GIGABYTE Intel 800 Series BIOS Setup User Guide

Contents

Intel 800 Series BIOS Setup

GIGABYTE™

BIOS Setup (Intel® 800 Series)

Intel 800 Series BIOS Setup

- The BIOS Setup menus and options described in this chapter may differ from the exact settings for your motherboard. The actual BIOS Setup menu options are dependent on the motherboard you have and the BIOS version.
- Some of the BIOS settings are available only when the motherboard chipset and the CPU/memory used support the feature. For more information about Intel® CPUs' unique features, please visit Intel's website.

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 either the GIGABYTE Q-Flash or Q-Flash Plus utility.

- Q-Flash allows the user to quickly and easily upgrade or back up BIOS without entering the operating system.
- Q-Flash Plus allows you to update the BIOS when your system is off (S5 shutdown state). Save the latest BIOS on a USB thumb drive and plug it into the dedicated port, and then you can now flash the BIOS automatically by simply pressing the Q-Flash Plus button.

For instructions on using the Q-Flash and Q-Flash Plus utilities, please navigate to the “Unique Features” page of GIGABYTE’s website and search for “BIOS Update Utilities.”

- ⚠ 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 introductions of the battery/clear CMOS jumper/button in user’s manual or refer to the “Load Optimized Defaults” section for how to clear the CMOS values.

Startup Screen
The following startup Logo screen will appear when the computer boots. (The screen may vary from motherboards.)

Function Keys:
<DEL>: BIOS SETUP\Q-FLASH
Press the <Delete> key to enter BIOS Setup or to access the Q-Flash utility in BIOS Setup.
<F12>: BOOT MENU
Boot Menu allows you to set the first boot device without entering BIOS Setup. In Boot Menu, use the up arrow key <h> or the down arrow key <i> to select the first boot device, then press <Enter> to accept.
The system will boot from the device immediately.
Note: The setting in Boot Menu is effective for one time only. After system restart, the device boot order will still be based on BIOS Setup settings.
<END>: Q-FLASH
Press the <End> key to access the Q-Flash utility directly without having to enter BIOS Setup first.

The Main Menu

Advanced Mode

The Advanced Mode provides detailed BIOS settings. You can press the arrow keys on your keyboard to move among the items and press <Enter> to accept or enter a sub-menu. Or you can use your mouse to select the item you want.

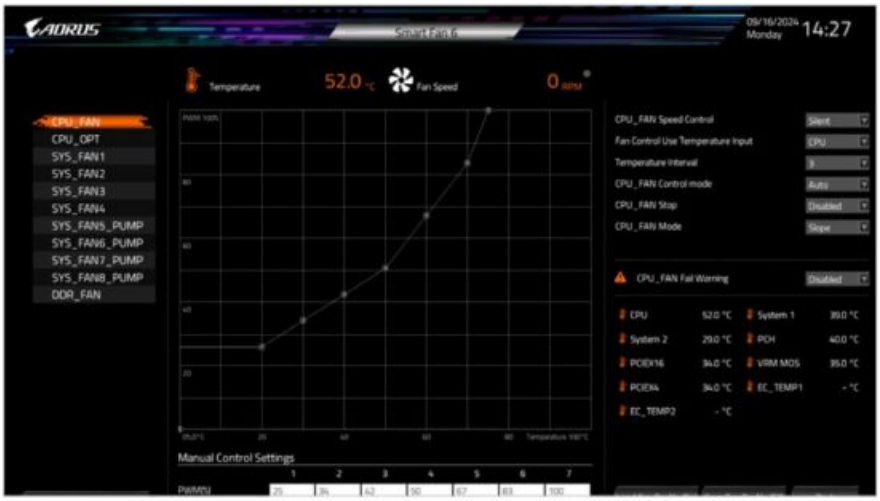
Advanced Mode Function Keys

<?><?>	Move the selection bar to select a setup menu
<?><i>	Move the selection bar to select an configuration item on a menu
<Enter>/Double Click	Execute command or enter a menu
<+>/<Page Up>	Increase the numeric value or make changes
<->/<Page Down>	Decrease the numeric value or make changes
<F1>	Show descriptions of the function keys
<F2>	Switch to Easy Mode
<F3>	Save the current BIOS settings to a profile
<F4>	Load the BIOS settings from a profile created before
<F5>	Restore the previous BIOS settings for the current submenus
<F6>	Display the Smart Fan 6 screen
<F7>	Load the Optimized BIOS default settings for the current submenus
<F8>	Access the Q-Flash utility
<F10>	Save all the changes and exit the BIOS Setup program
<F11>	Switch to the Favorites submenu
<F12>	Capture the current screen as an image and save it to your USB drive
<Insert>	Add or remove a favorite option
<Ctrl>+<S>	Display information on the installed memory
<Esc>	Main Menu: Exit the BIOS Setup program Submenus: Exit current submenu
<Alt>+<F>	Enter keyword(s) to find the BIOS configuration item you are looking for

B. Easy Mode

Easy Mode allows users to quickly view their current system information or to make adjustments for optimum performance. In Easy Mode, you can use your mouse to move through configuration items or press <F2> to switch to the Advanced Mode screen.

Smart Fan 6



Use the <F6> function key to quickly switch to this screen. This screen allows you to configure fan speed related settings for each fan header or monitor your system/CPU temperature.

☞ **TUNE ALL**

Allows you to apply the current settings to all fan headers.

☞ **Temperature**

Displays the current temperature of the selected target area.

☞ **Fan Speed**

Displays current fan/pump speeds.

☞ **Flow Rate**

Displays the flow rate of your water cooling system. Press <Enter> on Fan Speed to switch to this function.

☞ **Fan Speed Control**

Allows you to determine whether to enable the fan speed control function and adjust the fan speed.

⏩ Normal Allows the fan to run at different speeds according to the temperature.

⏩ Silent Allows the fan to run at slow speeds.

⏩ Manual Allows you to drag the curve nodes to adjust fan speed. Or you can use the EZ Tuning feature. After adjusting the node position, press Apply to automatically calculate the slope of the curve.

⏩ Full Speed Allows the fan to run at full speeds.

☞ **Fan Control Use Temperature Input**

Allows you to select the reference temperature for fan speed control.

☞ **Temperature Interval**

Allows you to select the temperature interval for fan speed change.

☞ FAN/PUMP Control mode

⏩ Auto Lets the BIOS automatically detect the type of fan installed and sets the optimal control mode.

⏩ Voltage Voltage mode is recommended for a 3-pin fan/pump.

⏩ PWM PWM mode is recommended for a 4-pin fan/pump.

☞ **FAN/PUMP Stop**

Enables or disables the fan/pump stop function. You can set the temperature limit using the temperature curve. The fan or pump stops operation when the temperature is lower than the limit.

☞ FAN/PUMP Mode

Allows you to set the operating mode for the fan.

⏩ Slope Adjusts the fan speed linearly based on the temperature.

⏩ Stair Adjusts the fan speed stepwise based on the temperature.

☞ **FAN/PUMP Fail Warning**

Allows the system to emit warning sound if the fan/pump is not connected or fails. Check the fan/pump condition or fan/pump connection when this occurs.

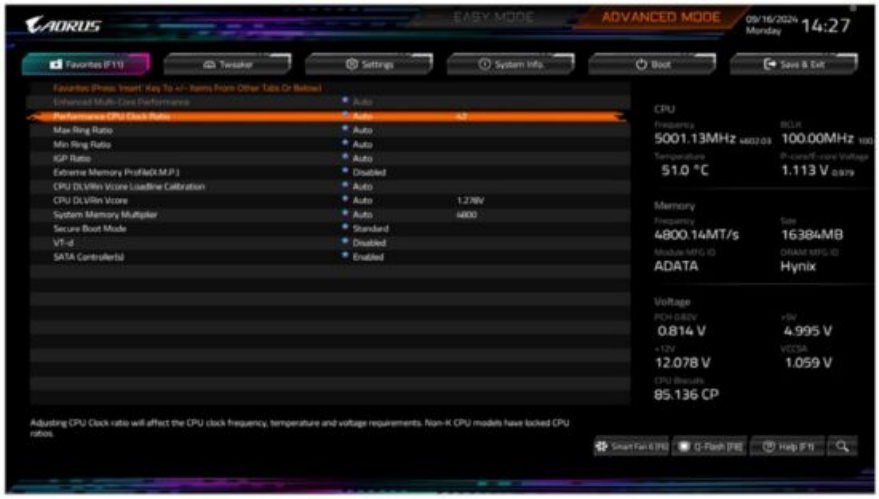
☞ **Load Fan Profile**

This function allows you to load a previously saved BIOS profile without the hassles of reconfiguring the BIOS settings. Or you can select Select File in HDD/FDD/USB to load a profile from your storage device.

☞ **SaveFan Profile**

This function allows you to save the current settings to a profile. You can save the profile in the BIOS or select Select File in HDD/FDD/USB to save the profile to your storage device.

Favorites (F11)



Set your frequently used options as your favorites and use the <F11> ke.y to quickly switch to the page where. all of your favorite options are located. To add or remove a favorite option, go to its original page and press <Insert> on the option. The option is marked with a star sign if set as a “favorite.”

Tweaker

⚠ Whether the system will work stably with the overclock/overvoltage settings you made is dependent on your overall system configurations. Incorrectly doing overclock/overvoltage may result in damage to CPU, chipset, or memory and reduce the useful life of these components. This page is for advanced users only and we recommend you not to alter the default settings to prevent system instability or other unexpected results. (Inadequately altering the settings may result in system’s failure to boot. If this occurs, clear the CMOS values and reset the board to default values.)

☞ **GIGABYTE PerfDrive**

Offers multiple preset work modes for different level of CPU cooling.

☞ **CPU Upgrade**

Allows you to set the CPU frequency. The final result may vary depending on the CPU used.

☞ **BCLK Output Source**

Allows you to select the BCLK output source.

☞ **Enhanced Multi-Core Performance**

Allows you to determine whether to apply the highest Turbo ratio to all CPU cores.

☞ **Performance CPU Clock Ratio**

Allows you to alter the clock ratio for the installed Performance CPU. The adjustable range is dependent on the CPU being installed.

☞ **Efficiency CPU Clock Ratio**

Allows you to alter the clock ratio for the installed Efficiency CPU. The adjustable range is dependent on the CPU being installed.

☞ **Max Ring Ratio**

Allows you to set the maximum CPU Uncore ratio. The adjustable range is dependent on the CPU being used.

☞ **Min Ring Ratio**

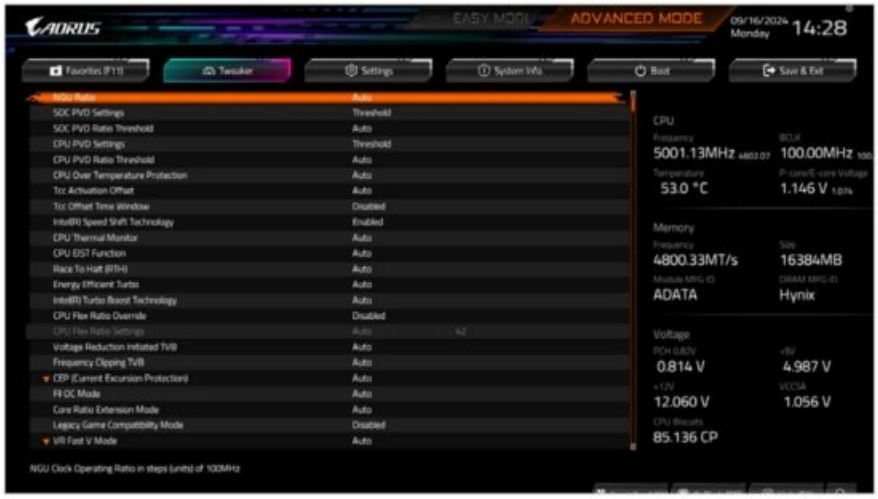
Allows you to set the minimum CPU Uncore ratio. The adjustable range is dependent on the CPU being used.

☞ IGP Ratio

Allows you to set the Graphics Ratio.

Some of the BIOS settings are available only when the motherboard chipset and the CPU/memory used support the feature. For more information about Intel CPUs' unique features, please visit Intel's website.

Advanced CPU Settings



☞ **NGU Ratio**

Allows you to set the NGU clock operating ratio.

☞ **SOC PVD Settings**

Allows you to set the SOC PVD settings.

☞ **SOC PVD Ratio Threshold**

Allows you to set SOC PVD ratio threshold value.

☞ **CPU PVD Settings**

Allows you to set the CPU PVD settings.

☞ **CPU PVD Ratio Threshold**

Allows you to set CPU PVD ratio threshold value.

☞ **CPU Over Temperature Protection**

Allows you to fine-tune the TJ Max offset value.

☞ **Tcc Activation Offset**

Allows you to set theThermal Control Circuit (TCC) activation offset value. The TCC activation temperature is a protective threshold at which the processor begins to regulate its own temperature.

☞ **Tcc Offset Time Window**

Allows you to set the Tcc offset time window for the Running Average Temperature Limit (RALT) feature.

☞ **Intel(R) Speed Shift Technology**

Enables or disables Intel® Speed Shift Technology. Enabling this feature allows the processor to ramp up its operating frequency more quickly and then improves the system responsiveness.

☞ **CPU 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.

☞ **CPU EIST Function**

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.

☞ **Race To Halt (RTH)/Energy Efficient Turbo**

Enables or disables the CPU power saving related settings.

☞ **Intel(R) Turbo Boost Technology**

Allows you to determine whether to enable the Intel CPU Turbo Boost technology. Auto lets the BIOS automatically configure this setting.

☞ **CPU Flex Ratio Override**

Enables or disables the CPU Flex Ratio.

☞ **CPU Flex Ratio Settings**

Allows you to set the CPU Flex Ratio. The adjustable range may vary by CPU. This item is configurable only when CPU Flex Ratio Override is set to Enabled.

☞ **Frequency Clipping TVB**

Allows you to enable or disable automatic CPU frequency reduction initiated by Thermal Velocity Boost.

☞ **Enhanced TVB**

Enables or disables the enhanced Thermal Velocity Boost (TVB) feature. Auto lets the BIOS automatically configure this setting. Auto lets the BIOS automatically configure this setting.

☞ **Voltage Reduction Initiated TVB**

Allows you to enable or disable automatic CPU voltage reduction initiated by Thermal Velocity Boost. Auto lets the BIOS automatically configure this setting.

▼ **CEP (Current Excursion Protection)**

Allows you to configure the current overload protection function. You can manually set IA CEP, GT CEP, and SA CEP.

☞ **FII OC Mode**

Allows you to select FLL mode.

☞ **Core Ratio Extension Mode**

Allows you to enable or disable Core Ratio Above 85 Extension Mode.

⏩ Enabled The maximum overclocking ratio limit as specified byOCMB 0x1 command is 120.

⏩ Disabled The maximum overclocking ratio limit as specified byOCMB 0x1 command is 85.

☞ **Legacy Game Compatibility Mode**

Allows you to enable Legacy Game Compatibility Mode to improve functionality of older games.

☞ **VR Fast V mode**

Allows you to set VR Fast V-Mode. You can manually set IA ICC Limit, GT ICC Limit, and SA ICC Limit.

☞ **Under Voltage Protection**

Enables or disables this function.

☞ **VCCIA Boot Voltage**

Allows you to set VCCIA boot voltage.

☞ **VCCSA Boot Voltage**

Allows you to set VCCSA boot voltage.

☞ **CPU BGREF Mode**

Allows you to set CPU Bandgap Reference Mode.

☞ **Unlock High Voltage Limit**

Allows you to unlock the high voltage limit.

☞ **Setting High Voltage Limit**

Allows you to set the high voltage limit.

☞ **Intel(R) Innovation Platform Framework**

Enables or disables Intel® Innovation Platform Framework (Intel® IPF).

☞ **CPU D2D Ratio**

Allows yout to set CPU D2D Ratio.

☞ **Core Minimum Ratio**

Allows yout to set Core Minimum Ratio.

☞ **IA AC Loadline / IA DC Loadline**

Allows you to set the IA AC Loadline / IA DC Loadline.

▼ **AVX Settings**

Allows you to configure AVX related settings. Auto sets the settings according to the CPU specifications.

☞ **AVX**

Allows you to disable the AVX instruction sets on a CPU that supports AVX. This item is configurable only when AVX Settings is set to User Defined.

☞ **AVX Offset**

When the processor runs AVX workloads, the CPU Clock Ratio will be reduced by the desired AVX offset value. For example, if the value is set to 3, the CPU Clock Ratio will be reduced by 3 when executing AVX instructions.

☞ **AVX Voltage Guardband Scale Factor**

Allows you to lower the standard AVX voltage.

▼ **Active Turbo Ratios**

☞ **Turbo Ratio**

Allows you to set the CPU Turbo ratios for different number of active cores. Auto sets the CPU Turbo ratios according to the CPU specifications. This item is configurable only when Active Turbo Ratios is set to Manual.

▼ **CPU Cores Enabling Mode**

Allows you to select how to enable CPU cores.

☞ **No. of CPU P-Cores Enabled**

Allows you to select the number of CPU P-cores to enable (the number of CPU cores may vary by CPU).
This item is configurable only when CPU Cores Enabling Mode is set to Random Mode. Auto lets the BIOS automatically configure this setting.

☞ **No. of CPU E-Cores Enabled**

Allows you to select the number of CPU E-cores to enable (the number of CPU cores may vary by CPU). This item is configurable only when CPU Cores Enabling Mode is set to Random Mode. Auto lets the BIOS automatically configure this setting.

☞ **Active P-Core/E-Core**

Allows you to select which CPU core to enable. This item is configurable only when CPU Cores Enabling Mode is set to Selectable Mode. Auto lets the BIOS automatically configure this setting.

▼ **C-States Control**

☞ **CPU Enhanced Halt (C1E)**

Enables or disables Intel®CPU Enhanced Halt (C1E) function, a CPU power-saving function in system halt state. When enabled, the CPU core frequency and voltage will be reduced during system halt state to decrease power consumption. Auto lets the BIOS automatically configure this setting. This item is configurable only when C-States Control is set to Enabled.

☞ **C6/C7 State Support**

Allows you to determine whether to let the CPU enter C6/C7 mode in system halt state. When enabled, the CPU core frequency and voltage will be reduced during system halt state to decrease power consumption.
The C6/C7 state is a more enhanced power-saving state than C3. Auto lets the BIOS automatically configure this setting. This item is configurable only when C-States Control is set to Enabled.

☞ **C8 State Support**

Allows you to determine whether to let the CPU enter C8 mode in system halt state. When enabled, the CPU core frequency and voltage will be reduced during system halt state to decrease power consumption. The C8 state is a more enhanced power-saving state than C6/C7. Auto lets the BIOS automatically configure this setting. This item is configurable only when C-States Control is set to Enabled.

☞ **C10 State Support**

Allows you to determine whether to let the CPU enter C10 mode in system halt state. When enabled, the CPU core frequency and voltage will be reduced during system halt state to decrease power consumption.
The C10 state is a more enhanced power-saving state than C8. Auto lets the BIOS automatically configure this setting. This item is configurable only when C-States Control is set to Enabled.

☞ **Package C State limit**

Allows you to specify the C-state limit for the processor. Auto lets the BIOS automatically configure this setting. This item is configurable only when C-States Control is set to Enabled.

▼ **Turbo Power Limits**

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.
Auto sets the settings according to the CPU specifications.

☞ **Power Limit TDP (Watts)** / **Power Limit Time**

Allows you to set the power limit for CPU/platform/memory Turbo mode and how long it takes to operate at the specified power limit. Auto sets the settings according to the CPU specifications. This item is configurable only when Turbo Power Limits is set to Enabled.

☞ **Core Current Limit (Amps)**

Allows you to set a current limit for CPU Turbo mode. When the CPU current exceeds the specified current limit, the CPU will automatically reduce the core frequency in order to reduce the current. Auto sets the settings according to the CPU specifications. This item is configurable only when Turbo Power Limits is set to Enabled.

▼ **Turbo Per Core Limit Control**

Allows you to control each CPU core limit separately.

▼ **Granular Ratio Control**

Allows you to set Granular Ratio.

☞ **P-Core/E-Core Granular Ratio**

Allows you to set P-Core/E-Core Granular Ratio. This item is configurable only when Granular Ratio Control is set to Manual. Auto lets the BIOS automatically configure this setting.

☞ **High Bandwidth**

Enables or disables high bandwidth memory mode. Auto lets the BIOS automatically configure this setting.

☞ **Low Latency**

Enables or disables low latency memory mode. Auto lets the BIOS automatically configure this setting.

☞ **DDR5 XMP Booster**

Allows you to select among profiles that are built for specific memory IC manufacturers to enhance memory performance.

☞ A.I. XMP Booster Profile

Allows you to configure memory performance enhancements using the AORUS AI SNATCH software within the operating system.

☞ **Extreme Memory Profile (X.M.P.)**

Allows the BIOS to read the SPD data on systems already the installed XMP memory module(s) to enhance memory performance when enabled.

⏩ Disabled Disables this function.

⏩ Profile1 Uses Profile 1 settings.

⏩ Profile2 Uses Profile 2 settings. (Available only when you install a memory module that supports this feature.)

⏩ **System Memory Multiplier**

Allows you to set the system memory multiplier. Auto sets memory multiplier according to memory SPD data.

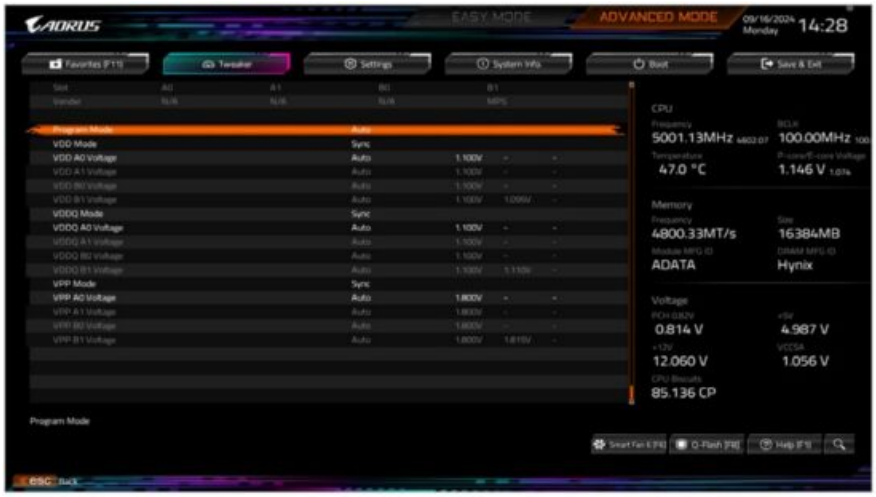
Advanced Memory Settings

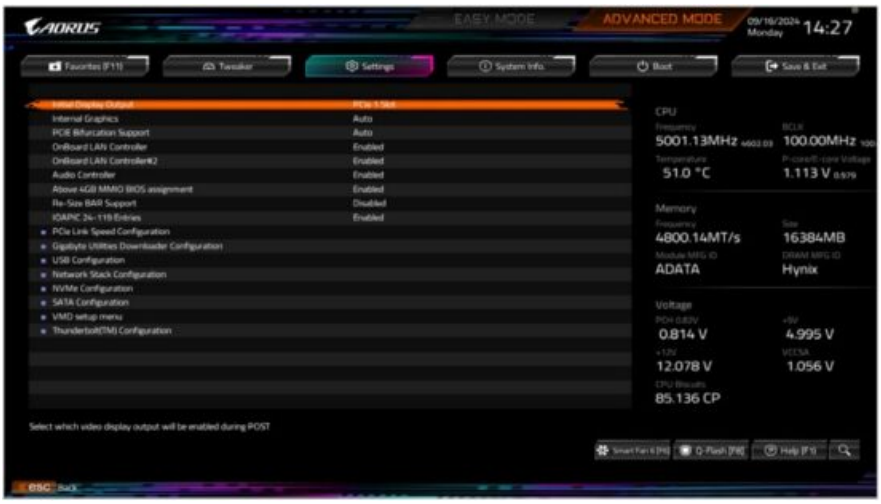
☞ ⏩ ▼


EASY MODE
ADVANCED MODE
09/16/2024 Monday 14:28
Favorites (F11)
Tweaker
Settings
System Info
Boot
Save & Exit
Gear Mode Auto
Memory Boot Mode Auto
Realtime Memory Timing Auto
Fine Granularity Refresh Auto
Memory Enhancement Settings Auto
Memory Channel Detection Message Enabled
Retry Loop Count Auto 0
SPD Info
SPD Setup
Memory Channels Timing
Memory Training Settings
Gear Mode
CPU
5001.13MHz
100.00MHz
54.0 °C
1.146 V
Memory
4800.33MT/s
16384MB
ADATA
Hynix
Voltage
0.814 V
4.987 V
12.060 V
1.056 V
85.136 CP
Smart Fan 6 (F6)
Q-Flash (F8)
Help (F1)
esc Back

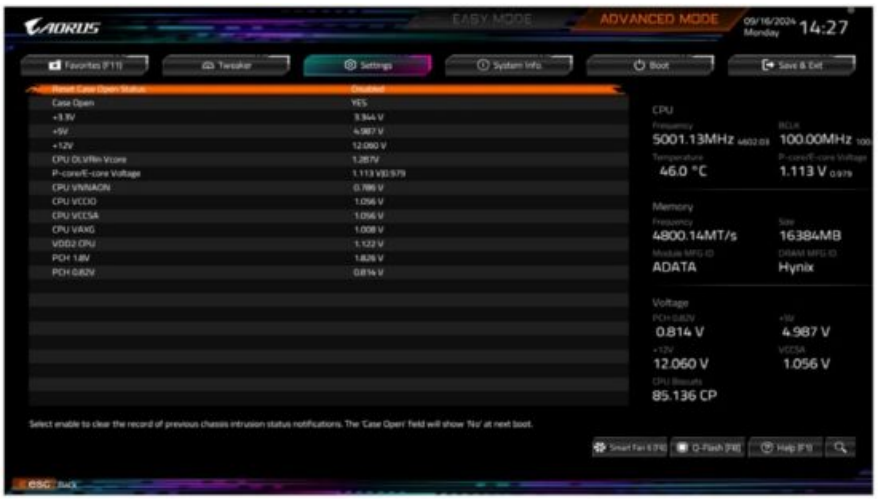

EASY MODE
ADVANCED MODE
09/16/2024 Monday 14:28
Favorites (F11)
Tweaker
Settings
System Info
Boot
Save & Exit
CPU Core PLL Overvoltage (+mV) Auto 0
RING PLL Overvoltage (+mV) Auto 0
SOC SA PLL Overvoltage (+mV) Auto 0
ATOM PLL Overvoltage (+mV) Auto 0
MC PLL Overvoltage (+mV) Auto 0
CPU SA PLL Overvoltage (+mV) Auto 0
CPU Core PLL iRefTune Overvoltage (+mV) Auto 0
RING PLL iRefTune Overvoltage (+mV) Auto 0
ATOM PLL iRefTune Overvoltage (+mV) Auto 0
CPU/VRM Settings
CPU
5001.13MHz
100.00MHz
54.0 °C
1.148 V
Memory
4800.33MT/s
16384MB
ADATA
Hynix
Voltage
0.814 V
4.987 V
12.060 V
1.056 V
85.136 CP
Smart Fan 6 (F6)
Q-Flash (F8)
Help (F1)
esc Back

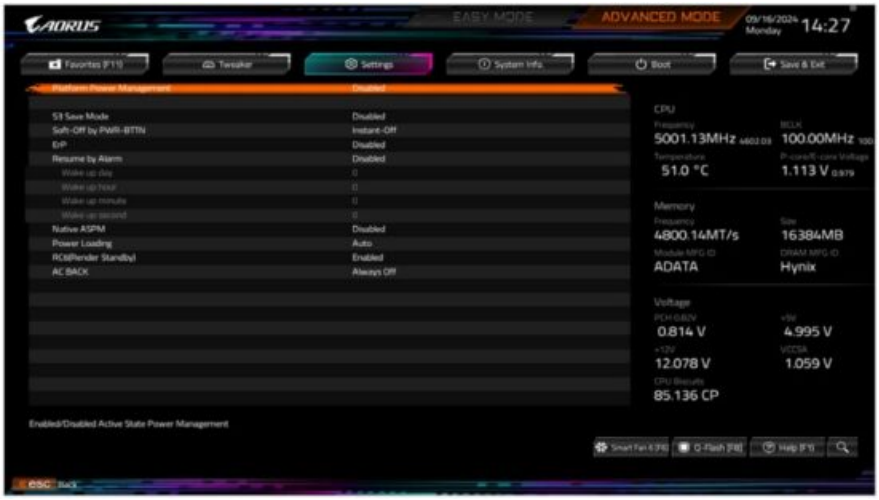

EASY MODE
ADVANCED MODE
09/16/2024 Monday 14:28
Favorites (F11)
Tweaker
Settings
System Info
Boot
Save & Exit
Boot Configuration
Bootup NumLock State On
CFG Lock Disabled
Security Option System
Full Screen LOGO Show Enabled
Boot Option Priorities
Fast Boot Disabled
Mouse Speed 1 x
Administrator Password
User Password
Secure Boot
Preferred Operating Mode Auto
Select the keyboard NumLock state
CPU
5001.13MHz
100.00MHz
47.0 °C
1.113 V
Memory
4800.14MT/s
16384MB
ADATA
Hynix
Voltage
0.814 V
4.987 V
12.060 V
1.056 V
85.136 CP
Smart Fan 6 (F6)
Q-Flash (F8)
Help (F1)


EASY MODE
ADVANCED MODE
09/16/2024 Monday 14:28
Favorites (F11)
Tweaker
Settings
System Info
Boot
Save & Exit
Program Mode Auto
VDD Mode Sync
VDD A0 Voltage Auto 1.100V
VDDQ Mode Sync
VDDQ A0 Voltage Auto 1.100V
VPP Mode Sync
VPP A0 Voltage Auto 1.800V
CPU
Frequency 5001.13MHz
BCLK 100.00MHz
Temperature 47.0 °C
P-core/E-core Voltage 1.146 V
Memory
Frequency 4800.33MT/s
Size 16384MB
Module MFG ID ADATA
DRAM MFG ID Hynix
Voltage
PCH 0.82V 0.814 V
+5V 4.987 V
+12V 12.060 V
VCCSA 1.056 V
CPU Bioutfo 85.136 CP
Program Mode
Smart Fan 6 (F6)
Q-Flash (F8)
Help (F1)
ESC Back


EASY MODE
ADVANCED MODE
09/16/2024 Monday 14:27
Favorites (F11)
Tweaker
Settings
System Info
Boot
Save & Exit
Initial Display Output PCIe 1 Slot
Internal Graphics Auto
PCIE Bifurcation Support Auto
OnBoard LAN Controller Enabled
OnBoard LAN Controller#2 Enabled
Audio Controller Enabled
Above 4GB MMIO BIOS assignment Enabled
Re-Size BAR Support Disabled
IOAPIC 24-119 Entries Enabled
PCIe Link Speed Configuration
Gigabyte Utilities Downloader Configuration
USB Configuration
Network Stack Configuration
NVMe Configuration
SATA Configuration
VMD setup menu
Thunderbolt(TM) Configuration
CPU
Frequency 5001.13MHz
BCLK 100.00MHz
Temperature 51.0 °C
P-core/E-core Voltage 1.113 V
Memory
Frequency 4800.14MT/s
Size 16384MB
Module MFG ID ADATA
DRAM MFG ID Hynix
Voltage
PCH 0.82V 0.814 V
+5V 4.995 V
+12V 12.078 V
VCCSA 1.056 V
CPU Bioutfo 85.136 CP
Select which video display output will be enabled during POST
Smart Fan 6 (F6)
Q-Flash (F8)
Help (F1)
ESC Back


EASY MODE
ADVANCED MODE
09/16/2024 Monday 14:28
Favorites (F11)
Tweaker
Settings
System Info
Boot
Save & Exit
LEDs in System Power On State On
RST (MULTIKEY) Set this button to HW Reset
GEN5 Redriver SIPO Mode Enabled
GEN5 Equilization 0
GEN5 DC Gain 1
Onboard DB Port LED On
Intel Platform Trust Technology (PTT) Enabled
BDMark01 Enhancement Disabled
VT-d Disabled
CPU VCore Sense Direct Sense
Trusted Computing
Acoustic Noise Settings
CPU
Frequency 5001.13MHz
BCLK 100.00MHz
Temperature 53.0 °C
P-core/E-core Voltage 1.146 V
Memory
Frequency 4800.33MT/s
Size 16384MB
Module MFG ID ADATA
DRAM MFG ID Hynix
Voltage
PCH 0.82V 0.814 V
+5V 4.987 V
+12V 12.060 V
VCCSA 1.056 V
CPU Bioutfo 85.136 CP
LEDs in System Power On State: On/Off
Smart Fan 6 (F6)
Q-Flash (F8)
Help (F1)
ESC Back


EASY MODE
ADVANCED MODE
09/16/2024 Monday 14:27
Favorites (F11)
Tweaker
Settings
System Info
Boot
Save & Exit
Reset Case Open Status Disabled
Case Open Yes
+3.3V 3.344 V
+5V 4.987 V
+12V 12.060 V
CPU OLVRin Vcore 1.287V
P-core/E-core Voltage 1.113 V
CPU VNNAON 0.786 V
CPU VCCIO 1.056 V
CPU VCCSA 1.056 V
CPU VAXG 1.008 V
VDD2 CPU 1.122 V
PCH 1.8V 1.826 V
PCH 0.82V 0.814 V
CPU
Frequency 5001.13MHz
BCLK 100.00MHz
Temperature 46.0 °C
P-core/E-core Voltage 1.113 V
Memory
Frequency 4800.14MT/s
Size 16384MB
Module MFG ID ADATA
DRAM MFG ID Hynix
Voltage
PCH 0.82V 0.814 V
+5V 4.987 V
+12V 12.060 V
VCCSA 1.056 V
CPU Bioutfo 85.136 CP
Select enable to clear the record of previous chassis intrusion status notifications. The 'Case Open' field will show 'No' at next boot.
Smart Fan 6 (F6)
Q-Flash (F8)
Help (F1)
ESC Back


EASY MODE
ADVANCED MODE
09/16/2024 Monday 14:27
Favorites (F11)
Tweaker
Settings
System Info
Boot
Save & Exit
Platform Power Management Disabled
S3 Save Mode Disabled
Soft-Off by PWR-BTTN Instant-Off
ErP Disabled
Resume by Alarm Disabled
Wake up day 0
Wake up hour 0
Wake up minute 0
Wake up second 0
Native ASPM Disabled
Power Loading Auto
RGBRender Standby Enabled
AC BACK Always Off
Enabled/Disabled Active State Power Management
CPU
5001.13MHz
100.00MHz
51.0 °C
1.113 V
Memory
4800.14MT/s
16384MB
ADATA
Hynix
Voltage
0.814 V
4.995 V
12.078 V
1.059 V
85.136 CP
Smart Fan 6 (F6)
Q-Flash (F8)
Help (F1)
ESC Back


EASY MODE
ADVANCED MODE
09/16/2024 Monday 14:28
Favorites (F11)
Tweaker
Settings
System Info
Boot
Save & Exit
Save & Exit Setup
Exit Without Saving
Load Optimized Defaults
Boot Override
Save Profiles
Load Profiles
Exit BIOS saving all changes made.
CPU
5001.13MHz
100.00MHz
51.0 °C
1.113 V
Memory
4800.14MT/s
16384MB
ADATA
Hynix
Voltage
0.814 V
4.987 V
12.060 V
1.056 V
85.136 CP
Smart Fan 6 (F6)
Q-Flash (F8)
Help (F1)


EASY MODE
ADVANCED MODE
09/16/2024 Monday 14:27
Favorites (F11)
Tweaker
Settings
System Info
Boot
Save & Exit
Platform Power
IO Ports
Miscellaneous
Option Search (Hot Key: Alt-F)
PC Health Status
CPU
5001.13MHz
100.00MHz
50.0 °C
1.113 V
Memory
4800.14MT/s
16384MB
ADATA
Hynix
Voltage
0.814 V
4.995 V
12.078 V
1.056 V
85.136 CP
Smart Fan 6 (F6)
Q-Flash (F8)
Help (F1)


EASY MODE
ADVANCED MODE
09/16/2024 Monday 14:28
Favorites (F11)
Tweaker
Settings
System Info
Boot
Save & Exit
Model Name Z890 AORUS XTREME AI TOP
BIOS Version T0m
BIOS Date 09/12/2024
BIOS ID BAARLG27
Processor Type Intel(R) Core(TM) Ultra 5 245K
Processor CPUID 000C0662
Processor Speed 100.00MHz*100.00
Processor Clock 5001.13MHz*4602.03
Installed Memory 16384MB
LAN MAC Address 000000000000
LAN2 MAC Address 7A583CB62795
Access Level Administrator
System Language English
System Date [09 / 16 / 2024] Mon
System Time [14 : 28 : 04]
Plug in Devices Info
Choose the system default language
CPU
5001.13MHz
100.00MHz
50.0 °C
1.113 V
Memory
4800.14MT/s
16384MB
ADATA
Hynix
Voltage
0.814 V
4.987 V
12.060 V
1.059 V
85.136 CP
Smart Fan 6 (F6)
Q-Flash (F8)
Help (F1)

Documents / Resources

	GIGABYTE Intel 800 Series BIOS Setup [pdf] User Guide Intel 800 Series BIOS Setup, Intel 800 Series, BIOS Setup, Setup

References

- User Manual