enabled] [Disabled]

3.3.2 Chipset Configuration

Advanced	Aptio Setup – AMI	
ME Firmware Version VT-d Capability	16.1.25.2049 Supported	VT-d Capability
VT−d Re−Size BAR Support	[Enabled] [Disabled]	
Share Memory In-Band ECC Support Render Standby	[Auto] [Disabled] [Enabled]	
Onboard LAN1	[Enabled]	
Onboard HD Audio	[Enabled]	
Deep S5 Restore on AC/Power Loss	(Disabled) (Power Off)	 File Select Tem Enter: Select +/-: Change Option Fi: General Heip F7: Discard Changes F9: Load UEFI Defaults F10: Save and Exit ESC: Exit
	Version 2.22.1287 Copyright (C) 2022 AMI

VT-d

Intel[®] Virtualization Technology for Directed I/O helps your virtual machine monitor better utilize hardware by improving application compatibility and reliability, and providing additional levels of manageability, security, isolation, and I/O performance.

Configuration options: [Enabled] [Disabled]

Re-size BAR support

If system has Resizable BAR capable PCIe Devices, this option enables or disables Resizable BAR Support.

Share Memory

Share memory allows you to configure the size of memory that is allocated to the integrated graphics processor when the system boots up.

Configuration options: [Auto] [32M] [64M] [128M] [256M] [512M] [1024M] Options vary depending on the memory you use on your motherboard.

In-Band ECC Support

This allows you to enable or disable In-Band ECC. The option will be enabled if memory has symmetric configuration.

Configuration options: [Enabled] [Disabled]

Render Standby

Power down the render unit when the GPU is idle for lower power consumption.

Onboard LAN1

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

Onboard HD Audio

This allows you to enable or disable the onboard HD audio.

Configuration options: [Enabled] [Disabled]

Deep S5

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

Allows you to select the power state after a power failure.

[Power Off] sets the power to remain off when the power recovers.

[Power On] sets the system to start to boot up when the power recovers.

Advanced Enable/Disable Watch Dog WOT Timeout Reset [Disabled] #*: Select Screen H1: Select Item Entr: Select Item Entr: Select Item F7: Darge Option F1: General Help F7: Disable Changes F3: Load UEFI Defaults F10: Save and Exit ESC: Exit

3.3.3 Super IO Configuration

WDT Timeout Reset

Use this to set the Watch Dog Timer.

3.3.4 AMT Configuration

	Aptio Setup – AMI	
Advanced		
USB Provisioning of AHT MAC Pass Through Dynamic Lan Suitch Activate Remote Assistance Process Unconfigure ME ASF Configuration > ASF Configuration > Gne Click Recovery(OCR) Configurat > Remote Plaform Erase Configuratio > MEDx	(Disabled) (Disabled) (As defined in FIT) (Disabled) (Disabled) ion	Enable/Disable of AMT USB Provisioning.
		↔: Select Screen 14: Select Item Enter: Select +/-: Change Option F7: Discard Changes F3: Load UEFI Defaults F10: Save and Exit ESC: Exit
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USB Provisioning of AMT

Use this to enable or disable AMT USB Provisioning. The default is [Disabled].

MAC Pass Through

Use this to enable or disable MAC Pass Through. The default is [Disabled].

Dynamic Lan Switch

The option allows switching AMT support from Integrated LAN to Discrete LAN.

Activate Remote Assistance Process

Trigger CIRA boot. The default is [Disabled].

UnConfigure ME

Un-Configure ME without password. The default is [Disabled].

PET Progress

User can enable or disable PET Events progress to receive PET events or not. The default is [Enabled].

WatchDog

Use this to enable or disable AMT WatchDog Timer. The default is [Disabled].

ASF Sensors Table

Use this to enable or disable ASF Sensor Table. The default is [Disabled].

Secure Erase mode

Change Secure Erase module behavior: Simulated: Performs SE flow without erasing SSD. Real: Erase SSD.

Force Secure Erase

Use this to enable or disable Force Secure Erase on next boot. The default is [Disabled].

OCR Http Boot

Use this to enable or disable One Click Recovery Https Boot. The default is [Enabled].

OCR PBA Boot

Use this to enable or disable One Click Recovery PBA Boot. The default is [Enabled].

OCR Windows Recovery Boot

Use this to enable or disable One Click Recovery Windows Recovery Boot. The default is [Enabled].

OCR Disable Secure Boot

Use this to allows CSME to request Secure Boot to be disabled for One Click Recovery. The default is [Enabled].

Enable Remote Platform Erase Feature

Use this to enable or disable Remote Platform Erase Feature. The default is [Enabled].

SSD Erase mode

Change RPE SSD Erase Action behavior: Simulated: Performs RPE SSD Erase flow without erasing SSD Real: Erase SSD.

Intel(R) ME Password

MEBx Login

3.3.5 ACPI Configuration

Advanced	Aptio Setup – AMI	
Suspend to RAM Onboard LAN Power On RTC Alarm Power On	(Auto) (Disabled) (By OS)	It is recommended to select auto for ACPI S3 power saving.
		 ++: Select Screen T1: Select Item Enter: Select +/-: Change Option F1: General Help F7: Discard Changes F3: Load UEF1 Defaults F10: Save and Exit
	Version 2,22,1287 Convright (ESC: Exit

Suspend to RAM

Suspend to RAM allows you to select [Disabled] for ACPI suspend type S1. It is recommended to select [Auto] for ACPI S3 power saving.

Configuration options: [Auto] [Disabled]

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

RTC Alarm Power On allows the system to be waked up by the real time clock alarm. Set it to By OS to let it be handled by your operating system.

Configuration options: [Enabled] [Disabled] [By OS]

3.3.6 USB Configuration

Advanced	Aptio Setup – AMI		
USB Power Control	[Default Setting]	Always enabled: Enable USB power in SO/S3/S4/S5, Default setting: Enable USB power in SO/S3, disable USB power in S4/S5.	
		 ↔: Select Screen 11: Select Item Enter: Select +/-: Change Option F1: General Help F7: Discard Changes F9: Load UEFI Defaults F10: Save and Exit ESC: Exit 	
Version 2.22.1287 Cópyright (C) 2022 AMI			

USB Power Control

Use this option to control USB power.

3.3.7 Trusted Computing

Advanced	Aptio Setup – AMI	
TPM 2.0 Device Found Firmware Version: Vendor: Security Device Support Active PCR banks Available PCR banks	7.85 IFX [Enable] SHA256 SHA256	Enables or Disables BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INTIA interface will not be available.
SHA256 PCR Bank Pending operation Platform Hierarchy Storage Hierarchy Endorsement Hierarchy Physical Presence Spec Version TPM 2.0 InterfaceType Device Select	[Enabled] [None] [Enabled] [Enabled] [Enabled] [1.3] [T15] [Auto]	++: Select Screen 14: Select Item Enter: Select +/-: Change Option E1: General Hain
Onboard TPM	[Enabled]	F?: Discard Changes F9: Load UEFI Defaults F10: Save and Exit ESC: Exit
Version	1 2.22.1287 Copyright (C) 2023	2 AMI

NOTE: Options vary depending on the version of your connected TPM module.

Security Device Support

Security Device Support allows you to enable or disable BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available.

Configuration options: [Enabled] [Disabled]

Active PCR banks

This item displays active PCR Banks.

Available PCR Banks

This item displays available PCR Banks.

SHA256 PCR Bank

SHA256 PCR Bank allows you to enable or disable SHA256 PCR Bank.

Configuration options: [Enabled] [Disabled]

Pending Operation

Pending Operation allows you to schedule an Operation for the Security Device.

NOTE: Your computer will reboot during restart in order to change State of the Device.

Configuration options: [None] [TPM Clear]

Platform Hierarchy

This item allows you to enable or disable Platform Hierarchy.

Configuration options: [Enabled] [Disabled]

Storage Hierarchy

This item allows you to enable or disable Storage Hierarchy.

Configuration options: [Enabled] [Disabled]

Endorsement Hierarchy

This item allows you to enable or disable Endorsement Hierarchy.

Configuration options: [Enabled] [Disabled]

Physical Presence Spec Version

Select this item to tell OS to support PPI spec version 1.2 or 1.3. Please note that some HCK tests might not support version 1.3.

Configuration options: [1.2] [1.3]

TPM 2.0 InterfaceType

This item allows you to view the Communication Interface to TPM 2.0 Device: CRB or ITS.

Device Select

This item allows you to select the TPM device to be supported.

[TPM 1.2] restricts support to TPM 1.2 devices.

[TPM 2.0] restricts support to TPM 2.0 devices.

[Auto] supports both TPM 1.2 and TPM 2.0 devices with the default set to TPM 2.0 devices. If TPM 2.0 devices are not found, TPM 1.2 devices will be enumerated.

Onboard TPM

Enable/disable Intel PTT in ME. Disable this option to use discrete TPM Module.

3.4 Hardware Health Event Monitoring Screen

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

Aptio Setup – AMI Main Advanced <mark>H/H Monitor</mark> Security Boot Exit				
Hardware Health Event Monitoring		Quiet Fan Function Control		
CPU Temperature M/B Temperature	: +45.5 °C : +34.5 °C			
FAN1 Speed	: 2616 RPM			
+3V +3VSB VBAT DC_IN Vcore	: +3.376 V : +3.360 V : +3.200 V : +19.304 V : +0.800 V			
FAN1 Setting	(System Auto)	 ↔: Select Screen 11: Select Item Enter: Select +/-1 Change Option F1: General Hein F7: Olscard Changes F9: Load UEFI Defaults F10: Save and Exit ESC: Exit 		
Version 2.22.1287 Copyright (C) 2022 AMI				

NOTE: Options vary depending on the features of your motherboard.

Fan1 Setting

This item allows you to select a fan mode for Fan 1. The default value is [System Auto].

Configuration options: [System Auto] [Full On] [Automatic Mode]

3.5 Security Screen

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

Main Advanced H/W Monitor	Aptio Setup – AMI Security Boot Exit	
Supervisor Password User Password Supervisor Password User Password > Secure Boot	Not Installed Not Installed	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.
		++: Select Screen 11: Select Item Enter: Select +/-: Change Option F1: General Help F7: Discard Changes F9: Load UEFI Defaults F10: Save and Exit ESC: Exit

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

Press [Enter] to configure the Secure Boot Settings. The feature protects the system from unauthorized access and malwares during POST.

3.6 Boot Screen

This section displays the available devices on your system for you to configure the boot settings and the boot priority.



Boot Option #1

The item allows you to set the system boot order.

Boot From Onboard LAN

The item allows the system to be waked up by the onboard LAN.

Configuration options: [Enabled] [Disabled]

Setup Prompt Timeout

The item allows you to configures the number of seconds to wait for the UEFI setup utility.

Configuration options: [1] - [65535]

Bootup Num-Lock

The item allows you to select whether Num Lock should be turned on or off when the system boots up.

Configuration options: [On] [Off]

Full Screen Logo

[Enabled] Select this item to display the boot logo.

[Disabled] Select this item to show normal POST messages.

3.7 Exit Screen



Save Changes and Exit

When you select this option, the following message "Save configuration changes and exit setup?" will pop out. Press <F10> key or select [Yes] to save the changes and exit the UEFI SETUP UTILITY.

Discard Changes and Exit

When you select this option, the following message "Discard changes and exit setup?" will pop out. Press <ESC> key or select [Yes] to exit the UEFI SETUP UTILITY without saving any changes.

Discard Changes

When you select this option, the following message "Discard changes?" will pop out. Press <F7> key or select [Yes] to discard all changes.

Load UEFI Defaults

The item allows you to load UEFI default values for all options. The F9 key can be used for this operation.

Launch EFI Shell from filesystem device

The item allows you to copy shellx64.efi to the root directory to launch EFI Shell.