

# BIOS Setup Manual

## BIOS Setup

BIOS (Basic Input and Output System) is a UEFI interface that allows you to setup and configure your system for optimum use.

Using your mouse and keyboard, users can change BIOS settings, monitor CPU temperature, select the boot device priority and view system information such as the CPU name, DRAM capacity, and the BIOS version.

To access the BIOS setup program, press the **<Delete>** key during the POST (Power-On Self-Test) when the power is turned on.

## BIOS Setup Program Function Keys

< ↑ >> ↓ >	Move the selection bar to select an item
< ← >> → >	Move the selection bar to select the screen
<Enter> or <Double Click>	Execute command or enter the submenu
<Esc> or <Right Click>	Main Menu: Exit the BIOS Setup program Submenus: Exit current submenu
<+>	Increase the numeric value or make changes
<->	Decrease the numeric value or make changes
<F1>	General Help
<F2>	Restore the previous BIOS settings for the current submenus
<F3>	Load the Optimized BIOS default settings for the current submenu
<F4>	Save all the changes and exit the BIOS Setup program

### Main

This setup page includes all the items in standard compatible BIOS

### Advanced

This setup page includes all the items of BRIX enhanced features.

### Chipset

Platform Controller Hub additional features configuration.

### Security

Change, set or disable supervisor and user password. Configuration supervisor password allows you to restrict access to the system and BIOS Setup.

A supervisor password allows you to make changes in BIOS Setup.

A user password only allows you to view the BIOS settings but not to make changes.

### Boot

This setup page provides items for configuration of boot sequence.

### Save & Exit

Save all the changes made in the BIOS Setup program to and exit. (Pressing **<F10>** can also carry out this task.)

Abandon all changes and the previous settings remain in effect. Pressing **<Y>** to the confirmation message will exit BIOS Setup.

(Pressing **<Esc>** can also carry out this task.)



- BIOS flashing is potentially risky, if you do not encounter problems of using the current BIOS version, it is recommended that you don't 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.

## The Main Menu

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 other 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.



## BIOS Information

### Project Name

Displays Project name.

### BIOS Version

Displays version of the BIOS.

### Build Data and Time

Displays the date and time when the BIOS setup utility was created.

### LAN MAC Address

Displays the MAC address information.

### Total Memory

Determines how much total memory is present during the POST.

### ME FW Version

Displays the ME firmware version.

### System Date

Set the date following the weekly-month-day-year format.

### System Time

Set the system time following the hour-minute- second format.

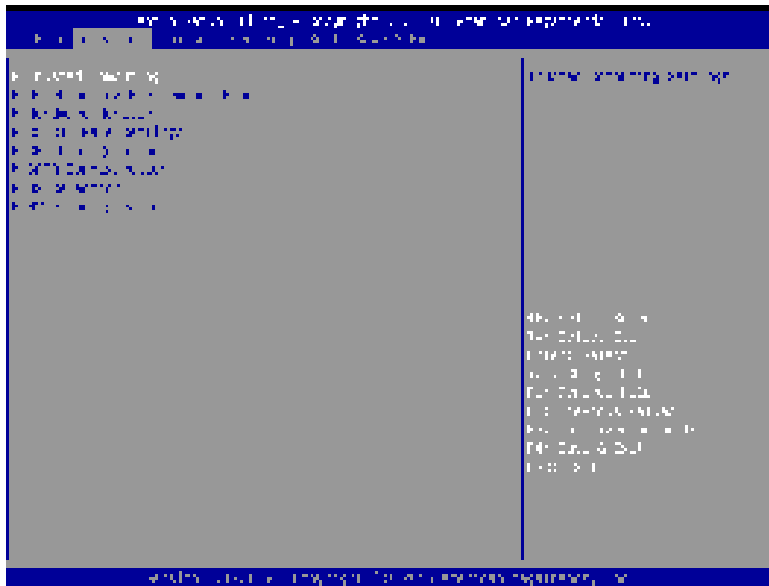


- If you do not find the settings you want in the Main Menu or a submenu, press <Ctrl> + <F1> to access more advanced options.
- When the system is not stable as usual, select the Restore Defaults item to set your system to its defaults.
- The BIOS Setup menus described in this chapter are for reference only and may differ by BIOS version.

## Advanced Menu

The Advanced menu display submenu options for configuring the function of various hardware components.

Select a submenu item, then press <Enter> to access the related submenu screen.



### Trusted Computing

Configures trusted computing setting.

### OverClocking Performance Menu

Configures OverClocking setting

\*This item depends on purchasing product.

### H/W Monitor

Displays a real-time record of the CPU / system temperature and fan speed.

### S5 RTC Wake Setting

Enable system to wake up from S5 mode using RTC alarm

### CPU Configuration

Configures the CPU features in this entry.

### SATA Configuration

Configures the SATA settings in this entry.

### OS selection

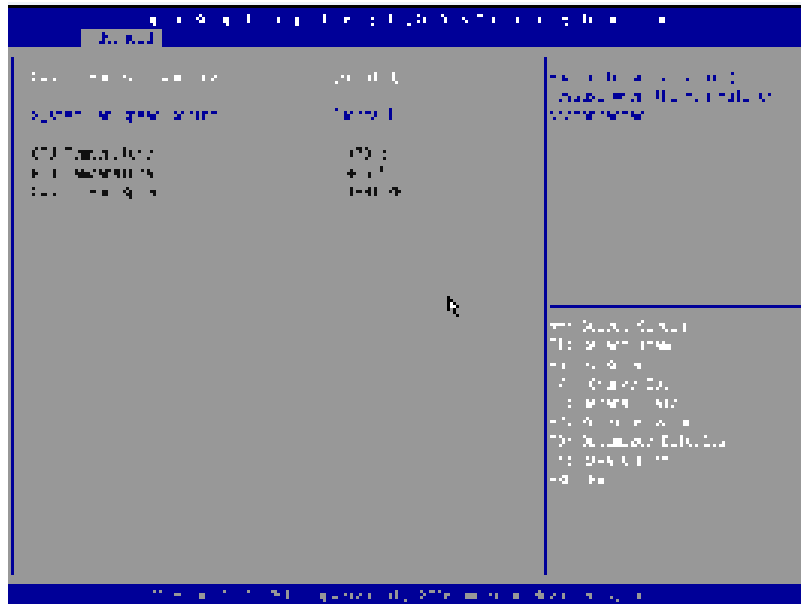
Selecting allow you to select the OS system in this entry.

### NVMe Configuration

Optional item by models.

## H/W Monitor

Enter to view the Hardware Monitor screen which displays a real-time record of the CPU / system temperature and fan speed.



### System Fan Fail Warning (Default: Enabled)

Enable system fan stop warning function.

Set warning message when system fan failed.

### System Fan Speed Control (Default: Normal)

Set Normal by default.

Option available: Full Speed / Normal.

### CPU Temperature

Displays current system temperature.

### GPU Temperature

Displays current GPU temperature.

### System Fan Speed

Displays current CPU fan speed.

## CPU Configuration

Your CPU features / instructions are displayed and can be individually enabled / disabled in the CPU features list showed below.

Feature	Value
<b>CPU Signature</b>	
CPU Model Name	Disabled
CPU Signature	Enabled
Extended CPU ID	Enabled
CPU Vendor ID	Enabled
CPU Branding	Enabled
CPU Vendor String	Enabled
CPU Model String	Enabled
CPU Family	Enabled
CPU Stepping	Enabled
CPU Revision	Enabled
CPU Cache Size	Enabled
CPU Cache Type	Enabled
CPU Cache Level	Enabled
CPU Cache Line Size	Enabled
<b>Microcode Patch</b>	
Microcode Patch	Enabled
Microcode Patch Path	Enabled
Microcode Patch Version	Enabled
Microcode Patch Size	Enabled
Microcode Patch Signature	Enabled
Microcode Patch Vendor	Enabled
Microcode Patch ID	Enabled
Microcode Patch File	Enabled
<b>Processor Cores</b>	
Processor Cores	Enabled
Processor Cores per Socket	Enabled
Processor Cores per Core	Enabled
Processor Cores per Thread	Enabled
Processor Cores per Hyperthread	Enabled
Processor Cores per SMT	Enabled
Processor Cores per Hyper-SMT	Enabled
Processor Cores per Hyper-SMT Thread	Enabled
Processor Cores per Hyper-SMT Hyperthread	Enabled

### CPU Model Name

Displays the processor type information.

CPU processor type depends on actual model.

### CPU Signature

Displays the processor ID information.

### Microcode Patch

Displays the information of the processor microcode patch.

### Processor Cores

Displays the information of the processor core.

### 64-bit

Displays the supported information of installed CPU.

### L1 Data Cache

Displays the information of L1 Data Cache.

### L1 Code Cache

Displays the information of L1 Code Cache.

### L2 Cache

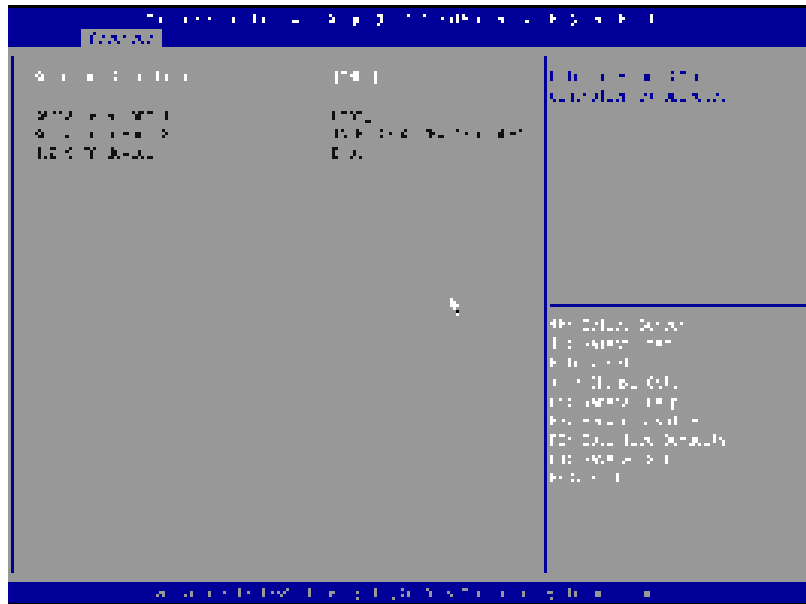
Displays the information of L2 Cache per Core.

### L3 Cache

Displays the information of total L3 Cache per socket.

## SATA Configuration

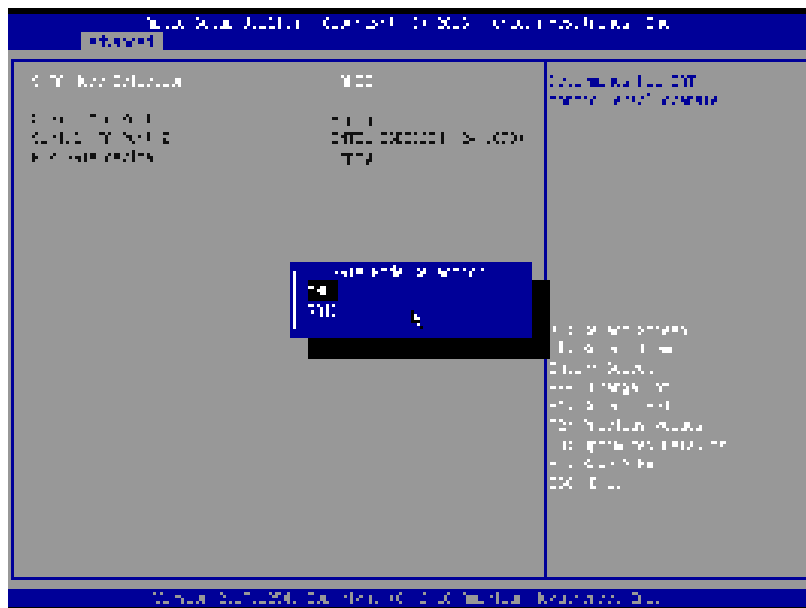
Let you select the on chip SATA type.



### SATA Mode Selection (Default: AHCI)

SATA controller enable its AHCI functionality.

The RAID function is disabled and cannot be access the RAID setup utility at boot time.



### SATA Port

Displays the hard drive information connected to your SATA port.

### M.2 SATA device

Displays the hard drive information connected to your M.2 SATA device.





## Chipset

Allows users to view and configure the system chipset features.



### VT-d (Default: Enabled)

Enables guest virtual machines to directly use peripheral devices through DMA and interrupt remapping.

Option available: Enabled / Disabled.

### Onboard Audio (Default: Enabled)

Enabled / Disabled onboard audio controller.

Option available: Enabled / Disabled.

### Onboard LAN (Default: Enabled)

Enabled / Disabled onboard LAN controller.

Option available: Enabled / Disabled.

### ERP Lowest Power State Mode (Default: Disabled)

Enabled / Disabled ERP support function.

Option available: Enabled / Disabled.

### XHCI Hand-off (Default: Disabled)

Set USB port behavior.

Option available: Enabled / Disabled.

### Restore AC Power Loss (Default: Power off)

This option provides user to set the mode if an AC power loss occurs.

### Power LED Support (Default: Enabled)

This option provides user to set the mode for Power LED behavior.

## Security

Allows you to safeguard a protect the system from unauthorized use by setting up access passwords.



### Administrator Password

Press <Enter> to configure the administrator password.

### User Password

Press <Enter> to configure the user password.

### Secure Boot menu



### Secure Boot Support (Default: Disabled)

Secure Boot requires all the applications that are running during the booting process to be pre-signed with valid digital certificates. This way, the system knows all the files being loaded before UEFI OS loads and gets to the login screen have not been tampered with.

Option available: Enabled / Disabled.

Allows you to safeguard an protect the system from unauthorized use by setting up access passwords.

### Secure Boot Mode (Default: Standard)

Define the Secure Boot Mode.

Option available: Standard / Custom.

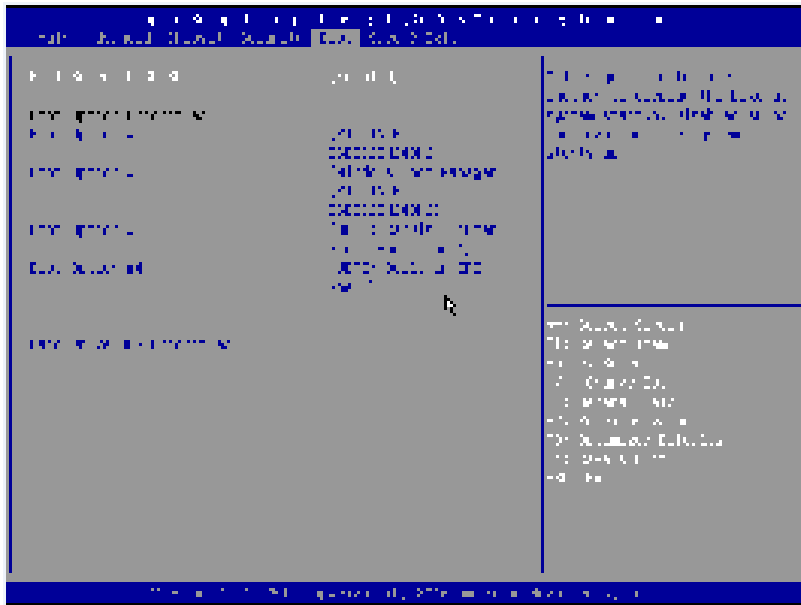
The Key Management below can be selected if Secure Boot Mode is Custom.

**Key Management**

For an experienced user to modify Secure Boot variables.

## Boot

Allows you to set the logo post on screen and the device priority during system boot-up.



Boot Option Priorities

### Full Screen LOGO Show (Default: Enabled)

Allow user to determine whether to display the logo at system startup.

### Boot Option (Default: #1)

Press <Enter> to configure the boot priority.

Option may vary depends on your connected HDD numbers: #1 / (#2) / (#3) / (#4).

## Save & Exit

The Save & Exit menu displays the various options to quit from the BIOS setup. Highlight any of the exit options then press **<Enter>**.



### Save Changes and Reset

Active this option to reset system after saving the changes.

Option available: Yes / No.

### Discard Changes and Reset

Discards changes made and close the BIOS setup and exit.

Option available: Yes / No.

### Restore Defaults

Press **<Enter>** on this item and then press **<Y>** key to load the default BIOS settings.

Option available: Yes / No.

### ME FW Image Re-Flash

Press **<Enter>** to configure ME FW Image Re-Flash function.

Option available: Disabled / Enabled