



NETAŞ Server

BIOS User Guide (Turin)

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About This Manual

Purpose

This manual describes the common operations and parameters of the [BIOS](#) of the Genoa platform to provide you with guidance about server BIOS configuration and management.

Intended Audience

This manual is intended for:

- Planning engineers
- Network management and monitoring engineers
- Maintenance engineers

What Is in This Manual

This manual contains the following chapters and appendixes.

Chapter 1, BIOS Overview	Describes the basic BIOS concepts, precautions for BIOS setup, and the server models that this manual applies to.
Chapter 2, Common Operations	Describes the common operations on the BIOS.
Chapter 3, Setup Parameter Descriptions	Describes parameters on the Setup screens.
Chapter 4, Reference: Control Keys for BIOS Setup	Describes common control keys used for BIOS setup.

Conventions

This manual uses the following conventions:

	Danger: indicates an imminently hazardous situation. Failure to comply will result in death or serious personal injury.
	Warning: indicates a potentially hazardous situation. Failure to comply can result in death or serious personal injury.
	Caution: indicates a potentially hazardous situation. Failure to comply can result in moderate or minor personal injury.

	Notice: indicates equipment or environment safety information. Failure to comply can result in equipment damage, data loss, equipment performance degradation, environmental contamination, or other unpredictable results.
	Note: provides additional information about a topic.

Chapter 1

BIOS Overview

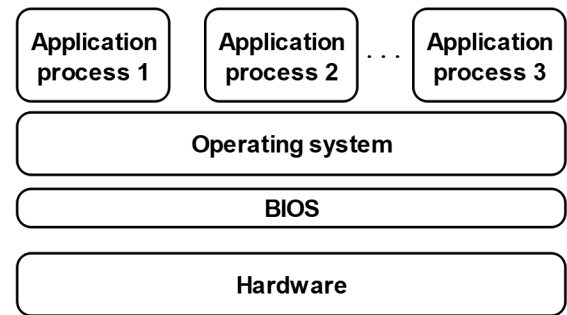
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1.1 Basic Concepts

As a server's most basic program, the BIOS is pre-loaded on a ROM chip on the motherboard. Figure 1-1 shows the BIOS in a system, which bridges server hardware and an OS. It initializes server hardware before booting an OS.

Figure 1-1 BIOS in a System



The main functions of the BIOS include:

- Performing POST.
- Initializing CPUs and memory.
- Checking I/O devices and boot devices.
- Booting an OS.

1.2 Precautions

Before modifying the BIOS setting of a server, you must record the corresponding initial settings so that the original settings can be restored if the modification results in improper operation of the server.



Notice

In general, the factory default settings are the optimal settings. Do not modify any parameter unless you are clear about it. Any improper modification may result in hardware resource conflicts or reduce the system performance.

1.3 Applicable Server Models

This document is applicable to rack servers based on the Turin platform, including but not limited to the following models:

- NCS6722A N6
-

Chapter 2

Common Operations

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2.1 Entering the BIOS

Abstract

This procedure describes how to enter the [BIOS](#) so that you can view and set BIOS information.

Steps

1. Connect to a server in either of the following ways:

- Connect a monitor, mouse, and keyboard to the server.
 - Start the KVM on the Web portal of the BMC.
For details, refer to "7.4 Starting the KVM" in the *NETAŞ Server BMC User Guide (BMC V4)*.
2. Power on the server. The server starts and the **POST** is performed. The logo of the server is displayed on the screen, as shown in [Figure 2-1](#).

Figure 2-1 Logo on the Screen



For a description of the hot keys for BIOS startup, refer to [Table 2-1](#).

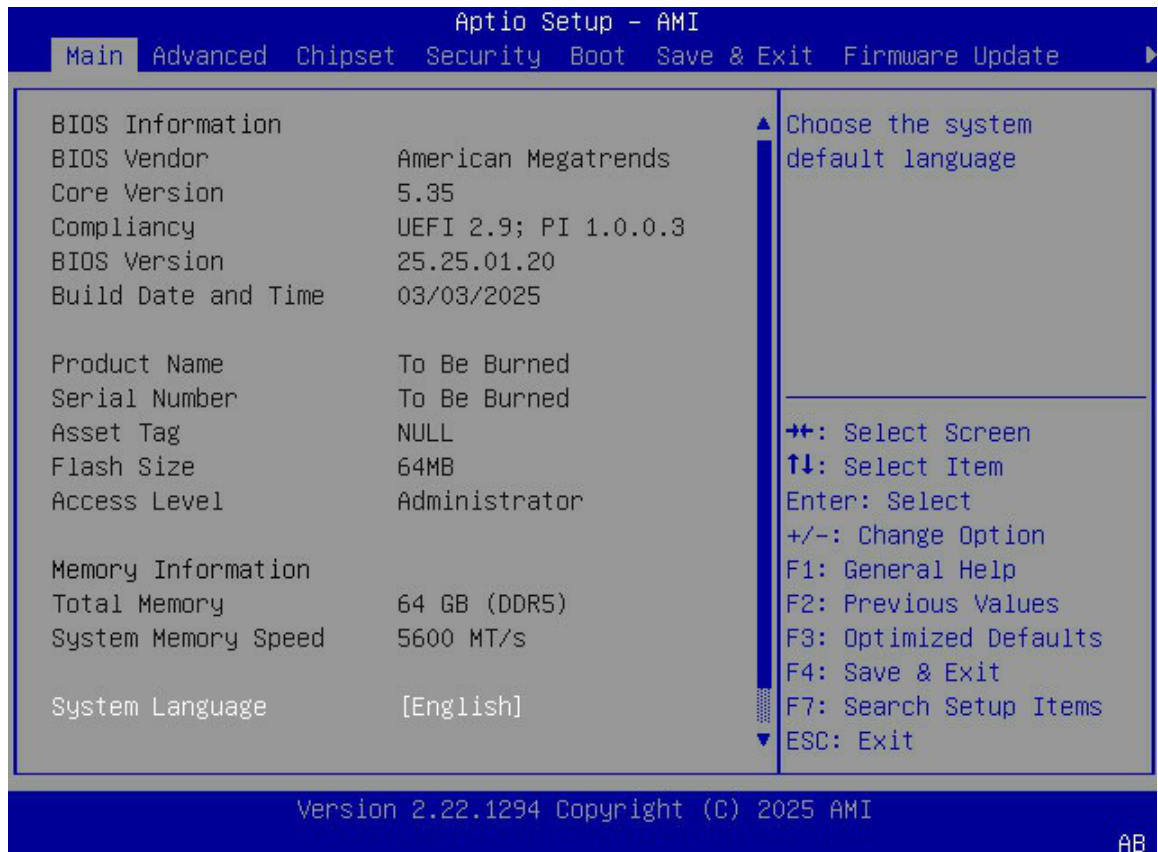
Table 2-1 Descriptions of Hot Keys for BIOS Startup

Hot Key	Description
F2/DEL	Press the key to enter the Aptio Setup screen.
F11	Press the key to enter the Boot Manager screen.
F12	Press the key to enter the PXE Boot environment.

3. Perform the following operations as required.

To...	Do...
Enter the Boot Manager screen	Press F11 . The Boot Manager screen is displayed.
Enter the Aptio Setup screen	Press F2 or DEL . The Aptio Setup screen is displayed, as shown in Figure 2-2 .

Figure 2-2 Aptio Setup Screen

**Note**

For a description of the **Aptio Setup** screen, refer to [3 Setup Parameter Descriptions](#).

2.2 Setting the BIOS Language

Abstract

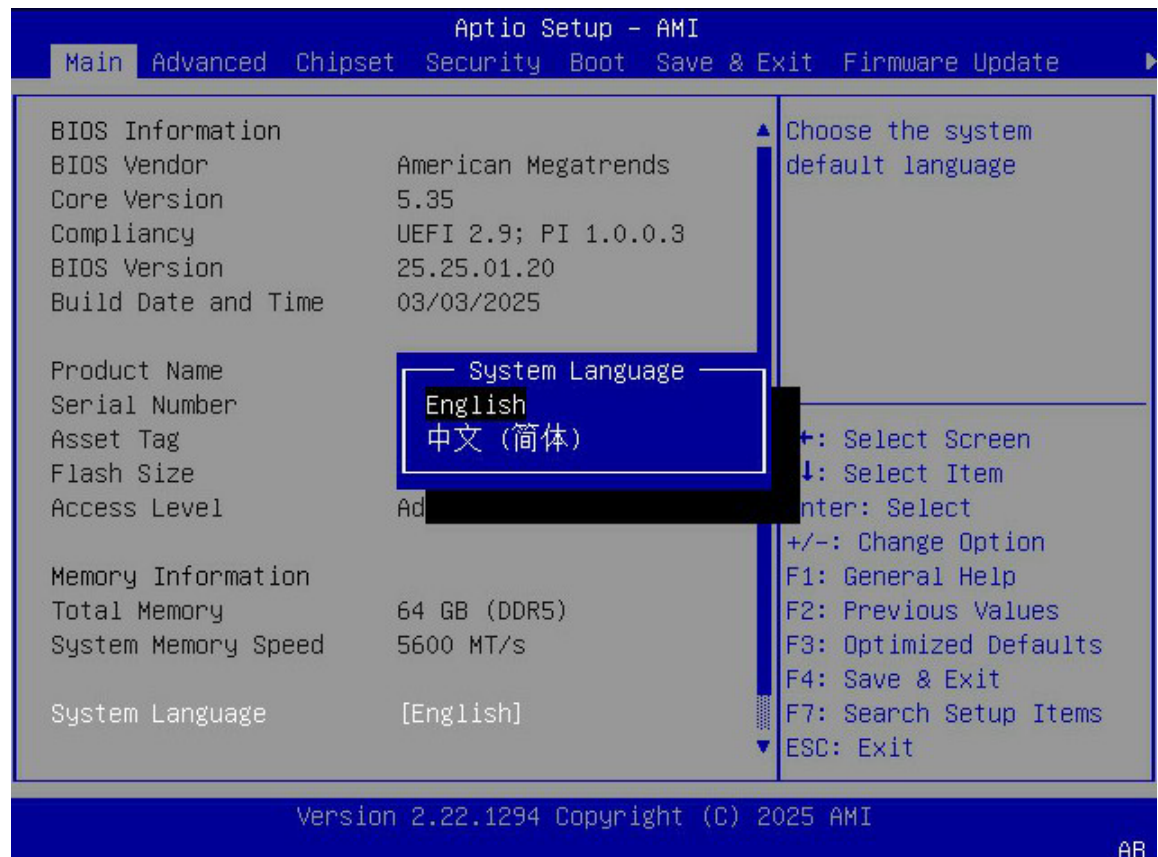
This procedure describes how to set the **BIOS** language that the BIOS information is displayed in.

Steps

1. On the **Aptio Setup** screen, select the **Main** menu. The **Main** screen is displayed.

2. Select **System Language** and then press **Enter**. The **System Language** dialog box is displayed, as shown in [Figure 2-3](#).

Figure 2-3 System Language Dialog Box



3. Select **English** and then press **Enter**.
4. Press **F4**. In the displayed dialog box, select **Yes**.

2.3 Querying Server Configurations

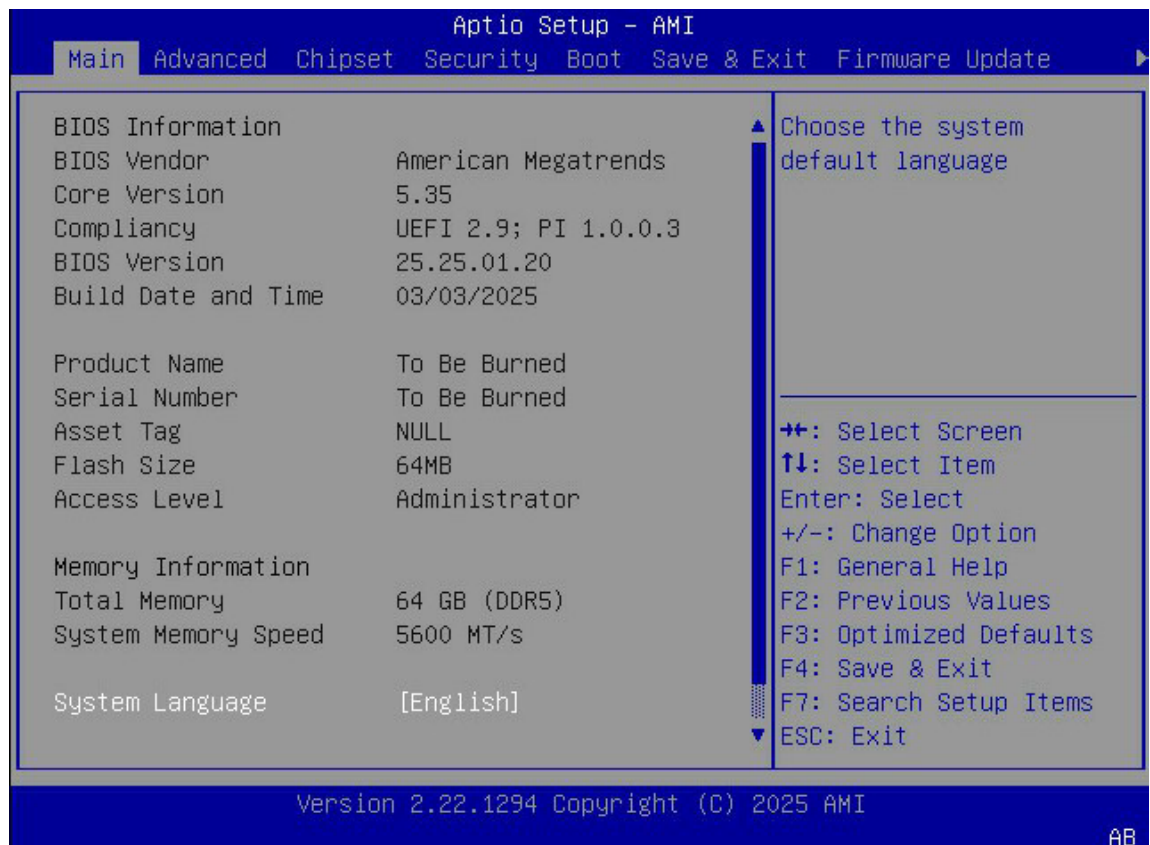
Abstract

This procedure describes how to query server configurations, including the [BIOS](#) version number and product name.

Steps

1. On the **Aptio Setup** screen, select the **Main** menu. The **Main** screen is displayed, showing the server configuration information, as shown in [Figure 2-4](#).

Figure 2-4 Server Configuration Information



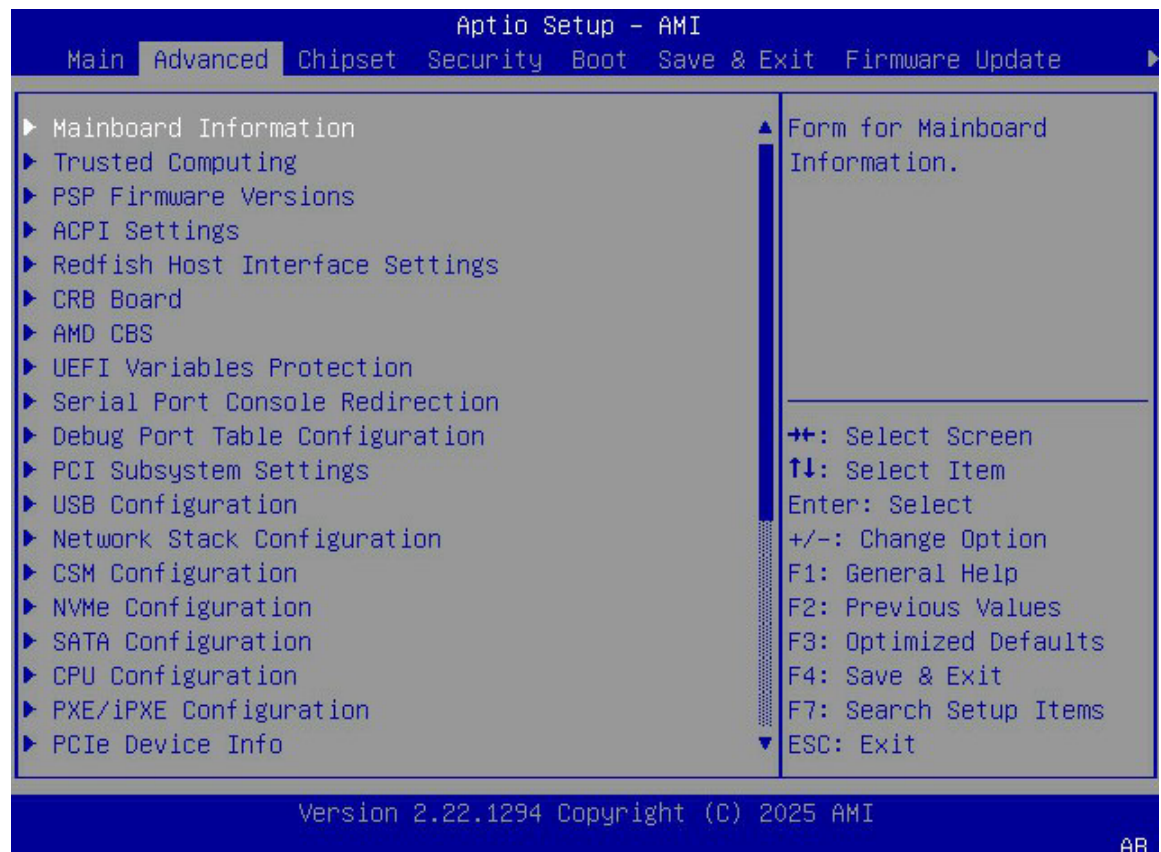
2.4 Querying CPU Information

Abstract

This procedure describes how to query the [CPU](#) information so that you can learn about the parameters of CPUs.

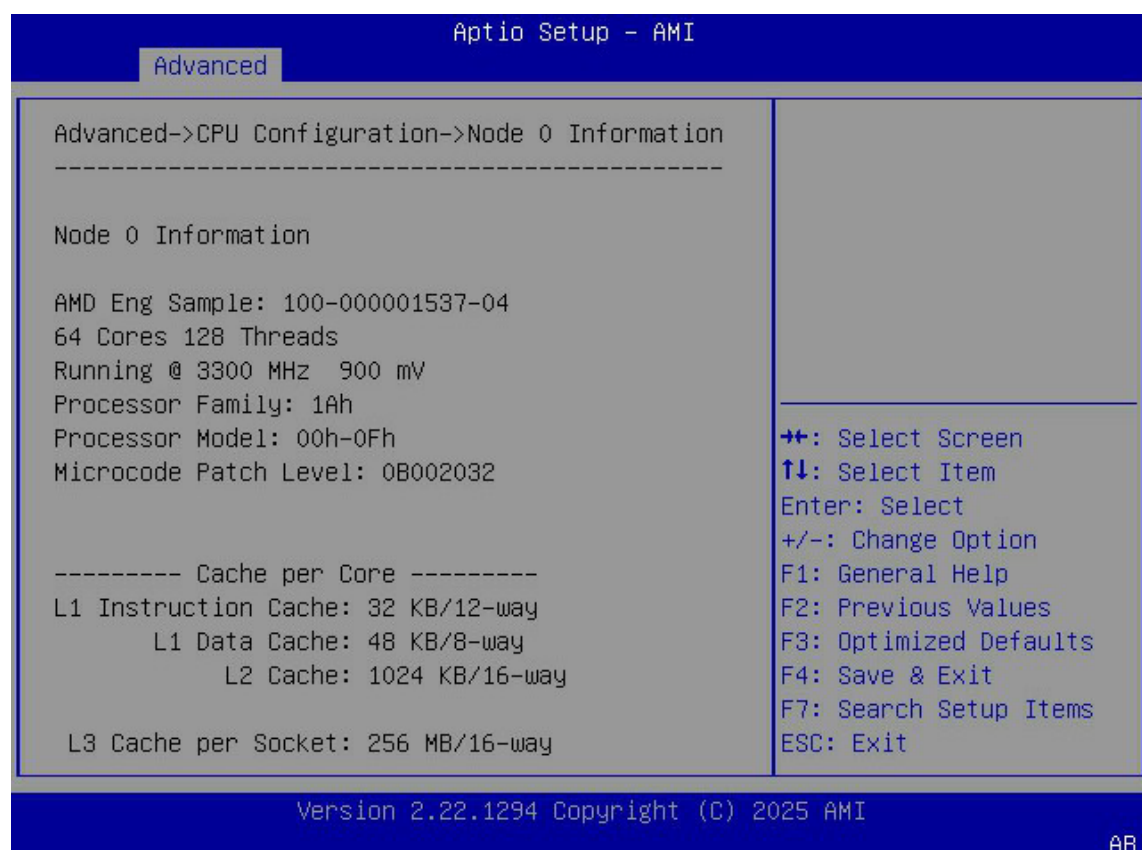
Steps

1. On the **Aptio Setup** screen, select **Advanced**. The **Advanced** screen is displayed, as shown in [Figure 2-5](#).

Figure 2-5 Advanced Screen

2. Select **CPU Configuration > Node 0 Information** and then press **Enter**. The CPU information is displayed, as shown in [Figure 2-6](#).

Figure 2-6 CPU Information



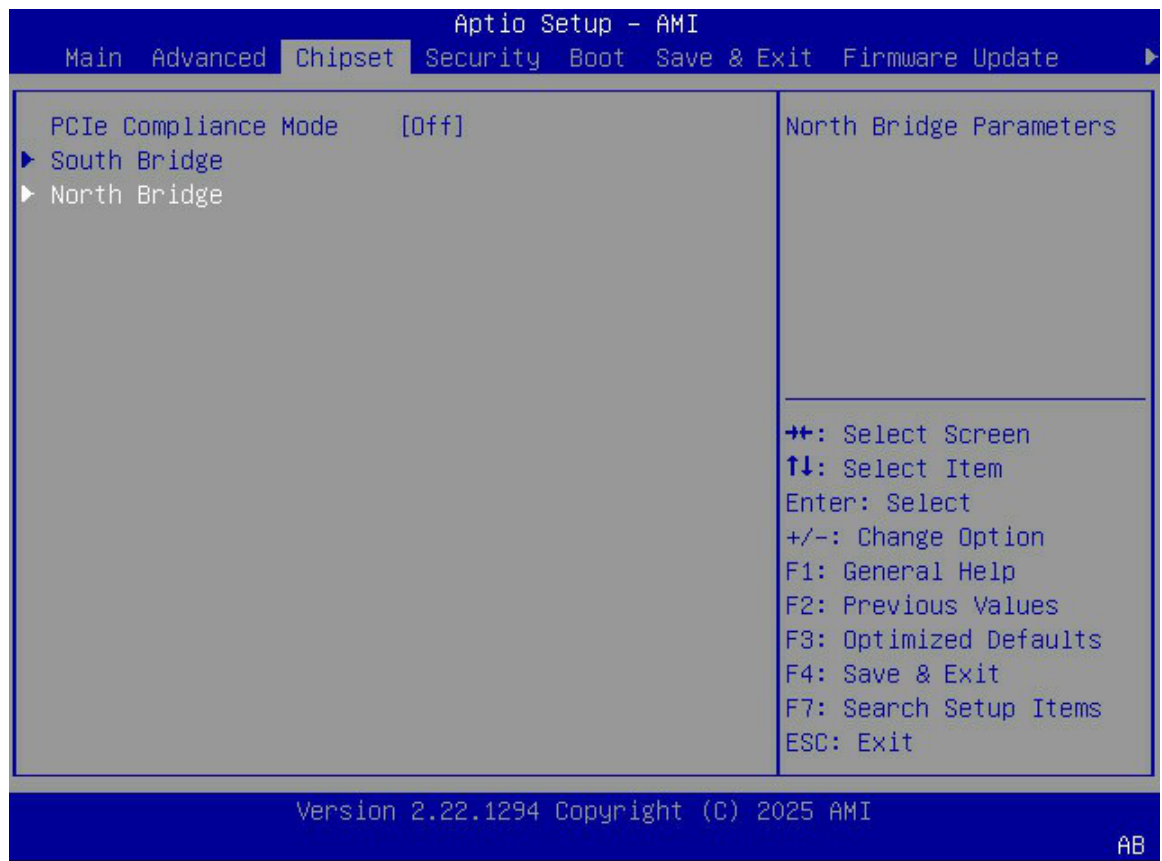
2.5 Querying Memory Information

Abstract

This procedure describes how to query memory parameter settings.

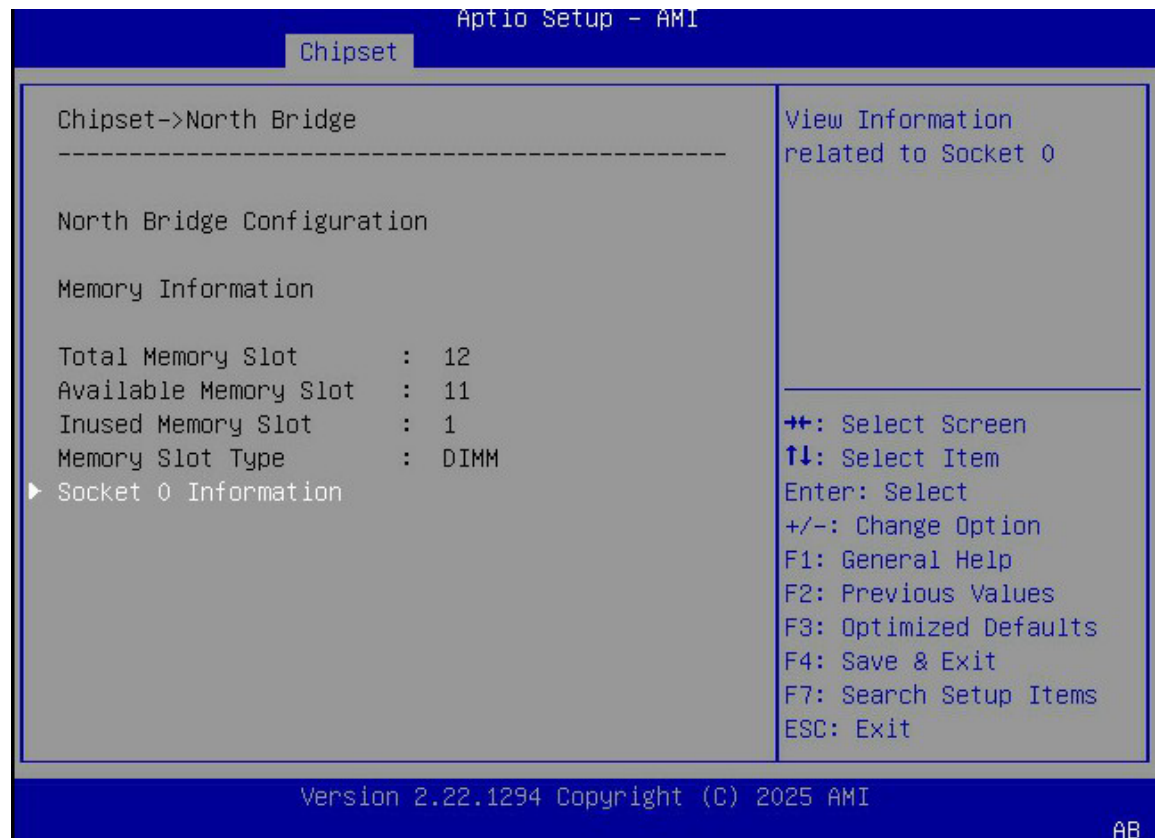
Steps

1. On the **Aptio Setup** screen, select the **Chipset** menu. The **Chipset** screen is displayed, as shown in [Figure 2-7](#).

Figure 2-7 Chipset Screen

2. Select **North Bridge**, and press **Enter**. The memory information is displayed, as shown in [Figure 2-8](#).

Figure 2-8 Memory Information



2.6 Querying NIC Information

Abstract

This procedure describes how to query NIC information to learn about the NIC configurations, such as the [MAC](#) address and NIC details.

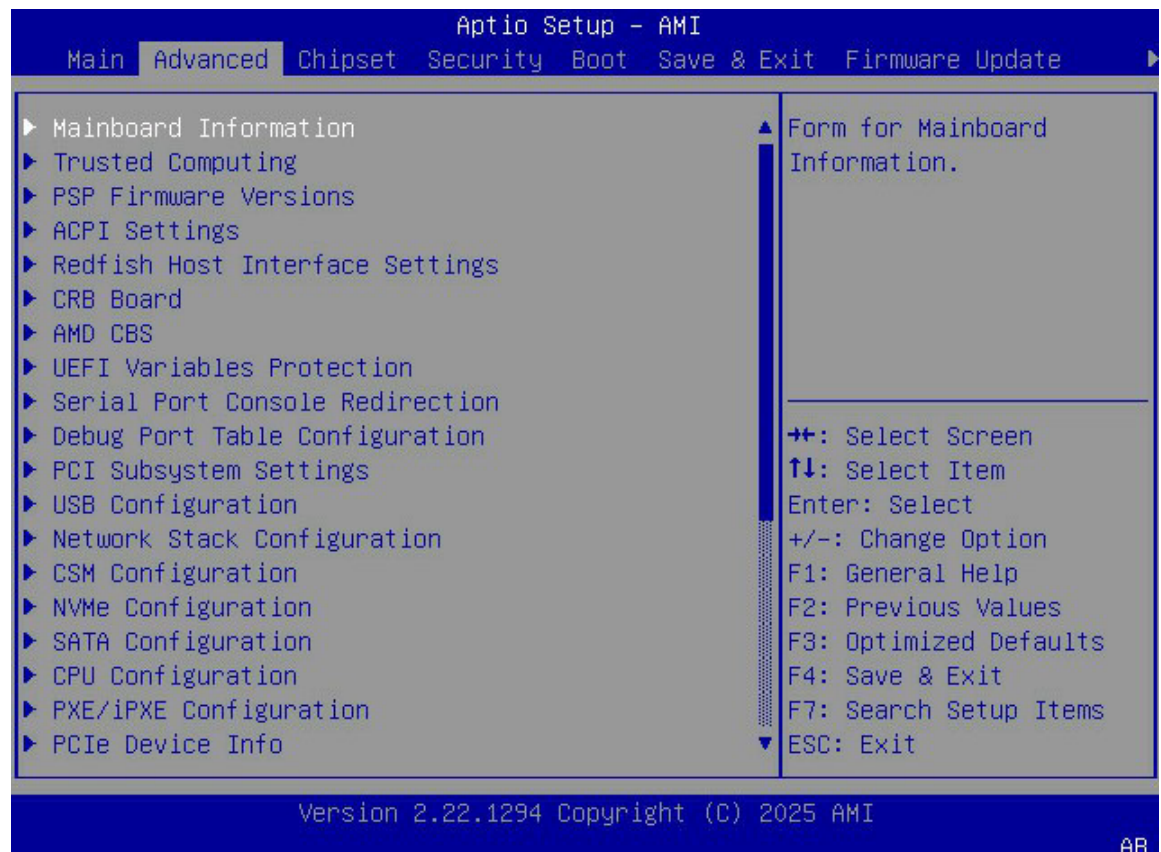
Prerequisite

The boot mode is already set to [UEFI](#) in the [BIOS](#). For details, refer to [2.9 Setting the Boot Mode](#).

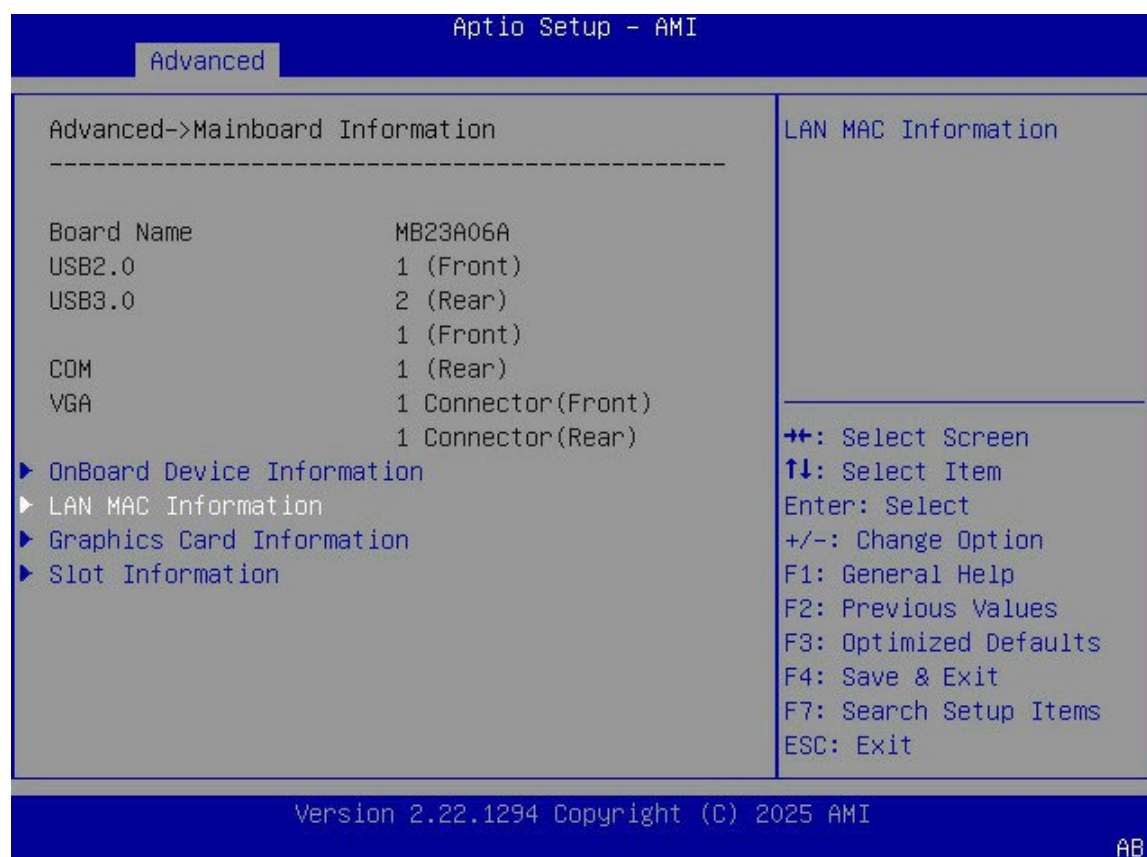
Steps

Querying Network Port Numbers and MAC Addresses

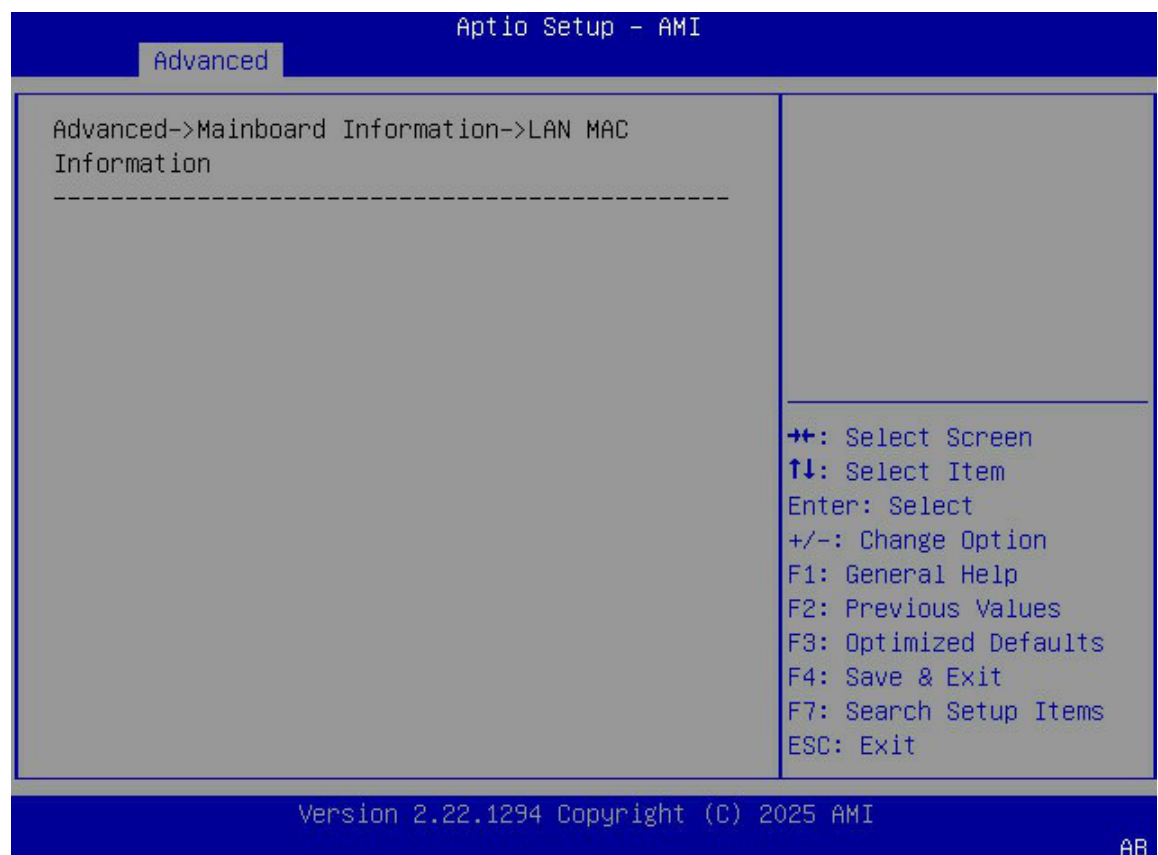
1. On the **Aptio Setup** screen, select **Advanced**. The **Advanced** screen is displayed, as shown in [Figure 2-9](#).

Figure 2-9 Advanced Screen

2. Select **Mainboard Information**, and then press **Enter**. The **Mainboard Information** screen is displayed, as shown in [Figure 2-10](#).

Figure 2-10 Mainboard Information Screen

3. Select **LAN MAC Information**, and then press **Enter**. The **LAN MAC Information** screen is displayed, as shown in [Figure 2-11](#).

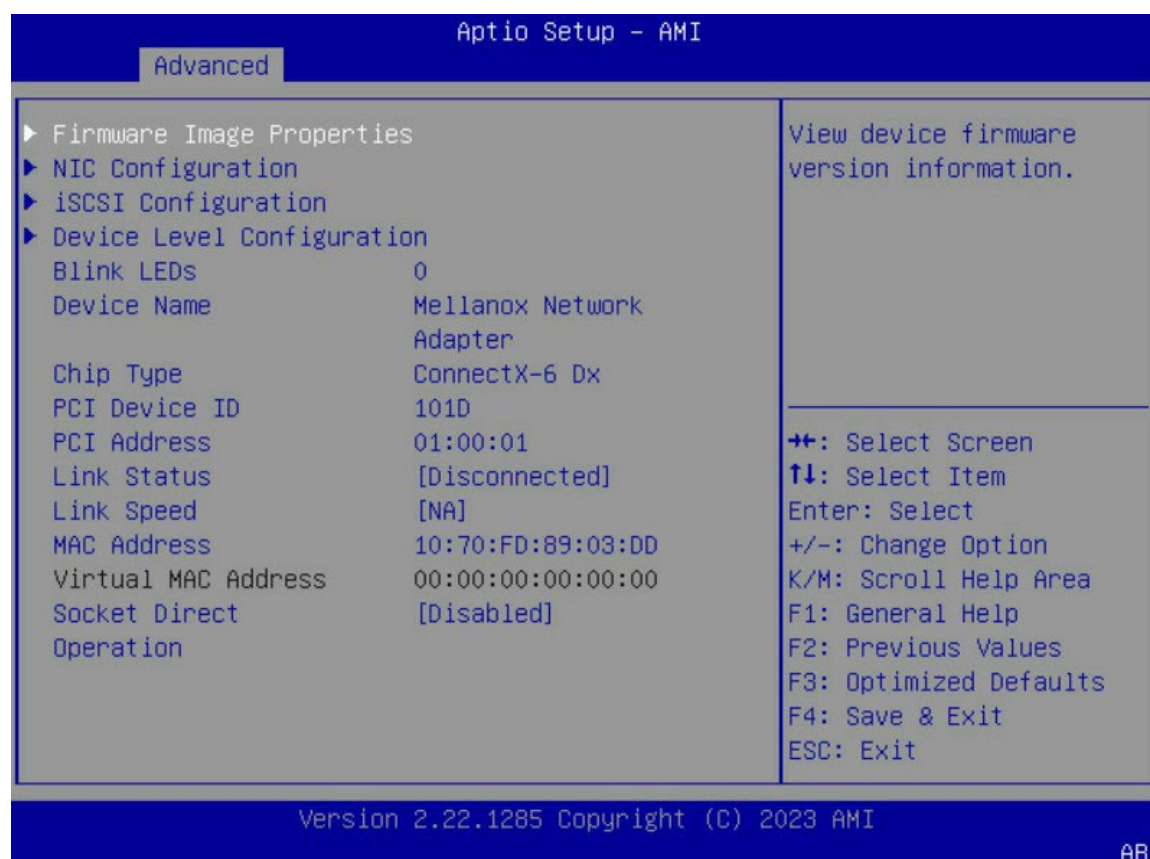
Figure 2-11 LAN MAC Information Screen

4. Press **Esc** twice to return to the **Advanced** screen.

Querying the Details of a NIC

5. Select an NIC, for example, **Mellanox Network Adapter - 10: 70: FD: 89: 03: DD**, and press **Enter**. The detailed information about the NIC is displayed, as shown in [Figure 2-12](#).

Figure 2-12 Detailed NIC Information



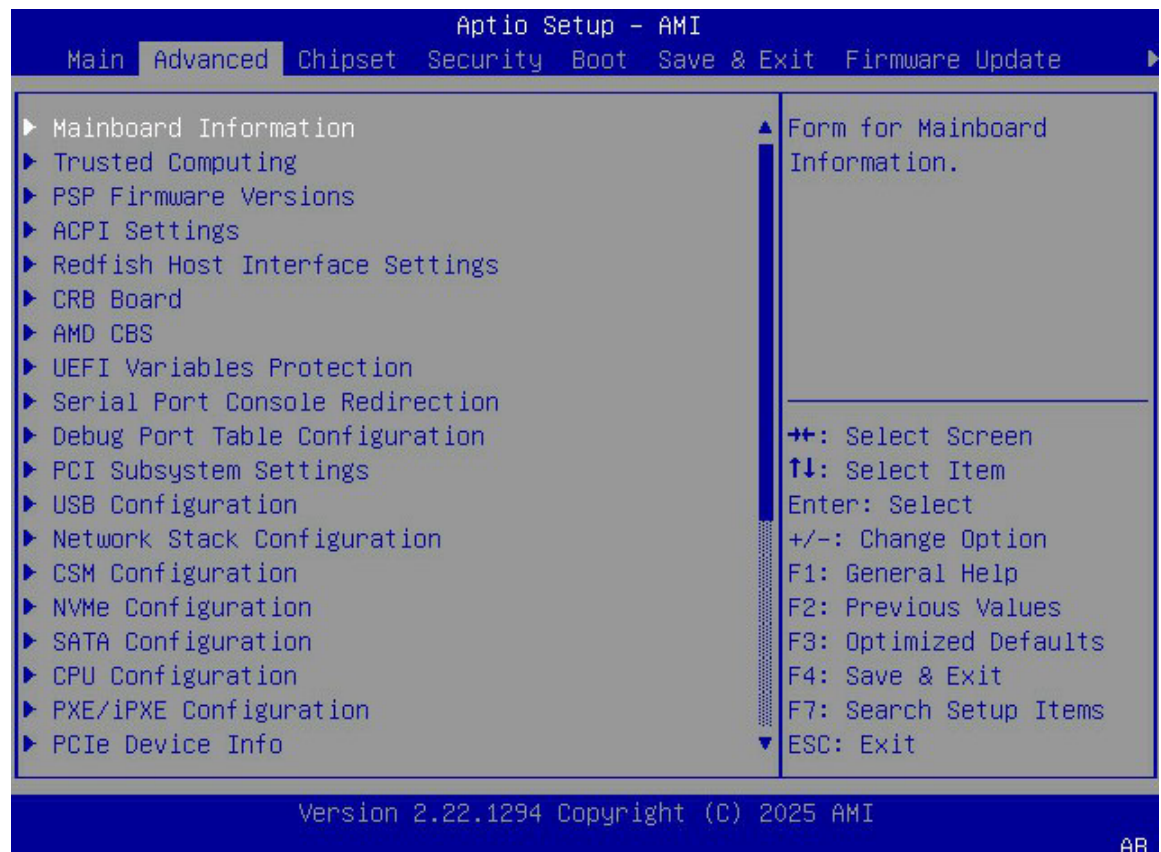
2.7 Querying Hard Disk Information

Abstract

This procedure describes how to query the hard disk information so that you can learn about the parameter settings of hard disks.

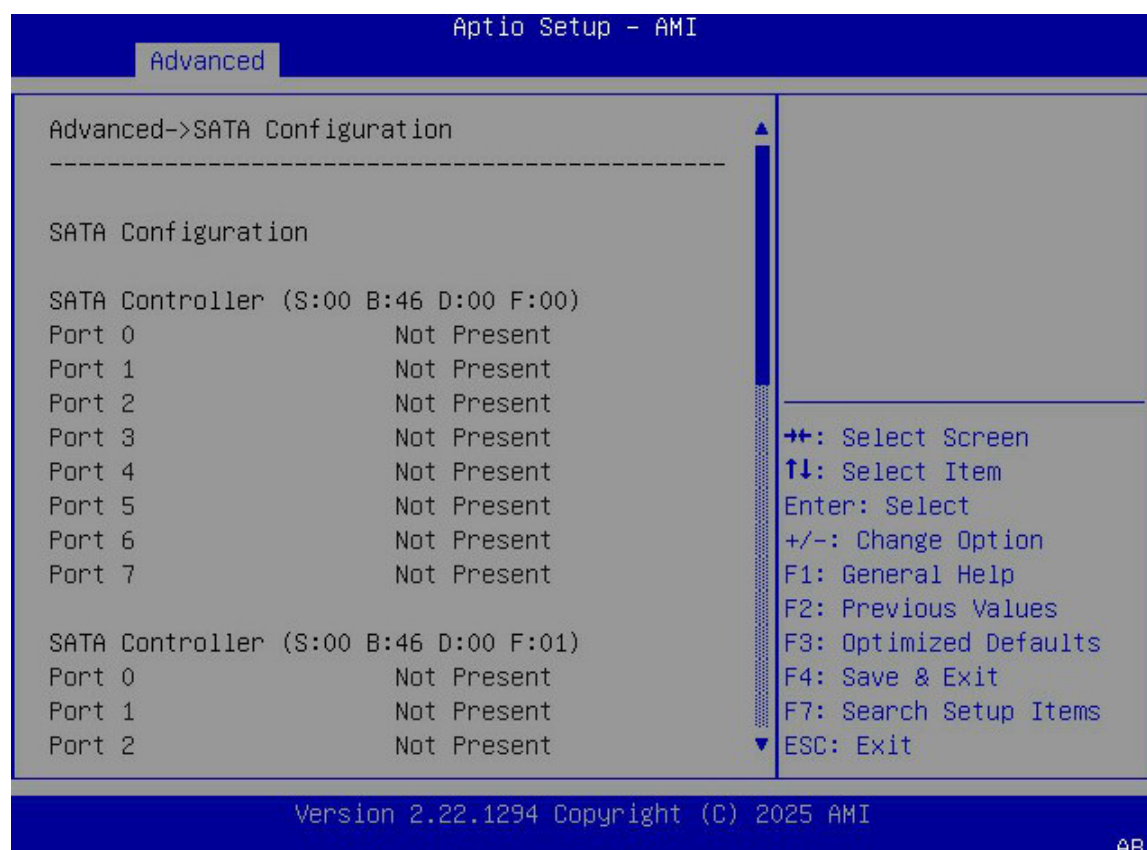
Steps

1. On the **Aptio Setup** screen, select **Advanced**. The **Advanced** screen is displayed, as shown in [Figure 2-13](#).

Figure 2-13 Advanced Screen

2. Select **SATA Configuration** and then press **Enter**. The hard disk information is displayed, as shown in [Figure 2-14](#).

Figure 2-14 Hard Disk Information Screen



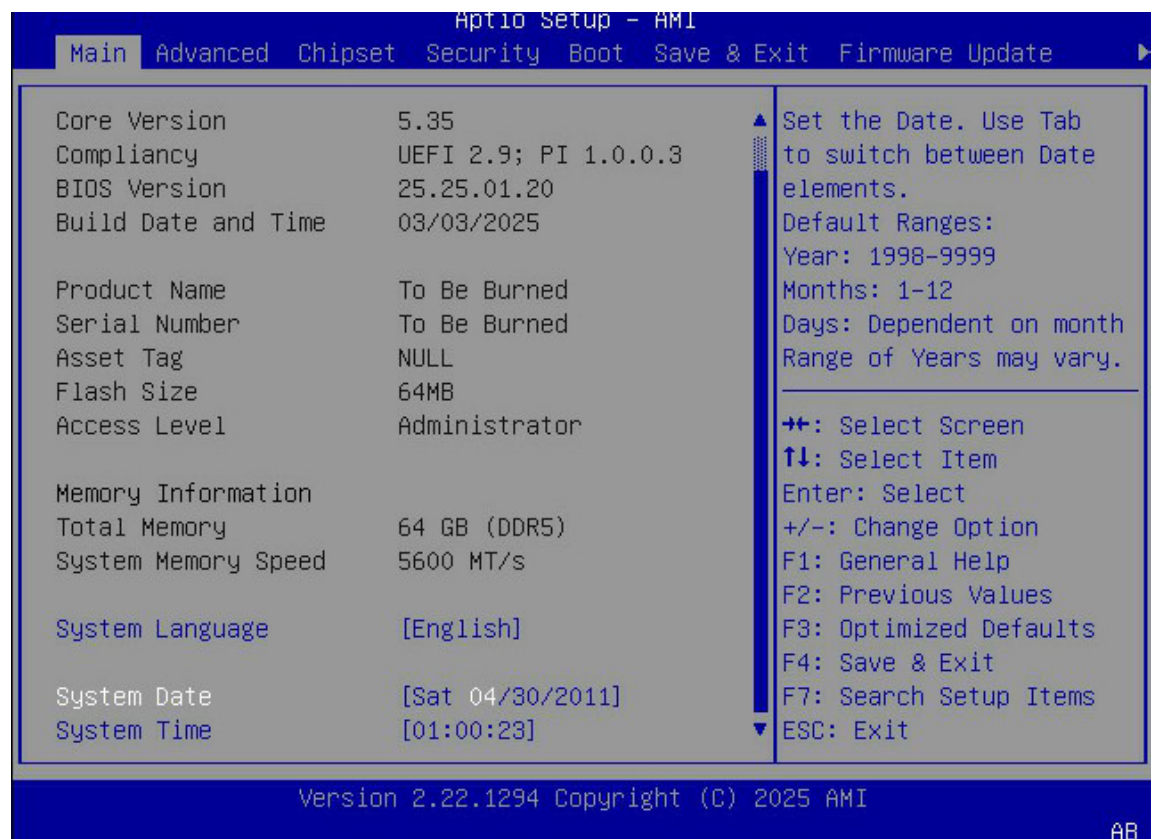
2.8 Setting the BIOS Time

Abstract

This procedure describes how to set the **BIOS** time to the local time.

Steps

1. On the **Aptio Setup** screen, select the **Main** menu. The **Main** screen is displayed.
2. Select **System Date** and then press **Enter** to highlight the desired **Date** element (month, day, or year), as shown in [Figure 2-15](#).

Figure 2-15 Main Screen—System Date

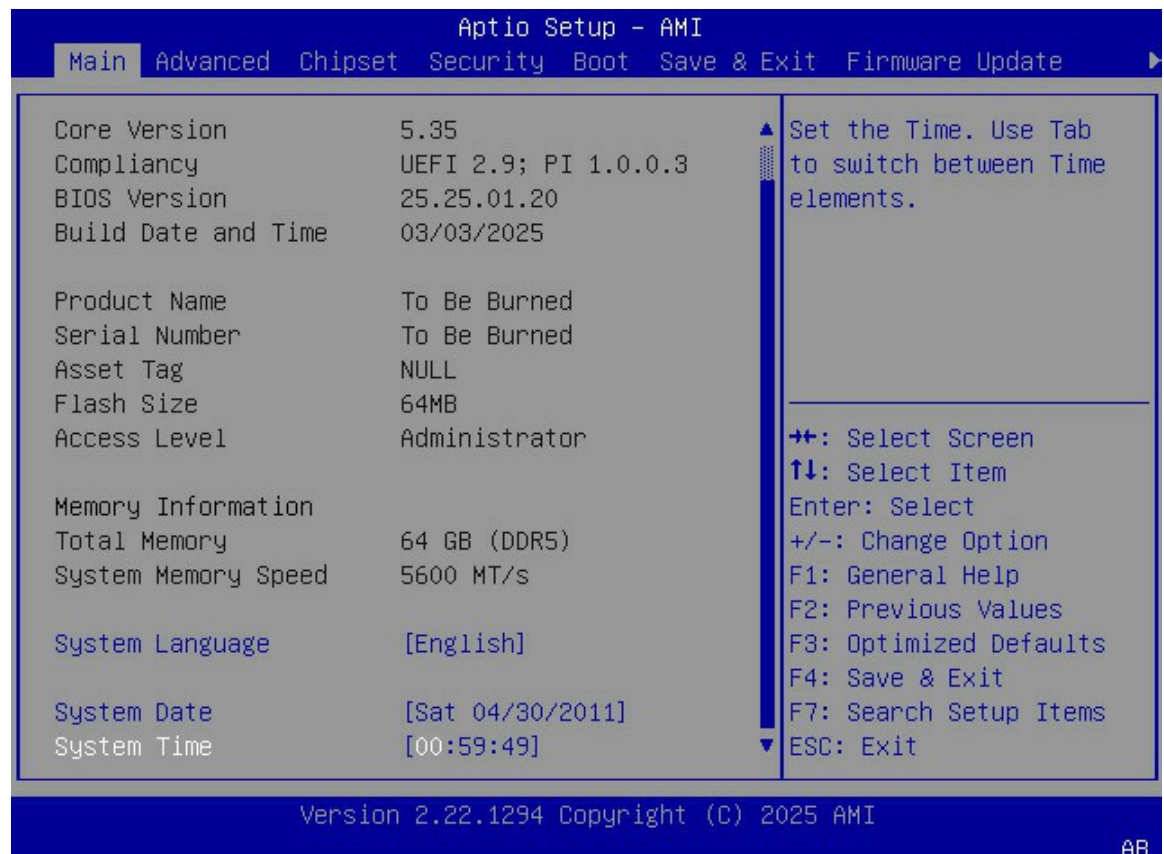
3. Set the date.

The date is displayed in MM/DD/YYYY format. Press **Enter** or **Tab** to switch between the month, day, and year elements and change the settings as follows:

- Press the **+** key to increase a value by 1.
- Press the **-** key to decrease a value by 1.
- Press number keys to change a value directly.

4. Select **System Time** and then press **Enter** to highlight the desired **Time** element (hour, minute, or second), as shown in [Figure 2-16](#).

Figure 2-16 Main Screen—System Time



5. Set the time.

Based on the 24-hour clock, the time is in the format of hour:minute:second. Press **Enter** or **Tab** to switch between the hour, minute, and second elements, and change the settings as follows:

- Press the **+** key to increase a value by 1.
- Press the **-** key to decrease a value by 1.
- Press number keys to change a value directly.

6. Press **F4**. In the displayed dialog box, select **Yes**.

2.9 Setting the Boot Mode

Abstract

The server boot modes include:

- Legacy mode: old boot mode with certain limitations.
- UEFI mode: new boot mode that supports PXE over IPv6 or IPv4 and provides the UEFI Shell environment.

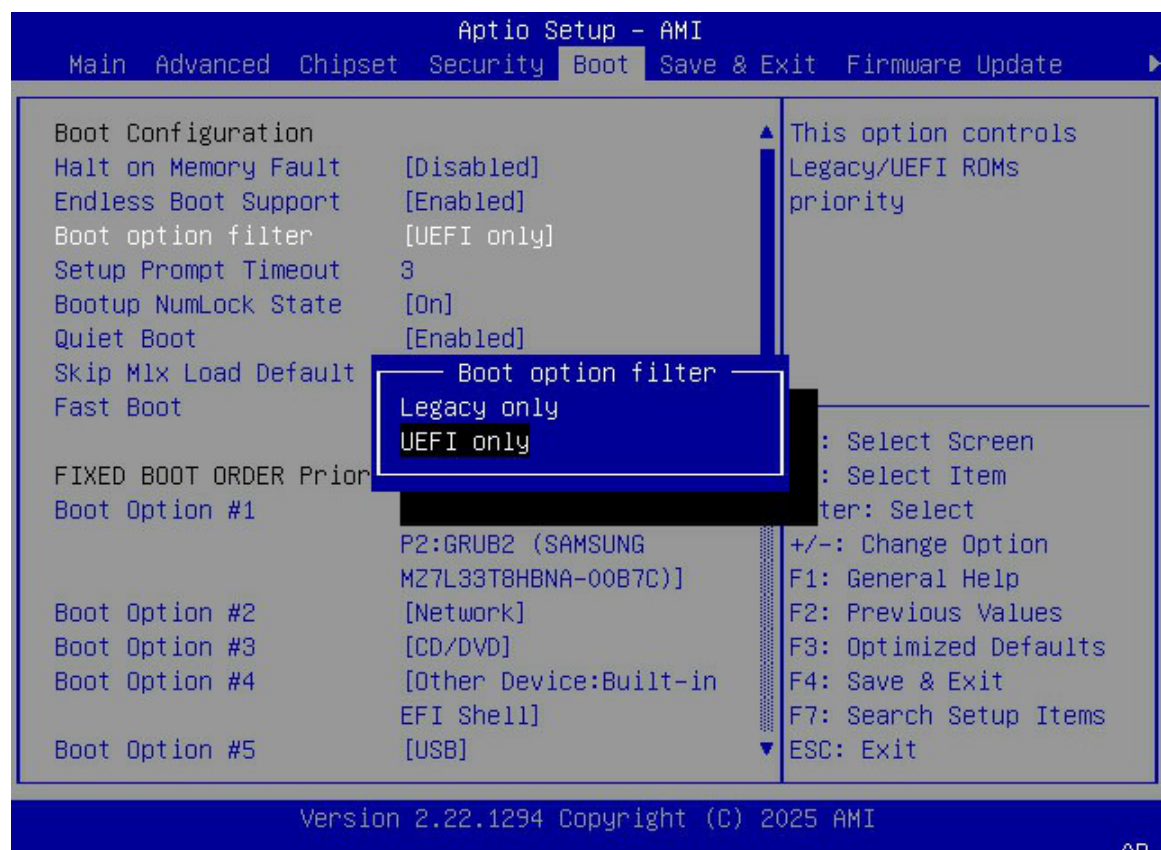
**Note**

UEFI mode is recommended.

Steps

1. On the **Aptio Setup** screen, select the **Boot** menu. The **Boot** screen is displayed.
2. Select **Boot option filter**, and press the **Enter** key. The **Boot option filter** dialog box is displayed, as shown in [Figure 2-17](#).

Figure 2-17 Boot Option Filter Dialog Box



3. Select **Legacy only** or **UEFI only** and then press **Enter**.

**Note**

After the boot mode is changed, some configuration parameters of the [BIOS](#) are changed accordingly.

4. Press **F4**. In the displayed dialog box, select **Yes**.

2.10 Setting the Boot Order

Abstract

In most cases, a server is configured with multiple boot devices, for example, a hard disk, a [CD](#), and a [DVD](#).

This procedure describes how to adjust the priorities of these boot devices in the [BIOS](#) to set the boot order.

Context

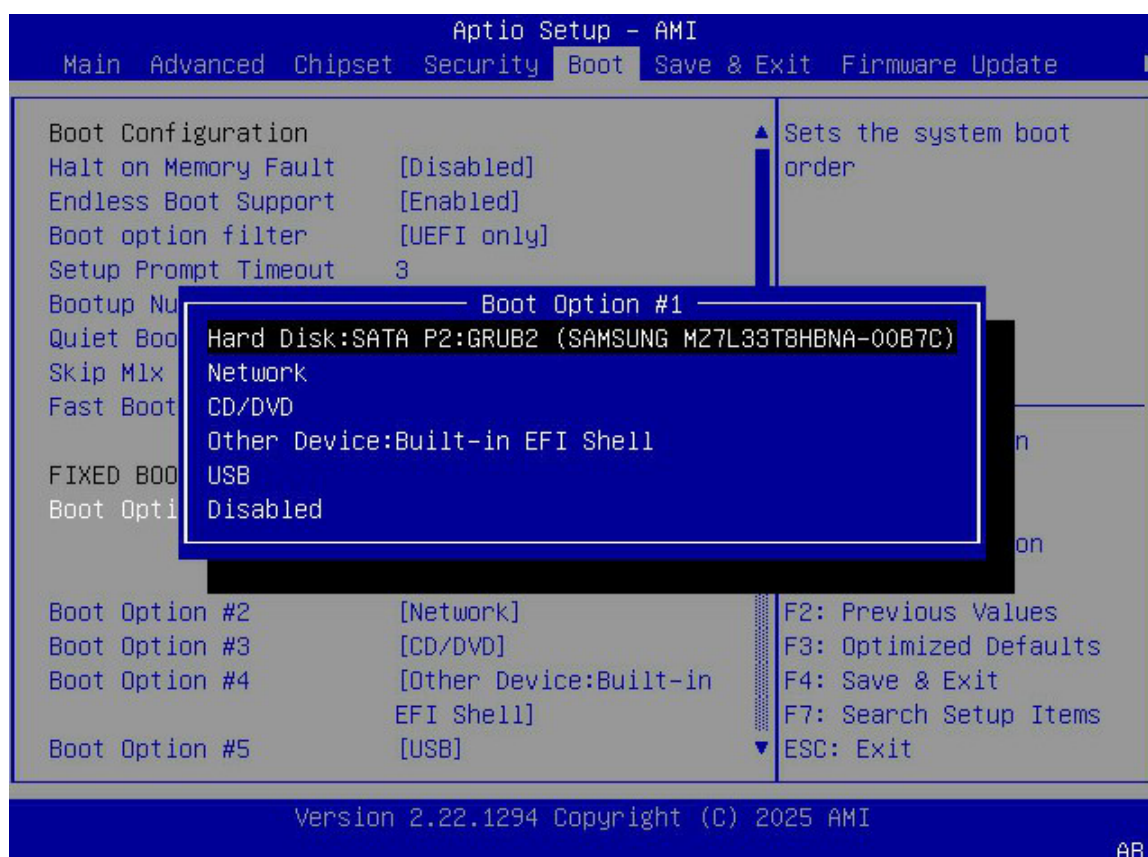
By default, the boot order of the server is as follows:

1. Hard disk
2. Network
3. [USB](#)
4. CD/DVD drive
5. Other devices

Steps

1. On the **Aptio Setup** screen, select the **Boot** menu. The **Boot** screen is displayed.
2. Under **FIXED BOOT ORDER Priorities**, select the option for which you want to adjust the boot order.

For example, to adjust the boot device with the first priority, select **Boot Option #1**, and then press **Enter**. The **Boot Option #1** dialog box is displayed, as shown in [Figure 2-18](#).

Figure 2-18 Boot Option Filter Dialog Box

For a description of the boot devices, refer to [Table 2-2](#).

Table 2-2 Boot Device Descriptions

Boot Device	Description
Hard Disk	Boots the OS from a hard disk.
Network	Boots the OS from a network device.
USB	Boots the OS from a USB device.
CD/DVD	Boots the OS from a CD/DVD-ROM drive.
Other Device	Boots the OS from other devices.
Disabled	Disables this option.

3. Select a device that will serve as the first boot device and then press **Enter**.
4. (Optional) Adjust boot devices with other priorities by referring to [#unique_28/unique_28_Connect_42_reference2f42da5847ce11ef876aaf06789d9349](#) and [Step 3](#).
5. Press **F4**. In the displayed dialog box, select **Yes**.

2.11 Setting the BIOS Password

Abstract

BIOS passwords include an administrator password and a user password. By default, neither the administrator password nor the user password is set.

To ensure server security, it is recommended that you set BIOS passwords immediately at first login and properly keep the passwords. The BIOS passwords cannot be cleared forcibly after being set.

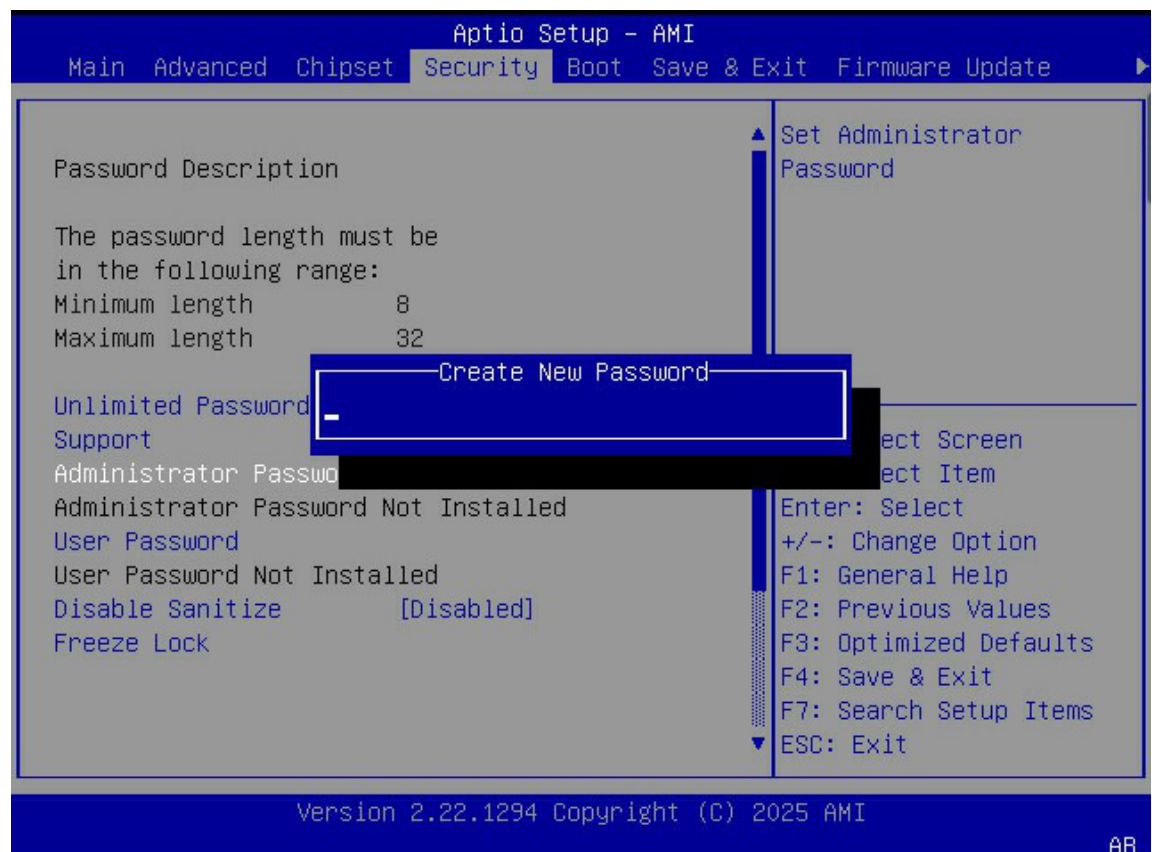
Note

This procedure describes how to set the administrator password. You can set the user password by using the same method.

Steps

1. On the **Aptio Setup** screen, select the **Security** menu. The **Security** screen is displayed.
2. Select **Administrator Password** and then press **Enter**. The **Create New Password** dialog box is displayed, as shown in [Figure 2-19](#).

Figure 2-19 Create New Password Dialog Box



3. Enter the password and press **Enter**. In the displayed **Confirm New Password** dialog box, enter the password again and then press **Enter**.

**Note**

The password consists of 8 to 32 characters, and must contain uppercase and lowercase letters, digits, and special characters.

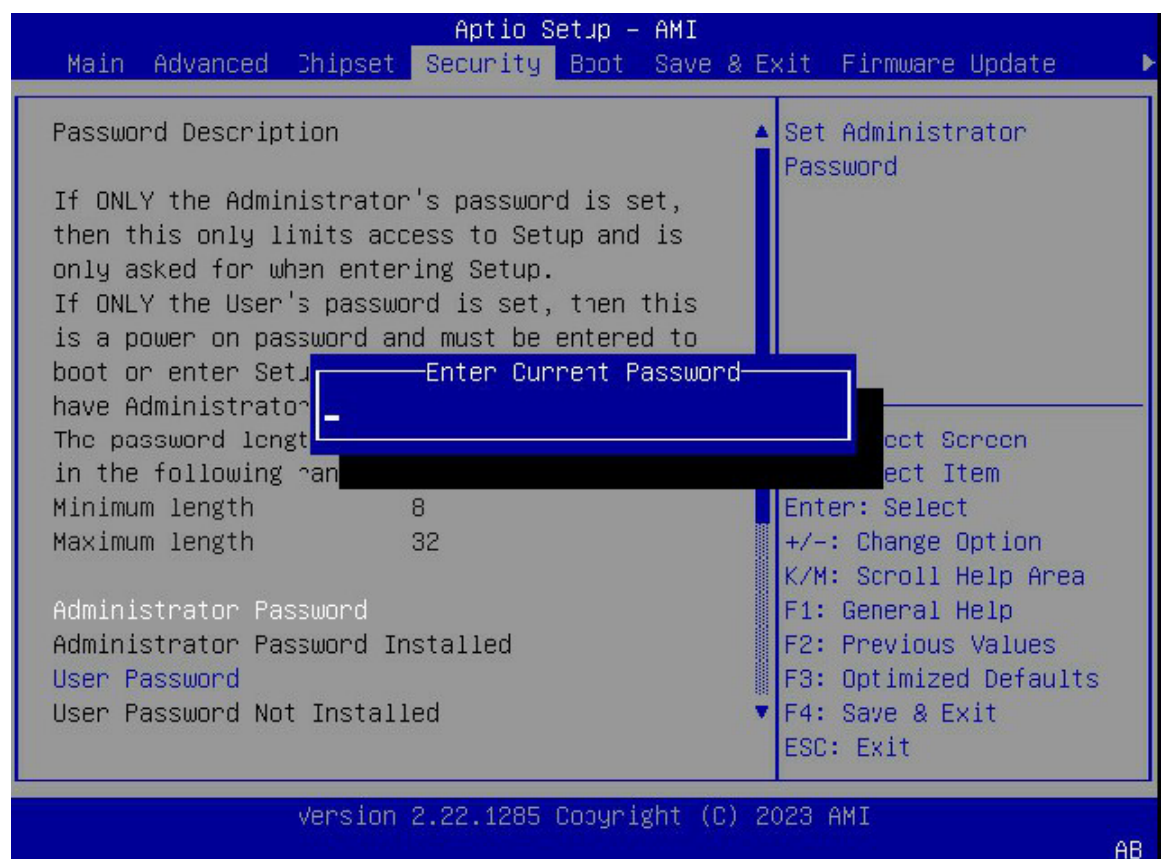
4. Press **F4**. In the displayed dialog box, select **Yes**.

Related Tasks

To change the password, perform the following operations:

1. On the **Security** screen, select **Administrator Password** and then press **Enter**. The **Enter Current Password** dialog box is displayed, as shown in [Figure 2-20](#).

Figure 2-20 Enter Current Password Dialog Box



2. Enter the current BIOS password and then press **Enter**. In the displayed two dialog boxes, enter the new password and then press **Enter**.



The new password cannot be the same as one of the last three passwords used for the account.

3. Press **F4**. In the displayed dialog box, select **Yes**.

2.12 Deleting a BIOS Password

Abstract

In a special case, a [BIOS](#) password can be cleared.

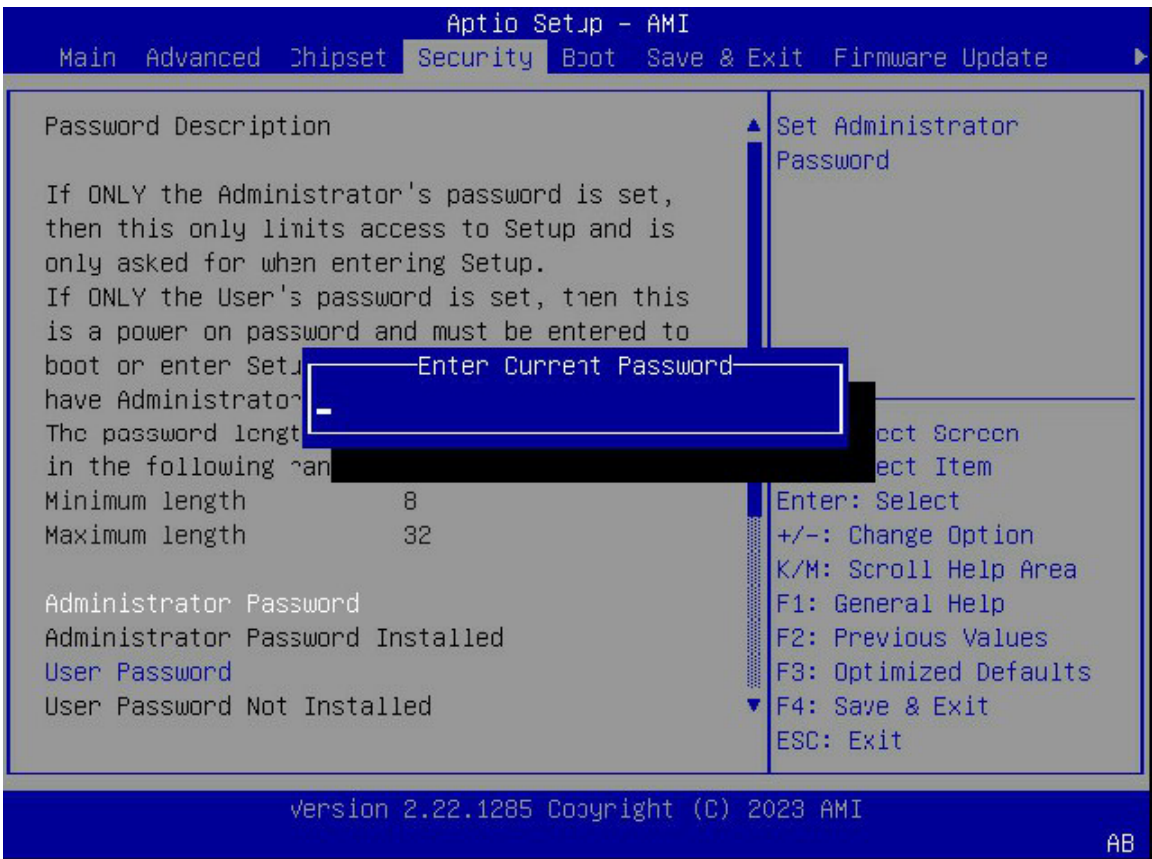


After a BIOS password is set, you must enter the password if you want to delete it. If you do not enter it, you cannot delete it. Therefore, you must properly keep the password. This procedure describes how to delete the administrator password. You can delete the user password by using the same method.

Steps

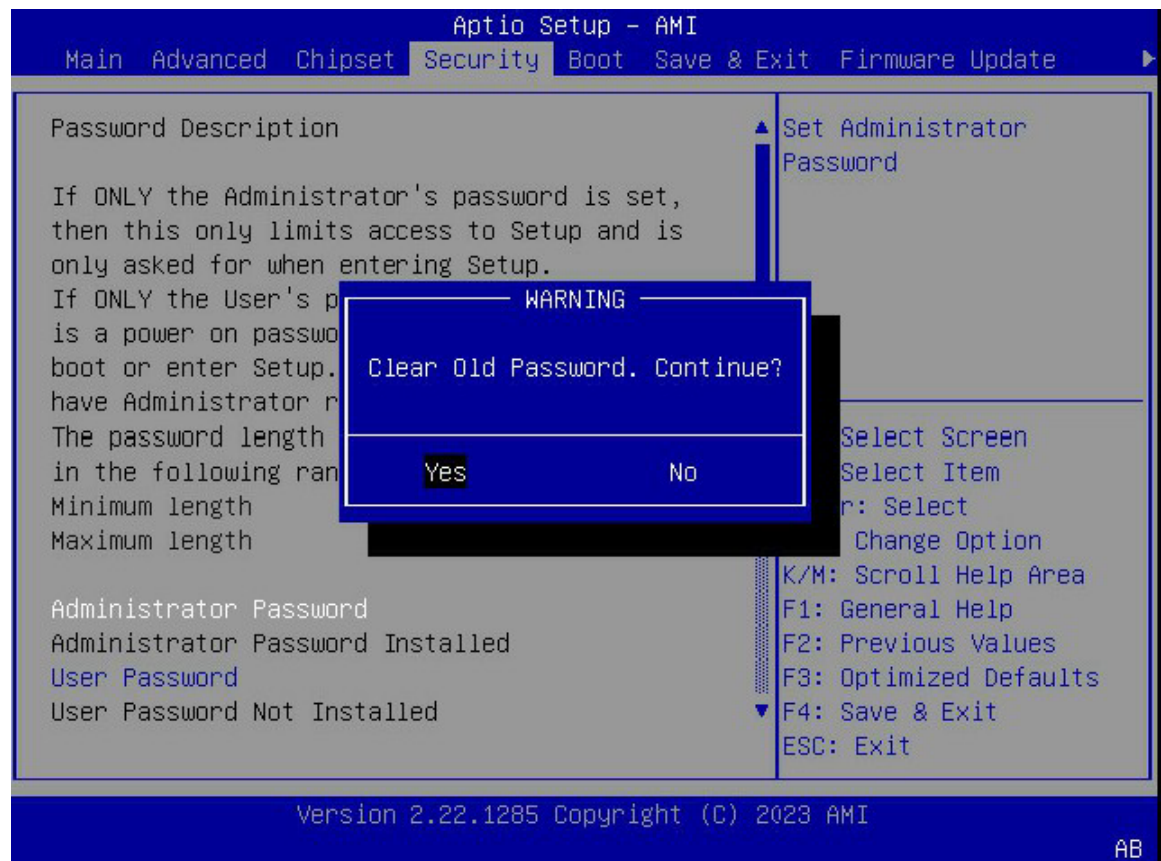
1. On the **Aptio Setup** screen, select the **Security** menu. The **Security** screen is displayed.
2. Select **Administrator Password** and then press **Enter**. The **Enter Current Password** dialog box is displayed, as shown in [Figure 2-21](#).

Figure 2-21 Enter Current Password Dialog Box



3. Enter the current BIOS password and then press **Enter**. In the displayed dialog box, do not enter any password. Directly press **Enter**. The **WARNING** dialog box is displayed, as shown in [Figure 2-22](#).

Figure 2-22 WARNING Dialog Box



4. Select **Yes**. Press the **Enter** key to return to the **Security** screen.
5. Press **F4**. In the displayed dialog box, select **Yes**.

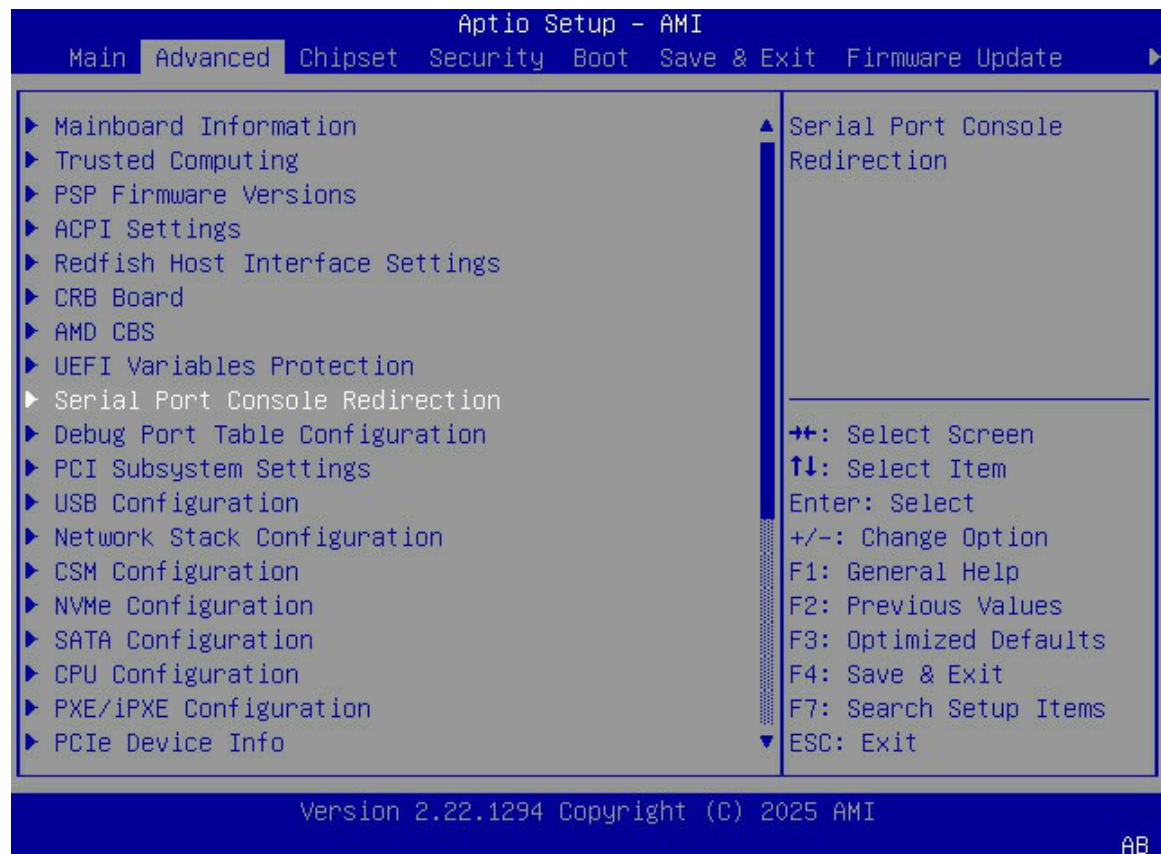
2.13 Configuring Console Redirection

Abstract

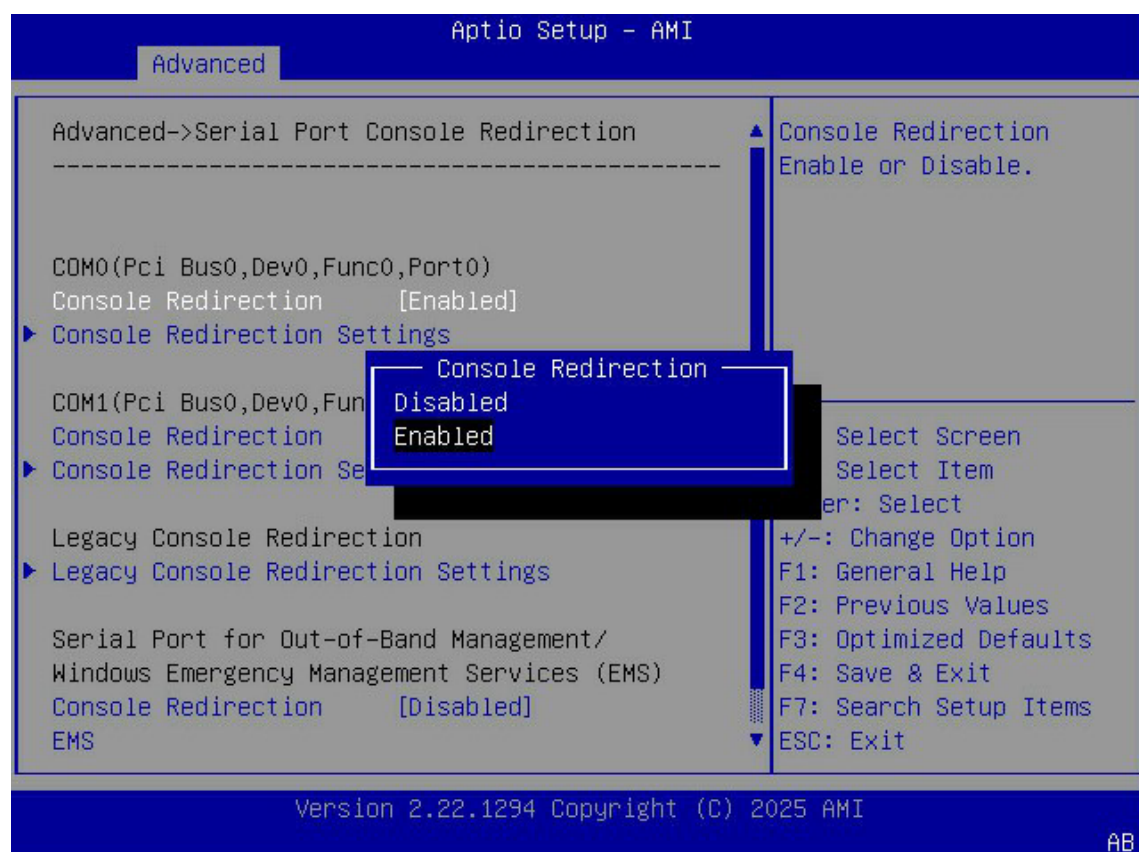
This procedure describes how to configure serial port console redirection to redirect the console output to a serial port.

Steps

1. On the **Aptio Setup** screen, select **Advanced**. The **Advanced** screen is displayed, as shown in [Figure 2-23](#).

Figure 2-23 Advanced Screen

2. Select **Serial Port Console Redirection > Console Redirection** and then press **Enter**.
The **Console Redirection** dialog box is displayed, as shown in [Figure 2-24](#).

Figure 2-24 Console Redirection Dialog Box

3. Select **Enabled** and then press **Enter**.
4. Press **F4**. In the displayed dialog box, select **Yes**.

2.14 Viewing BMC Network Parameters

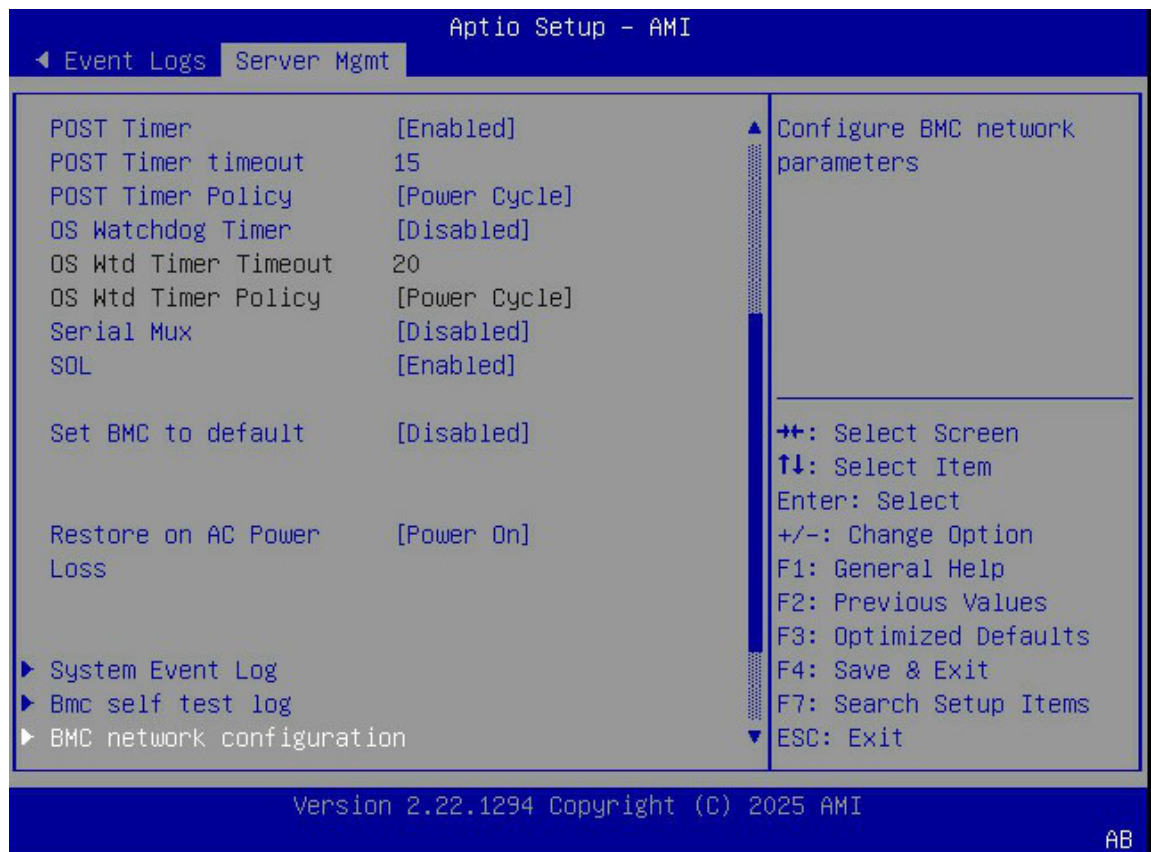
Abstract

This procedure describes how to query **BMC** network parameter settings.

Steps

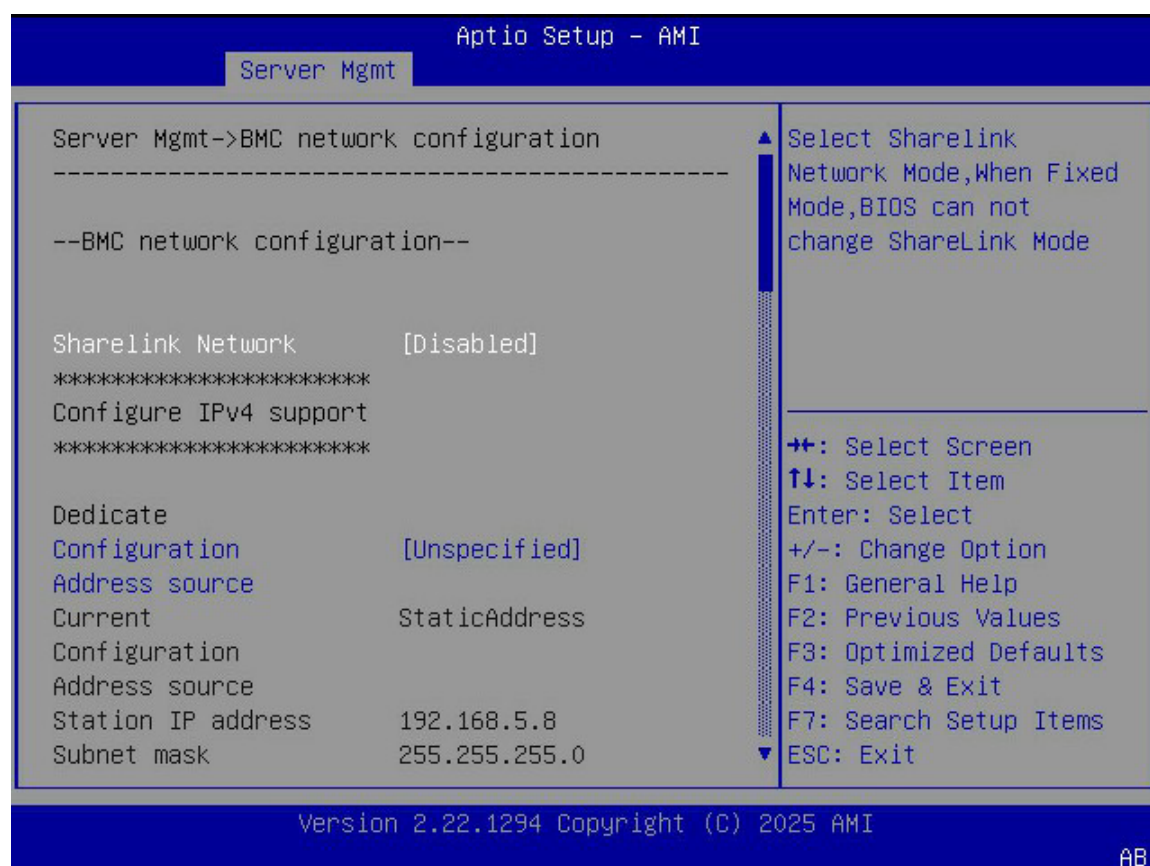
1. On the **Aptio Setup** screen, select the **Server Mgmt** menu. The **Server Mgmt** screen is displayed, as shown in [Figure 2-25](#).

Figure 2-25 Server Mgmt Screen



2. Select **BMC network configuration**, and then press **Enter**. The **BMC network configuration** screen is displayed, as shown in [Figure 2-26](#).

Figure 2-26 BMC Network Configuration Screen



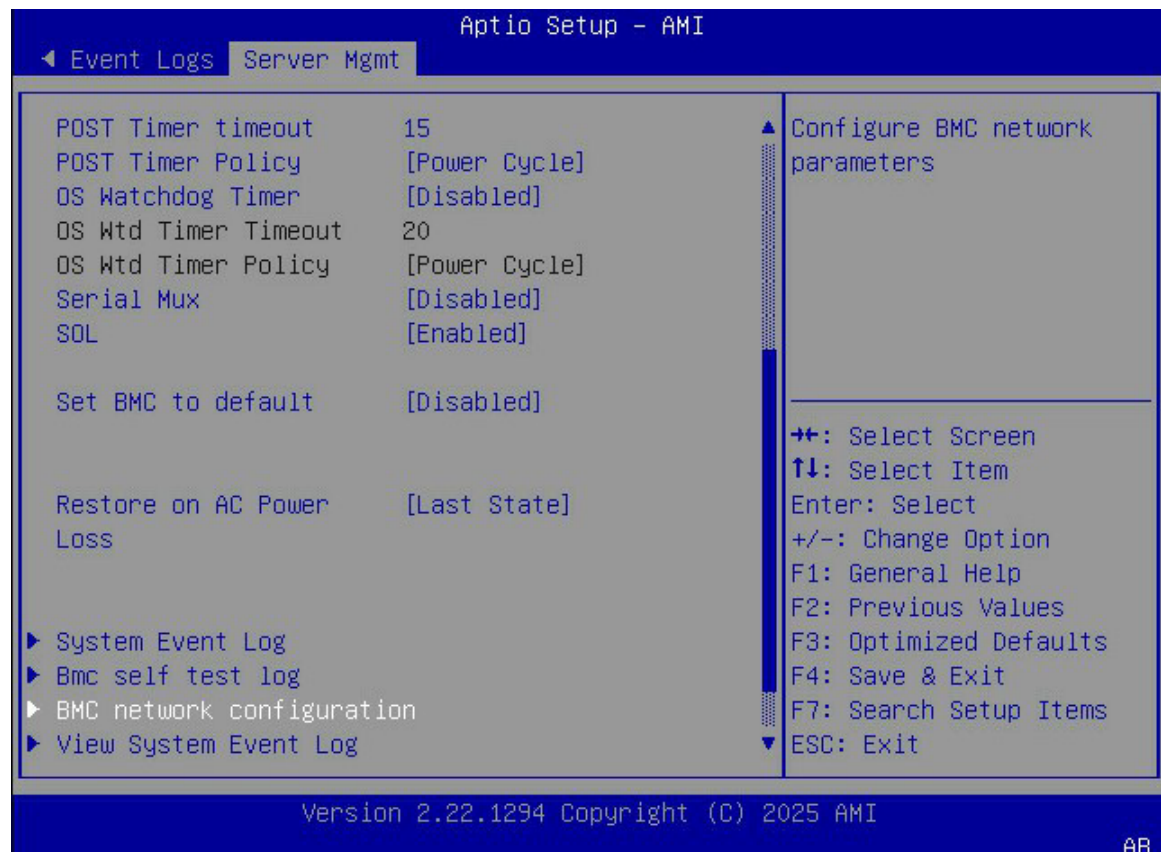
2.15 Setting BMC Network Parameters

Abstract

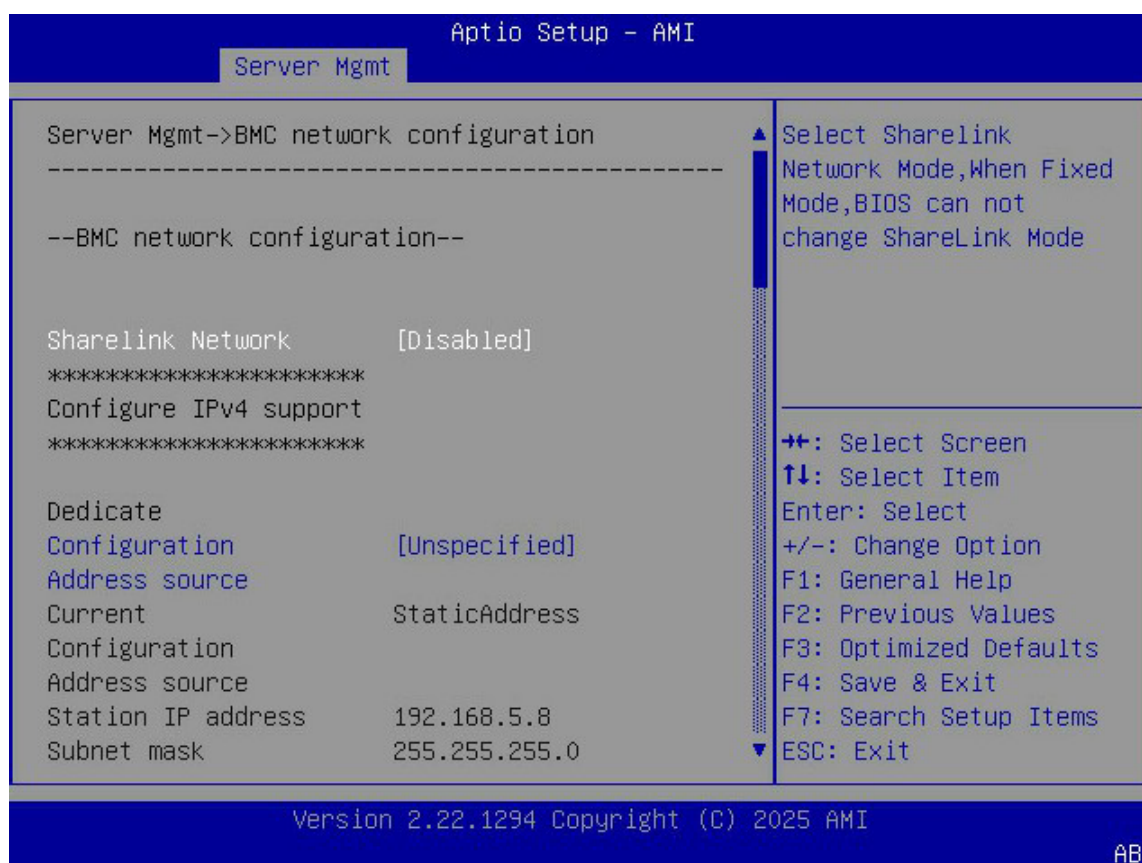
This procedure describes how to set the **BMC** network parameters so that the local **PC**, as a client, can connect to the BMC.

Steps

1. On the **Aptio Setup** screen, select the **Server Mgmt** menu. The **Server Mgmt** screen is displayed, as shown in [Figure 2-27](#).

Figure 2-27 Server Mgmt Screen

2. Select **BMC network configuration**, and then press **Enter**. The **BMC network configuration** screen is displayed, as shown in [Figure 2-28](#).

Figure 2-28 BMC Network Configuration Screen

3. Select each parameter that you need to set, and then press **Enter**. The screen for setting the parameter is displayed. For a description of the BMC network parameters, refer to [Table 2-3](#).

Table 2-3 BMC Network Parameter Descriptions

Parameter	Description
Sharelink Network	Sets whether to enable the shared network port function. Options: ● Auto. ● Enable: enables the shared network port function. ● Disabled: disables the shared network port function.
Configure IPv4 support	
Configuration Address source	Sets the configuration mode of the IPv4 address of the dedicated network port. Options: ● Unspecified: undefined. ● Static: static mode, in which the IP address is manually set. ● DynamicBmcDhcp: The IP address is dynamically obtained through the BMC in DHCP mode.

Parameter	Description
	● DynamicBmcNonDhcp: The IP address is dynamically obtained through the BMC.
Configure IPv6 support	
IPv6 Support	Sets whether the dedicated network port supports IPv6. Options: ● Enable: IPv6 is supported. If Enable is selected, the IPv6 parameters below can be configured. ● Disabled: IPv6 is not supported. If Disabled is selected, the IPv6 parameters below cannot be configured.
Configuration Address source	Sets the configuration mode of the IPv6 address of the dedicated network port. Options: ● Unspecified: undefined. ● Static: static mode, in which the IP address is manually set. ● DynamicBmcDhcp: The IP address is dynamically obtained through BMC DHCP.
Configuration Router Lan1 Address source	Specifies the address configuration type for LAN1. Options: ● Unspecified: The address obtain method is undefined. ● Static: The address is obtained in static mode. ● DynamicBmcDhcp: The address is dynamically obtained through BMC DHCP.
Configure VLAN support	
VLAN Support	Sets whether the shared network port supports VLANs. ● Enabled: VLANs are supported. If Enabled is selected, the VLAN parameters below can be configured. ● Disabled: VLAN is not supported. If Disabled is selected, the VLAN parameters below are hidden. ● Unspecified: undefined. If Unspecified is selected, the VLAN parameters below cannot be configured.

4. Press **F4**. In the displayed dialog box, select **Yes**.

2.16 Setting the PXE Function for a NIC

Abstract

To control a server over the network, you need to enable the [PXE](#) function for a NIC on the server.



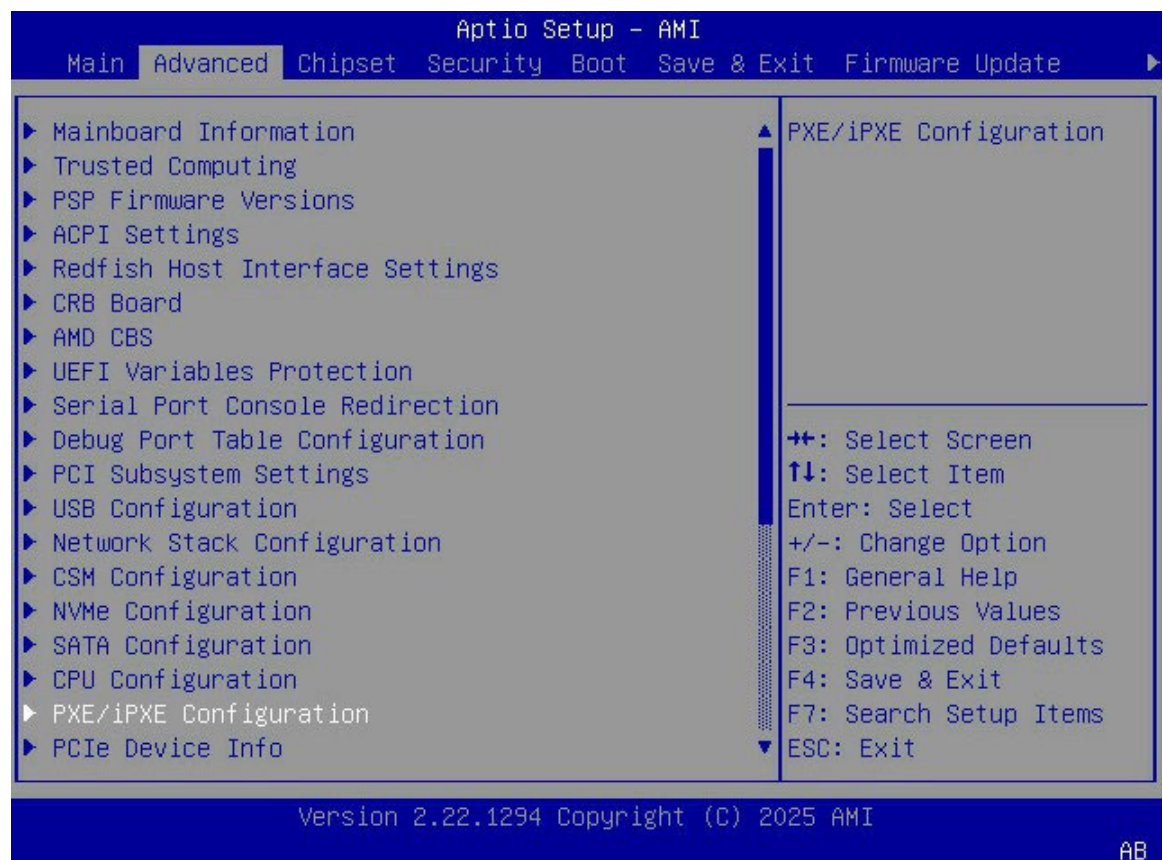
Note

Pre-boot Execution Environment (PXE) is a protocol designed by Intel. It enables computers to be started through the network. Operating in client/server mode, a client can download boot images from a remote server through the network, and load installation files or the entire operating system.

Steps

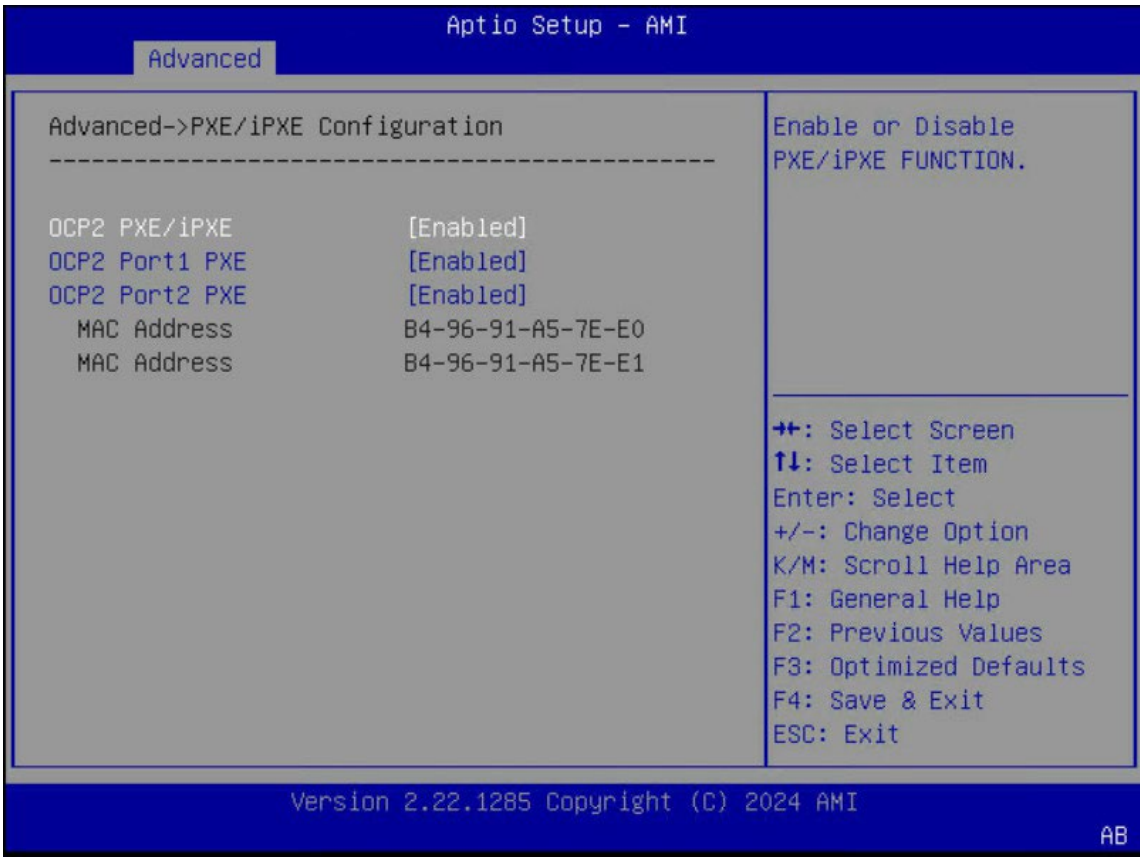
1. On the **Aptio Setup** screen, select **Advanced**. The **Advanced** screen is displayed, as shown in [Figure 2-29](#).

Figure 2-29 Advanced Screen



2. Select **PXE/iPXE Configuration**, and then press **Enter**. The **PXE/iPXE Configuration** screen is displayed, as shown in [Figure 2-30](#).

Figure 2-30 PXE/iPXE Configuration Screen



Note

The **PXE/iPXE Configuration** screen shows an example of the NIC information about the server and the information is for reference only.

3. Select the desired NIC, and then press **Enter**. In the displayed dialog box, select **Enabled** to enable the PXE function on the NIC.
4. Press **F4**. In the displayed dialog box, select **Yes**.

2.17 Setting Virtualization Parameters

Abstract

This procedure describes how to set virtualization parameters as required to improve server performance.

Context

For a description of common virtualization parameters, refer to [Table 2-4](#).

Table 2-4 Common Virtualization Parameter Descriptions

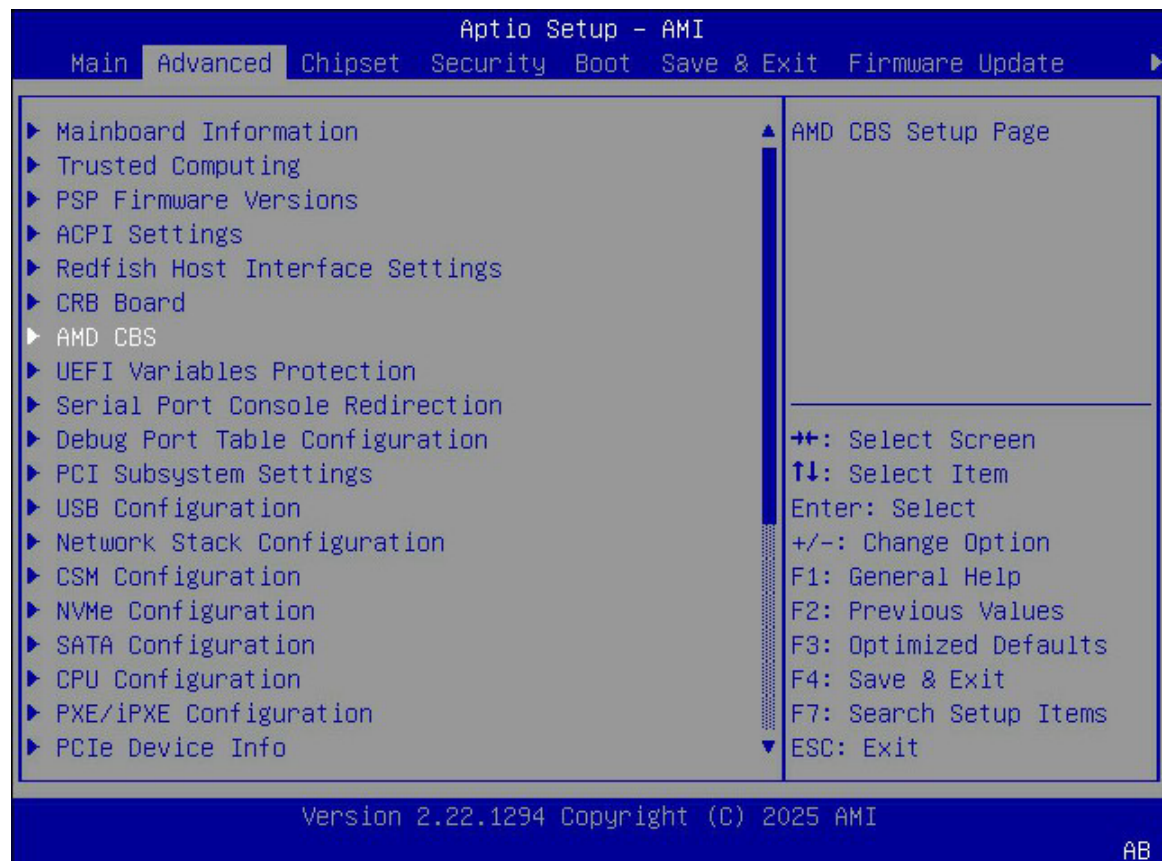
Parameter	Description	Recommended Configuration
IOMMU	Specifies whether to enable the IOMMU function. After the IOMMU function is enabled, the IOMMU maps addresses in the virtual memory to those in the physical memory, that is, system devices perform addressing in the virtual memory.	Auto
SVM Mode	Specifies whether to enable CPU virtualization. After CPU virtualization is enabled, the virtualization layer or OS that supports this function can implement Intel virtualization.	Enabled
SR-IOV Support	Specifies whether to enable the SR-IOV function. After SR-IOV is enabled, a physical I/O device (typically a network adapter) can be virtualized into multiple virtual I/O devices, allowing for separate use by multiple VMs. This reduces the CPU load of the host and network latency and improves network performance.	Enabled

Steps

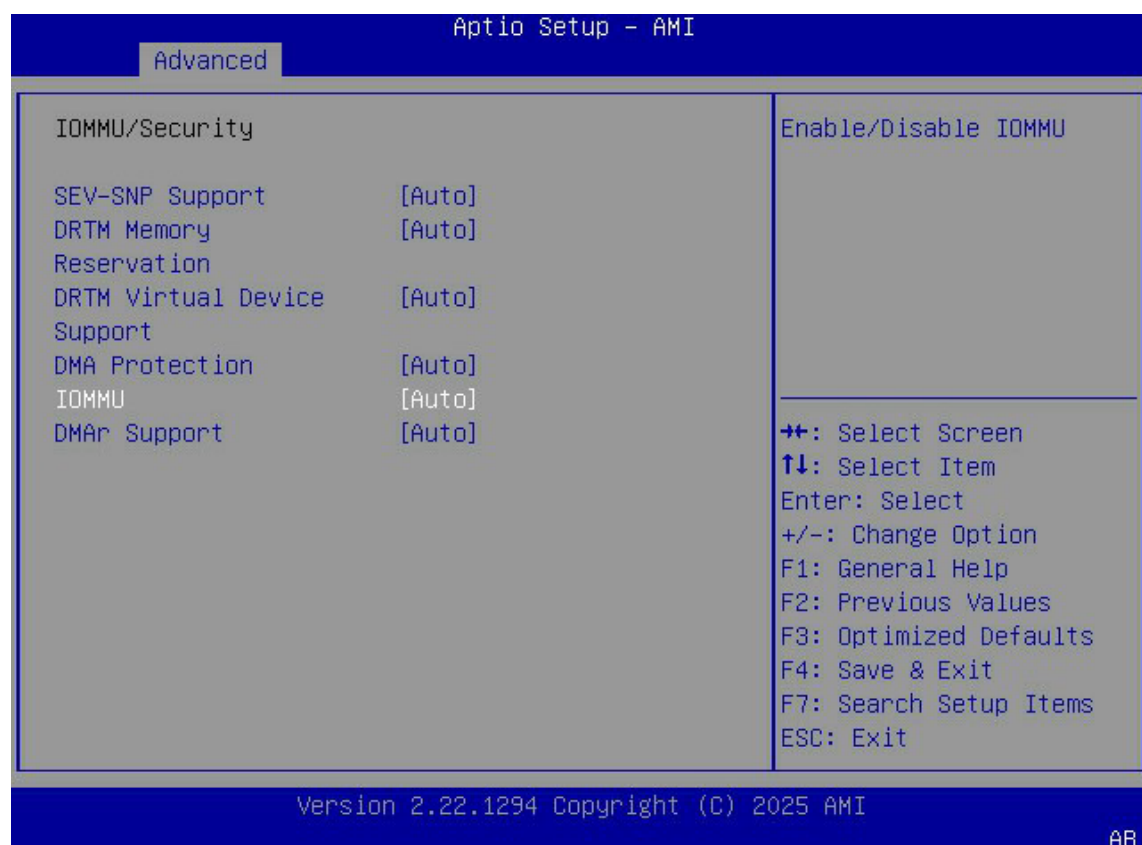
Configuring the IOMMU Function

1. On the **Aptio Setup** screen, select **Advanced**. The **Advanced** screen is displayed, as shown in [Figure 2-31](#).

Figure 2-31 Advanced Screen



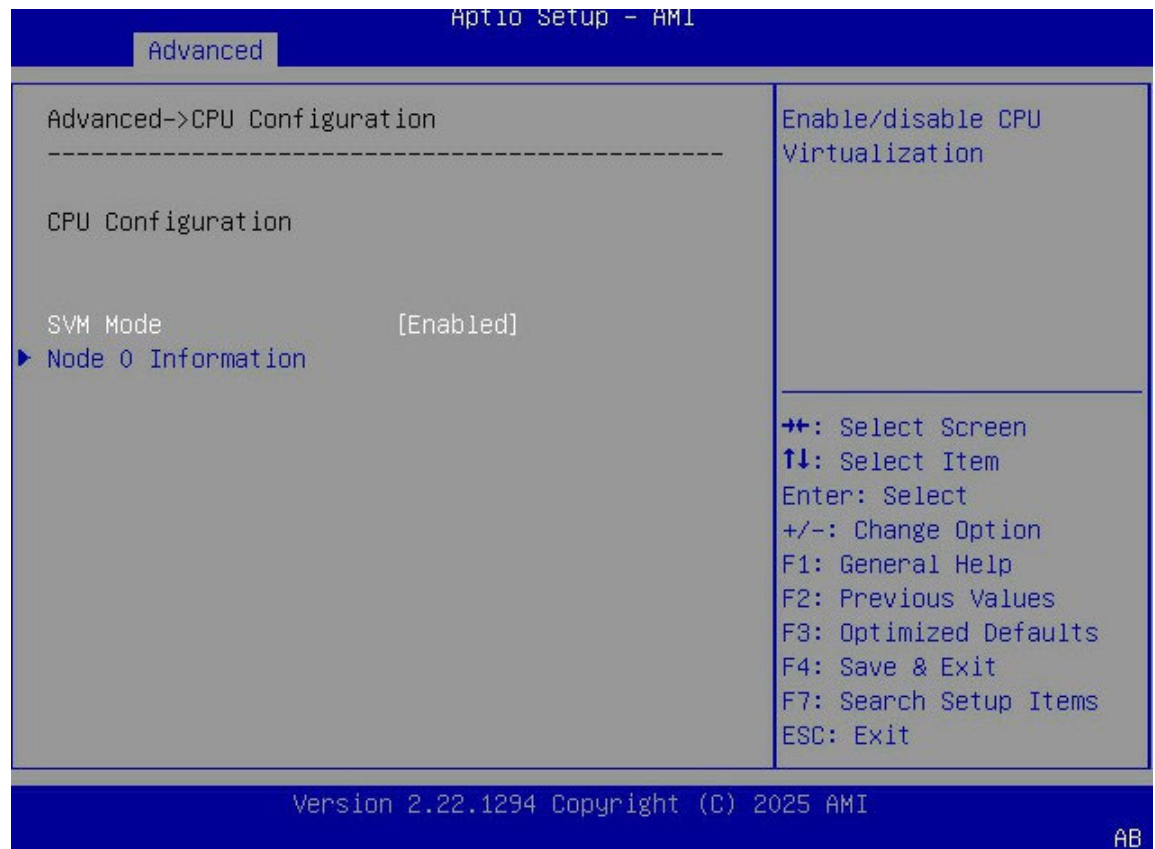
2. Select **AMD CBS > NBIO Common Options > IOMMU/Security**, and then press **Enter**. The **IOMMU/Security** screen is displayed, as shown in [Figure 2-32](#).

Figure 2-32 IOMMU/Security Screen

3. Select **IOMMU**, and then press **Enter**. In the displayed dialog box, select **Auto**.

Configuring the SVM Mode

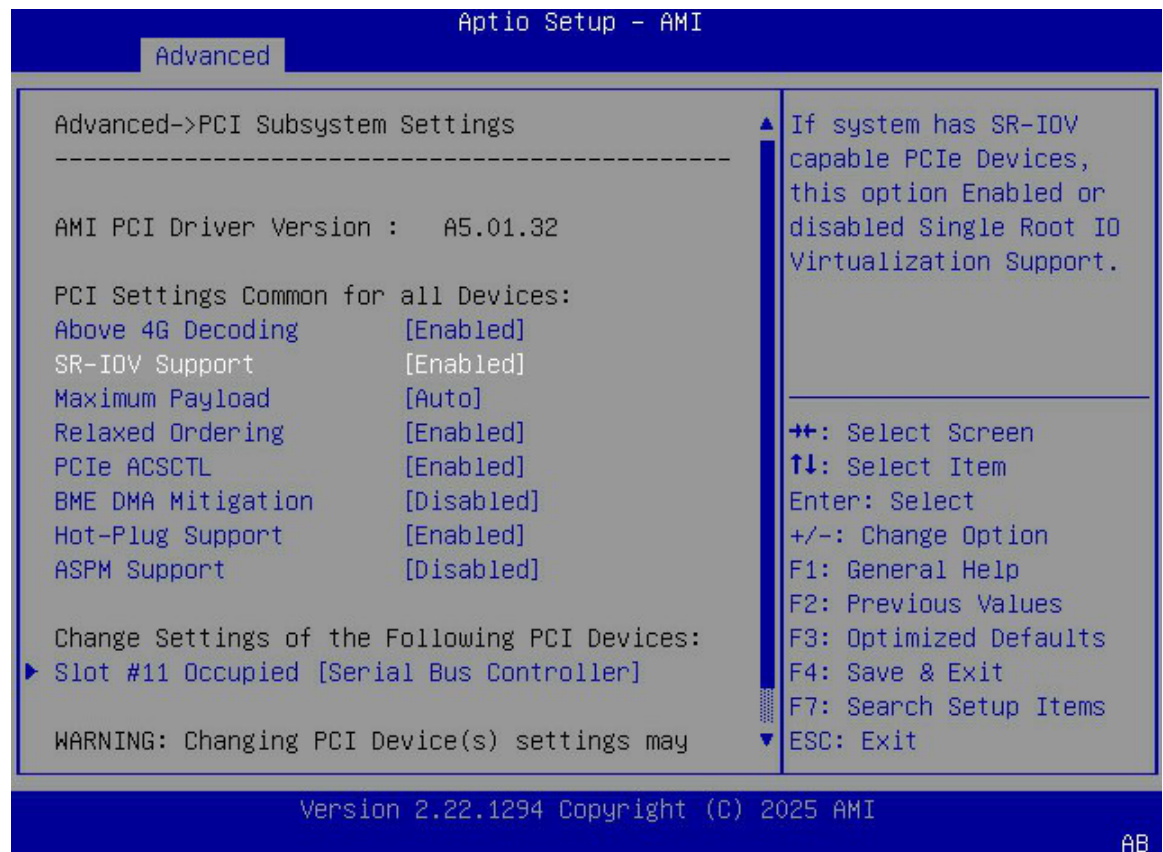
4. On the **Advanced** screen, select **CPU Configuration**, and then press **Enter**. The **CPU Configuration** screen is displayed, as shown in [Figure 2-33](#).

Figure 2-33 CPU Configuration Screen

5. Select **SVM Mode** and then press **Enter**. In the displayed dialog box, select **Enabled** to enable the CPU virtualization function.

Configuring SR-IOV Support

6. On the **Advanced** screen, select **PCI Subsystem Settings** and then press **Enter**. The **PCI Subsystem Settings** screen is displayed, as shown in [Figure 2-34](#).

Figure 2-34 PCI Subsystem Settings Screen

7. Select **SR-IOV Support** and then press **Enter**. In the displayed dialog box, select **Enabled** to enable the SR-IOV function.
8. Press **F4**. In the displayed dialog box, select **Yes**.

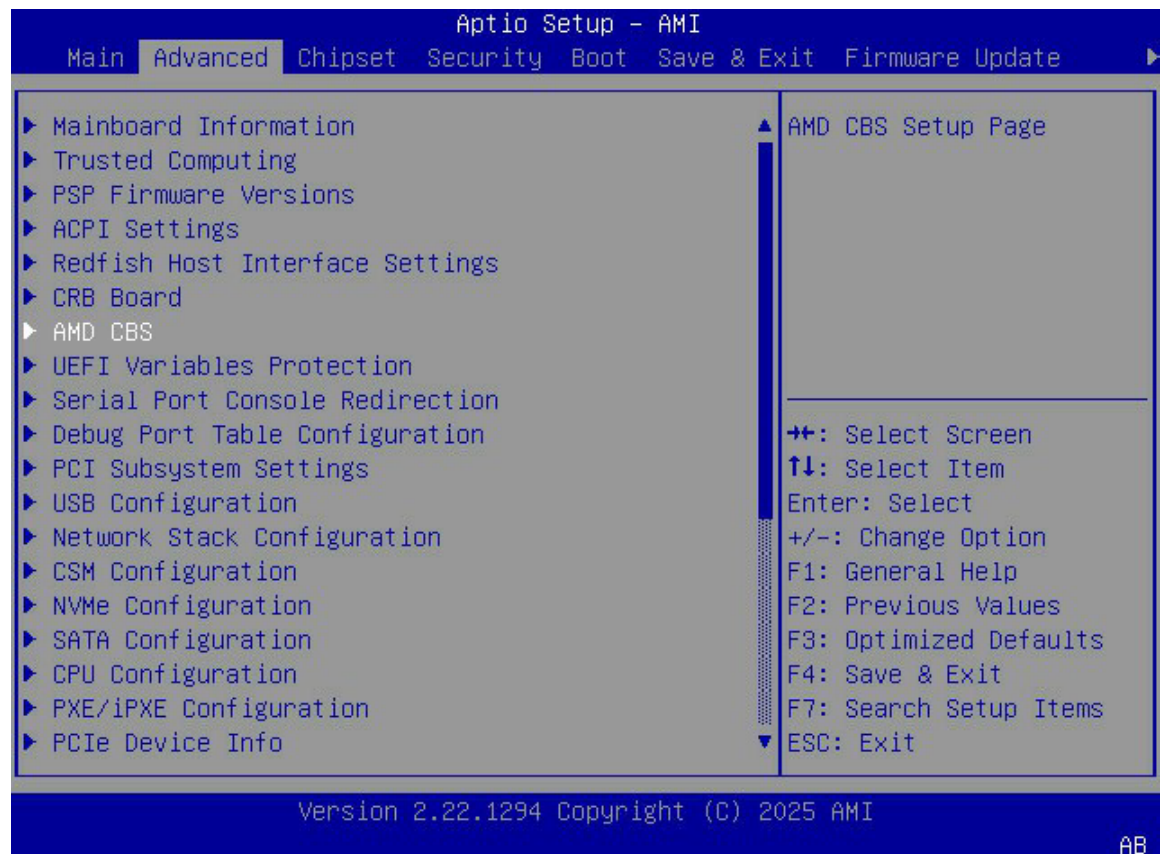
2.18 Setting Memory Parameters

Abstract

This procedure describes how to set memory parameters to improve server performance.

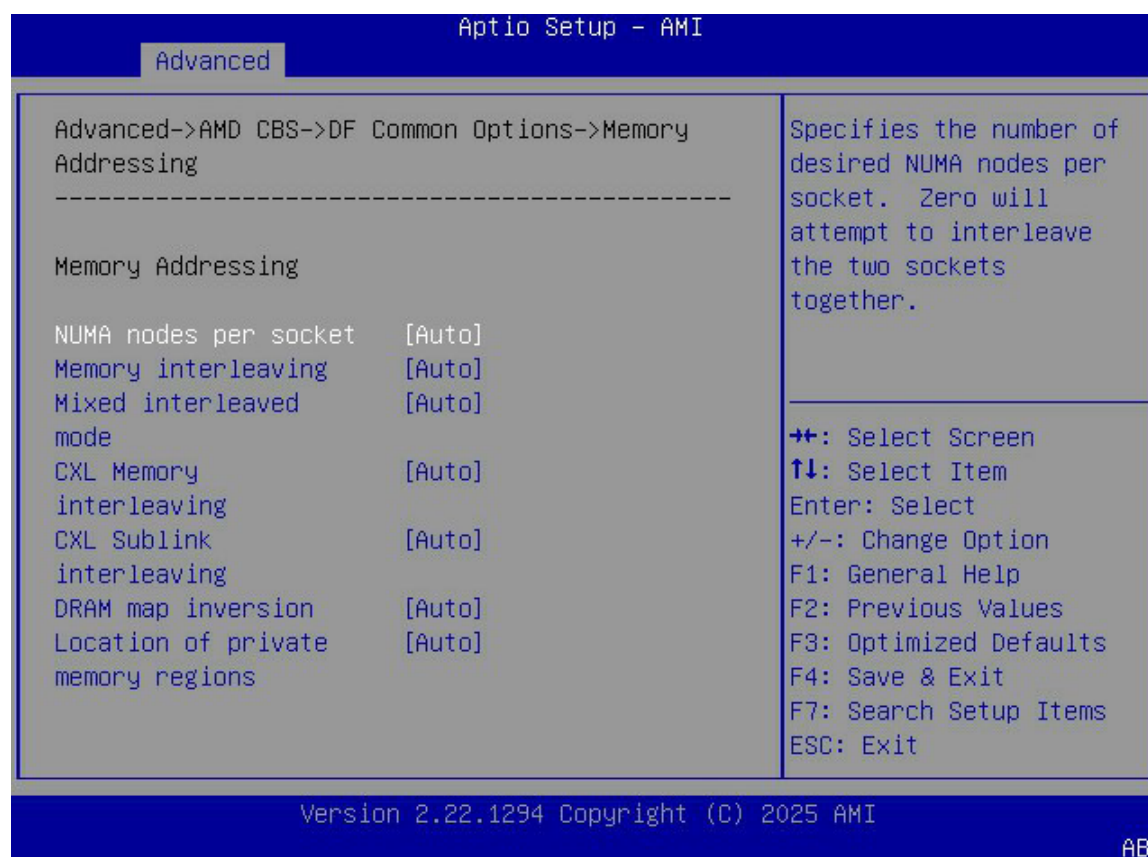
Steps

1. On the **Aptio Setup** screen, select **Advanced**. The **Advanced** screen is displayed, as shown in [Figure 2-35](#).

Figure 2-35 Advanced Screen

2. Select **AMD CBS > DF Common Options > Memory Addressing** and then press **Enter**.
The **Memory Addressing** screen is displayed, as shown in [Figure 2-36](#).

Figure 2-36 Memory Addressing Screen



3. Select **NUMA nodes per socket**, and then press **Enter**. In the displayed dialog box, select the number of **NUMA** nodes for each socket. Options:
 - Auto
 - NPS1
 - NPS2
 - NPS4
4. Select **Memory interleaving**, and then press **Enter**. In the displayed dialog box, select **Enabled** to enable memory interleaving.
5. Press **F4**. In the displayed dialog box, select **Yes**.

2.19 Setting Power Parameters

Abstract

This procedure describes how to set power parameters as required to improve server performance.

Context

For a description of common power parameters, refer to [Table 2-5](#).

Table 2-5 Common Power Parameter Descriptions

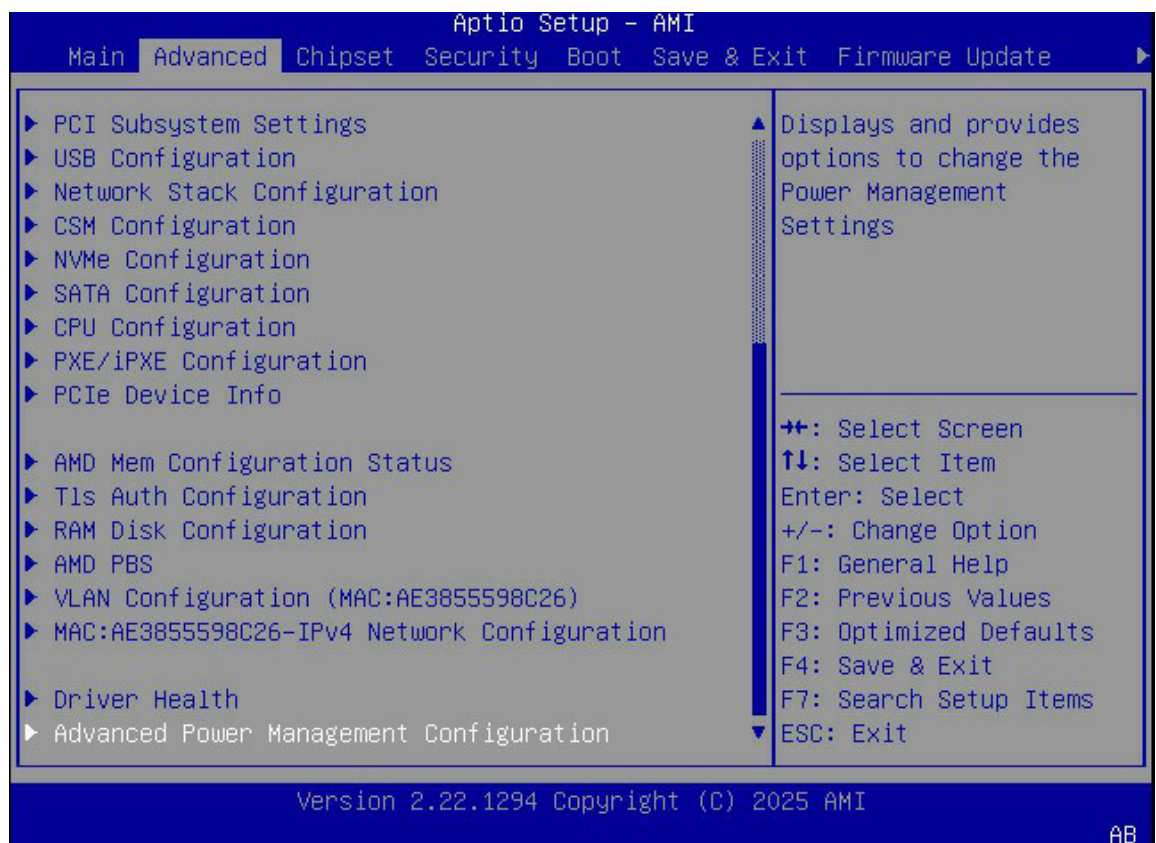
Parameter	Description	Recommended Configuration
Power/Performance Profile	Sets the power mode. Options: ● General Performance ● Balance/Energy Efficient ● Custom This mode is applicable to the scenarios where you need to customize the power management policy as needed. ● Low Latency ● General Power Saving ● Virtualization Performance ● Virtualization Power Saving	Custom
Global C-state Control	Sets whether to enable the CPU C-state function. Options: ● Enabled: enables the CPU C-states function. ● Disabled: disables the CPU C-states function. ● Auto.	Auto

Steps

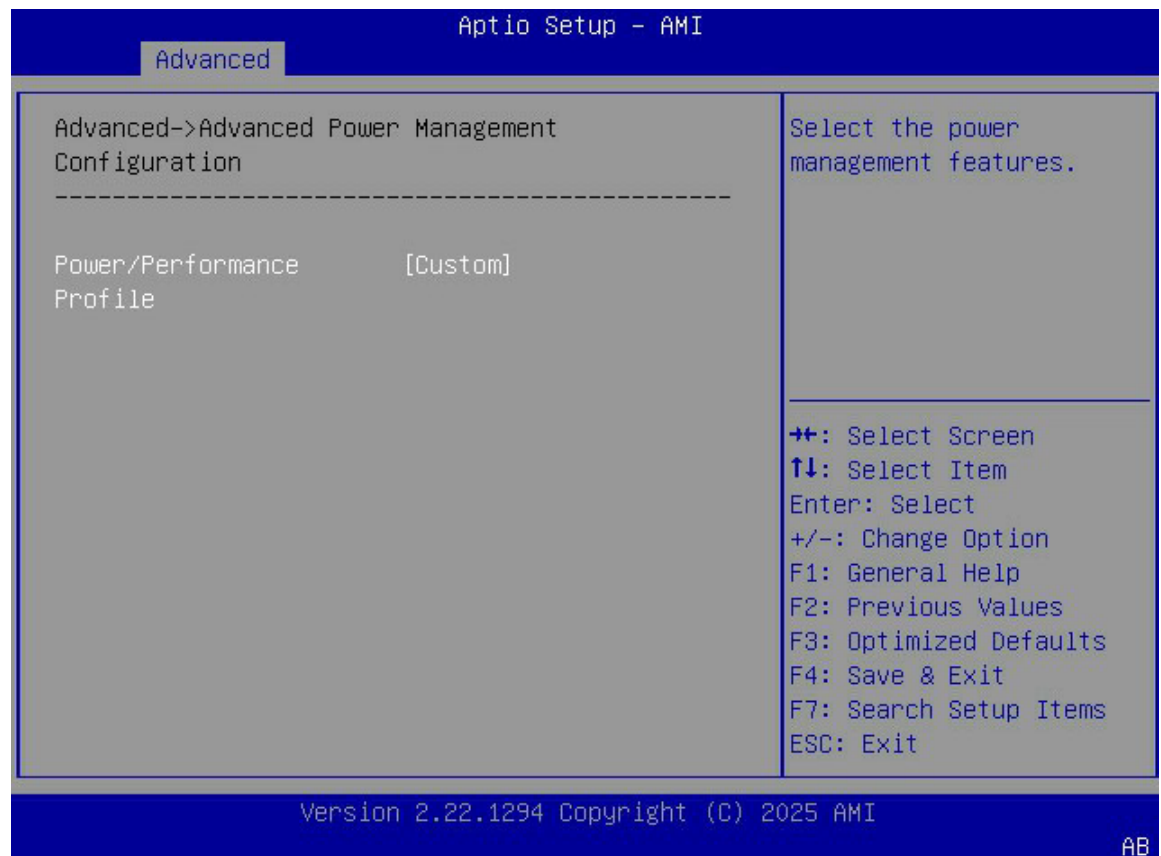
Configuring the Power/Performance Profile

1. On the **Aptio Setup** screen, select **Advanced**. The **Advanced** screen is displayed, as shown in [Figure 2-37](#).

Figure 2-37 Advanced Screen



2. Select **Advanced Power Management Configuration**, and then press **Enter**. The **Advanced Power Management Configuration** screen is displayed, as shown in [Figure 2-38](#).

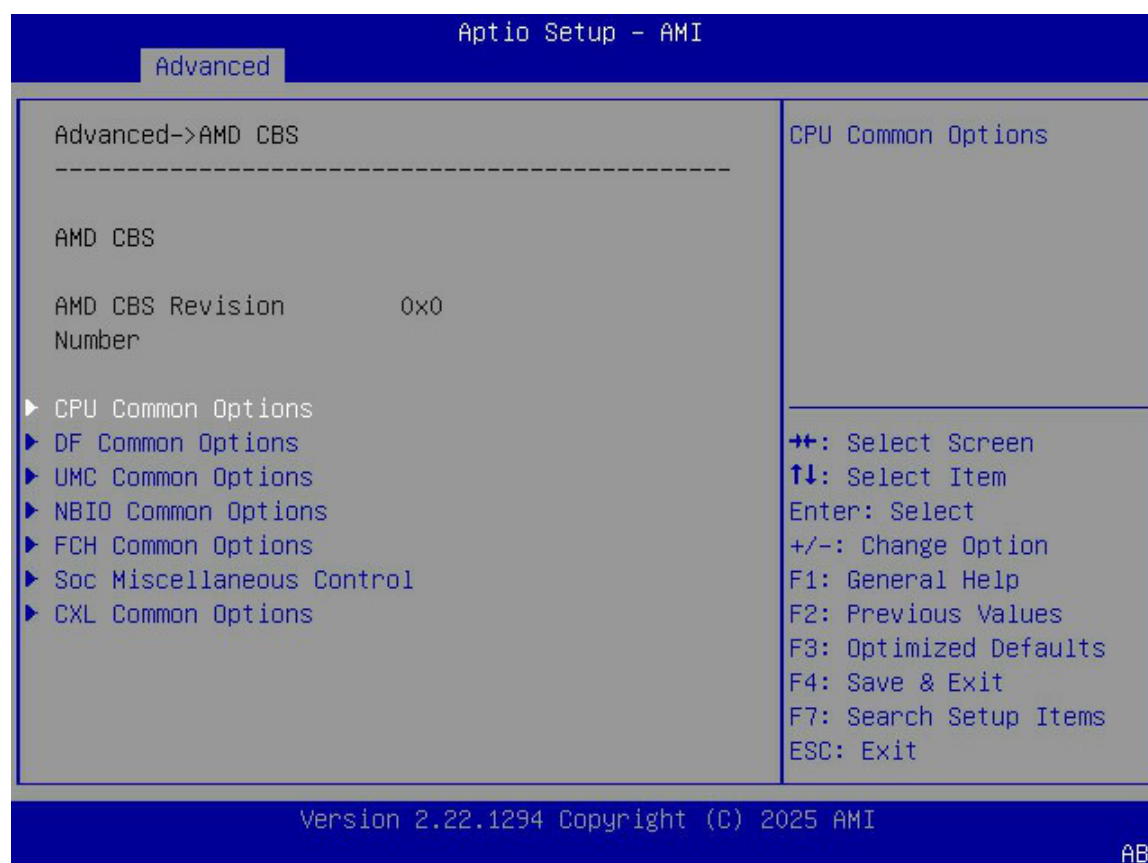
Figure 2-38 Advanced Power Management Configuration Screen

3. Select **Power/Performance Profile**, and then press **Enter**. In the displayed dialog box, select **Custom**.

Configuring Global C-State Control

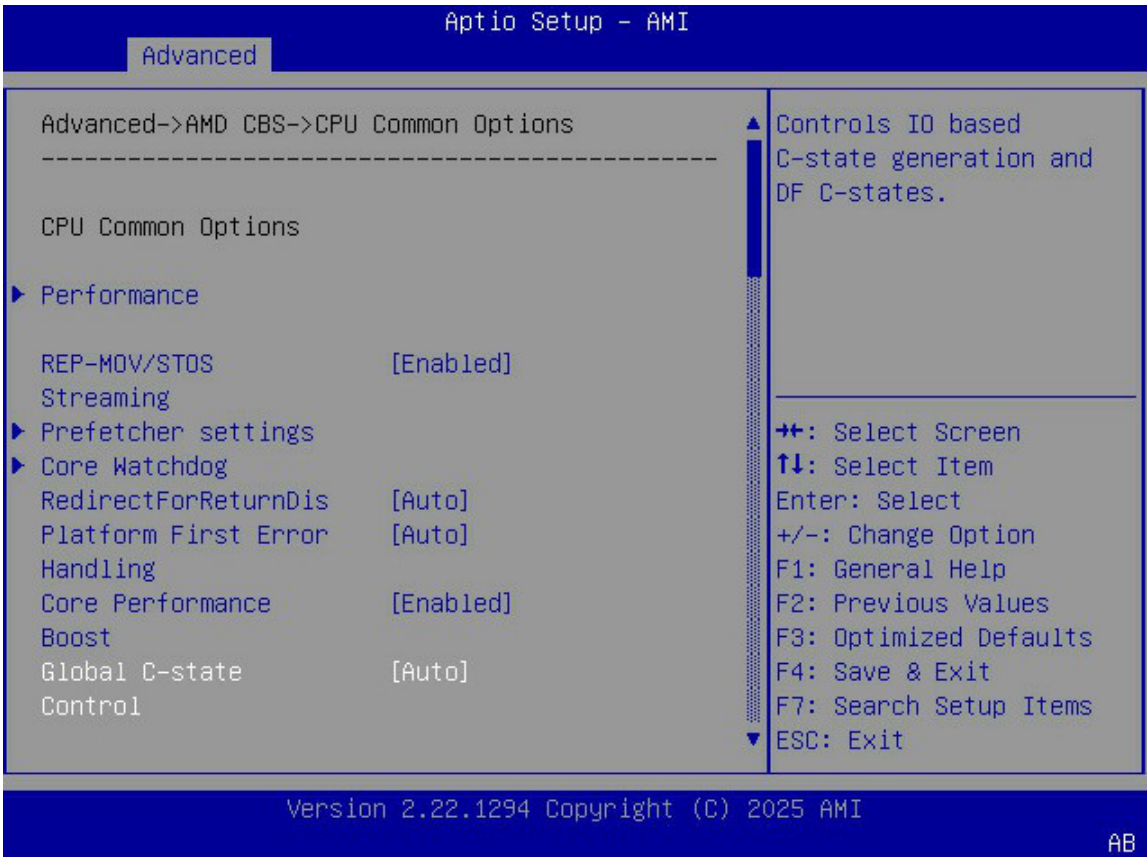
4. On the **Advanced** screen, select **AMD CBS** and then press **Enter**. The **AMD CBS** screen is displayed, as shown in [Figure 2-39](#).

Figure 2-39 AMD CBS Screen



5. Select **CPU Common Options**, and then press **Enter**. The **CPU Common Options** screen is displayed, as shown in [Figure 2-40](#).

Figure 2-40 CPU Common Options Screen



6. Select **Global C-state Control**, and then press **Enter**. In the displayed dialog box, select **Auto**.
7. Press **F4**. In the displayed dialog box, select **Yes**.

2.20 Restoring the Default BIOS Settings

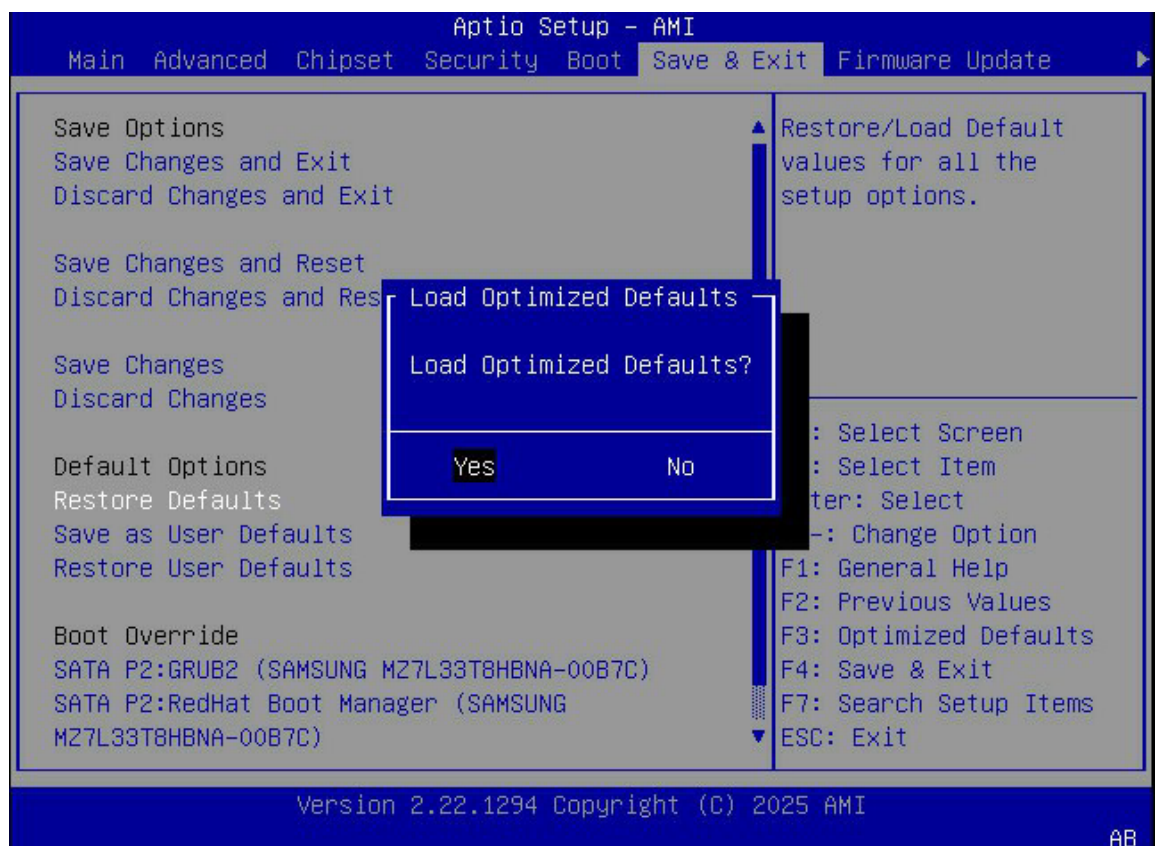
Abstract

This procedure describes how to restore the default BIOS settings when a system error occurs because of unknown changes to the BIOS.

Steps

1. On the **Aptio Setup** screen, perform either of the following operations. The **Load Optimized Defaults** dialog box is displayed, as shown in [Figure 2-41](#).
 - Press **F3**.
 - Select **Save & Exit**. The **Save & Exit** screen is displayed. Select **Restore Defaults**.

Figure 2-41 Load Optimal Defaults Dialog Box



2. Select **Yes** and then press the **Enter** key.
3. Press **F4**. In the displayed dialog box, select **Yes**.

Chapter 3

Setup Parameter Descriptions

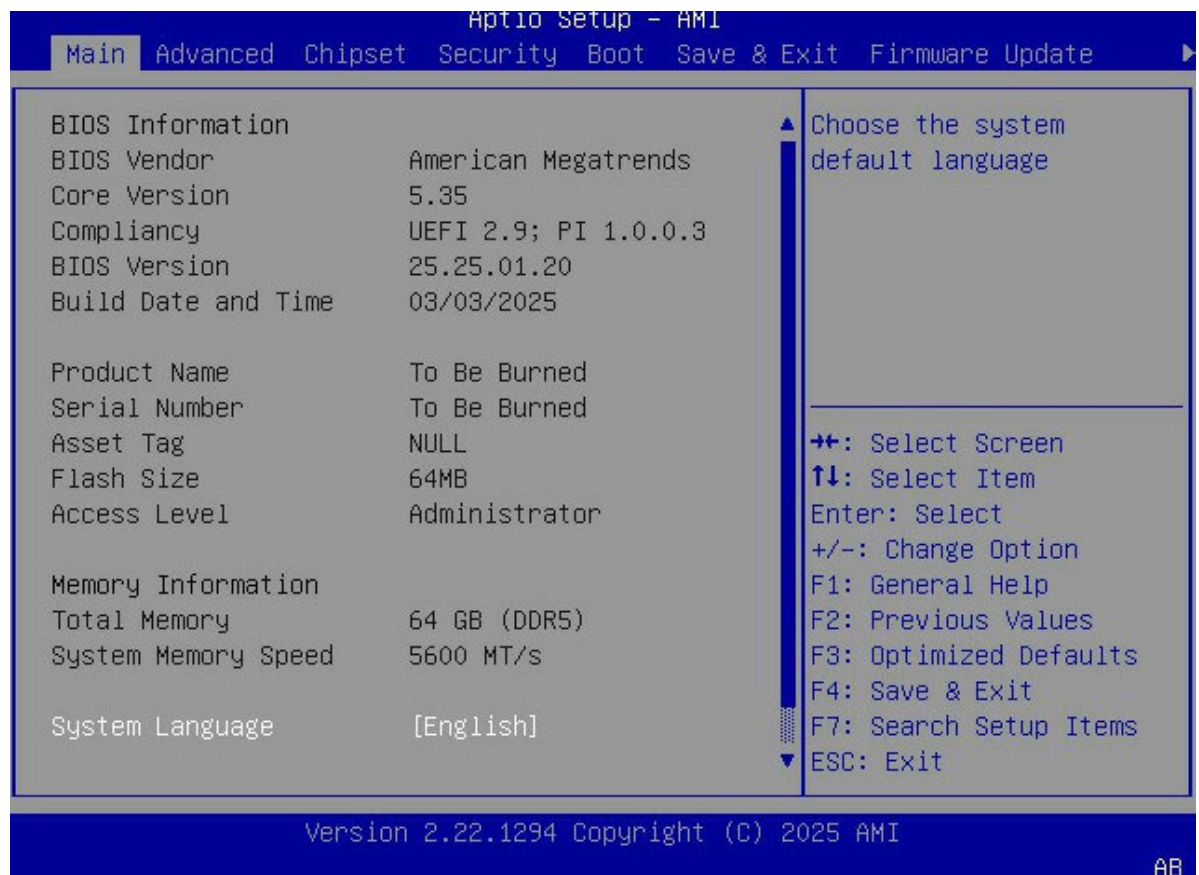
Table of Contents

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Chipset.....	260
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Firmware Update.....	287
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3.1 Main Menu Parameters

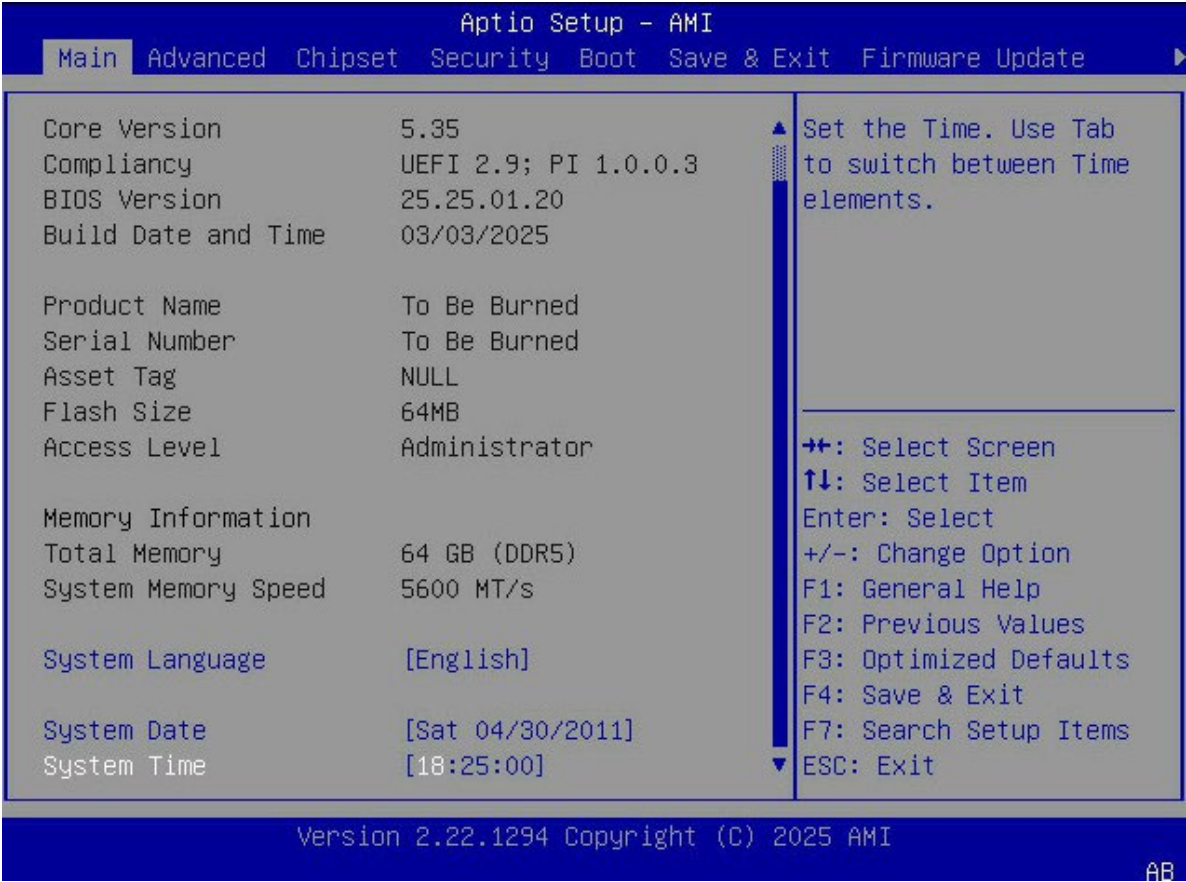
The **Main** screen provides the basic BIOS information, including the BIOS version, memory capacity, and system time. [Figure 3-1](#) and [Figure 3-2](#) show the **Main** screen.

Figure 3-1 Main Screen 1



AB

Figure 3-2 Main Screen 2



For a description of the parameters on the **Main** screen, refer to [Table 3-1](#).

Table 3-1 Main Screen Parameter Descriptions

Parameter	Description
BIOS Vendor	Displays the BIOS vendor.
Core Version	Displays the BIOS core version.
Compliance	Displays the standard information that the BIOS complies with.
BIOS Version	Displays the BIOS version.
Build Date and Time	Displays the BIOS creation date.
Product Name	Displays the product name.
Serial number	Displays the serial number of the product.
Asset Tag	Displays the asset tag.
Flash Size	Displays the flash size.
Access Level	Displays the access permission.
Total Memory	Displays the total amount of memory.

Parameter	Description
System Memory Speed	Displays the system memory speed.
System Language	Sets the system language. Options: ● English. ● Simplified Chinese
System Date	Displays and sets the current system date. The system date is displayed in "day of week month/date/year" format. You can press Enter to switch between the month, date, and year items and change the settings as follows: To increase a value by one, press + . To decrease a value by one, press - . Press the corresponding number keys to specify a value.
System Time	Displays and sets the current system time. The system time is displayed in HH:MM:SS format based on a 24-hour clock system. You can press Enter to switch between the hour, minute, and second items and change the settings as follows: To increase a value by one, press + . To decrease a value by one, press - . Press the corresponding number keys to specify a value.

3.2 Advanced

The **Advanced** screen provides advanced BIOS settings, such as mainboard information and console redirection. [Figure 3-3](#) through [Figure 3-5](#) show the **Advanced** screen.

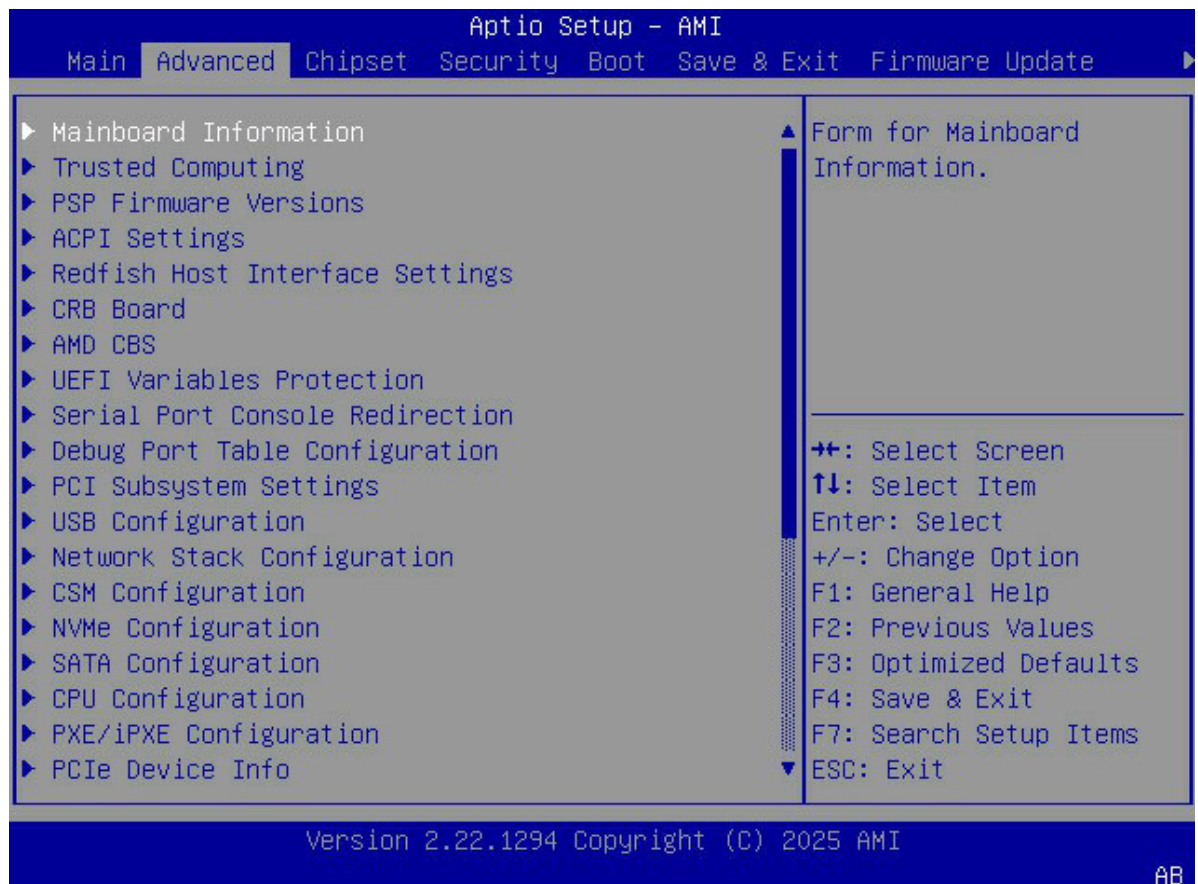
Figure 3-3 Advanced Screen 1

Figure 3-4 Advanced Screen 2

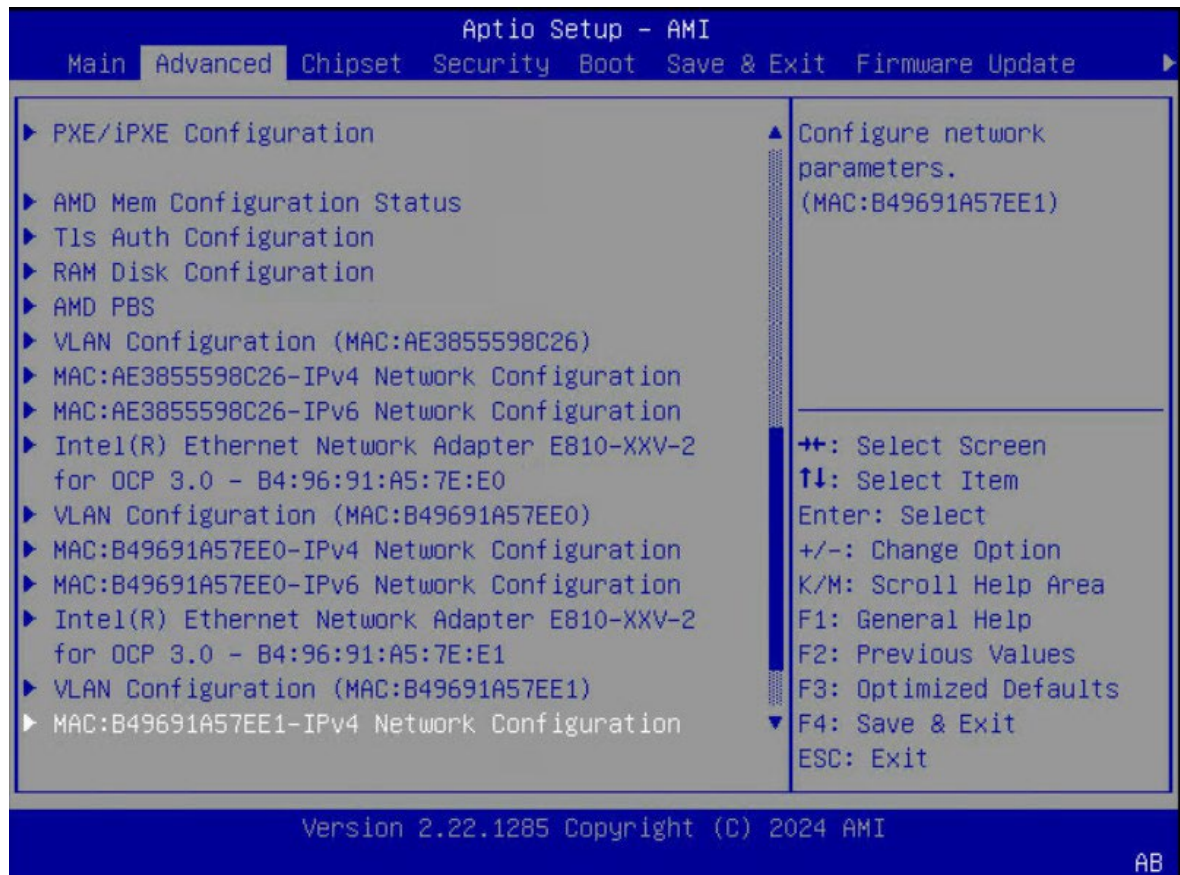
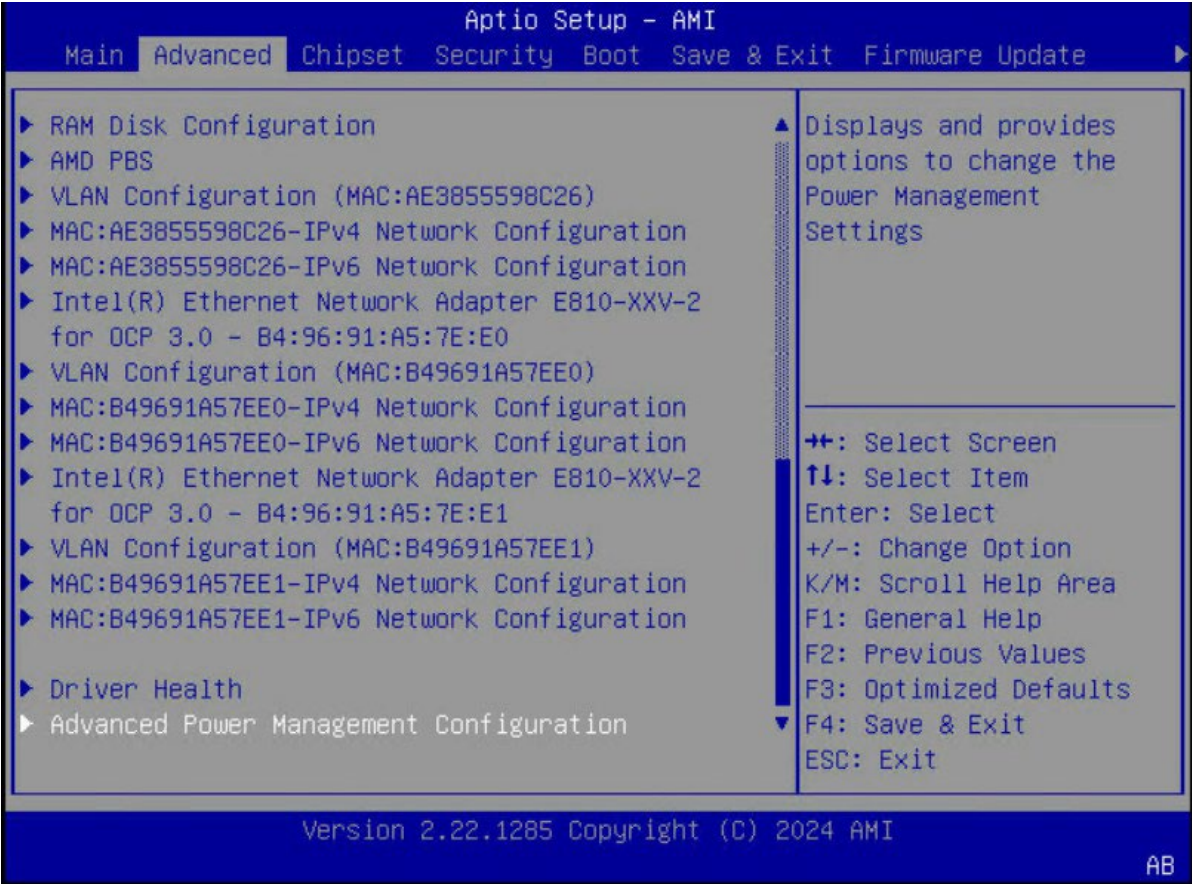


Figure 3-5 Advanced Screen 3



For a description of the parameters on the **Advanced** screen, refer to [Table 3-2](#).

Table 3-2 Advanced Parameter Descriptions

Parameter	Description
Mainboard Information	Displays mainboard information. For details, refer to 3.2.1 Mainboard Information .
Trusted Computing	Sets the trusted computing parameters. For details, refer to 3.2.2 Trusted Computing .
PSP Firmware Versions	Displays the PSP firmware version information. For details, refer to 3.2.3 PSP Firmware Versions .
ACPI Settings	Sets the ACPI parameters. For details, refer to 3.2.4 ACPI Settings .
Redfish Host Interface Settings	Sets the parameters for the Redfish and Host interfaces. For details, refer to 3.2.5 Redfish Host Interface Settings .
CRB Board	Sets the CRB board parameters. For details, refer to 3.2.6 CRB Board .
AMD CBS	Sets the AMD CBS parameters.

Parameter	Description
	For details, refer to 3.2.7 AMD CBS .
UEFI Variables Protection	Sets the UEFI variable protection parameters. For details, refer to 3.2.8 UEFI Variables Protection .
Serial Port Console Redirection	Sets the serial port console redirection parameters. For details, refer to 3.2.9 Serial Port Console Redirection .
Debug Port Table Configuration	Sets the debug port parameters. For details, refer to 3.2.10 Debug Port Table Configuration .
PCI Subsystem Settings	Sets the PCI subsystem parameters. For details, refer to 3.2.11 PCI Subsystem Settings .
USB Configuration	Sets the USB parameters. For details, refer to 3.2.12 USB Configuration .
Network Stack Configuration	Sets the network stack parameters. For details, refer to 3.2.13 Network Stack Configuration .
CSM Configuration	Sets the CSM parameters. For details, refer to 3.2.14 CSM Configuration .
NVMe Configuration	Sets the NVMe parameters. For details, refer to 3.2.15 NVMe Configuration .
SATA Configuration	Sets the SATA parameters. For details, refer to 3.2.16 SATA Configuration .
CPU Configuration	Sets the CPU parameters. For details, refer to 3.2.17 CPU Configuration .
PXE/iPXE Configuration	Sets the PXE parameters. For details, refer to 3.2.18 PXE/iPXE Configuration .
PCIe Device Info	Displays the PCIe device information. For details, refer to 3.2.19 PCIe Device Info .
AMD Mem Configuration Status	Sets the AMD memory configuration status parameters. For details, refer to 3.2.20 AMD Mem Configuration Status .
Tls Auth Configuration	Sets the Tls authentication parameters. For details, refer to 3.2.21 Tls Auth Configuration .
RAM Disk Configuration	Sets the RAM disk parameters. For details, refer to 3.2.22 RAM Disk Configuration .
AMD PBS	Sets the AMD PBS parameters. For details, refer to 3.2.23 AMD PBS .
Driver Health	Displays the driver health information. For details, refer to 3.2.24 Driver Health .

Parameter	Description
Advanced Power Management Configuration	Sets the advanced power management parameters. For details, refer to 3.2.25 Advanced Power Management Configuration .

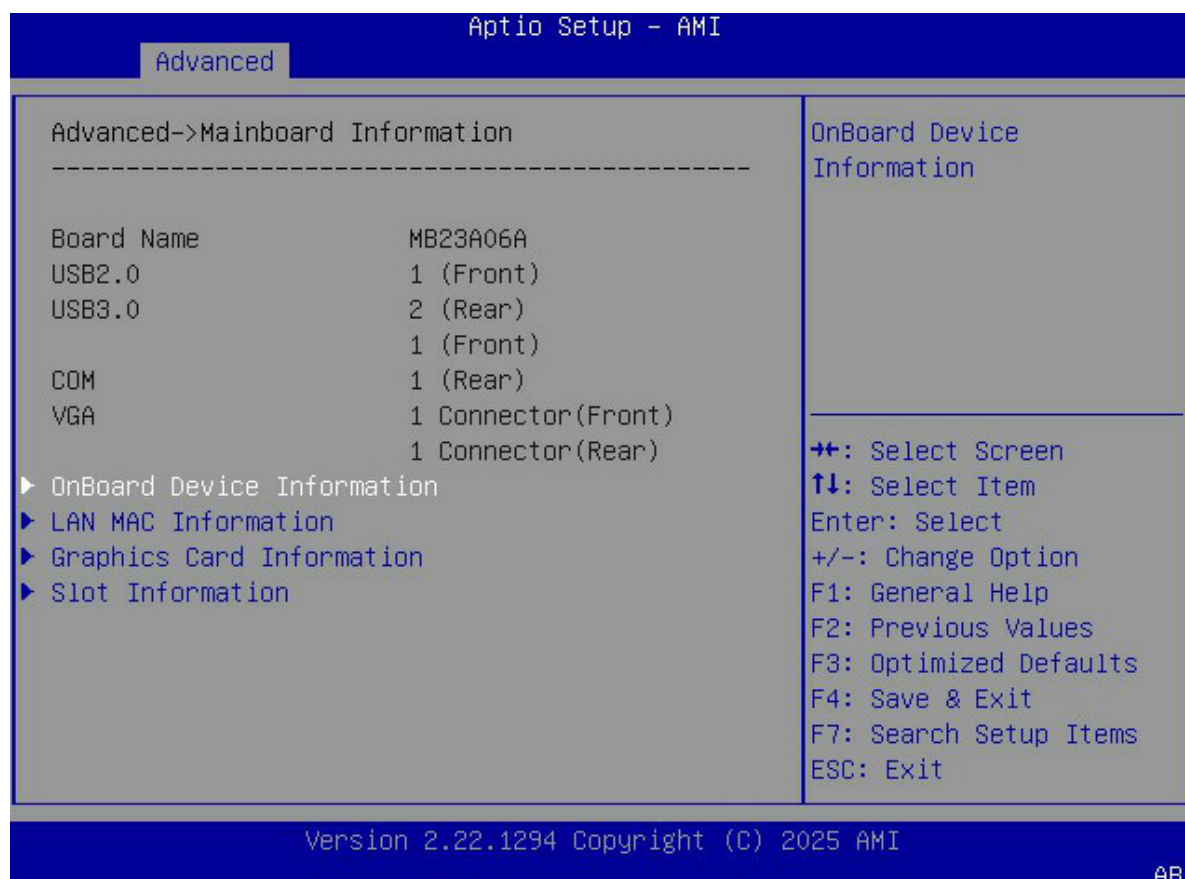
**Note**

Other parameters on the **Advanced** screen are generated by related devices. For example, for **MAC: AE3855598C26-IPv4 Network Configuration** in [Figure 3-5](#), if the corresponding NIC exists, the parameter is displayed, and if the corresponding NIC does not exist, this parameter is not displayed.

3.2.1 Mainboard Information

The **Mainboard Information** screen contains the information about the mainboard interfaces and onboard devices. [Figure 3-6](#) shows the **Mainboard Information** screen.

Figure 3-6 Mainboard Information Screen



For a description of the parameters on the **Mainboard Information** screen, refer to [Table 3-3](#).

Table 3-3 Parameter Descriptions for the Mainboard Information Screen

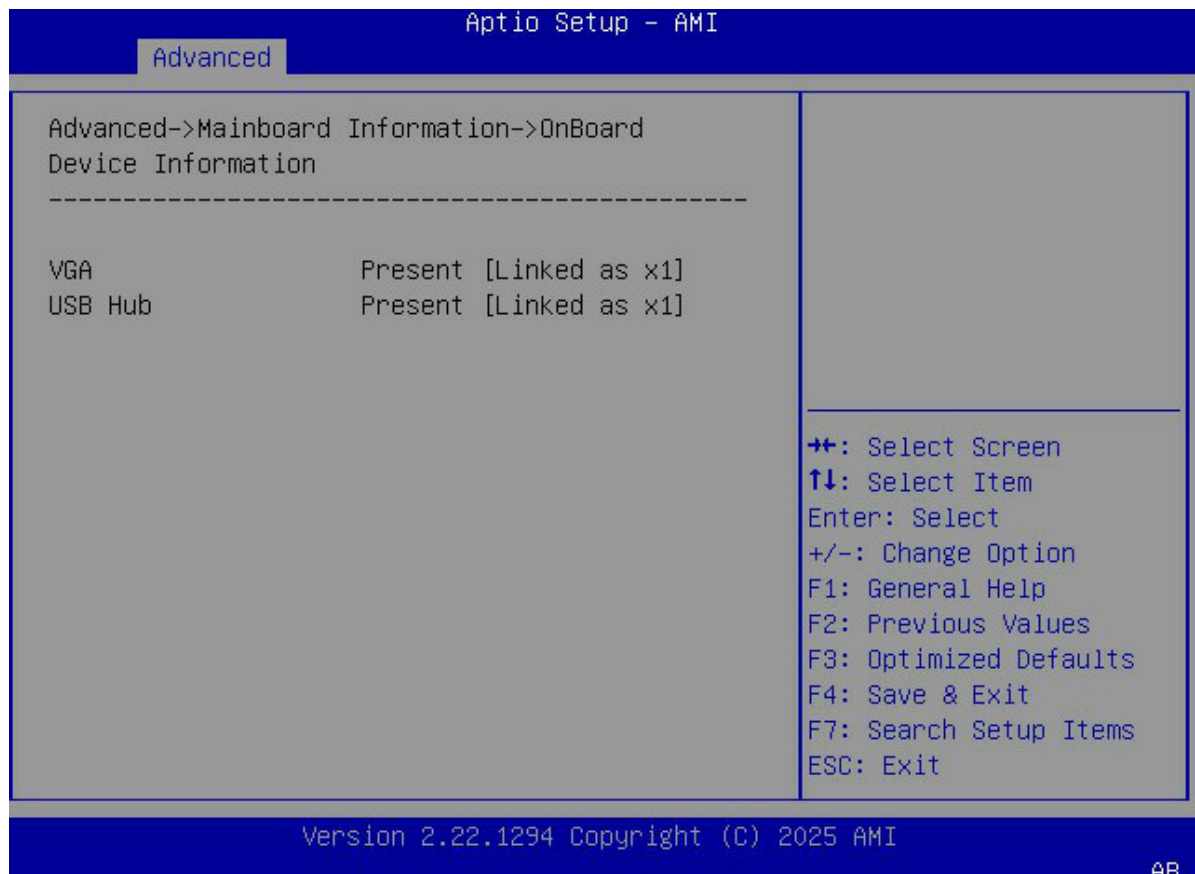
Parameter	Description
Board Name	Displays the mainboard name.

Parameter	Description
USB2.0	Displays the number of USB 2.0 instances and their physical locations.
USB3.0	Displays the number of USB 3.0 instances and their physical locations.
COM	Displays the number of COM instances and their physical locations.
VGA	Displays the number of VGA ports and their physical locations.
OnBoard Device Information	Displays the onboard device information. For details, refer to 3.2.1.1 OnBoard Device Information .
LAN MAC Information	Displays the MAC IP address of a network interface. For details, refer to 3.2.1.2 LAN MAC Information .
Graphics Card Information	Displays the information about the onboard video card. For details, refer to 3.2.1.3 Graphics Card Information .
Slot Information	Displays the slot information about the standard PCIe card. For details, refer to 3.2.1.4 Slot Information .

3.2.1.1 OnBoard Device Information

[Figure 3-7](#) shows the **OnBoard Device Information** screen.

Figure 3-7 OnBoard Device Information Screen



For a description of the parameters on the **OnBoard Device Information** screen, refer to [Table 3-4](#).

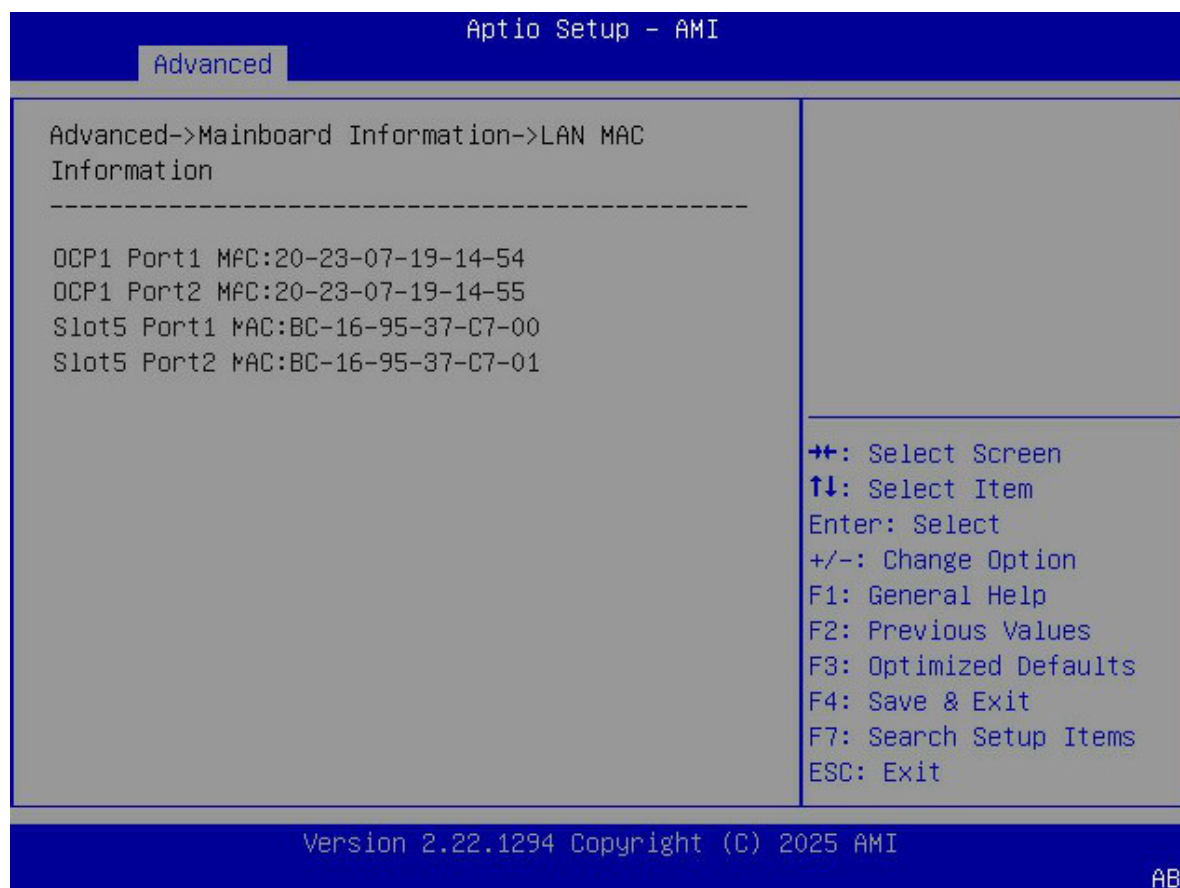
Table 3-4 Parameter Descriptions for the OnBoard Device Information Screen

Parameter	Description
VGA	Displays the connection information about the VGA on the mainboard. If the device is not present, Not Present is displayed.
USB Hub	Displays the connection information about the USB on the mainboard. If the device is not present, Not Present is displayed.

3.2.1.2 LAN MAC Information

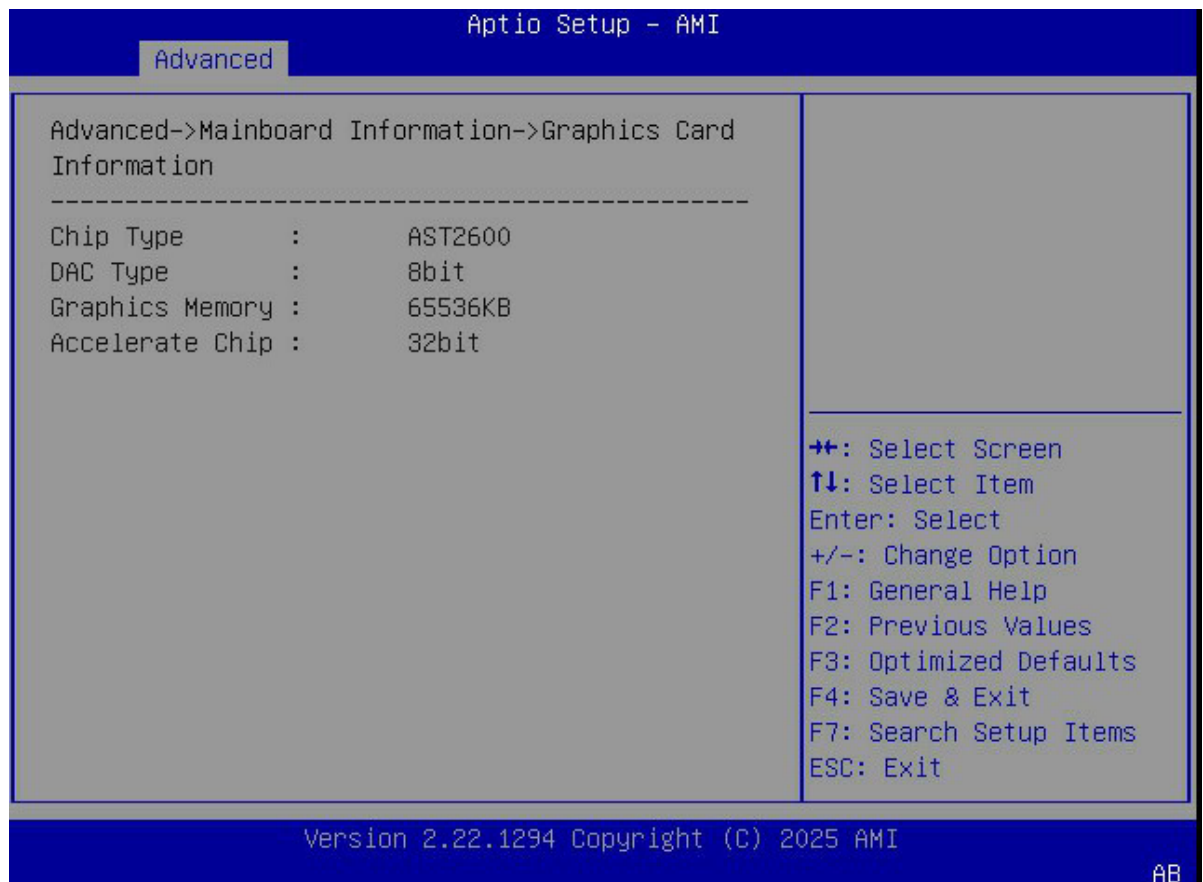
The **LAN MAC Information** screen displays [MAC](#) addresses of NICs, as shown in [Figure 3-8](#).

Figure 3-8 LAN MAC Information Screen



3.2.1.3 Graphics Card Information

[Figure 3-9](#) shows the **Graphics Card Information** screen.

Figure 3-9 Graphics Card Information Screen

For a description of the parameters on the **Graphics Card Information** screen, refer to [Table 3-5](#).

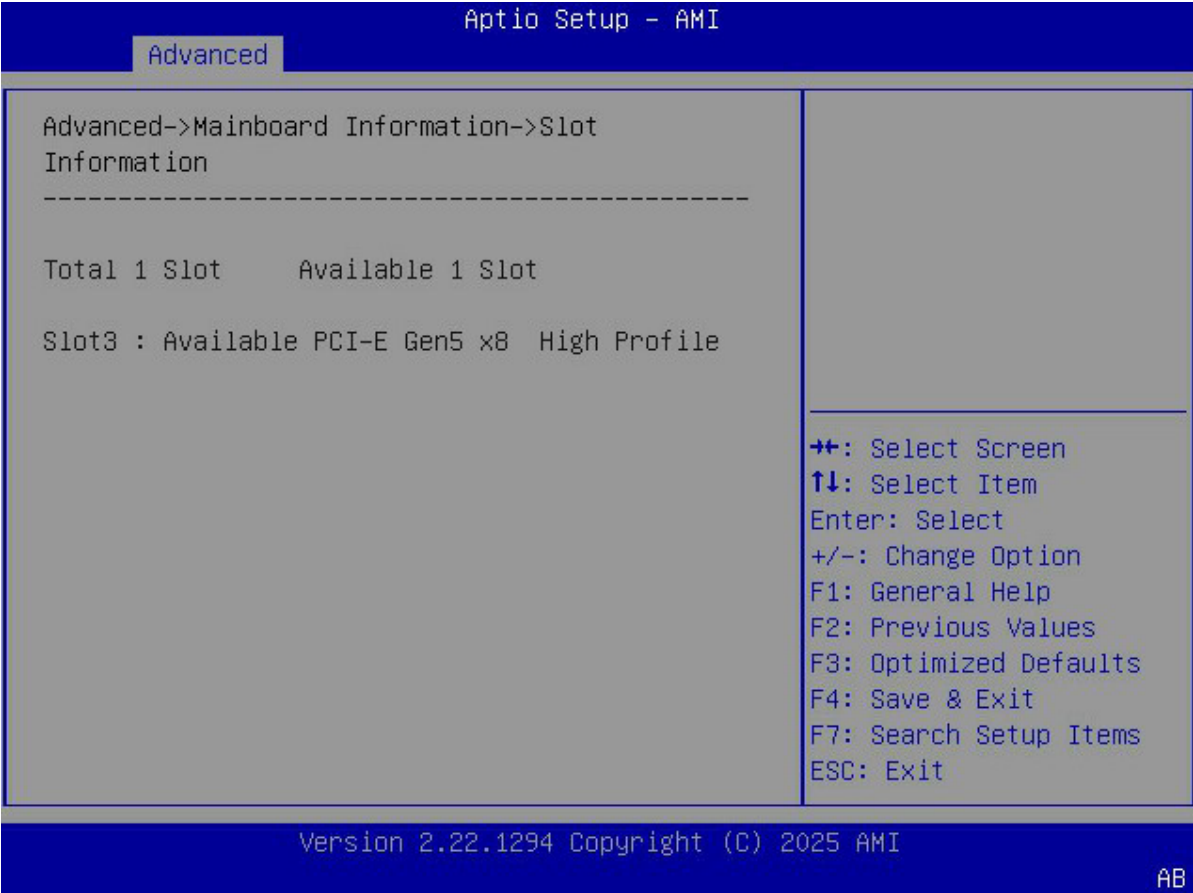
Table 3-5 Parameter Descriptions for the Graphics Card Information Screen

Parameter	Description
Chip Type	Displays the chip type of the graphics card.
DAC Type	Displays the DAC type.
Graphics Memory	Displays the memory of the graphics card.
Accelerate Chip	Displays the type of graphics accelerator.

3.2.1.4 Slot Information

[Figure 3-10](#) shows the **Slot Information** screen.

Figure 3-10 Slot Information Screen



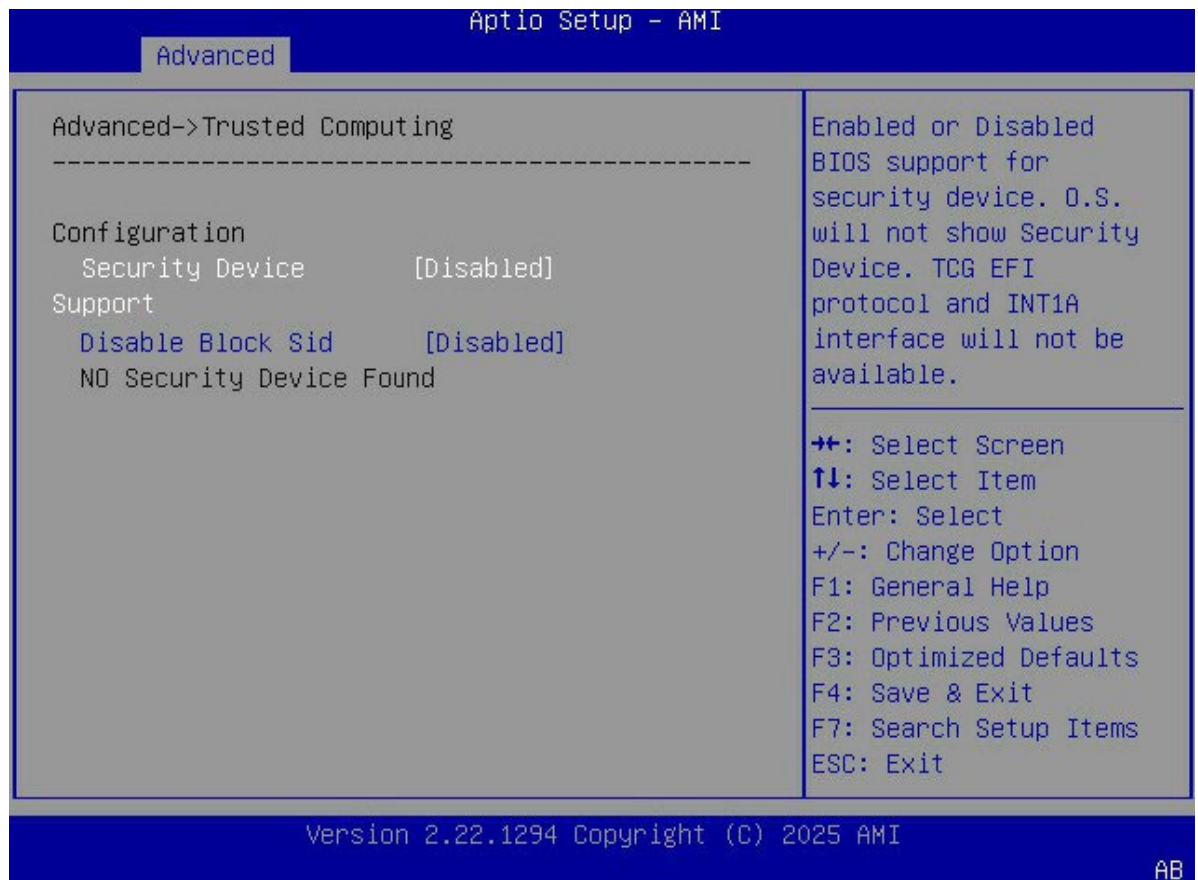
For a description of the parameters on the **Slot Information** screen, refer to [Table 3-6](#).

Table 3-6 Parameter Descriptions for the Slot Information Screen

Parameter	Description
Total 1 Slot, Available 1 Slot	Total number of PCIe standard NIC slots on the mainboard and the number of available slots.

3.2.2 Trusted Computing

[Figure 3-11](#) shows the **Trusted Computing** screen.

Figure 3-11 Trusted Computing Screen

For a description of the parameters on the **Trusted Computing** screen, refer to [Table 3-7](#).

Table 3-7 Parameter Descriptions for the Trusted Computing Screen

Parameter	Description	Default Value
Security Device Support	Sets whether to enable BIOS support for the security device. Options: - Enabled: enables BIOS support for the security device. After this function is enabled, the operating system captures and displays security devices. - Disabled: disables BIOS support for the security device. After this function is disabled, the TGG EFI protocol and INT1A interface are unavailable.	Disabled
Disable Block Sid	This parameter is available in the case that the server is configured with hard disks. Sets whether to enable the security identifier blocking function. Options:	Disabled

Parameter	Description	Default Value
	- Enabled: enables the security identifier blocking function. After this function is enabled, SID authentication is allowed on the TCG storage device. - Disabled: disables the security identifier blocking function.	

3.2.3 PSP Firmware Versions

Figure 3-12 and Figure 3-13 show the **PSP Firmware Versions** screen.

Figure 3-12 PSP Firmware Versions Screen 1

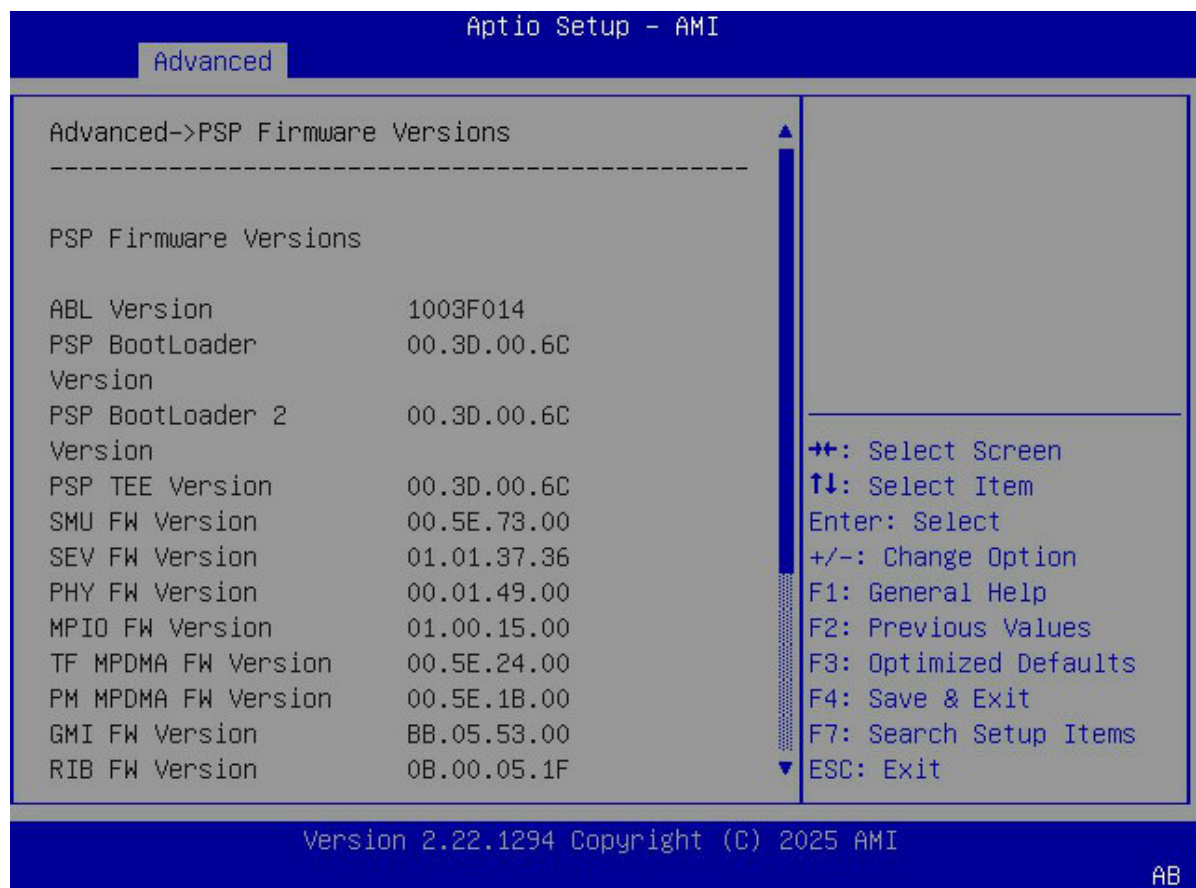
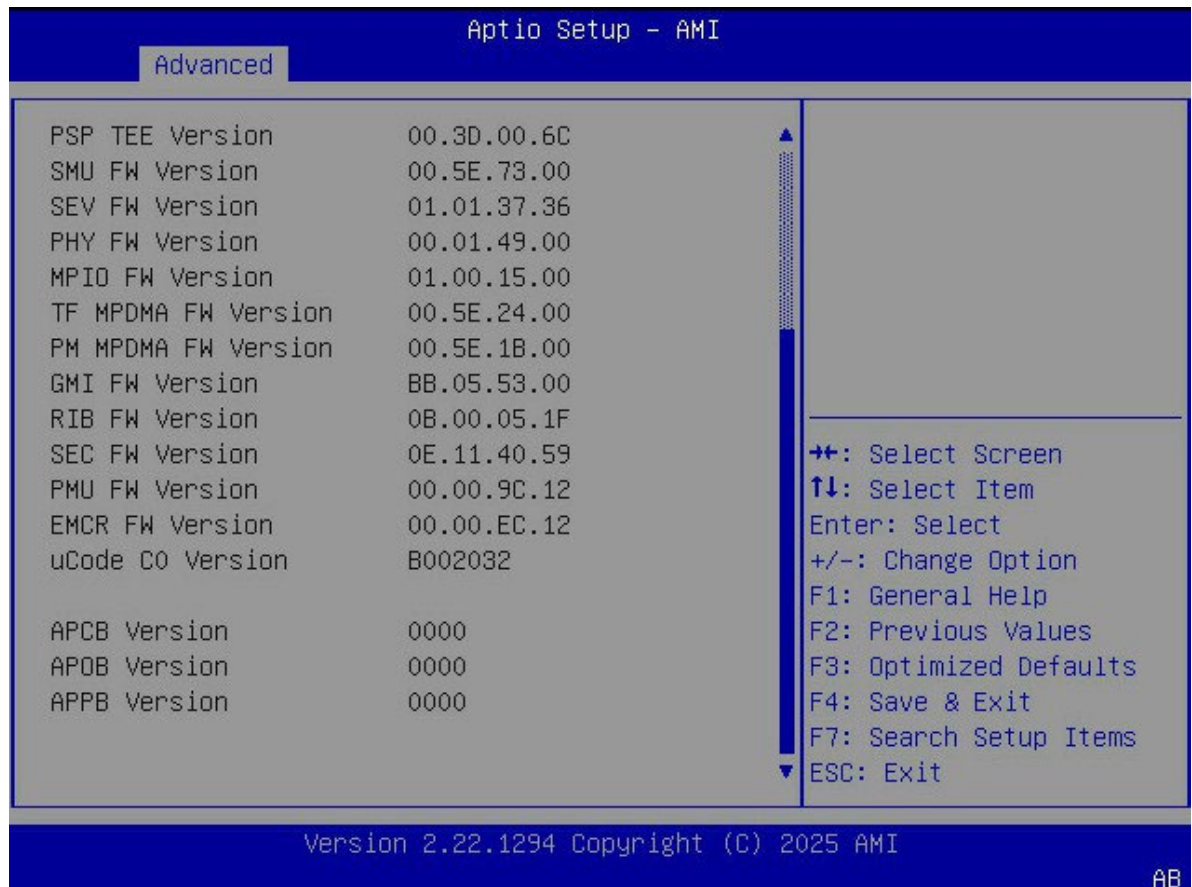


Figure 3-13 PSP Firmware Versions Screen 2

For a description of the parameters on the **PSP Firmware Versions** screen, refer to [Table 3-8](#).

Table 3-8 Parameter Descriptions for the PSP Firmware Versions Screen

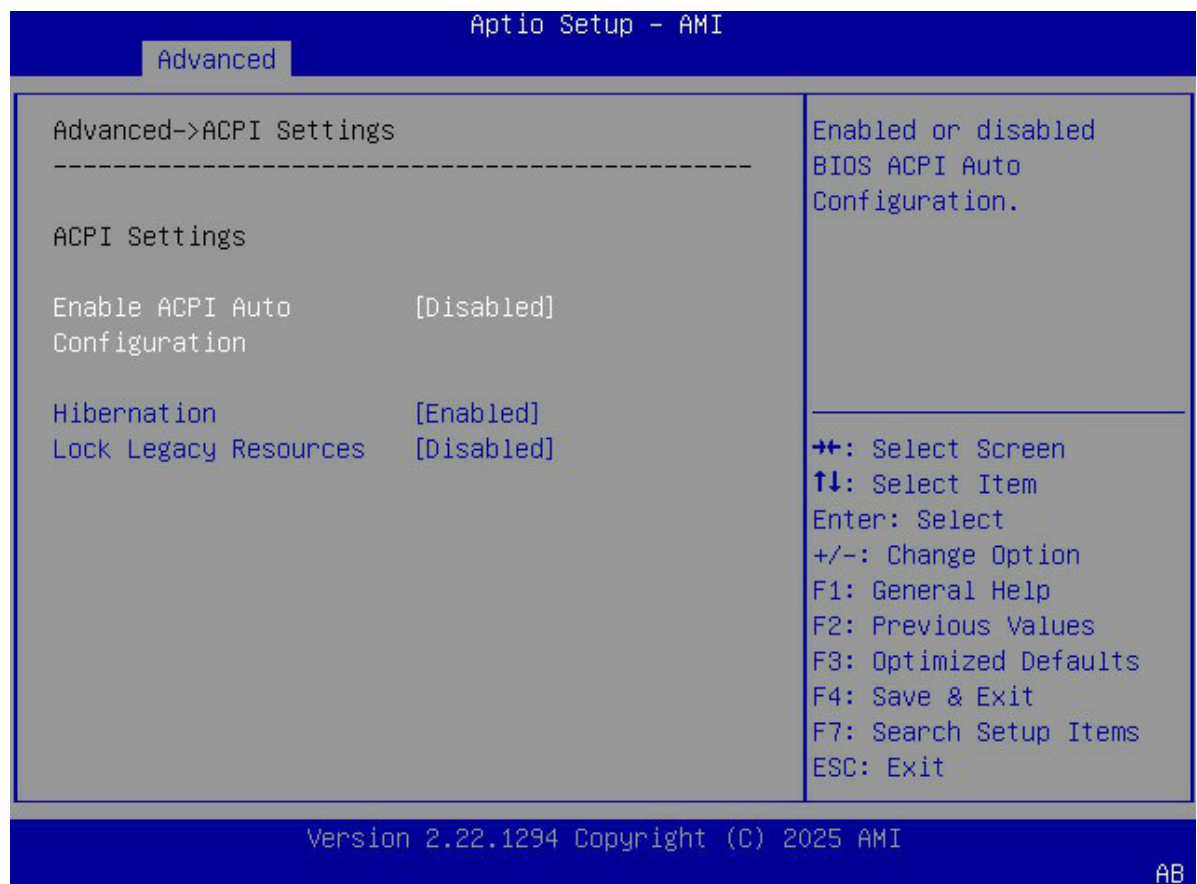
Parameter	Description
ABL Version	Displays the ABL version.
PSP BootLoader Version	Displays the PSP loader version.
PSP BootLoader 2 Version	Displays the PSP loader 2 version.
PSP TEE Version	Displays the PSP TEE version.
SMU FW Version	Displays the SMU FW version.
SEV FW Version	Displays the SEV FW version.
PHY FW Version	Displays the PHY FW version.
MPIO FW Version	Displays the MPIO FW version.
TF MPDMA FW Version	Displays the TF MPDMA FW version.
PM MPDMA FW Version	Displays the PM MPDMA FW version.
GMI FW Version	Displays the GMI FW version.

Parameter	Description
RIB FW Version	Displays the RIB FW version.
SEC FW Version	Displays the SEC FW version.
PMU FW Version	Displays the PMU FW version.
EMCR FW Version	Displays the EMCR FW version.
uCode C0 Version	Displays the uCode C0 version. The value of this parameter varies with the CPU model configured for the server.
APCB Version	Displays the APCB version.
APDB Version	Displays the APDB version.
APPB Version	Displays the APPB version.

3.2.4 ACPI Settings

[Figure 3-14](#) shows the **ACPI Settings** screen.

Figure 3-14 ACPI Settings Screen



For a description of the parameters on the **ACPI Settings** screen, refer to [Table 3-9](#).

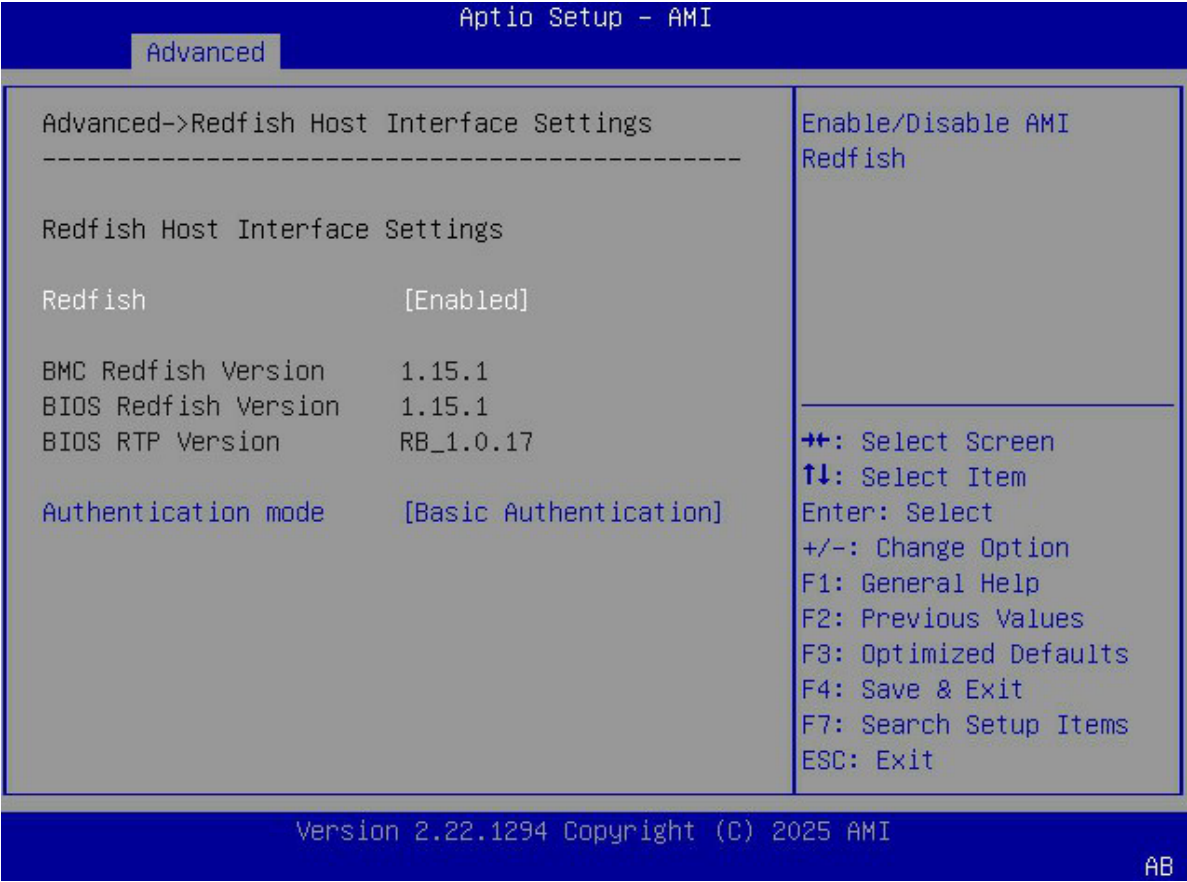
Table 3-9 Parameter Descriptions for the ACPI Settings Screen

Parameter	Description	Default Value
Enabled ACPI Auto Configuration	Sets whether to enable the ACPI auto-configuration function. Options: ● Enabled: enables the ACPI auto-configuration function. After this function is enabled, Hibernation and Lock Legacy Resources will be hidden. ● Disabled: disables the ACPI auto-configuration function.	Disabled
Hibernation	Sets whether to enable the system hibernation function. Options: ● Enabled: enables the system hibernation function. ● Disabled: disables the system hibernation function.	Enabled
Lock Legacy Resources	Sets whether to enable the locking of legacy resources. Options: ● Enabled: enables the locking of legacy resources. ● Disabled: disables the locking of legacy resources.	Disabled

3.2.5 Redfish Host Interface Settings

[Figure 3-15](#) shows the **Redfish Host Interface Settings** screen.

Figure 3-15 Redfish Host Interface Settings Screen



For a description of the parameters on the **Redfish Host Interface Settings** screen, refer to [Table 3-10](#).

Table 3-10 Parameter Descriptions for the Redfish Host Interface Settings Screen

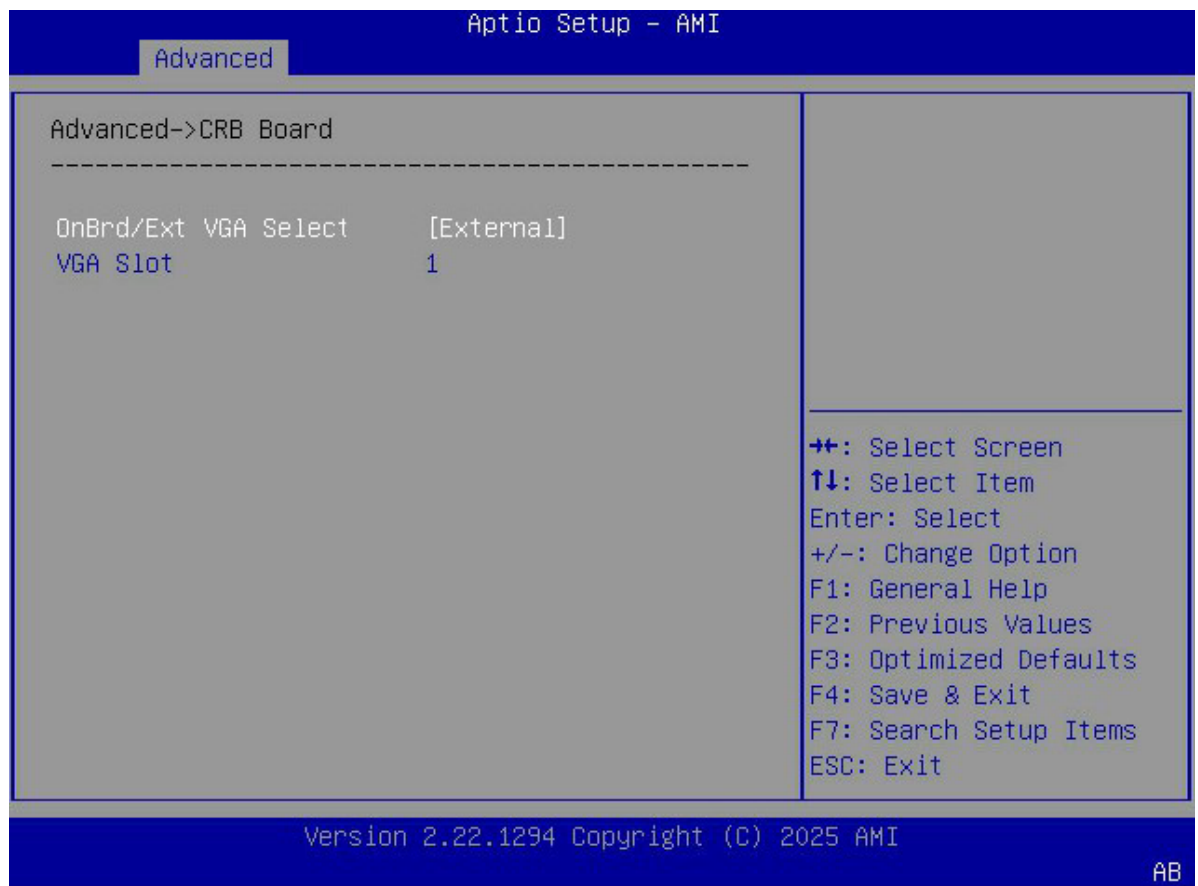
Parameter	Description	Default Value
Redfish	Sets whether to enable the AMI Redfish function. Options: ● Enabled: enables the AMI Redfish function. ● Disabled: disables the AMI Redfish function. After this function is disabled, all parameters below will be hidden.	Enabled
BMC Redfish Version	Displays the BMC Redfish version.	-
BIOS Redfish Version	Displays the BIOS Redfish version.	-
BIOS RTP Version	Displays the BIOS RTP version.	-
Authentication mode	Sets the authentication mode.	Basic Authentication

Parameter	Description	Default Value
	Options: ● Basic Authentication ● Session Authentication	

3.2.6 CRB Board

Figure 3-16 shows the **CRB Board** screen.

Figure 3-16 CRB Board Screen



For a description of the parameters on the **CRB Board** screen, refer to [Table 3-11](#).

Table 3-11 Parameter Descriptions for the CRB Board Screen

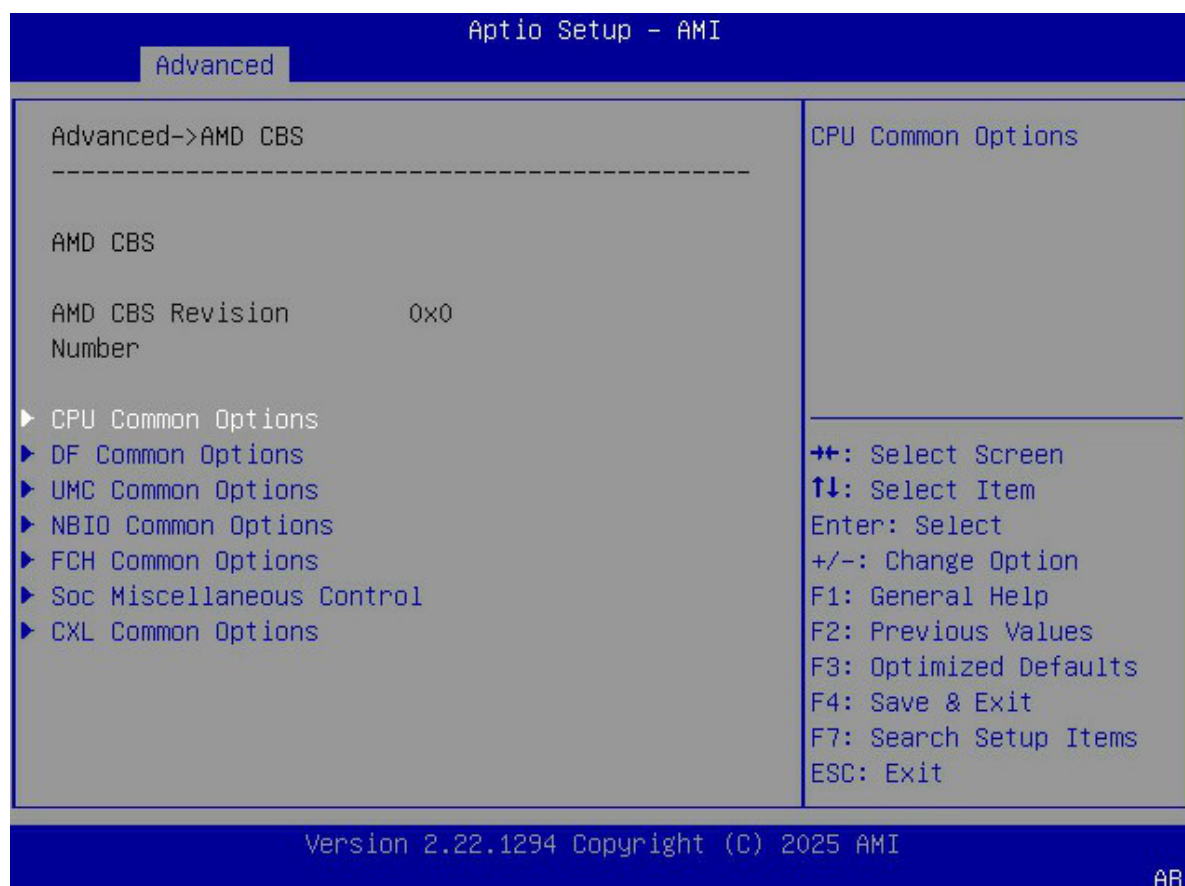
Parameter	Description	Default Value
OnBrd/Ext VGA Select	Specifies the VGA to be used. If the boot mode is UEFI Only, this parameter cannot be set. By default, Onboard is selected. Options: ● Auto: The external GPU device is preferentially used for output.	Auto

Parameter	Description	Default Value
	- Onboard: The onboard VGA is used for output. - External: The external GPU is used for output.	
VGA Slot	This parameter is displayed if OnBrd/Ext VGA Select is set to External. Specifies the slot number of the enabled external VGA.	1

3.2.7 AMD CBS

The **AMD CBS** screen provides the information about **CPU**s, memory, **PCIe** interfaces and **SATA** interfaces, and the **DF**, **UMC**, **NBIO**, and **FCH** configuration items. [Figure 3-17](#) shows the **AMD CBS** screen.

Figure 3-17 AMD CBS Screen



For a description of the parameters on the **AMD CBS** screen, refer to [Table 3-12](#).

Table 3-12 Parameter Descriptions for the AMD CBS Screen

Parameter	Description
CPU Common Options	Sets the common CPU parameters. For details, refer to 3.2.7.1 CPU Common Options .
DF Common Options	Sets the common DF parameters. For details, refer to 3.2.7.1 CPU Common Options .
UMC Common Options	Sets the common UMC parameters. For details, refer to 3.2.7.3 UMC Common Options .
NBIO Common Options	Sets the common NBIO parameters. For details, refer to 3.2.7.4 NBIO Common Options .
FCH Common Options	Sets the common FCH parameters. For details, refer to 3.2.7.5 FCH Common Options .
Soc Miscellaneous Control	Sets the chip miscellaneous control parameters. For details, refer to 3.2.7.6 Soc Miscellaneous Control .
CXL Common Options	Sets the common CXL parameters. For details, refer to 3.2.7.7 CXL Common Options .

3.2.7.1 CPU Common Options

CPU Common Options

[Figure 3-18](#) through [Figure 3-21](#) show the **CPU Common Options** screen.

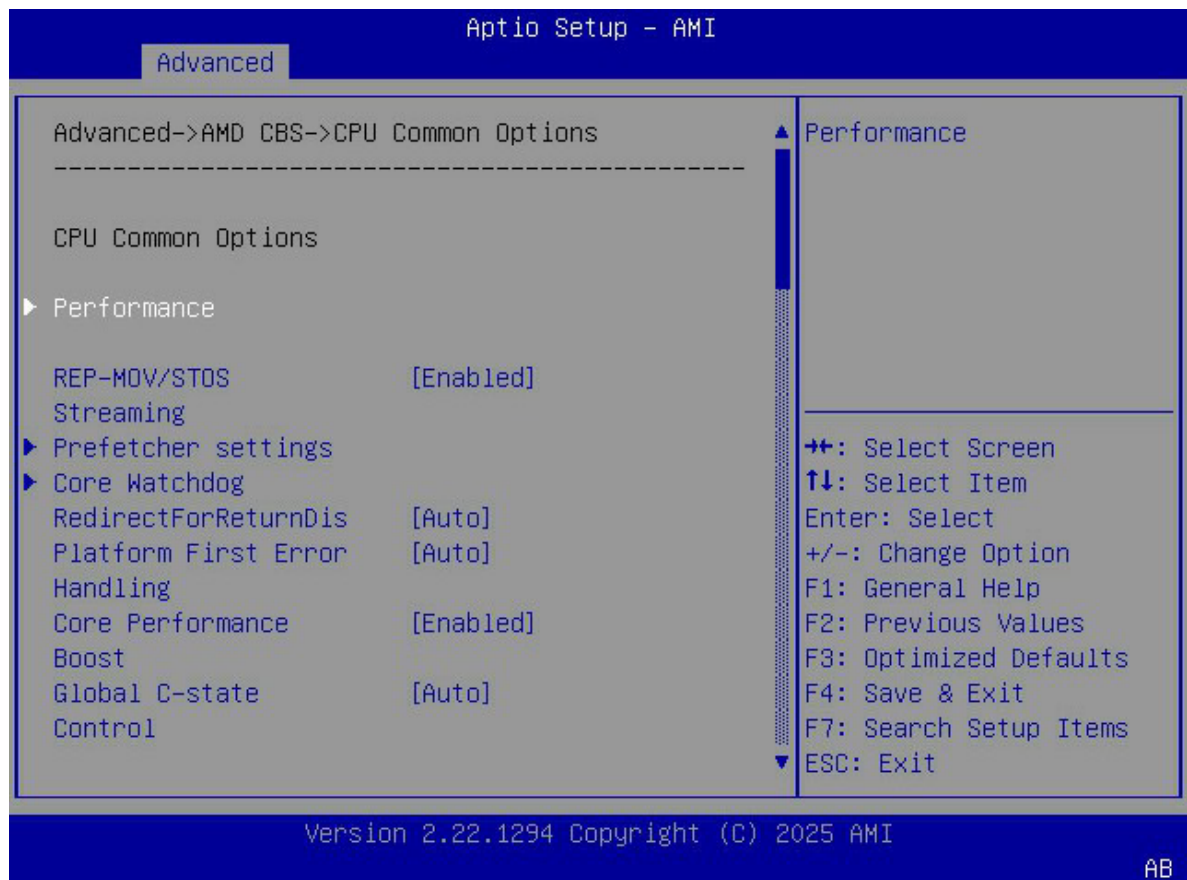
Figure 3-18 CPU Common Options Screen 1

Figure 3-19 CPU Common Options Screen 2



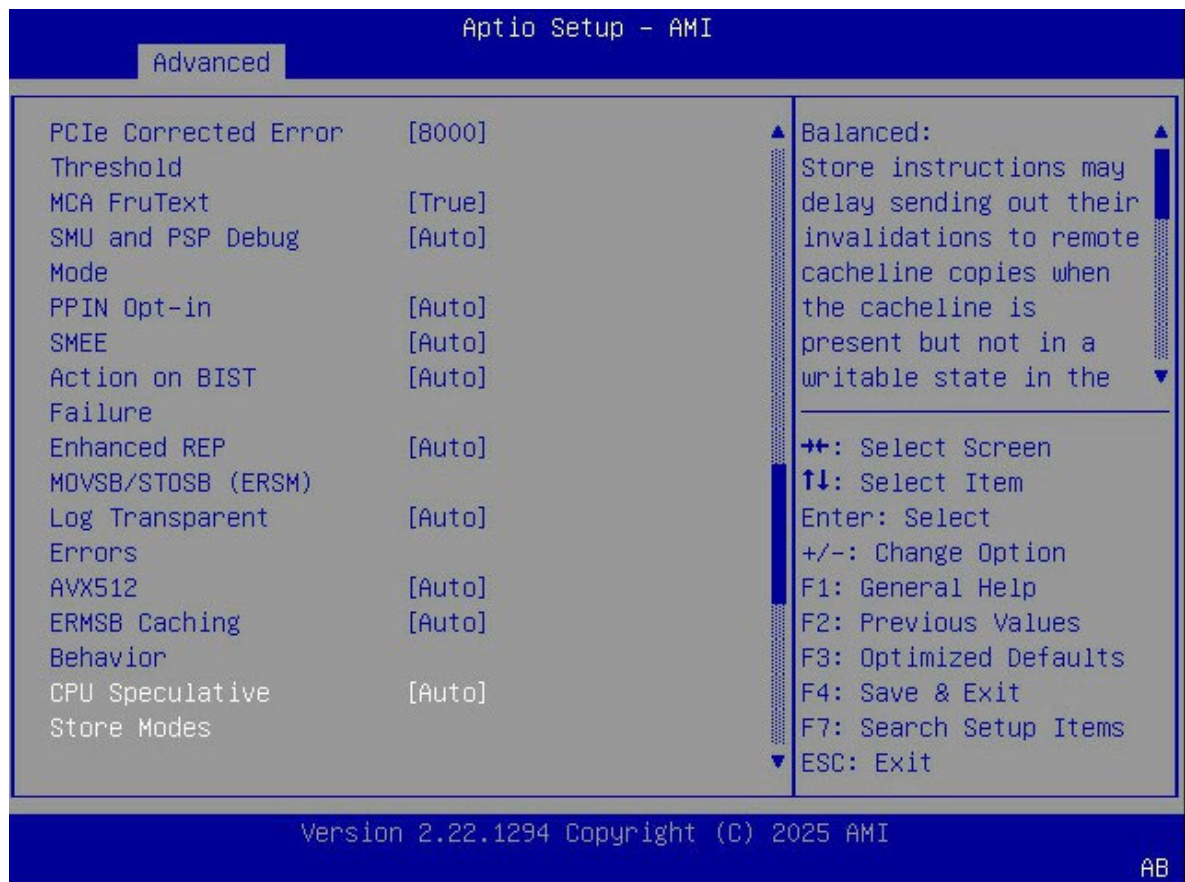
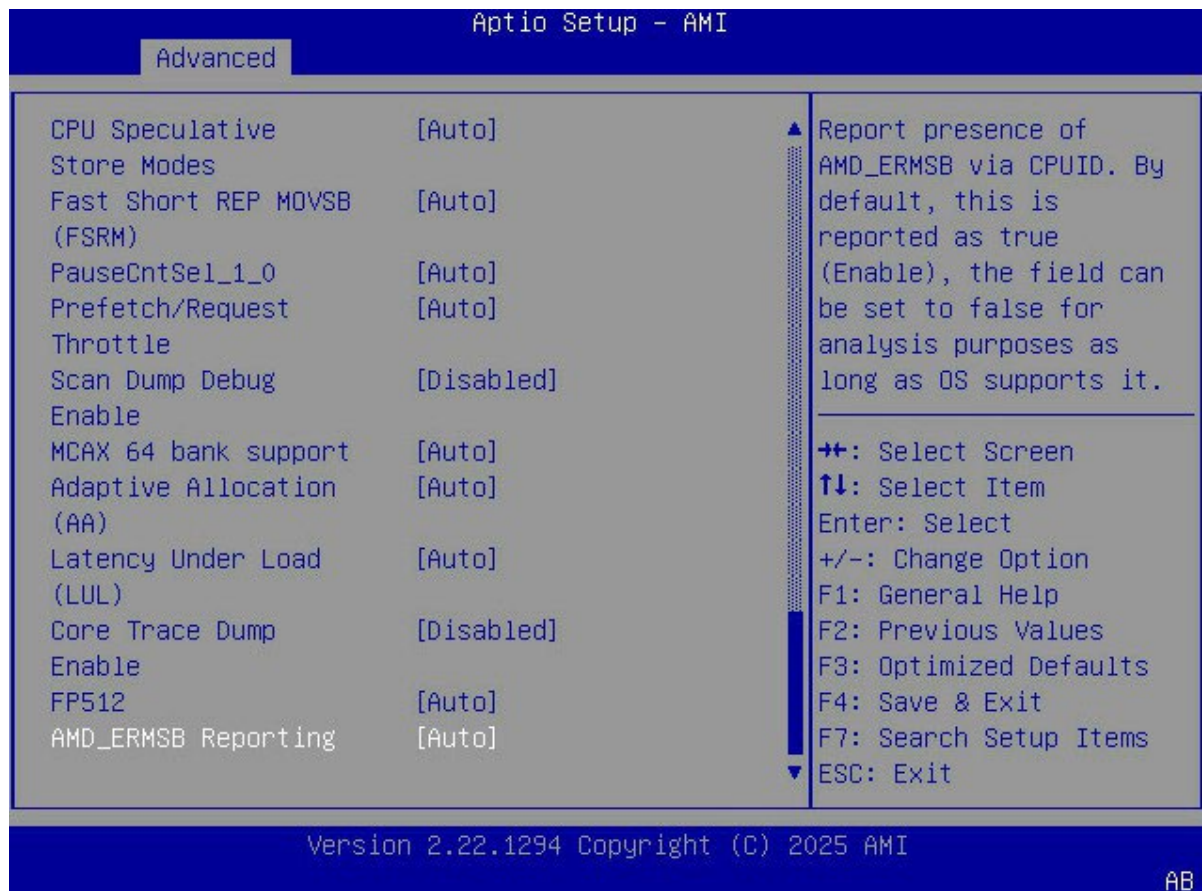
Figure 3-20 CPU Common Options Screen 3

Figure 3-21 CPU Common Options Screen 4



For a description of the parameters on the **CPU Common Options** screen, refer to [Table 3-13](#).

Table 3-13 Parameter Descriptions for the CPU Common Options Screen

Parameter	Description	Default Value
Performance	Sets the performance parameters. For details, refer to Performance .	-
REP-MOV/STOS Streaming	Sets whether to enable the REP-MOV/STOS streaming function. - Enabled: enables the REP-MOV/STOS streaming function. - Disabled: enables the REP-MOV/STOS streaming function.	Enabled
Prefetcher settings	Sets the prefetcher parameters. For details, refer to Prefetcher settings .	-
Core Watchdog	Sets the core watchdog parameters. For details, refer to Core Watchdog .	-
RedirectForReturnDis	Sets whether to set MSRC001_1029 Decode Configuration (DE_CFG) bit 14	Auto

Parameter	Description	Default Value
	DecfgNoRdrcForReturns to 1 to solve the XV Core GCC/C000005 problem on CZ A0. Options: ● Auto. ● 1: sets DecfgNoRdrcForReturns to 1. ● 0: sets DecfgNoRdrcForReturns to 0.	
Platform First Error Handling	Sets whether to enable the platform firmware prioritization function. Options: ● Auto. ● Enabled: enables the platform firmware prioritization function. ● Disabled: disables the platform firmware prioritization function.	Enabled
Core Performance Boost	Sets whether to enable the core performance boost control function. Options: ● Enabled: enables the core performance boost control function. ● Disabled: disables the core performance boost control function.	Enabled
Global C-state Control	Sets whether to enable the CPU C-state power saving mode. Options: ● Auto. ● Enabled: enables the CPU C-state power saving mode. ● Disabled: disables the CPU C-state power saving mode.	Auto
Power Supply Idle Control	Sets whether to enable the power supply idle control function. Options: ● Auto ● Typical Current Idle ● Low Current Idle	Auto
Streaming Stores control	Sets whether to enable the streaming storage function. Options: ● Auto. ● Enabled: enables the streaming storage function.	Auto

Parameter	Description	Default Value
	Disabled: disables the streaming storage function.	
Local APIC Mode	Sets the local APIC mode. Options: - xAPIC - x2APIC - Auto	Auto
ACPI _CST C1 Declaration	Sets whether to enable ACPI _CST C1 declaration. Options: - Auto. - Enabled: enables ACPI _CST C1 declaration. - Disabled: disables ACPI _CST C1 declaration.	Auto
ACPI _CST C2 Latency	Sets the latency for ACPI CST C2. The value range is 18–1000, and the unit is microseconds.	100
MCA error thresh enable	Sets whether to enable the MCA error threshold. Options: - Auto. - True: enables the MCA error threshold. - False: disables the MCA error threshold.	True
MCA error thresh count	Sets the number of valid error thresholds. The value range is 0–200.	0xFF5
Memory CE Storm Threshold	Sets the maximum value of the accumulated memory CEs . Options: 1 120 60 240 1200 4095	120
Memory CE Accumulation Threshold	Sets the maximum value of the memory CEs accumulated in 24 hours. Options: - Disabled 1	1200

Parameter	Description	Default Value
	● 500 ● 1000 ● 1200 ● 2000 ● 5000 ● 10000	
PCIe Corrected Error Threshold	Sets the maximum value of the accumulated PCIe CEs. Options: ● Disabled ● 2000 ● 4000 ● 8000	8000
MCA FruText	Sets whether to enable the MCA Fru text function. Options: ● True: enables the MCA Fru text function. ● False: disables the MCA Fru text function.	True
SMU and PSP Debug Mode	Sets whether to enable the SMU and PSP debugging mode. Options: ● Auto. ● Enabled: enables the SMU and PSP debugging mode. ● Disabled: disables the SMU and PSP debugging mode.	Auto
PPIN Opt-in	Sets whether to enable the PPIN Opt-in function. Options: ● Auto. ● Enabled: enables the PPIN Opt-in function. ● Disabled: disables the PPIN Opt-in function.	Auto
SMEE	Sets whether to enable the Secure Memory Encryption Enable (SMEE) function. Options: ● Auto. ● Enabled: enables the SMEE function. ● Disabled: disables the SMEE function.	Auto

Parameter	Description	Default Value
Action on BIST Failure	Selects the action to be taken when a BIST fault is detected. Options: ● Auto ● Down-CCD ● Do nothing	Auto
Enhanced REP MOVSB/STOSB(ERSM)	Sets whether to enable the ERSM function. Options: ● Auto. ● Enabled: enables the ERSM function. ● Disabled: disables the ERSM function.	Auto
Log Transparent Errors	Sets whether to enable the logging of MCA transparent errors. Options: ● Auto. ● Enabled: enables the logging of MCA transparent errors. ● Disabled: disables the logging of MCA transparent errors.	Auto
AVX512	Sets whether to enable AVX512. Options: ● Auto. ● Enabled: enables AVX512. ● Disabled: disables AVX512.	Auto
ERMSB Caching Behavior	Sets whether to enable ERMSB caching behaviors. Options: ● Auto. ● Enabled: enables ERMSB caching behaviors. ● Disabled: disables ERMSB caching behaviors.	Auto
CPU Speculative Store Modes	Sets the CPU speculative storage mode. Options: ● Auto. ● Balanced: Storage instructions may delay sending invalid information to the remote cache copy when they exist in the cache but are not in write status.	Auto

Parameter	Description	Default Value
	● More Speculative: Storage instructions send invalid information to the remote cache copy as soon as possible. ● Less Speculative: Storage instructions may delay sending invalid information to the remote cache copy when they do not exist in the cache or cannot be written into the local cache.	
Fast Short REP MOVSB (FSRM)	Sets whether to enable the FSRM function. Options: ● Auto. ● Enabled: enables the FSRM function. ● Disabled: disables the FSRM function.	Auto
PauseCntSel_1_1_0	Sets the number of thread scheduling cycles after the PAUSE command is executed. Options: ● Auto. ● 16 cycles: sets 16 idle cycles for the thread after the PAUSE command is executed. ● 32 cycles: sets 32 idle cycles for the thread after the PAUSE command is executed. ● 64 cycles: sets 64 idle cycles for the thread after the PAUSE command is executed. ● 128 cycles: sets 128 idle cycles for the thread after the PAUSE command is executed.	Auto
Prefetch/Request Throttle	Sets whether to enable the prefetch or request throttling function. Options: ● Auto. ● Enabled: enables the prefetch or request throttling function. ● Disabled: disables the prefetch or request throttling function.	Auto
Scan Dump Debug Enable	Sets whether to enable the scan dump debugging function. Options: ● Enabled: Enables the scan dump debugging function. ● Disabled: disables the scan dump debugging function.	Disabled

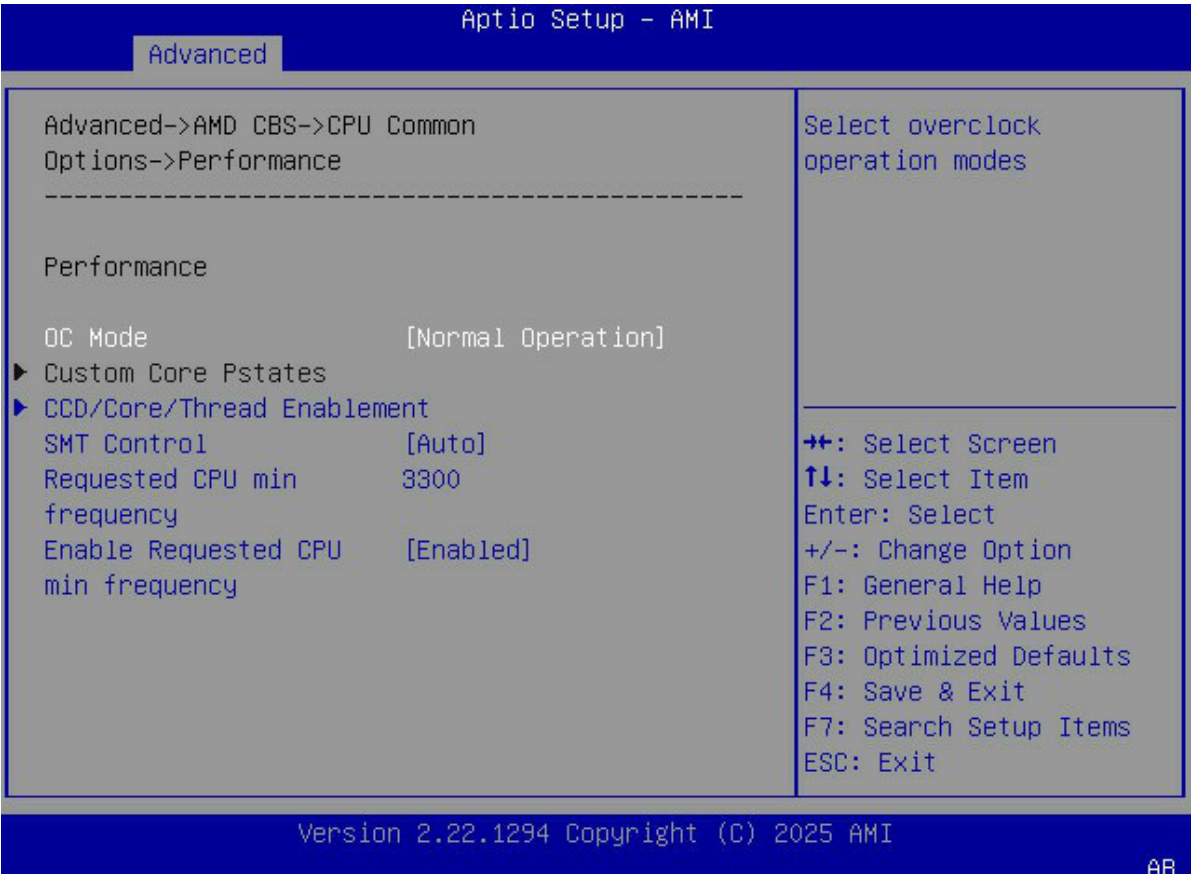
Parameter	Description	Default Value
MCAX 64 bank support	Sets whether to enable the mapping of 64 MCA channels per thread. Options: ● Auto. ● Enabled: enables the mapping of 64 MCA channels per thread. ● Disabled: disables the mapping of 64 MCA channels per thread.	Auto
Adaptive Allocation (AA)	Sets whether to enable fixed L2 replacement and allocation policies. Options: ● Auto. ● Enabled: enables fixed L2 replacement and allocation policies. ● Disabled: disables fixed L2 replacement and allocation policies.	Auto
Latency Under Load (LUL)	Sets whether to enable the LUL function. Options: ● Auto. ● Enabled: enables the LUL function to reduce the latency in heavy Broadcast Wideband (BW) load scenarios. ● Disabled: disables the LUL function in heavy BW load scenarios.	Auto
Core Trace Dump Enable	Sets whether to enable the core trace dump function. Options: ● Enabled: enables the core trace dump function. ● Disabled: disables the core trace dump function.	Disabled
FP512	Sets whether to enable the support for degrading the FP512 data path to FP256. Options: ● Auto. ● Enabled: enables the support for degrading the FP512 data path to FP256. ● Disabled: disables the support for degrading the FP512 data path to FP256.	Auto

Parameter	Description	Default Value
AMD_ERMSB Reporting	Sets whether to enable AMD_ERMSB reporting. Options: • Auto. • Enabled: enables AMD_ERMSB reporting. • Disabled: disables AMD_ERMSB reporting.	Auto

Performance

Figure 3-22 shows the **Performance** screen.

Figure 3-22 Performance Screen



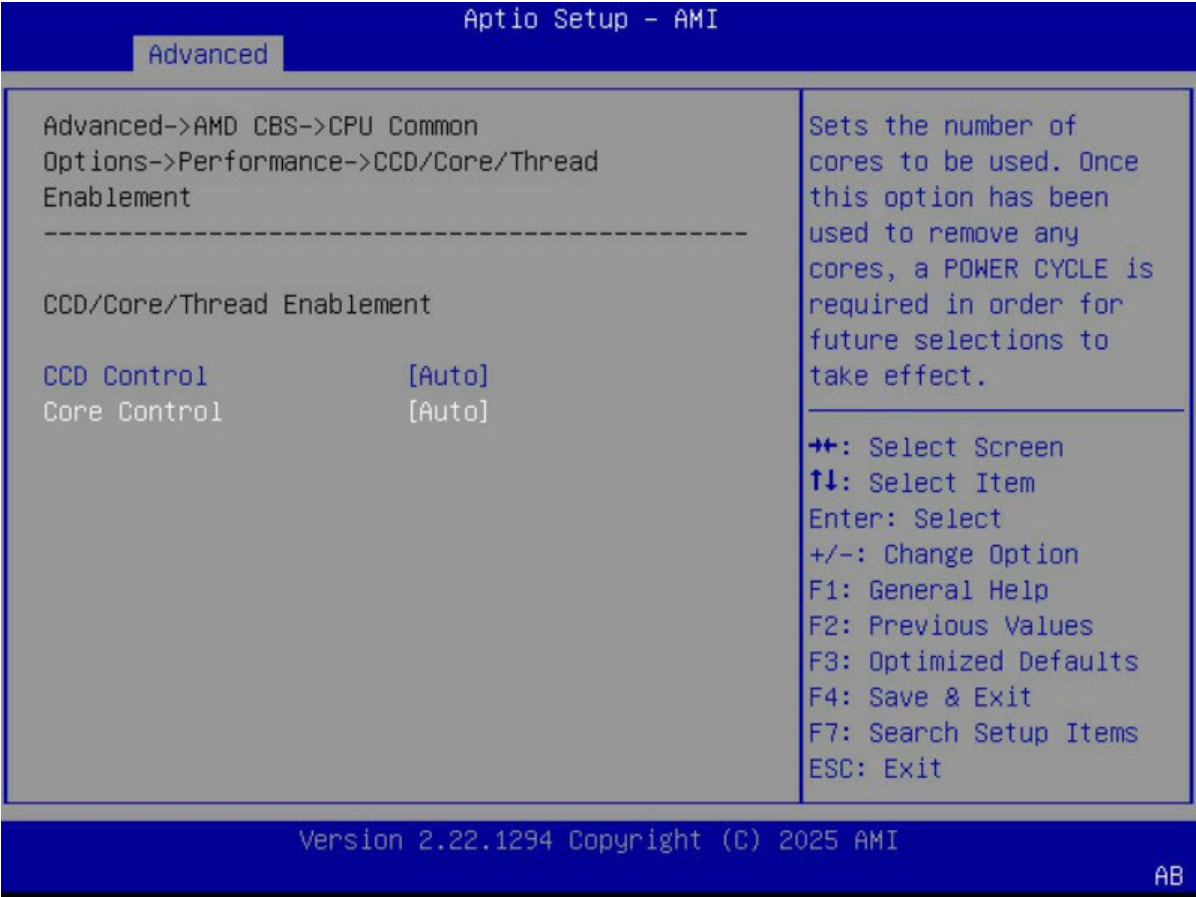
For a description of the parameters on the **Performance** screen, refer to [Table 3-14](#).

Table 3-14 Parameter Descriptions for the Performance Screen

Parameter	Description	Default Value
OC Mode	Specifies the OC mode. Options: • Normal Operation • Customized	Normal Operation

Parameter	Description	Default Value
Custom Core Pstates	This parameter can be set if OC Mode is set to Customized. Sets the user core P-state mode. Press Enter to unfold the settings. ● Decline: declines the user core P-state setting. ● Accept: accepts the user core P-state setting.	-
CCD/Core/Thread Enablement	Sets the CCD, core, or thread status information. Press Enter. The CCD/Core/Thread Enablement screen is displayed, as shown in Figure 3-23.	-
SMT Control	Sets whether to enable the SMT control function. ● Auto. ● Enabled: enables the SMT control function. ● Disabled: disables the SMT control function.	Auto
Requested CPU min frequency	Sets the minimum frequency required by the CPU. The default value of this parameter is related to the CPU model configured for the server.	3300
Enable Requested CPU min frequency	Sets whether to enable the setting of Requested CPU min frequency. Options: ● Enabled: enables the setting of Requested CPU min frequency. ● Disabled: disables the setting of Requested CPU min frequency.	Enabled

Figure 3-23 CCD/Core/Thread Enablement Screen



For a description of the parameters on the **CCD/Core/Thread Enablement** screen, refer to [Table 3-15](#).

Table 3-15 Parameter Descriptions for the CCD/Core/Thread Enablement Screen

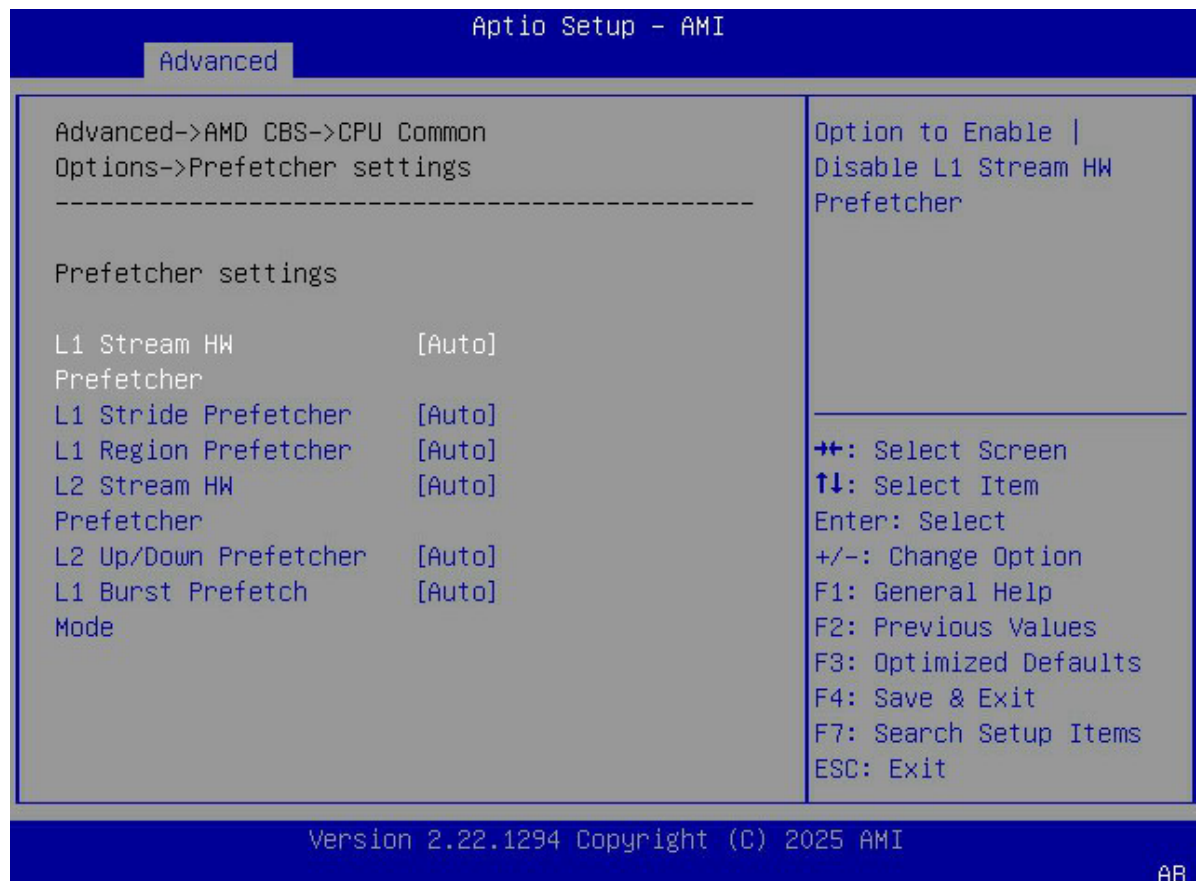
Parameter	Description	Default Value
CCD Control	Sets the required number of CCDs. Options: • Auto • 2 CCDs • 4 CCDs • 6 CCDs • 8 CCDs: This option is unavailable if certain CPU models are configured for the server. • 10 CCDs: This option is unavailable if certain CPU models are configured for the server.	Auto
Core Control	Sets the required number of cores. Options:	Auto

Parameter	Description	Default Value
	• Auto • ONE (1 + 0) • TWO (2 + 0) • THREE (3 + 0) • FOUR (4 + 0) • FIVE (5 + 0) • SIX (6 + 0) • SEVEN (7 + 0)	

Prefetcher settings

Figure 3-24 shows the **Prefetcher settings** screen.

Figure 3-24 Prefetcher Settings Screen



For a description of the parameters on the **Prefetcher settings** screen, refer to [Table 3-16](#).

Table 3-16 Parameter Descriptions for the Prefetcher Settings Screen

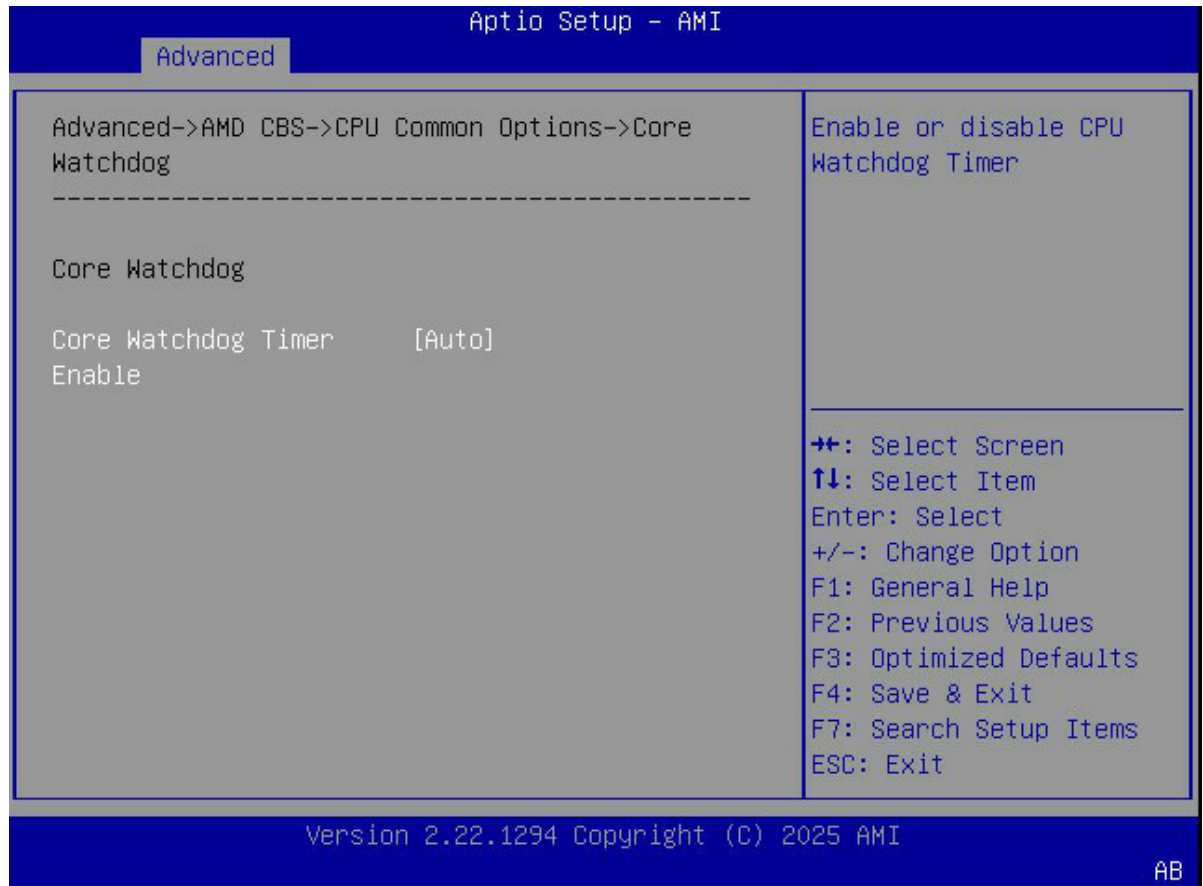
Parameter	Description	Default Value
L1 Stream HW Prefetcher	Sets whether to enable the L1-cache hardware-stream prefetcher. Options:	Auto

Parameter	Description	Default Value
	● Auto. ● Enabled: enables the L1-cache hardware-stream prefetcher. ● Disabled: disables the L1-cache hardware-stream prefetcher.	
L1 Stride Prefetcher	Sets whether to enable the L1 stride prefetcher. Options: ● Auto. ● Enabled: enables the L1 stride prefetcher. ● Disabled: disables the L1 stride prefetcher.	Auto
L1 Region Prefetcher	Sets whether to enable the L1 region prefetcher. Options: ● Auto. ● Enabled: enables the L1 region prefetcher. ● Disabled: disables the L1 region prefetcher.	Auto
L2 Stream HW Prefetcher	Sets whether to enable the L2 cache hardware stream prefetcher. Options: ● Auto. ● Enabled: enables the L2 cache hardware stream prefetcher. ● Disabled: disables the L2 cache hardware stream prefetcher.	Auto
L2 Up/Down Prefetcher	Sets whether to enable the L2 up and down prefetcher. Options: ● Auto. ● Enabled: enables the L2 up and down prefetcher. ● Disabled: disables the L2 up and down prefetcher.	Auto
L1 Burst Prefetcher Mode	Sets whether to enable the L1 burst prefetcher mode. Options: ● Auto. ● Enabled: enables the L1 burst prefetcher mode. ● Disabled: disables the L1 burst prefetcher mode.	Auto

Core Watchdog

Figure 3-25 shows the **Core Watchdog** screen.

Figure 3-25 Core Watchdog Screen



For a description of the parameters on the **Core Watchdog** screen, refer to [Table 3-17](#).

Table 3-17 Parameter Descriptions for the Core Watchdog Screen

Parameter	Description	Default Value
Core Watchdog Timer Enable	Sets whether to enable the core watchdog. Options: • Auto. • Enabled: enables the core watchdog. • Disabled: disables the core watchdog.	Auto

3.2.7.2 DF Common Options

DF Common Options

Figure 3-26 shows the **DF Common Options** screen.

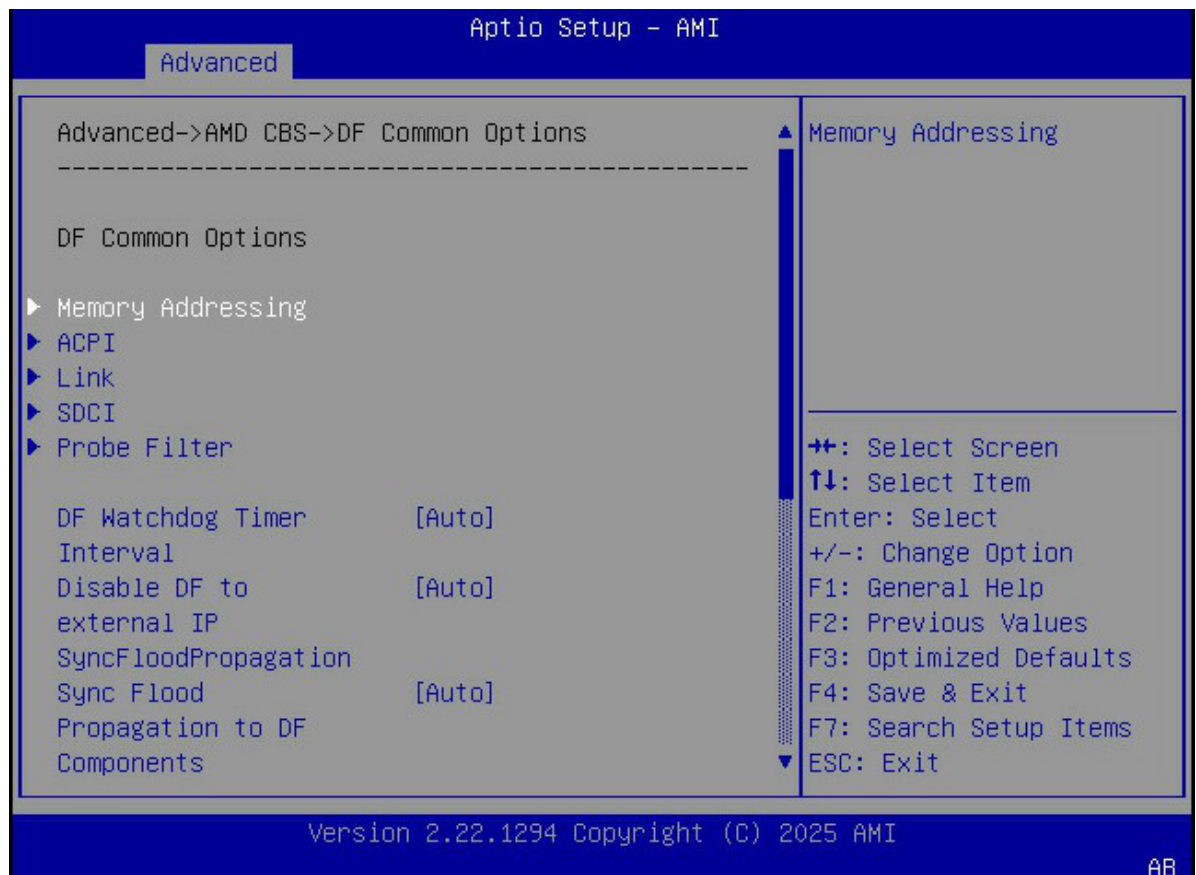
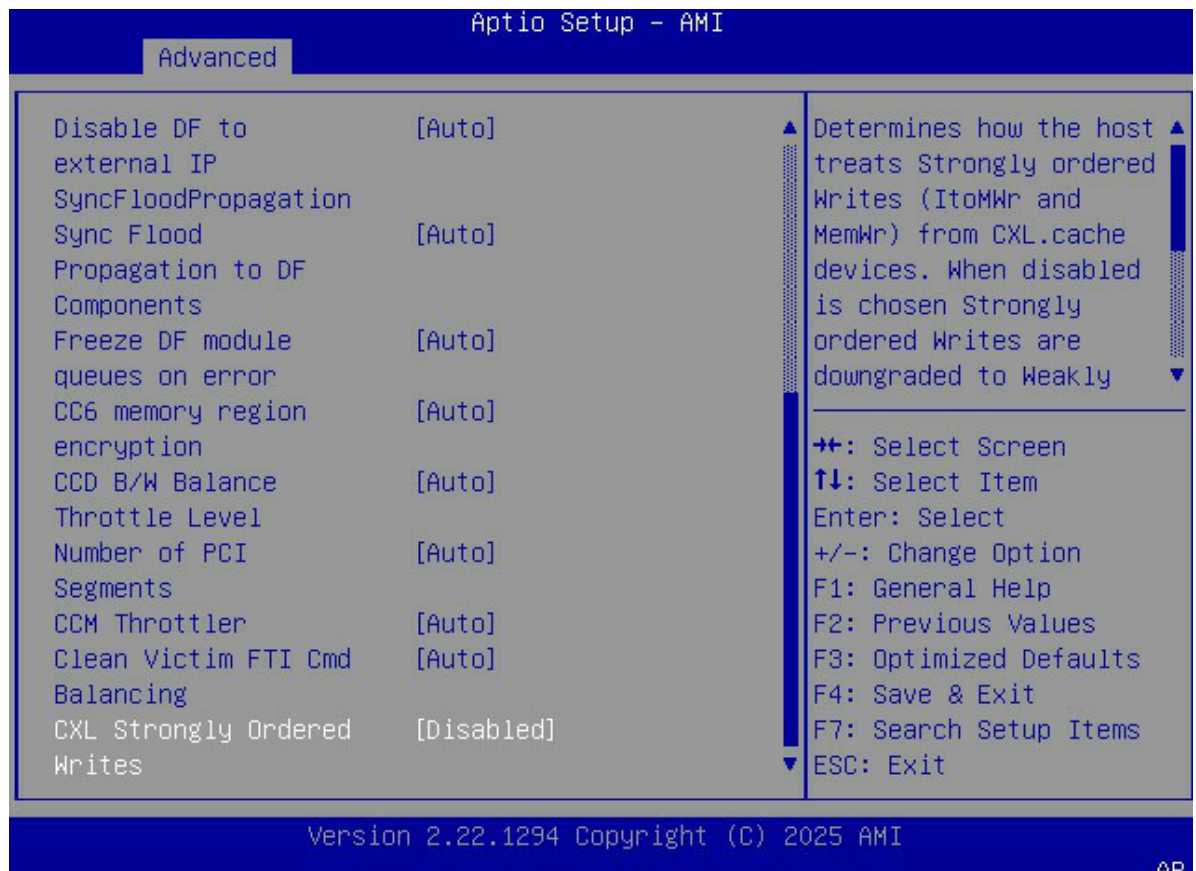
Figure 3-26 DF Common Options Screen 1

Figure 3-27 DF Common Options Screen 2



For a description of the parameters on the **DF Common Options** screen, refer to [Table 3-18](#).

Table 3-18 Parameter Descriptions for the DF Common Options Screen

Parameter	Description	Default Value
Memory Addressing	Sets memory addressing management parameters. For details, refer to Memory Addressing .	-
ACPI	Sets advanced power interface parameters. For details, refer to ACPI .	-
Link	Sets the link parameters. For details, refer to Link .	-
SDCI	Sets SDCI parameters. For details, refer to SDCI .	-
Probe Filter	Sets the probe filter parameters. For details, refer to Probe Filter .	-
DF Watchdog Timer Interval	Sets the interval of the DF watchdog timer. Options: ● Auto	Auto

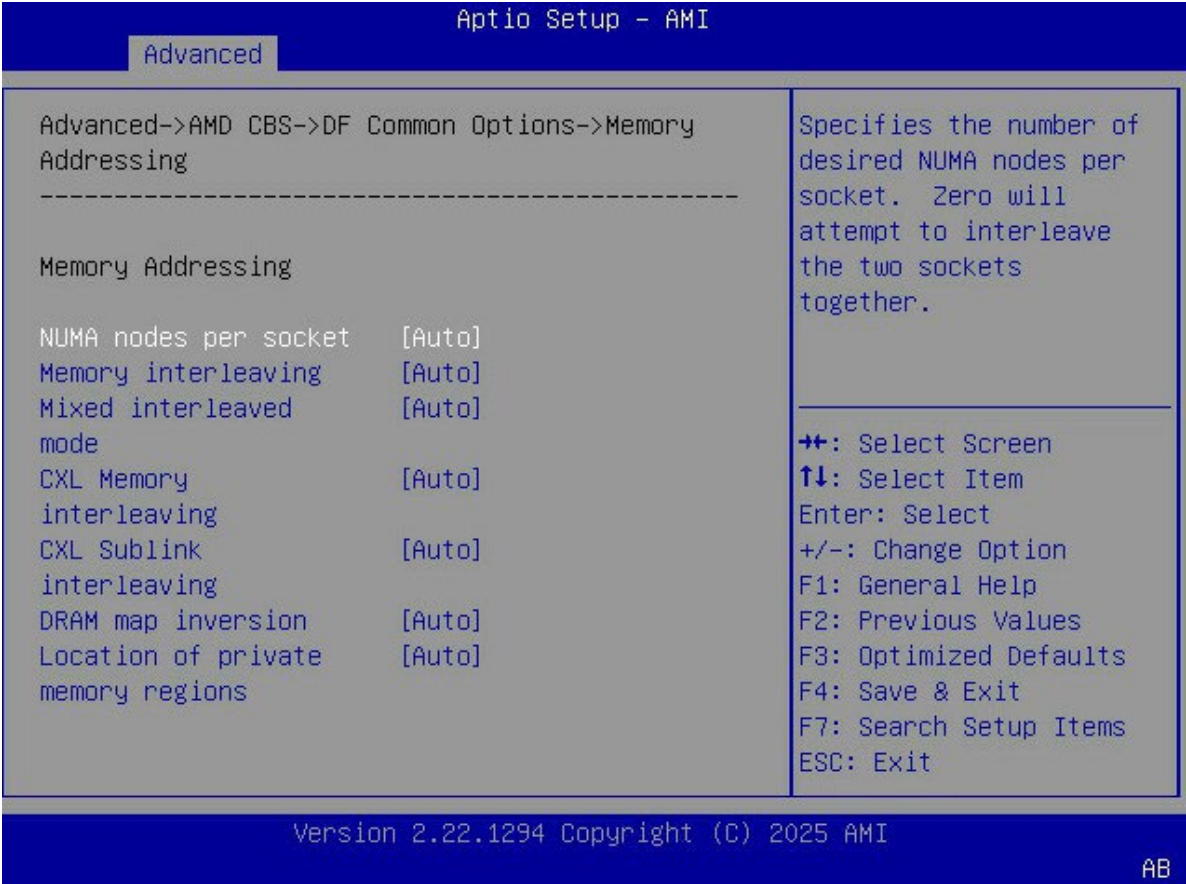
Parameter	Description	Default Value
	● 41 ms ● 166 ms ● 334 ms ● 669 ms ● 1.34 seconds ● 2.68 seconds ● 5.36 seconds	
Disable DF to external IP SyncFloodPropagation	Sets whether to enable the batch synchronization function for the DF and its subordinates. Options: ● Auto. ● Sync Flood disabled: disables the batch synchronization function for the DF and its subordinates. ● Sync Flood enabled: enables the batch synchronization function for the DF and its subordinates.	Auto
Sync Flood Propagation to DF Components	Sets whether to enable the transmission of sync floods to DF components. Options: ● Auto. ● Sync Flood enabled: enables the transmission of sync floods to DF components. ● Sync Flood disabled: disables the transmission of sync floods to DF components.	Auto
Freeze DF module queues on error	Sets whether to enable the freezing of DF module queues when there is an error. Options: ● Auto. ● Enabled: enables the freezing of DF module queues when there is an error. ● Disabled: disables the freezing of DF module queues when there is an error.	Auto
CC6 memory region encryption	Sets whether to enable CC6 memory area encryption. Options: ● Auto.	Auto

Parameter	Description	Default Value
	● Enabled: enables CC6 memory area encryption. ● Disabled: disables CC6 memory area encryption.	
CCD B/W Balance Throttle Level	Sets the level of CCD B/W balancing throttling. ● Auto ● Level 0 ● Level 1 ● Level 2 ● Level 3 ● Level 4	Auto
Number of PCI Segments	Sets the number of PCI segments. Options: ● Auto ● 1 Segment ● 2 Segment ● 4 Segment	Auto
CCM Throttler	Sets whether to enable the CCM throttler. Options: ● Auto. ● Enabled: enables the CCM throttler. ● Disabled: disables the CCM throttler.	Auto
Clean Victim FTI Cmd Balancing	Sets whether to enable the clearing of Victim FTI Cmd balancing. Options: ● Auto. ● Enabled: enables the clearing of Victim FTI Cmd balancing. ● Disabled: disables the clearing of Victim FTI Cmd balancing.	Auto
CXL Strongly Ordered Writes	Sets the strong CXL write mode. Options: ● Disabled: Strongly ordered writes are degraded to weakly ordered writes. ● One at a time: The host processes one strongly ordered write at a time.	Disabled

Memory Addressing

Figure 3-28 shows the **Memory Addressing** screen.

Figure 3-28 Memory Addressing Screen



For a description of the parameters on the **Memory Addressing** screen, refer to [Table 3-19](#).

Table 3-19 Parameter Descriptions for the Memory Addressing Screen

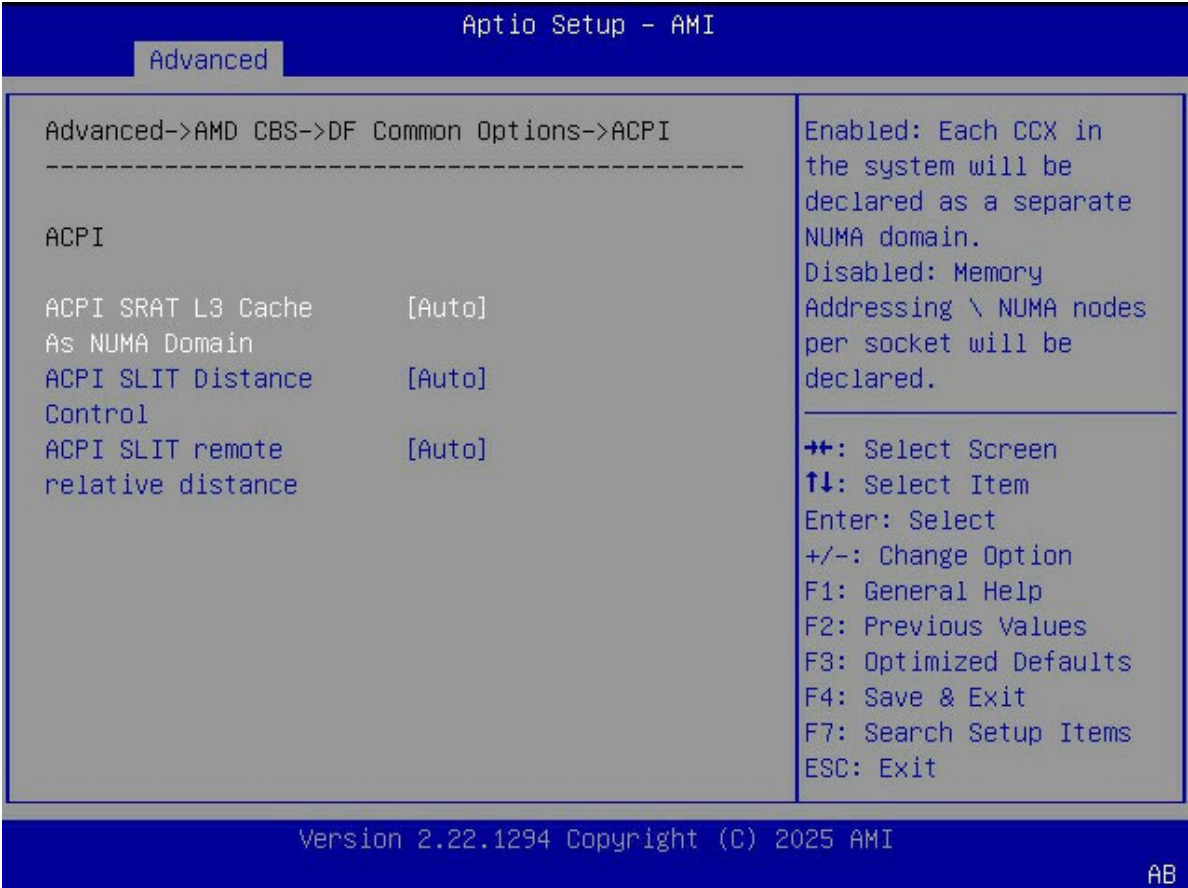
Parameter	Description	Default Value
NUMA nodes per socket	Sets the number of NUMA nodes required by each socket. Options: ● Auto ● NPS1 ● NPS2 ● NPS4	Auto
Memory interleaving	Sets whether to enable the memory interleaving function. Options: ● Auto. ● Enabled: enables the memory interleaving function. ● Disabled: disables the memory interleaving function.	Auto

Parameter	Description	Default Value
Mixed interleaved mode	Sets whether to enable the mixed interleaving mode. Options: ● Auto. ● Enabled: enables the mixed interleaving mode. ● Disabled: disables the mixed interleaving mode.	Auto
CXL Memory interleaving	Sets whether to enable the interleaving of CXL storage devices. Options: ● Auto. ● Enabled: enables the interleaving of CXL storage devices. ● Disabled: disables the interleaving of CXL storage devices.	Auto
CXL Sublink interleaving	Sets whether to enable the CXL sub-link interleaving function. Options: ● Auto. ● Enabled: enables the CXL sub-link interleaving function. ● Disabled: disables the CXL sub-link interleaving function.	Auto
DRAM map inversion	Sets whether to enable DRAM mapping inversion. Options: ● Auto. ● Enabled: enables DRAM mapping inversion. ● Disabled: disables DRAM mapping inversion.	Auto
Location of private memory regions	Sets the location mode of the private memory regions in the DRAM. Options: ● Auto ● Distributed ● Consolidated	Auto

ACPI

Figure 3-29 shows the **ACPI** screen.

Figure 3-29 ACPI Screen



For a description of the parameters on the **ACPI** screen, refer to [Table 3-20](#).

Table 3-20 Parameter Descriptions for the ACPI Screen

Parameter	Description	Default Value
ACPI SRAT L3 Cache As NUMA Domain	Sets whether to enable an ACPI SRAT L3 cache as a NUMA domain. Options: ● Auto. ● Enabled: enables an ACPI SRAT L3 cache as a NUMA domain. ● Disabled: disables an ACPI SRAT L3 cache as a NUMA domain.	Auto
ACPI SLIT Distance Control	Sets the ACPI SLIT distance control mode. Options: ● Auto ● Manual	Auto
ACPI SLIT same socket distance	This parameter is displayed if CPI SLIT Distance Control is set to Manual .	12

Parameter	Description	Default Value
	Sets the distance to other physical domains from a specified socket.	
ACPI SLIT remote socket distance	This parameter is displayed if CPI SLIT Distance Control is set to Manual . Sets the distance to other physical domains from a specified remote socket.	32
ACPI SLIT local CXL distance	This parameter is displayed if CPI SLIT Distance Control is set to Manual . Sets the distance to a specified CXL domain from a socket.	50
ACPI SLIT remote CXL distance	This parameter is displayed if CPI SLIT Distance Control is set to Manual . Sets the distance to a specified CXL domain from another socket.	60
ACPI SLIT remote relative distance	This parameter is displayed if CPI SLIT Distance Control is set to Auto . Sets the ACPI SLIT remote relative distance. Options: ● Auto ● Near ● Far	Auto

Link

Figure 3-30 and Figure 3-31 show the **Link** screen.

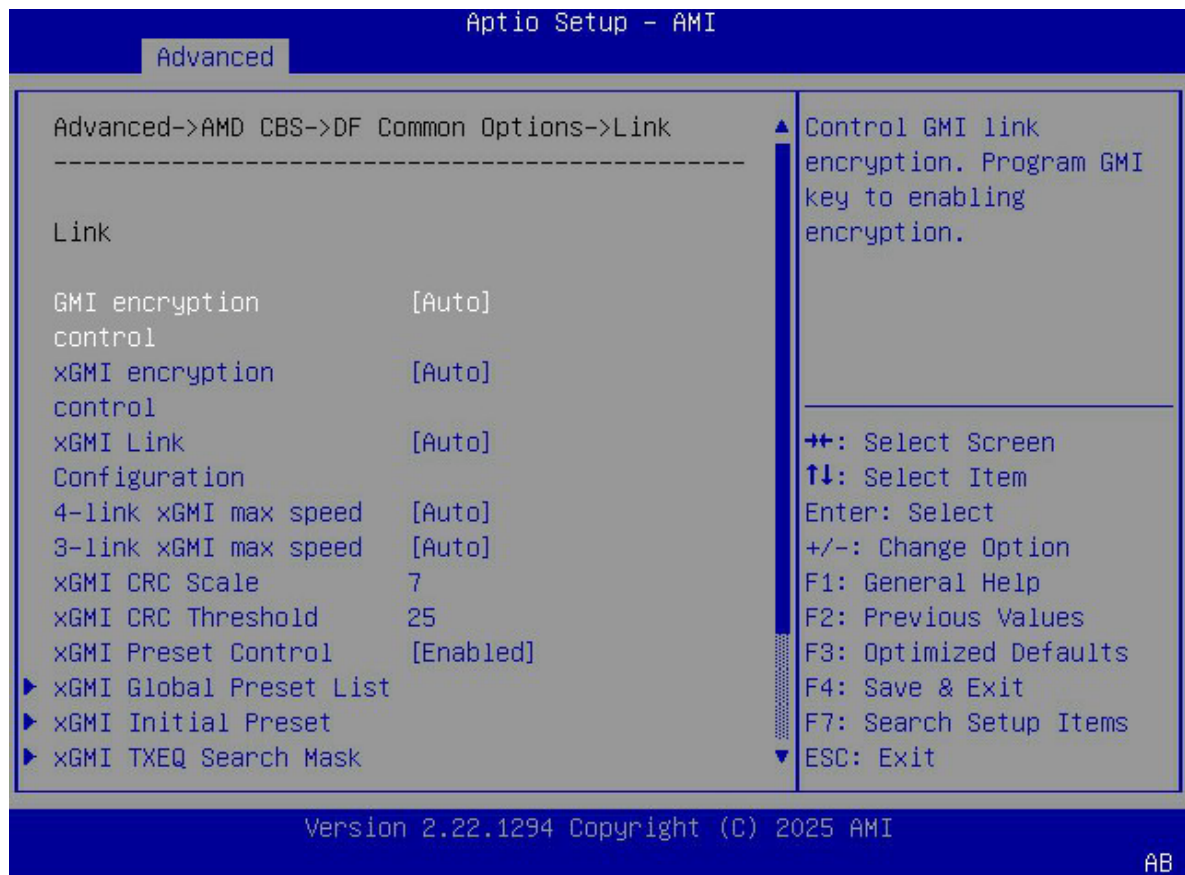
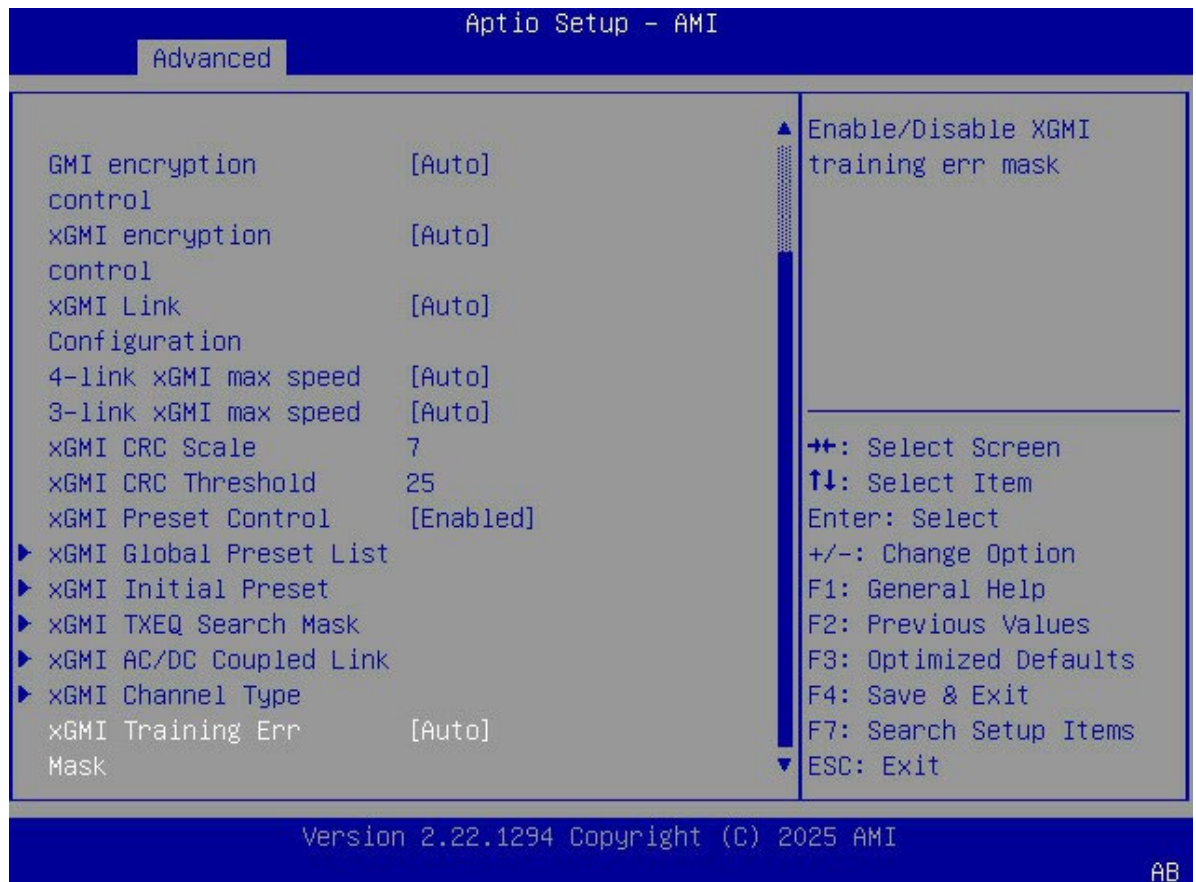
Figure 3-30 Link Screen 1

Figure 3-31 Link Screen 2

For a description of the parameters on the **Link** screen, refer to [Table 3-21](#).

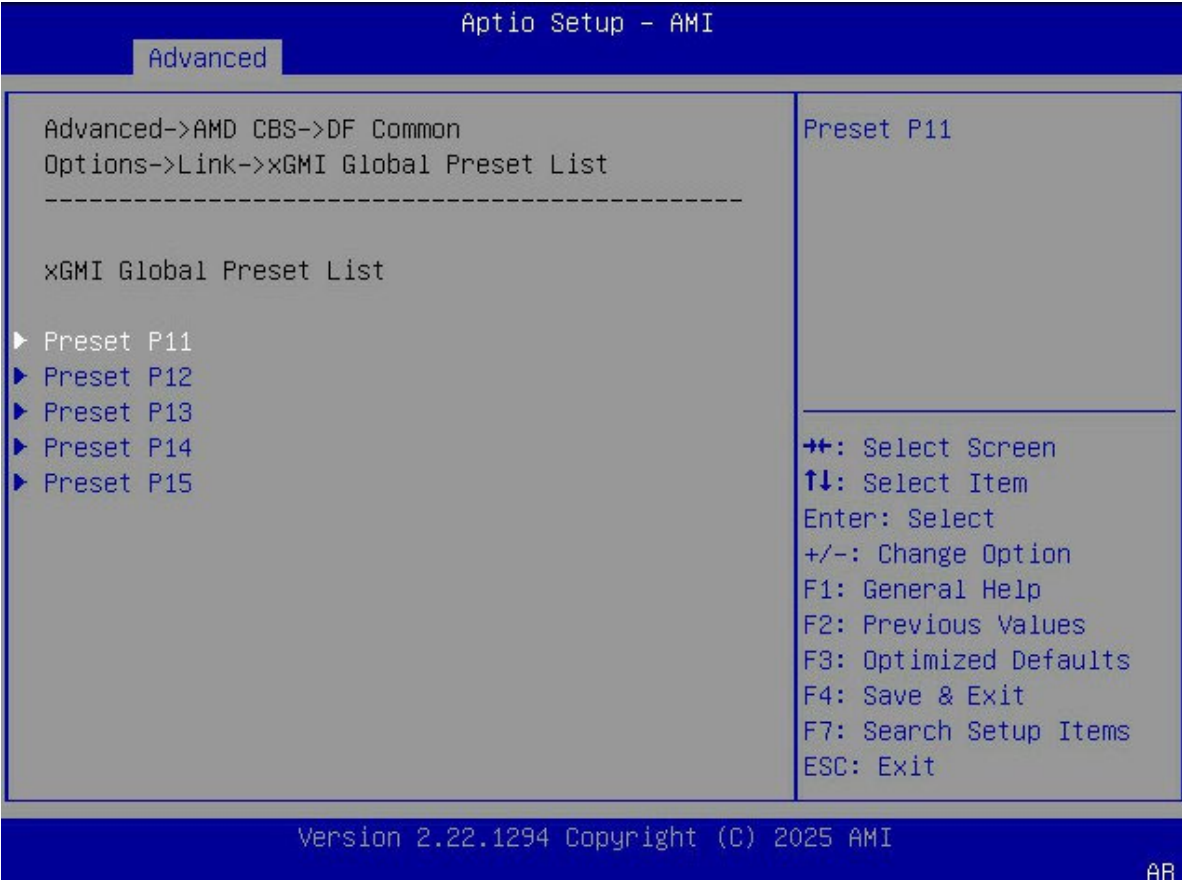
Table 3-21 Parameter Descriptions for the Link Screen

Parameter	Description	Default Value
GMI encryption control	Sets whether to enable the GMI link encryption function. Options: ● Auto. ● Enabled: enables the GMI link encryption function. ● Disabled: disables the GMI link encryption function.	Auto
xGMI encryption control	Sets whether to enable the xGMI link encryption function. Options: ● Auto. ● Enabled: enables the xGMI link encryption function. ● Disabled: disables the xGMI link encryption function.	Auto

Parameter	Description	Default Value
xGMI Link Configuration	Sets the number of xGMI links used in a multi-core system. Options: ● Auto ● 3 xGMI Links ● 4 xGMI Links ● 2 xGMI Links + 2 PCI Links	Auto
4-link xGMI max speed	Sets the maximum 4-link xGMI speed. Options: ● Auto ● 20 Gbps ● 25 Gbps ● 32 Gbps	Auto
3-link xGMI max speed	Sets the maximum 3-link xGMI speed. Options: ● Auto ● 20 Gbps ● 25 Gbps ● 32 Gbps	Auto
xGMI CRC Scale	Sets the bucket leaking scale for xGMI and WAFL CRC errors.	7
xGMI CRC Threshold	Sets the bucket leaking threshold for xGMI and WAFL CRC errors.	25
xGMI Preset Control	Sets whether to enable the xGMI preset control function. Options: ● Auto. ● Enabled: enables the xGMI preset control function. ● Disabled: disables the xGMI preset control function.	Enabled
xGMI Global Preset List	Sets the xGMI global preset list parameters. Press Enter . The xGMI Global Preset List screen is displayed, as shown in Figure 3-32 .	-
xGMI Initial Preset	Sets the xGMI initial preset parameters. Press Enter . The xGMI Initial Preset screen is displayed, as shown in Figure 3-33 .	-
xGMI TXEQ Search Mask	Sets the xGMI TXEQ search mask parameters.	-

Parameter	Description	Default Value
	Press Enter . The xGMI TXEQ Search Mask screen is displayed, as shown in Figure 3-34 .	
xGMI AC/DC Coupled Link	Sets xGMI AC/DC coupled link parameters. Press Enter . The xGMI AC/DC Coupled Link screen is displayed, as shown in Figure 3-35 and Figure 3-36 .	-
xGMI Channel Type	Sets the xGMI channel type parameters. Press Enter . The xGMI Channel Type screen is displayed, as shown in Figure 3-37 and Figure 3-38 .	-
xGMI Training Err Mask	Sets whether to enable the xGMI training error mask function. Options: ● Auto. ● Enabled: enables the xGMI training error mask function. ● Disabled: disables the xGMI training error mask function.	Auto

Figure 3-32 xGMI Global Preset List Screen



For a description of the parameters on the **xGMI Global Preset List** screen, refer to [Table 3-22](#).

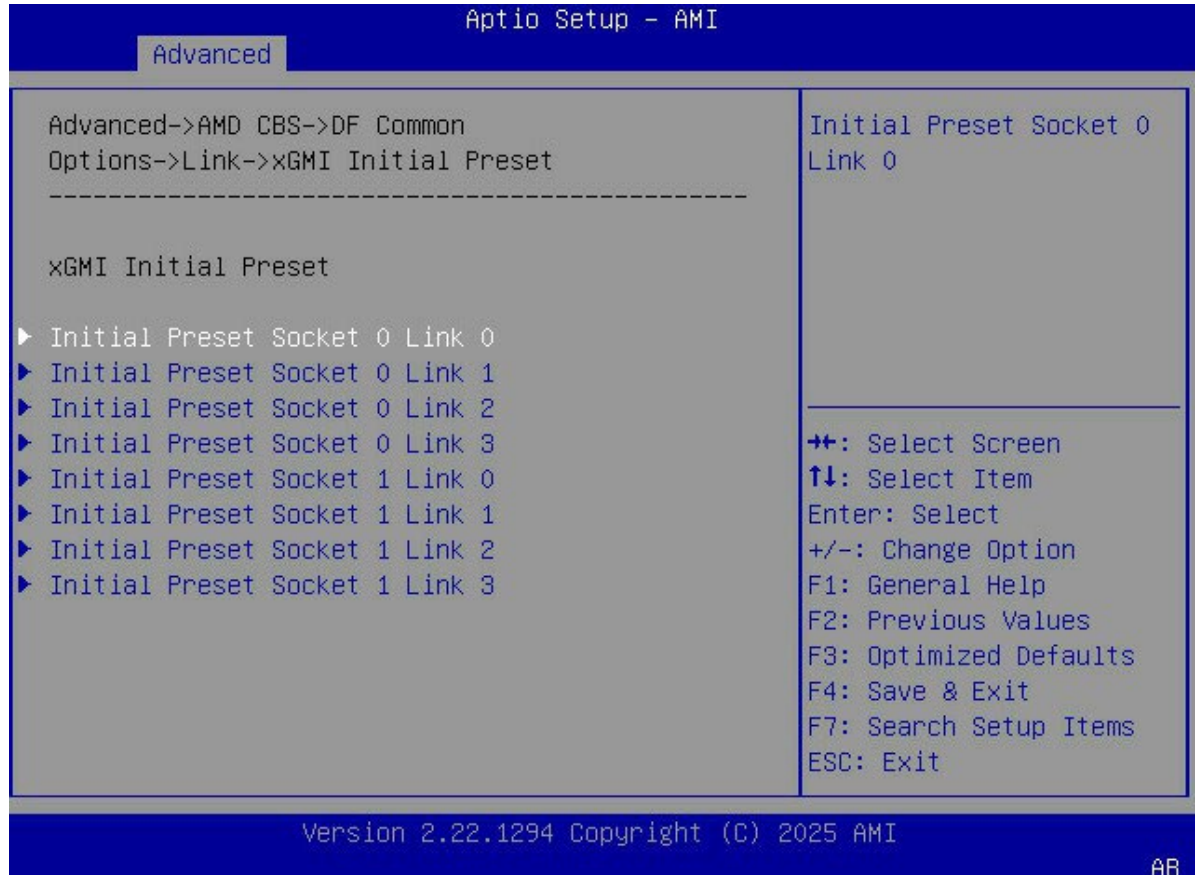
Table 3-22 Parameter Descriptions for the xGMI Global Preset List Screen

Parameter	Description
Preset P11	Sets the preset P11 parameters. Press Enter . The Preset P11 screen is displayed. ● Preset P11(APCB): The default value is 3000. ● Preset P11 Cmn1: The default value is 0. ● Preset P11 Cn: The default value is 30. ● Preset P11 Cnp1: The default value is 0.
Preset P12	Sets the preset P12 parameters.
Preset P13	Sets the preset P13 parameters.
Preset P14	Sets the preset P14 parameters.
Preset P15	Sets the preset P15 parameters.

**Note**

The rest of the preset parameters, for example, the parameters on the **Preset P12** and **Preset P13** screens, are similar with those on the **Preset P11** screen.

Figure 3-33 xGMI Initial Preset Screen



For a description of the parameters on the **xGMI Initial Preset** screen, refer to [Table 3-23](#).

Table 3-23 Parameter Descriptions for the xGMI Initial Preset Screen

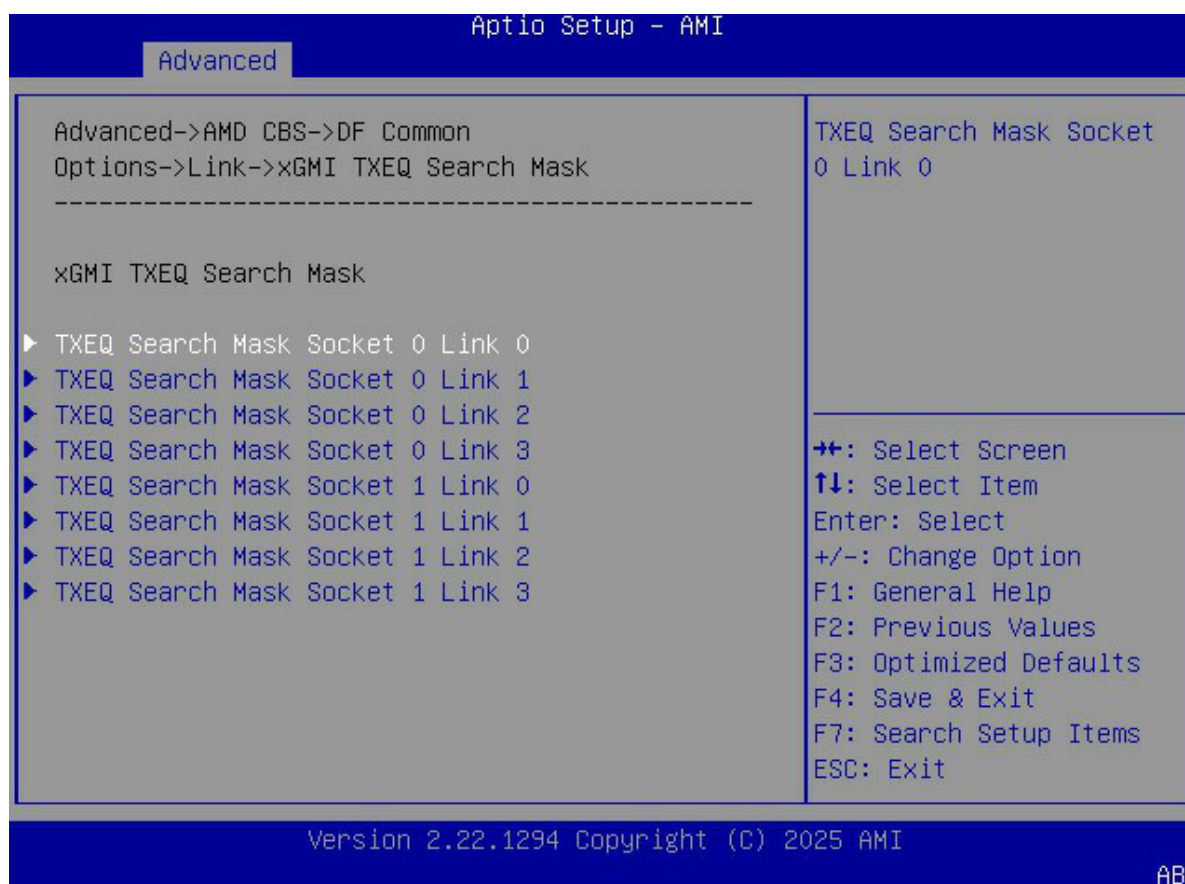
Parameter	Description
Initial Preset Socket 0 Link 0	Sets the initial preset Socket 0 Link 0 parameters. Press Enter. The Initial Preset Socket 0 Link 0 screen is displayed. Set the parameters as required. - Initial Preset Socket 0 Link 0 Pstate0/1/2/3 (APCB): The default value is 4444. - Initial Preset Socket 0 Link 0 Pstate0: The default value is 4. - Initial Preset Socket 0 Link 0 Pstate1: The default value is 4. - Initial Preset Socket 0 Link 0 Pstate2: The default value is 4. - Initial Preset Socket 0 Link 0 Pstate3: The default value is 4.
Initial Preset Socket 0 Link 1	Sets the initial preset Socket 0 Link 1 parameters.

Parameter	Description
Initial Preset Socket 0 Link 2	Sets the initial preset Socket 0 Link 2 parameters.
Initial Preset Socket 0 Link 3	Sets the initial preset Socket 0 Link 3 parameters.
Initial Preset Socket 1 Link 0	Sets the initial preset Socket 1 Link 0 parameters.
Initial Preset Socket 1 Link 1	Sets the initial preset Socket 1 Link 1 parameters.
Initial Preset Socket 1 Link 2	Sets the initial preset Socket 1 Link 2 parameters.
Initial Preset Socket 1 Link 3	Sets the initial preset Socket 1 Link 3 parameters.

**Note**

The rest of the parameters, for example, the parameters on the **Initial Preset Socket 0 Link 1** and **Initial Preset Socket 0 Link 2** screens, are similar with those on the **Initial Preset Socket 0 Link 0** screen.

Figure 3-34 xGMI TXEQ Search Mask Screen



For a description of the parameters on the **xGMI TXEQ Search Mask** screen, refer to [Table 3-24](#).

Table 3-24 Parameter Descriptions for the xGMI TXEQ Search Mask Screen

Parameter	Description
TEXQ Search Mask Socket 0 Link 0	Sets the TEXQ search mask Socket 0 Link 0 parameters. Press Enter. The TEXQ Search Mask Socket 0 Link 0 screen is displayed. Set the parameters as required. ● TEXQ Search Mask Socket 0 Link 0 Pstate 0: The default value is 7A. ● TEXQ Search Mask Socket 0 Link 0 Pstate 1: The default value is 7A. ● TEXQ Search Mask Socket 0 Link 0 Pstate 2: The default value is 7A. ● TEXQ Search Mask Socket 0 Link 0 Pstate 3: The default value is 7A.
TEXQ Search Mask Socket 0 Link 1	Sets the TEXQ search mask Socket 0 Link 1 parameters.
TEXQ Search Mask Socket 0 Link 2	Sets the TEXQ search mask Socket 0 Link 2 parameters.
TEXQ Search Mask Socket 0 Link 3	Sets the TEXQ search mask Socket 0 Link 3 parameters.
TEXQ Search Mask Socket 1 Link 0	Sets the TEXQ search mask Socket 1 Link 0 parameters.
TEXQ Search Mask Socket 1 Link 1	Sets the TEXQ search mask Socket 1 Link 1 parameters.
TEXQ Search Mask Socket 1 Link 2	Sets the TEXQ search mask Socket 1 Link 2 parameters.
TEXQ Search Mask Socket 1 Link 3	Sets the TEXQ search mask Socket 1 Link 3 parameters.

 Note

The rest of the parameters, for example, the parameters on the **TEXQ Search Mask Socket 0 Link 1** and **TEXQ Search Mask Socket 0 Link 2** screens, are similar with those on the **TEXQ Search Mask Socket 0 Link 0** screen.

Figure 3-35 xGMI AC/DC Coupled Link Screen 1

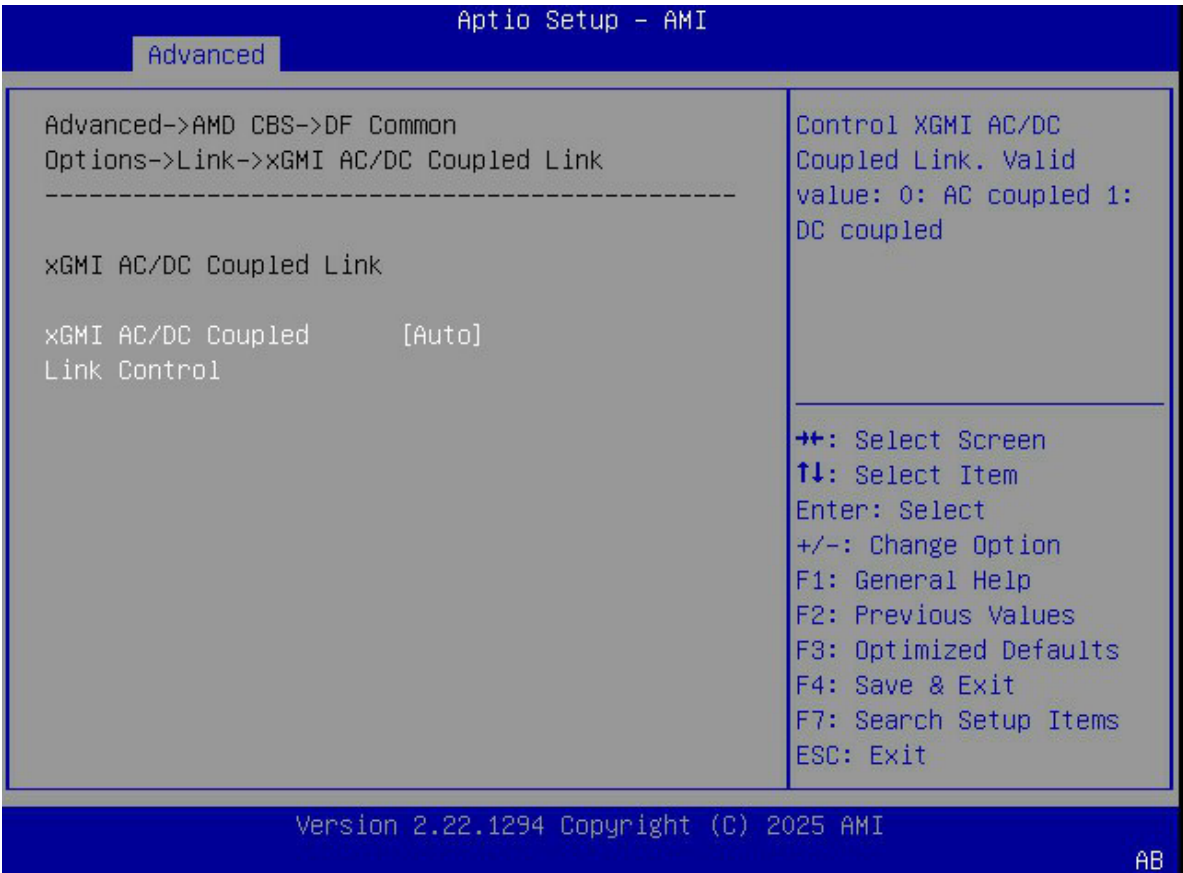
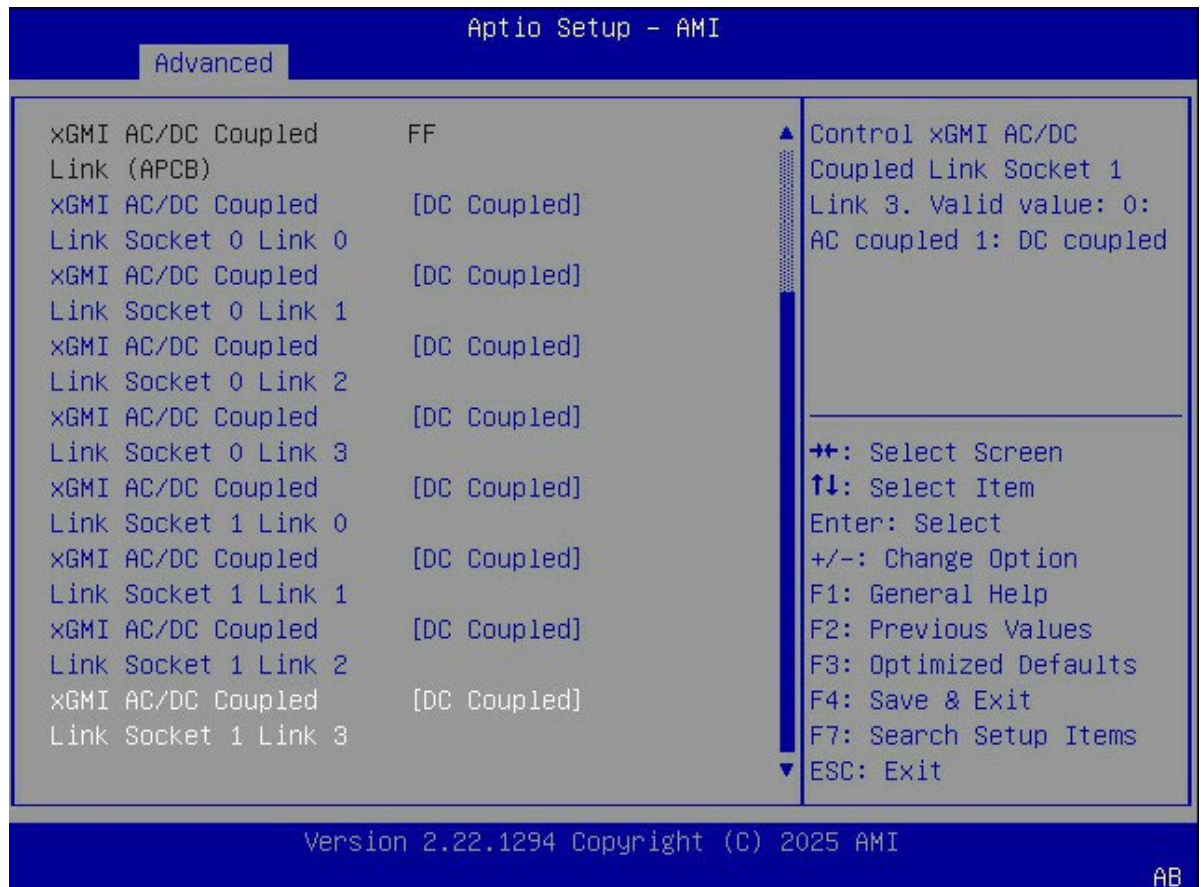


Figure 3-36 xGMI AC/DC Coupled Link Screen 2



For a description of the parameters on the **xGMI AC/DC Coupled Link** screen, refer to [Table 3-25](#).

Table 3-25 Parameter Descriptions for the xGMI AC/DC Coupled Link Screen

Parameter	Description	Default Value
xGMI AC/DC Coupled Link Control	Sets the xGMI AC/DC coupled link mode. Options: ● Auto ● Manual	Auto
xGMI AC/DC Coupled Link Socket 0 Link 0	This parameter is displayed if xGMI AC/DC Coupled Link Control is set to Manual . Sets the coupling mode of the xGMI AC/DC coupled link Socket 0 Link 0. Options: ● DC Coupled ● AC Coupled	DC Coupled
xGMI AC/DC Coupled Link Socket 0 Link 1	This parameter is displayed if xGMI AC/DC Coupled Link Control is set to Manual .	DC Coupled

Parameter	Description	Default Value
	Sets the coupling mode of the xGMI AC/DC coupled link Socket 0 Link 1. Options: ● DC Coupled ● AC Coupled	
xGMI AC/DC Coupled Link Socket 0 Link 2	This parameter is displayed if xGMI AC/DC Coupled Link Control is set to Manual. Sets the coupling mode of the xGMI AC/DC coupled link Socket 0 Link 2. Options: ● DC Coupled ● AC Coupled	DC Coupled
xGMI AC/DC Coupled Link Socket 0 Link 3	This parameter is displayed if xGMI AC/DC Coupled Link Control is set to Manual. Sets the coupling mode of the xGMI AC/DC coupled link Socket 0 Link 3. Options: ● DC Coupled ● AC Coupled	DC Coupled
xGMI AC/DC Coupled Link Socket 1 Link 0	This parameter is displayed if xGMI AC/DC Coupled Link Control is set to Manual. Sets the coupling mode of the xGMI AC/DC coupled link Socket 1 Link 0. Options: ● DC Coupled ● AC Coupled	DC Coupled
xGMI AC/DC Coupled Link Socket 1 Link 1	This parameter is displayed if xGMI AC/DC Coupled Link Control is set to Manual. Sets the coupling mode of the xGMI AC/DC coupled link Socket 1 Link 1. Options: ● DC Coupled ● AC Coupled	DC Coupled
xGMI AC/DC Coupled Link Socket 1 Link 2	This parameter is displayed if xGMI AC/DC Coupled Link Control is set to Manual. Sets the coupling mode of the xGMI AC/DC coupled link Socket 1 Link 2. Options: ● DC Coupled ● AC Coupled	DC Coupled

Parameter	Description	Default Value
xGMI AC/DC Coupled Link Socket 1 Link 3	This parameter is displayed if xGMI AC/DC Coupled Link Control is set to Manual. Sets the coupling mode of the xGMI AC/DC coupled link Socket 1 Link 3. Options: • DC Coupled • AC Coupled	DC Coupled

Figure 3-37 xGMI Channel Type Screen 1

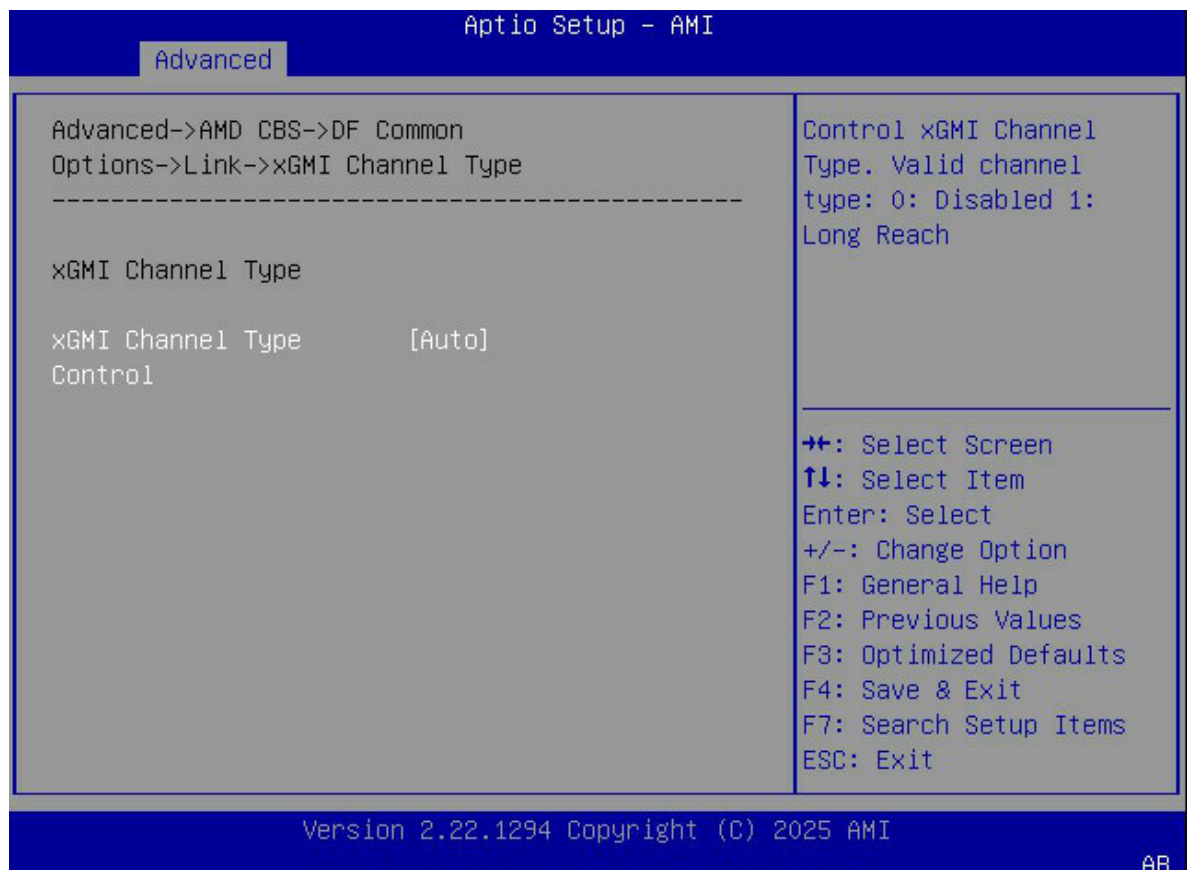
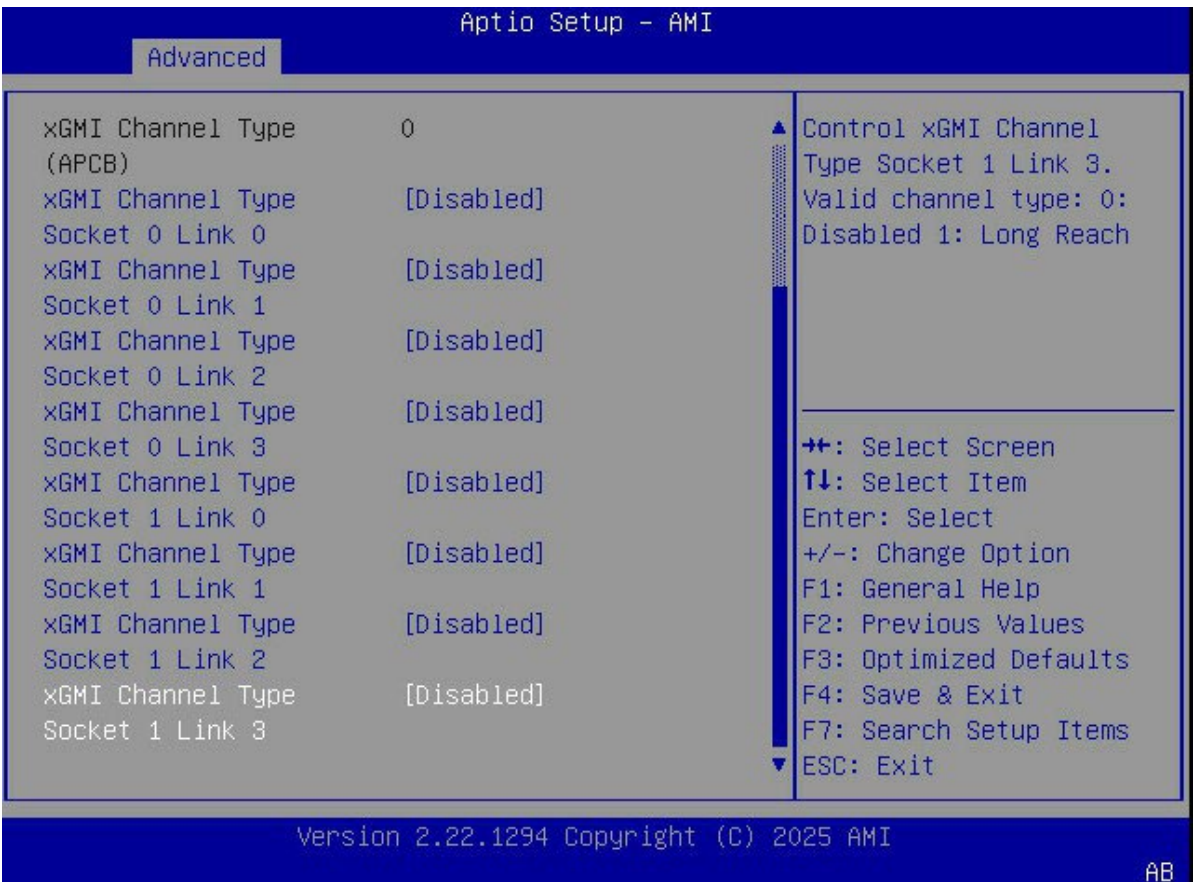


Figure 3-38 xGMI Channel Type Screen 2



For a description of the parameters on the **xGMI Channel Type** screen, refer to [Table 3-26](#).

Table 3-26 Parameter Descriptions for the xGMI Channel Type Screen

Parameter	Description	Default Value
xGMI Channel Type Control	Sets the xGMI channel type control mode. Options: ● Auto ● Manual	Auto
xGMI Channel Type (APCB)	Displays the information about the xGMI channel type (APCB).	0
xGMI Channel Type Socket 0 Link 0	This parameter is displayed if xGMI Channel Type Control is set to Manual . Sets the xGMI valid channel type for Socket 0 Link 0. Options: ● Disabled ● Long Reach	Disabled
xGMI Channel Type Socket 0 Link 1	This parameter is displayed if xGMI Channel Type Control is set to Manual .	Disabled

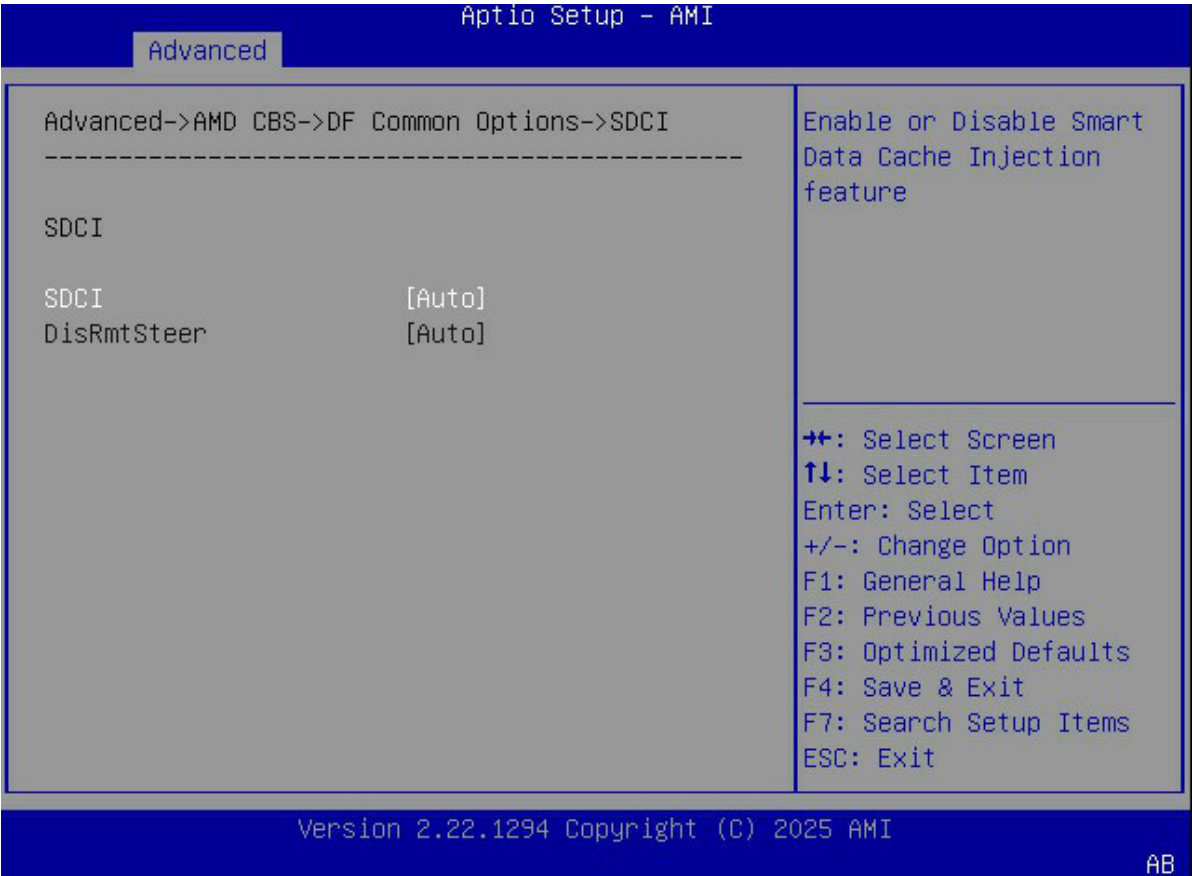
Parameter	Description	Default Value
	Sets the xGMI valid channel type for Socket 0 Link 1. Options: ● Disabled ● Long Reach	
xGMI Channel Type Socket 0 Link 2	This parameter is displayed if xGMI Channel Type Control is set to Manual. Sets the xGMI valid channel type for Socket 0 Link 2. Options: ● Disabled ● Long Reach	Disabled
xGMI Channel Type Socket 0 Link 3	This parameter is displayed if xGMI Channel Type Control is set to Manual. Sets the xGMI valid channel type for Socket 0 Link 3. Options: ● Disabled ● Long Reach	Disabled
xGMI Channel Type Socket 1 Link 0	This parameter is displayed if xGMI Channel Type Control is set to Manual. Sets the xGMI valid channel type for Socket 1 Link 0. Options: ● Disabled ● Long Reach	Disabled
xGMI Channel Type Socket 1 Link 1	This parameter is displayed if xGMI Channel Type Control is set to Manual. Sets the xGMI valid channel type for Socket 1 Link 1. Options: ● Disabled ● Long Reach	Disabled
xGMI Channel Type Socket 1 Link 2	This parameter is displayed if xGMI Channel Type Control is set to Manual. Sets the xGMI valid channel type for Socket 1 Link 2. Options: ● Disabled ● Long Reach	Disabled

Parameter	Description	Default Value
xGMI Channel Type Socket 1 Link 3	This parameter is displayed if xGMI Channel Type Control is set to Manual . Sets the xGMI valid channel type for Socket 1 Link 3. Options: • Disabled • Long Reach	Disabled

SDCI

Figure 3-39 shows the **SDCI** screen.

Figure 3-39 SDCI Screen



For a description of the parameters on the **SDCI** screen, refer to [Table 3-27](#).

Table 3-27 Parameter Descriptions for the SDCI Screen

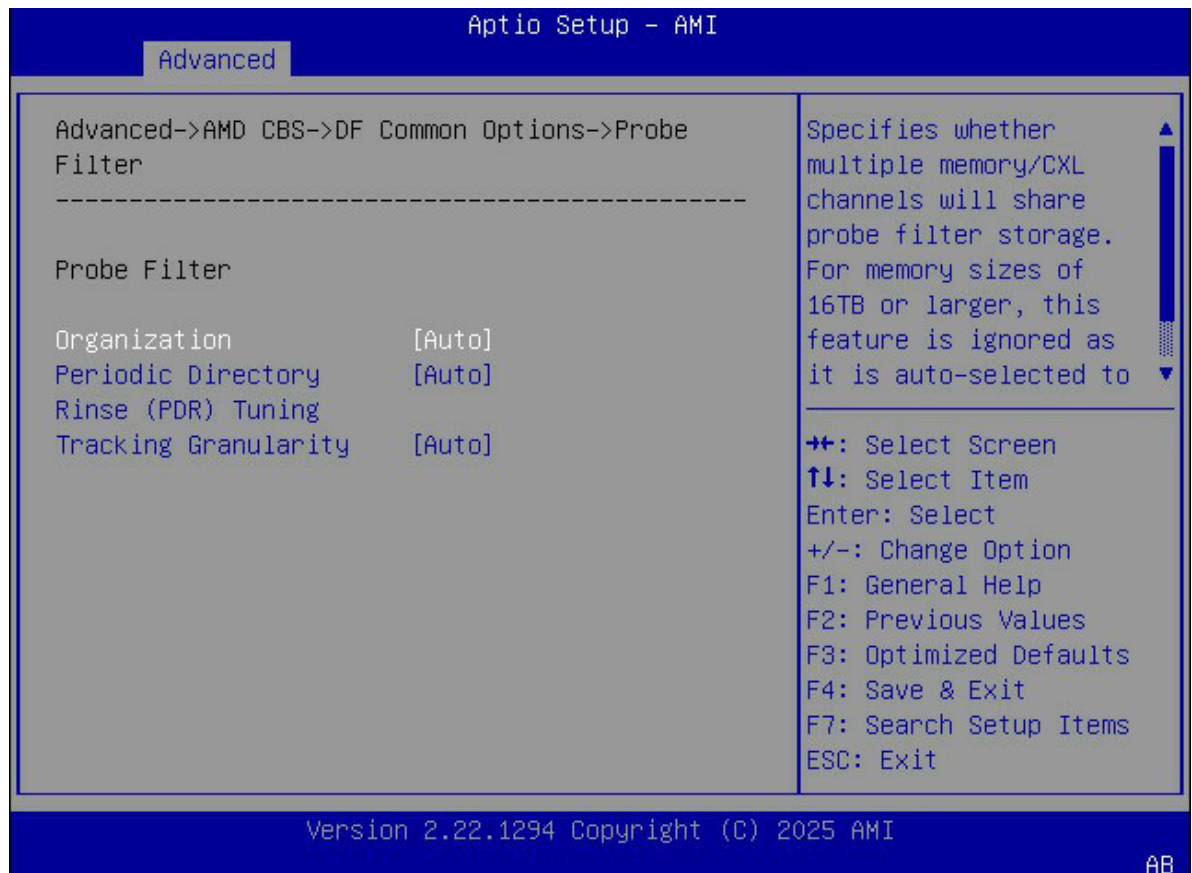
Parameter	Description	Default Value
SDCI	Sets whether to enable the Smart Data Cache Injection (SDCI) function. Options: • Auto.	Auto

Parameter	Description	Default Value
	- Enabled: enables the SDCI function. - Disabled: disables the SDCI function.	
DisRmtSteer	This parameter can be set if SDCI is set to Enabled. Sets whether to disable the function of sending steering probes to remote slots. Options: - Auto. - Enabled: disables the function of sending steering probes to remote slots. - Disabled: enables the function of sending steering probes to remote slots.	Auto

Probe Filter

Figure 3-40 shows the **Probe Filter** screen.

Figure 3-40 Probe Filter Screen



For a description of the parameters on the **Probe Filter** screen, refer to [Table 3-28](#).

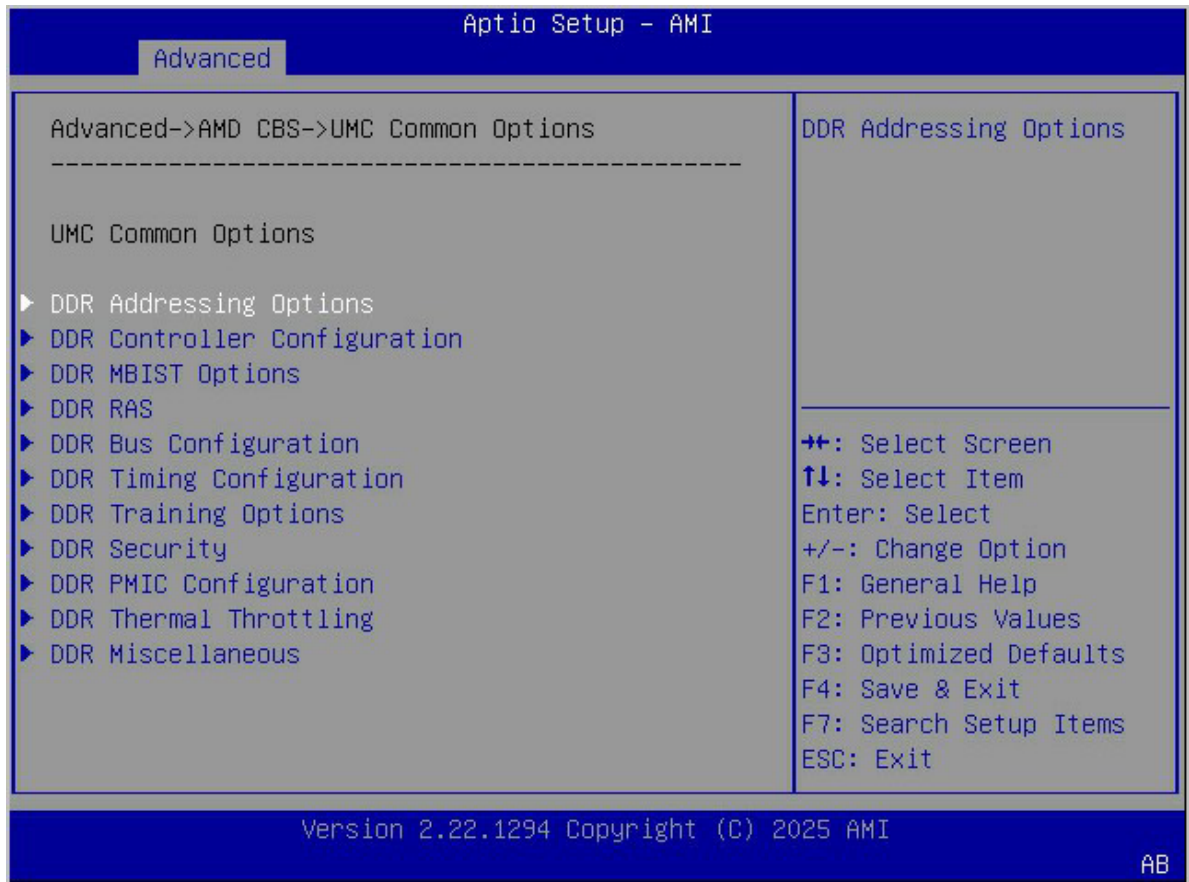
Table 3-28 Parameter Descriptions for the Probe Filter Screen

Parameter	Description	Default Value
Organization	Sets whether multiple memory channels or CXL channels share the probe filter storage. Options: ● Auto ● Dedicated ● Shared	Auto
Periodic Directory Rinse (PDR) Tuning	Sets a PDR tuning option, which might impact performance by workload and/or processor. Options: ● Auto ● Periodic ● Blended	Auto
Tracking Granularity	Sets a tracking granularity. Options: ● Auto ● Finer-Grain ● Coarser-Grain	Auto

3.2.7.3 UMC Common Options

UMC Common Options

Figure 3-41 shows the **UMC Common Options** screen.

Figure 3-41 UMC Common Options Screen

For a description of the parameters on the **UMC Common Options** screen, refer to [Table 3-29](#).

Table 3-29 Parameter Descriptions for the UMC Common Options Screen

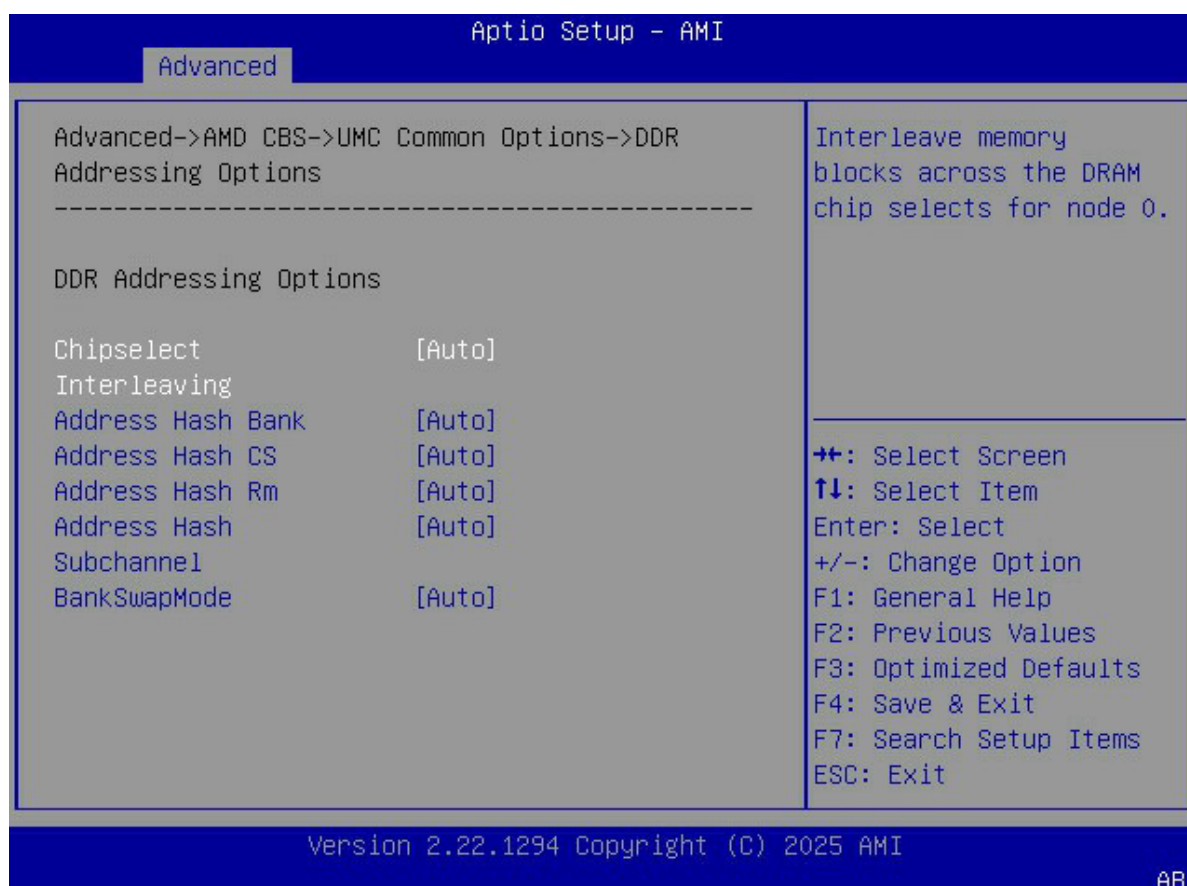
Parameter	Description
DDR Addressing Options	Sets the DDR addressing options. For details, refer to DDR Addressing Options .
DDR Controller Configuration	Sets the DDR controller parameters. For details, refer to DDR Controller Configuration .
DDR MBIST Options	Sets the DDR MBIST parameters. For details, refer to DDR MBIST Options .
DDR RAS	Sets the DDR RAS parameters. For details, refer to DDR RAS .
DDR Bus Configuration	Sets the DDR bus parameters. For details, refer to DDR Bus Configuration .
DDR Timing Configuration	Sets the DDR timing parameters. For details, refer to DDR Timing Configuration .
DDR Training Options	Sets the DDR training parameters.

Parameter	Description
	For details, refer to DDR Training Options .
DDR Security	Sets the DDR security parameters. For details, refer to DDR Security .
DDR PMIC Configuration	Sets the DDR PMIC parameters. For details, refer to DDR PMIC Configuration .
DDR Thermal Throttling	Sets the DDR thermal throttling parameters. For details, refer to DDR Thermal Throttling .
DDR Miscellaneous	Sets other DDR parameters. For details, refer to DDR Miscellaneous .

DDR Addressing Options

Figure 3-42 shows the **DDR Addressing Options** screen.

Figure 3-42 DDR Addressing Options Page



For a description of the parameters on the **DDR Addressing Options** screen, refer to [Table 3-30](#).

Table 3-30 Parameter Descriptions for the DDR Addressing Options Screen

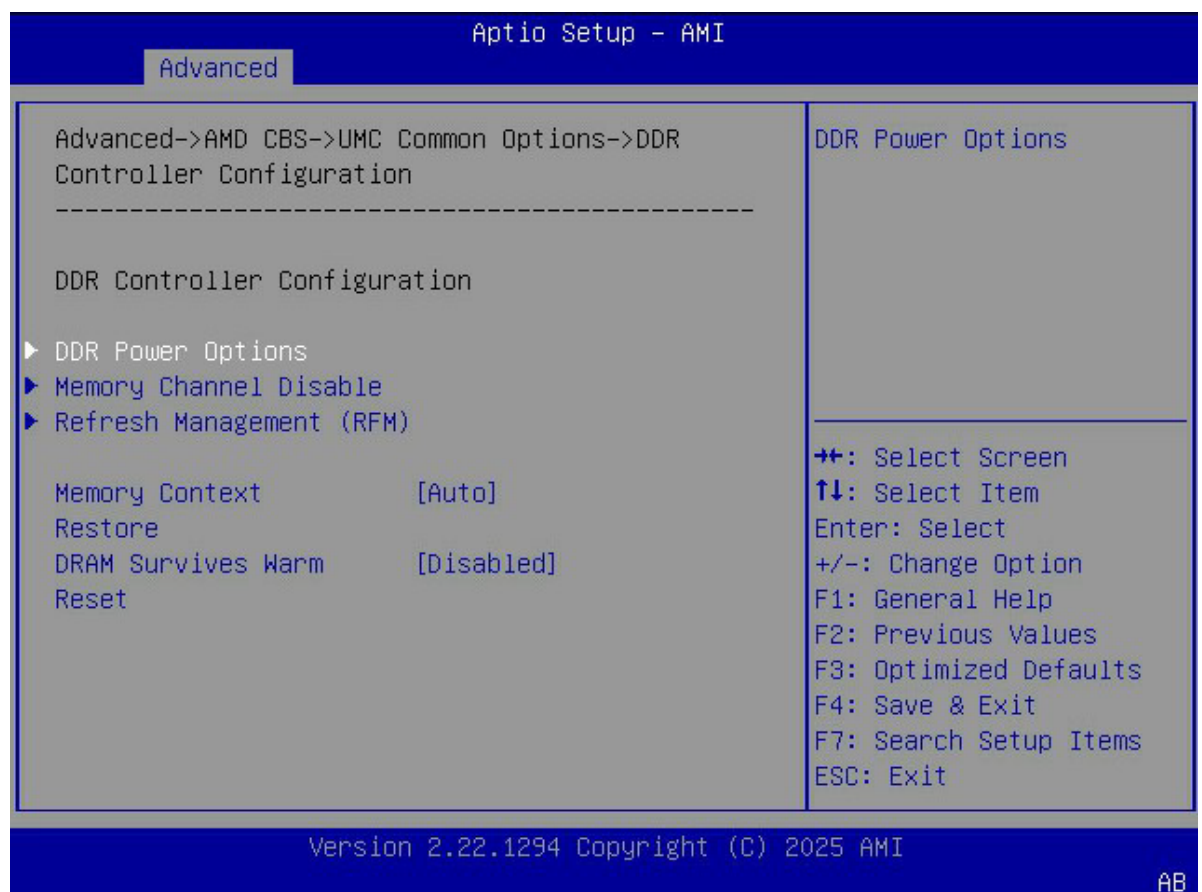
Parameter	Description	Default Value
Chipselect Interleaving	Sets whether to enable the function of selecting interleaved memory blocks for node 0 across DRAM chips. Options: ● Auto. ● Disabled: disables the function of selecting interleaved memory blocks for node 0 across DRAM chips.	Auto
Address Hash Bank	Sets whether to enable the address hash bank. Options: ● Auto. ● Enabled: enables the address hash bank. ● Disabled: disables the address hash bank.	Auto
Address Hash CS	Sets whether to enable the CS address hashing. Options: ● Auto. ● Enabled: enables the CS address hashing. ● Disabled: disables the CS address hashing.	Auto
Address Hash Rm	Enables or disables the RM address hashing. Options: ● Auto. ● Enabled: enables the RM address hashing. ● Disabled: disables the RM address hashing.	Auto
Address Hash Subchannel	Sets whether to enable the address hash subchannel. Options: ● Auto. ● Enabled: enables the address hash subchannel.	Auto

Parameter	Description	Default Value
	Disabled: disables the address hash subchannel.	
BankSwapMode	Sets the bank swap mode. Options: - Auto - Disabled - Swap CPU	Auto

DDR Controller Configuration

Figure 3-43 shows the **DDR Controller Configuration** screen.

Figure 3-43 DDR Controller Configuration Screen



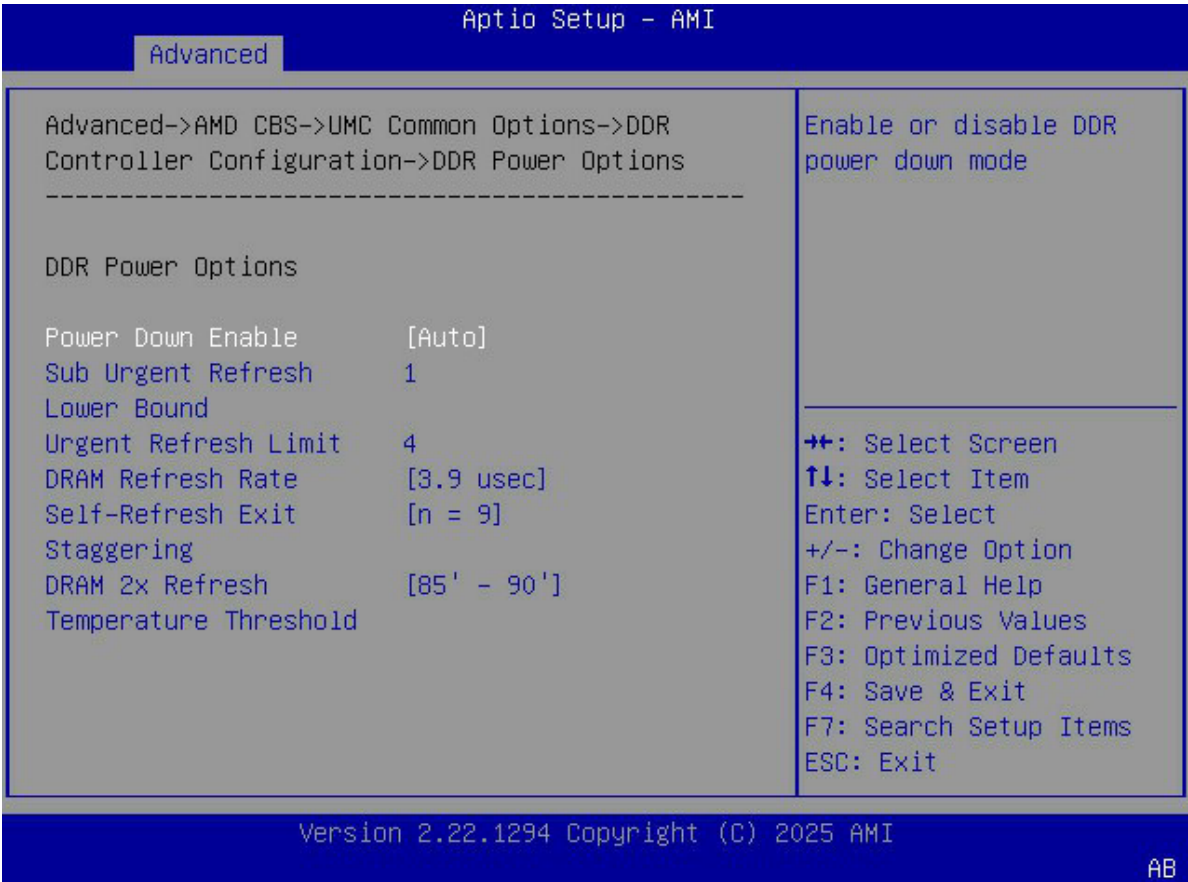
For a description of the parameters on the **DDR Controller Configuration** screen, refer to [Table 3-31](#).

Table 3-31 Parameter Descriptions for the DDR Controller Configuration Screen

Parameter	Description	Default Value
DDR Power Options	Sets the DDR power parameters.	-

Parameter	Description	Default Value
	Press Enter . The DDR Power Options page is displayed, as shown in Figure 3-44 .	
Memory Channel Disable	Sets whether to disable memory channels. Press Enter . The Memory Channel Disable screen is displayed, as shown in Figure 3-45 and Figure 3-46 .	-
Refresh Management (RFM)	Sets the Refresh Management (RFM) parameters. Press Enter . The Refresh Management (RFM) screen is displayed, as shown in Figure 3-47 .	-
Memory Context Restore	Sets whether to enable the memory context restoration function. Options: ● Auto. ● Enabled: enables the memory context restoration function. ● Disabled: disables the memory context restoration function.	Auto
DRAM Survives Warm Reset	Sets whether to enable the warm reset function for DRAM survival. Options: ● Enabled: enables the warm reset function for DRAM survival. ● Disabled: disables the warm reset function for DRAM survival.	Disabled

Figure 3-44 DDR Power Options Screen



For a description of the parameters on the **DDR Power Options** screen, refer to [Table 3-32](#).

Table 3-32 Parameter Descriptions for the DDR Power Options Screen

Parameter	Description	Default Value
Power Down Enable	Sets whether to enable the DDR power-off mode. Options: • Auto. • Enabled: enables the DDR power-off mode. • Disabled: disables the DDR power-off mode.	Auto
Sub Urgent Refresh Lower Bound	Sets the storage refresh limit for entering sub-urgent refresh mode.	1
Urgent Refresh Limit	Sets the storage refresh limit for entering urgent refresh mode.	4
DRAM Refresh Rate	Sets the DRAM refresh rate. Options: • 3.9 usec • 1.95 usec	3.9 usec
Self-Refresh Exit Staggering	Sets the parameters for exiting staggering in self-refresh mode.	n = 9

Parameter	Description	Default Value
	Options: • Disabled • n = 1 • n = 2 • n = 3 • n = 4 • n = 5 • n = 6 • n = 7 • n = 8 • n = 9	
DRAM 2x Refresh Temperature Threshold	Sets the DRAM 2x refresh temperature threshold. Options: • 85'–90' • 90'–95' • 95'–100' • > 100'	85'–90'

Figure 3-45 Memory Channel Disable Screen 1

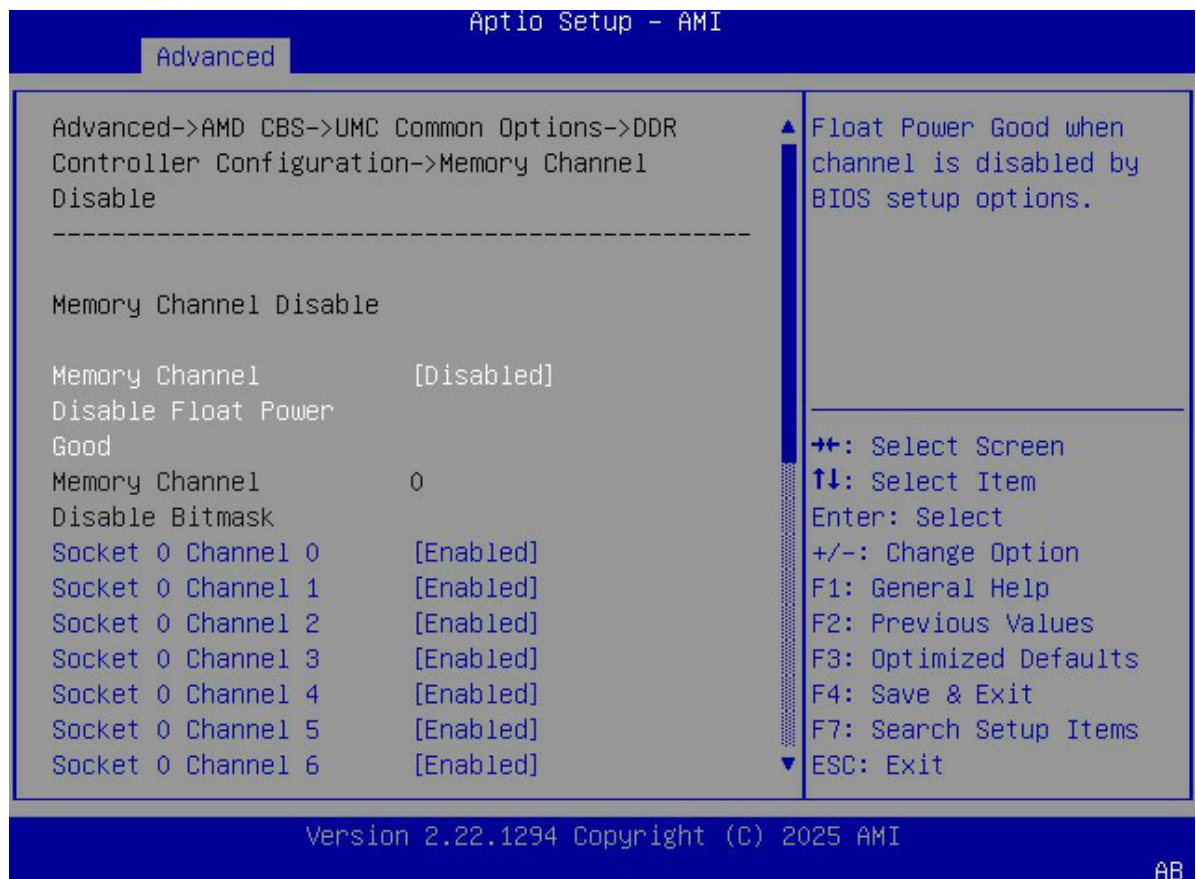
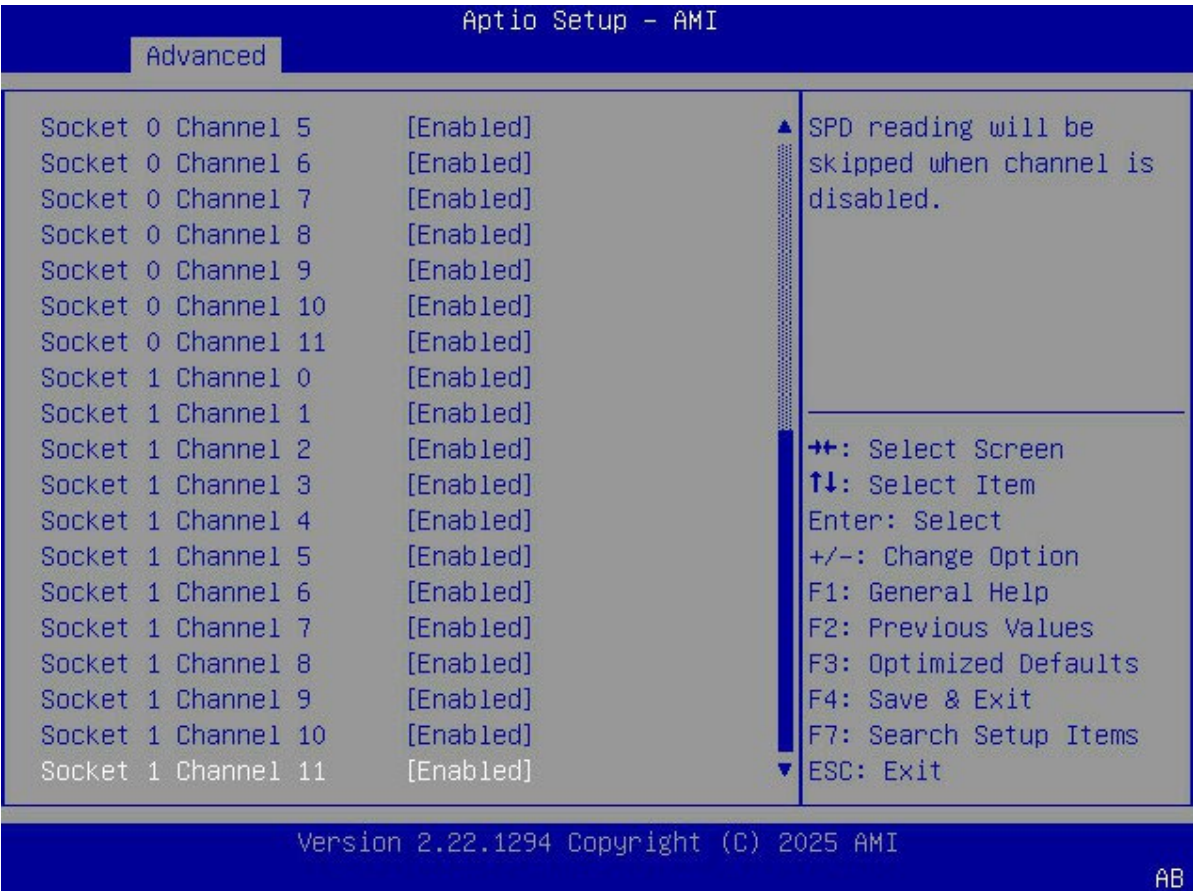


Figure 3-46 Memory Channel Disable Screen 2



For a description of the parameters on the **Memory Channel Disable** screen, refer to [Table 3-35](#).

 Note

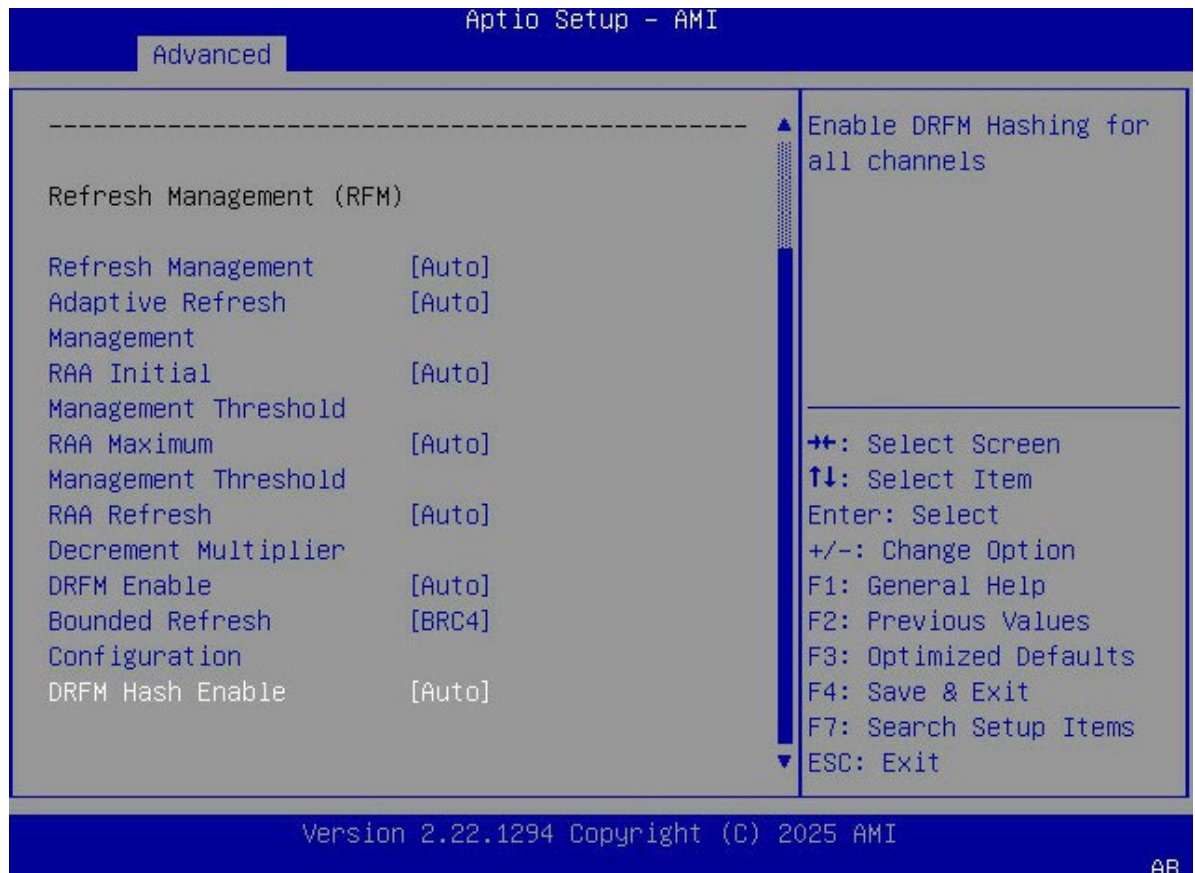
The **Socket 0 Channel 0** screen is used as an example.

Table 3-33 Parameter Descriptions for the Memory Channel Disable Screen

Parameter	Description	Default Value
Memory Channel Disable Float Power Good	Sets whether to enable the floating power good signal function of the memory channel. Options: - Enabled: enables the floating power good signal function of the memory channel. - Disabled: disables the floating power good signal function of the memory channel.	Disabled
Socket 0 Channel 0	Sets whether to enable the channel.	Enabled

Parameter	Description	Default Value
	Options: ● Enabled: enables the channel. ● Disabled: disables the channel. If the channel is disabled, SPD reading will be skipped.	

Figure 3-47 Refresh Management (RFM) Screen



For a description of the parameters on the **Refresh Management (RFM)** screen, refer to [Table 3-34](#).

Table 3-34 Parameter Descriptions for the Refresh Management (RFM) Screen

Parameter	Description	Default Value
Refresh Management	Sets the RFM mode. Options: ● Auto: disables the RFM function. ● Disable: disables the RFM function for all rankings. ● Enable: enables the RFM function for the rankings supporting the RFM.	Auto

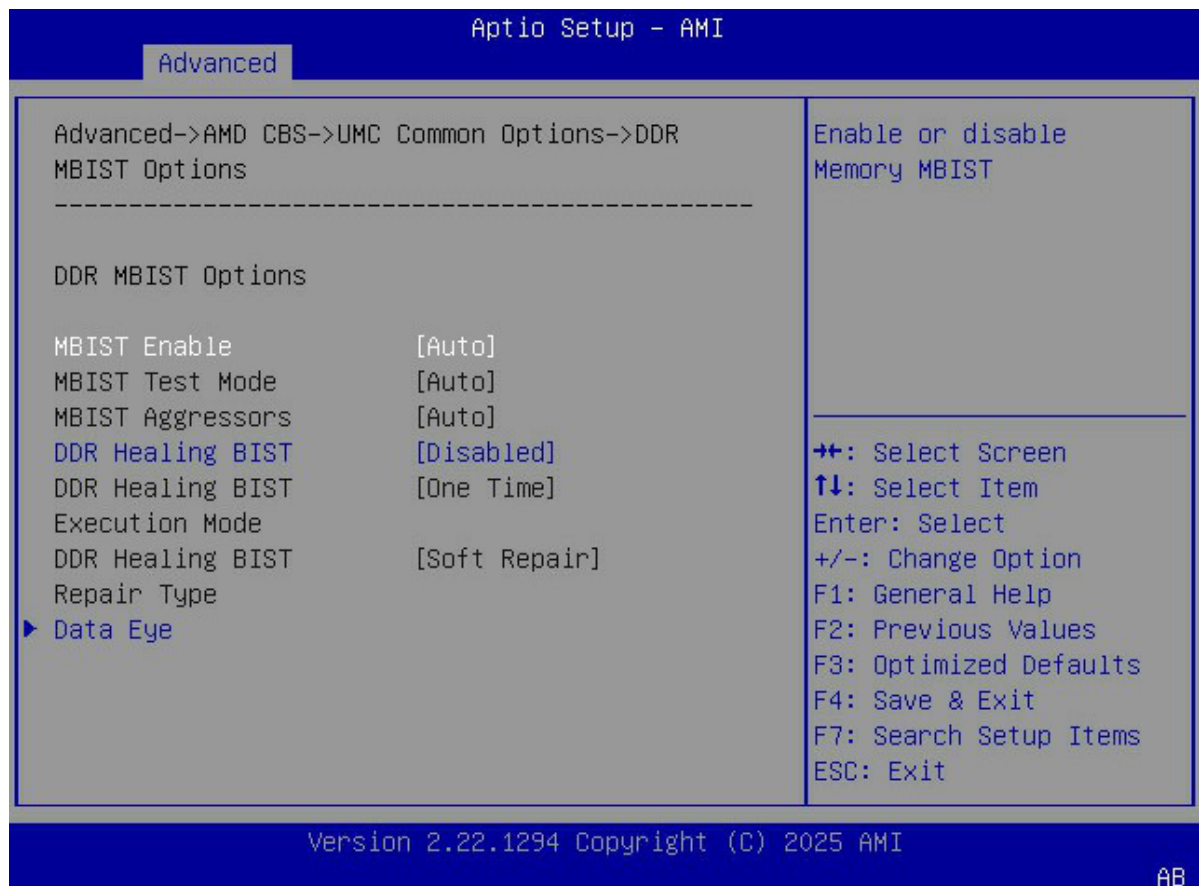
Parameter	Description	Default Value
	Force Enable: enables the RFM function for all rankings, no matter whether they support the RFM function.	
Adaptive Refresh Management	Sets the adaptive refresh management mode. Options: - Auto - Disabled - ARFM Level A - ARFM Level B - ARFM Level C	Auto
RAA Initial Management Thresholdt	Sets the initial RAA threshold. Options: - Auto: The BIOS selects the supported minimum value from the SPD. 32 40 48 56 64 72 80	Auto
RAA Maximum Management Threshold	Sets the maximum RAA threshold. Options: - Auto: The BIOS selects the supported minimum value from the SPD. 3X 4X 5X 6X	Auto
RAA Refresh Decrement Multiplier	Sets the decrement multiplier for RAA refresh. Options: - Auto 0.5 1	Auto
DRFM Enable	Sets whether to enable the DRFM function for all rankings that support DRFM. The following options are included: - Auto. - Enabled: enables the DRFM function for all rankings that support DRFM.	Auto

Parameter	Description	Default Value
	Disabled: disables the DRFM function for all rankings that support DRFM.	
Bounded Refresh Configuration	Sets the bounded refresh configuration mode. Options: - BRC2 - BRC3 - BRC4	BRC4
DRFM Hash Enable	Sets whether to enable the DRFM hashing. Options: - Auto - Enabled: enables the DRFM hashing. - Disabled: disables the DRFM hashing.	Auto

DDR MBIST Options

Figure 3-48 shows the **DDR MBIST Options** screen.

Figure 3-48 DDR MBIST Options Screen



For a description of the parameters on the **DDR MBIST Options** screen, refer to [Table 3-35](#).

Table 3-35 Parameter Descriptions for the DDR MBIST Options Screen

Parameter	Description	Default Value
MBIST Enable	Sets whether to enable the MBIST function. ● Auto. ● Enabled: enables the MBIST function. ● Disabled: disables the MBIST function.	Auto
MBIST Test Mode	This parameter can be set if MBIST Enable is set to Enabled . Sets the MBIST mode. Options: ● Auto ● Interface Mode ● Data Eye Mode ● Both	Auto
MBIST Aggressors	This parameter can be set if MBIST Enable is set to Enabled . Sets whether to enable the MBIST Aggressors test function. Options: ● Auto. ● Enabled: enables the MBIST Aggressors test function. ● Disabled: disables the MBIST Aggressors test function.	Auto
DDR Healing BIST	Sets the memory healing BIST mode. Options: ● Disabled ● PMU Mem BIST ● Self-Healing Mem BIST ● PMU and Self-Healing Mem BIST	Disabled
DDR Healing BIST Execution Mode	This parameter can be set if DDR Healing BIST is set to PMU Mem BIST , Self-Healing Mem BIST , or PMU and Self-Healing Mem BIST . Sets the execution mode of the DDR healing BIST. Options: ● One Time: executes DDR healing BIST only once. ● Every Boot: executes DDR healing BIST every time the system starts.	One Time

Parameter	Description	Default Value
DDR Healing BIST Repair Type	This parameter can be set if DDR Healing BIST is set to PMU Mem BIST or PMU and Self-Healing Mem BIST. Sets DDR Healing BIST Repair Type. Options: • Soft Repair: implements soft repair. • Hard Repair: implements hard repair. • No Repair - Test only: implements only tests, but not repair.	Soft Repair
Data Eye	Sets the data eye parameters. Press Enter. The Data Eye screen is displayed, as shown in Figure 3-49 through Figure 3-51.	-

Figure 3-49 Data Eye Screen 1

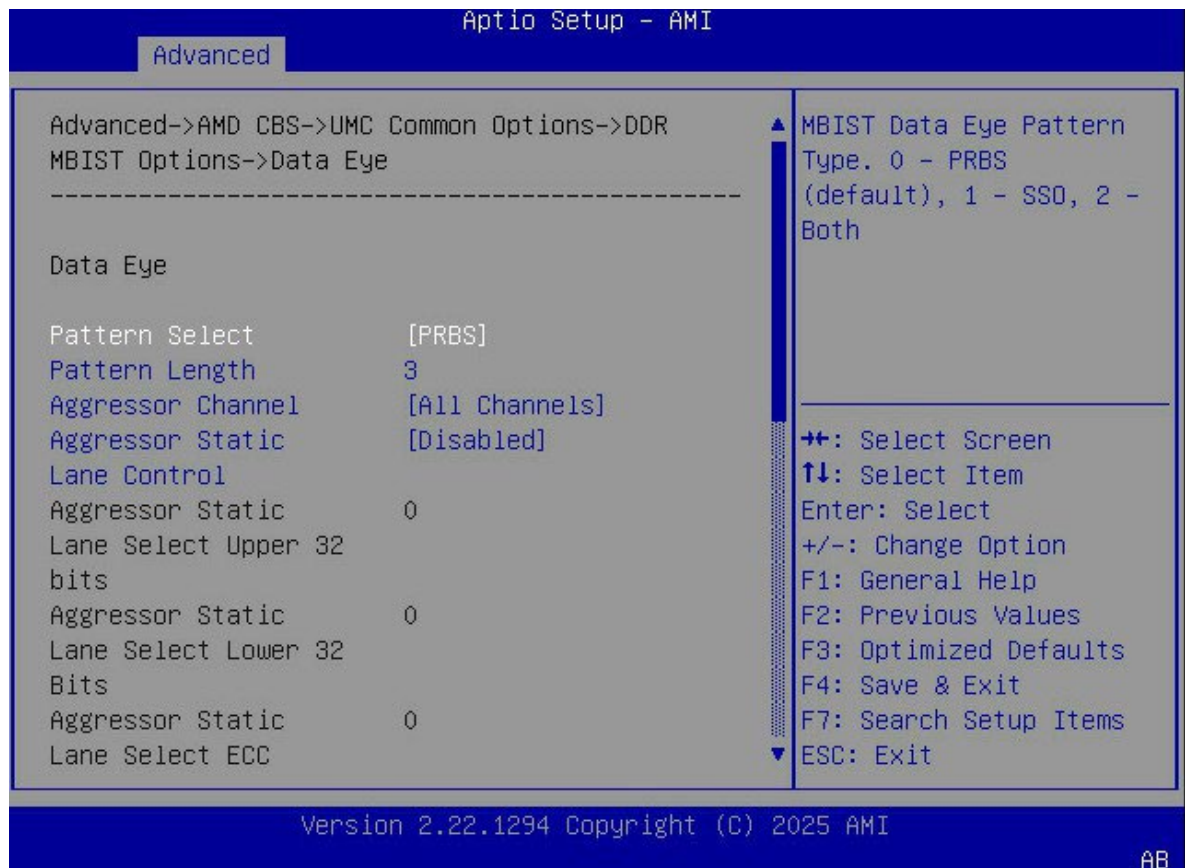


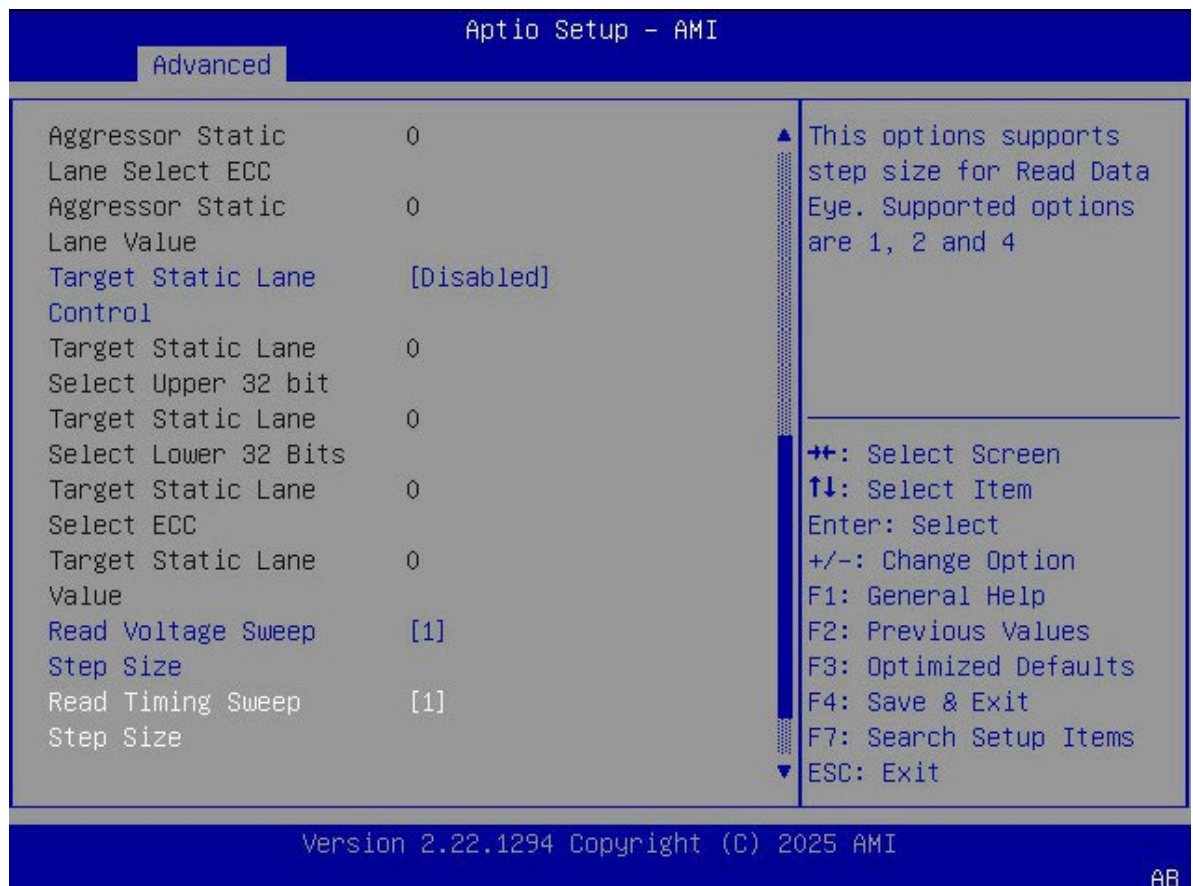
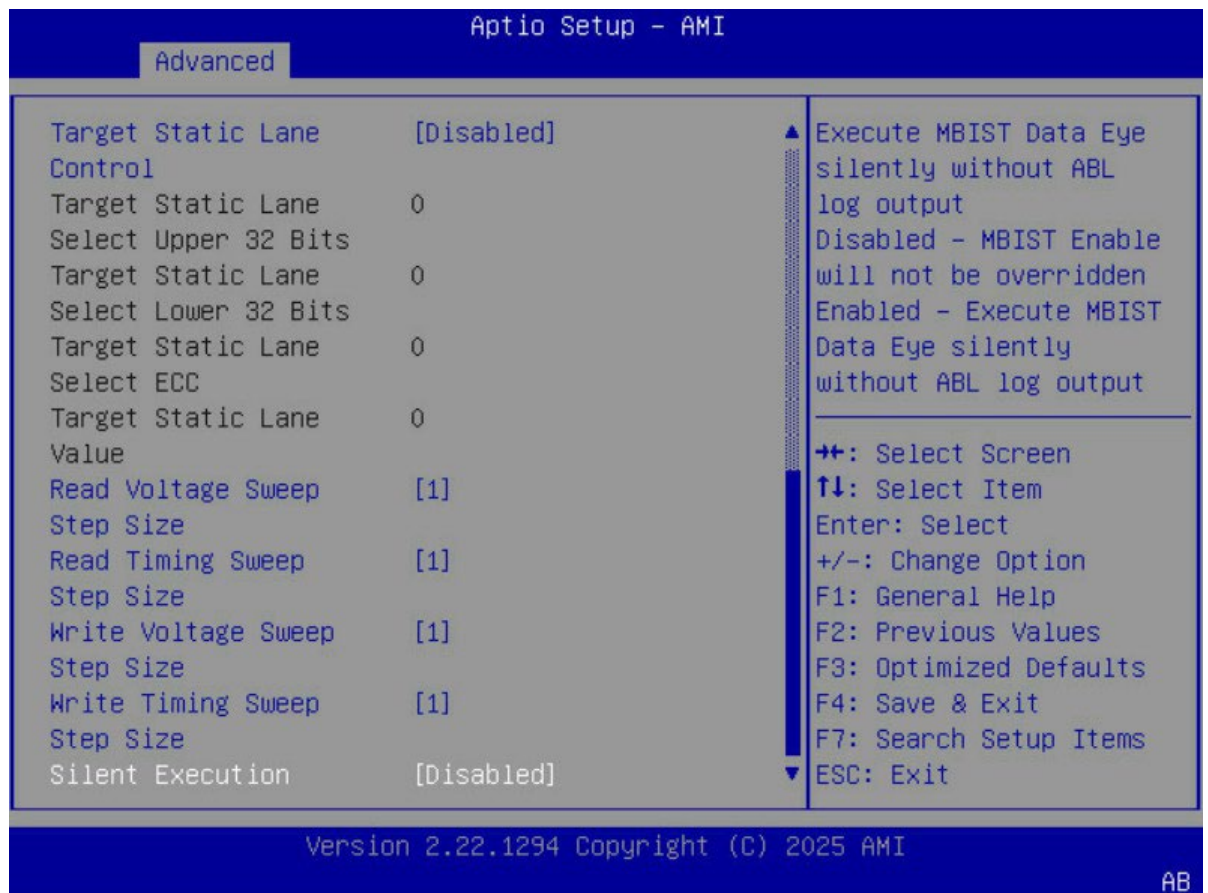
Figure 3-50 Data Eye Screen 2

Figure 3-51 Data Eye Screen 3



For a description of the parameters on the **Data Eye** screen, refer to [Table 3-36](#).

Table 3-36 Parameter Descriptions for the Data Eye Screen

Parameter	Description	Default Value
Pattern Select	Sets the pattern. Options: ● PRBS ● SSO ● Both	PRBS
Pattern Length	Sets the pattern length.	3
Aggressor Channel	Sets the Aggressor channel. Options: ● One Sub-Channel ● Half Channels ● All Channels	All Channels
Aggressor Static Lane Control	Sets whether to enable the Aggressor static lane control function. Options:	Disabled

Parameter	Description	Default Value
	● Enabled: disables the Aggressor static lane control function. ● Disabled: disables the Aggressor static lane control function.	
Aggressor Static Lane Select Upper 32 bit	This parameter can be set if Aggressor Static Lane Control is set to Enabled. Sets the upper 32 bits for Aggressor static lane selection. The bitmask indicates the bits to be read.	0
Aggressor Static Lane Select Lower 32 bit	This parameter can be set if Aggressor Static Lane Control is set to Enabled. Sets the lower 32 bits for Aggressor static lane selection. The bitmask indicates the bits to be read.	0
Aggressor Static Lane Select ECC	This parameter can be set if Aggressor Static Lane Control is set to Enabled. Sets Aggressor static lane selection for the ECC channel. The bitmask indicates the bits to be read.	0
Aggressor Static Lane Value	This parameter can be set if Aggressor Static Lane Control is set to Enabled. Sets the Aggressor static lane value. The bitmask indicates the bits to be read.	0
Target Static Lane Control	Sets whether to enable the target static lane control function. Options: ● Enabled: enables the target static lane control function. ● Disabled: disables the target static lane control function.	Disabled
Target Static Lane Select Upper 32 Bits	This parameter can be set if Target Static Lane Control is set to Enabled. Sets the upper 32 bits for target static lane selection. The bitmask indicates the bits to be read.	0
Target Static Lane Select Lower 32 Bits	This parameter can be set if Target Static Lane Control is set to Enabled.	0

Parameter	Description	Default Value
	Sets the lower 32 bits for target static lane selection. The bitmask indicates the bits to be read.	
Target Static Lane Select ECC	This parameter can be set if Target Static Lane Control is set to Enabled . Sets target static lane selection for the ECC channel. The bitmask indicates the bits to be read.	0
Target Static Lane Value	This parameter can be set if Target Static Lane Control is set to Enabled . Sets the lower 32 bits for target static lane selection. The bitmask indicates the bits to be read.	0
Read Voltage Sweep Step Size	Sets the sweep step for reading voltage. Options: • 1 • 2 • 4	1
Read Timing Sweep Step Size	Sets the sweep step for reading timing. Options: • 1 • 2 • 4	1
Write Voltage Sweep Step Size	Sets the sweep step for writing voltage. Options: • 1 • 2 • 4	1
Write Timing Sweep Step Size	Sets the sweep step for writing timing. Options: • 1 • 2 • 4	1
Silent Execution	Sets whether to enable the silent execution function. Options: • Enabled: executes MBIST Data Eye without outputting ABL logs. • Disabled: remains MBIST data.	Disabled

DDR RAS

Figure 3-52 and Figure 3-53 show the **DDR RAS** screen.

Figure 3-52 DDR RAS Screen 1

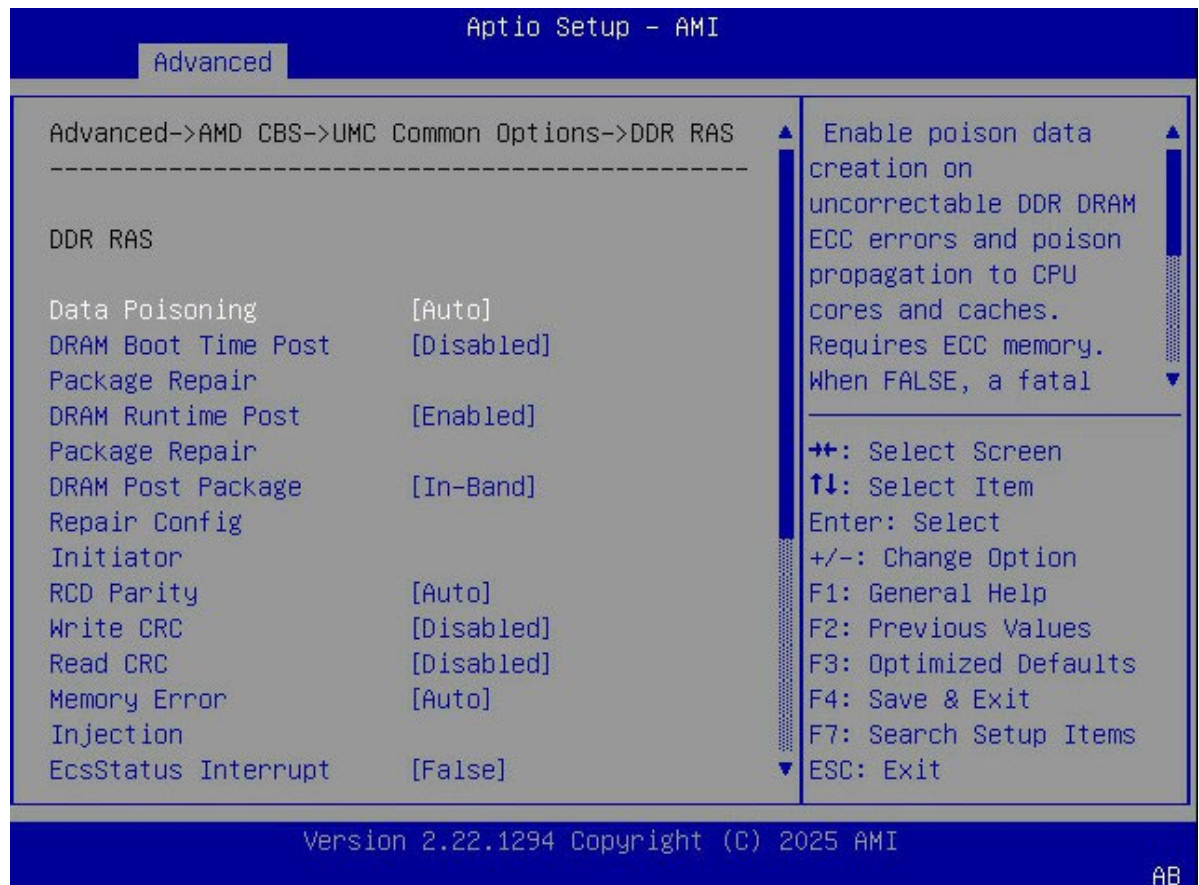
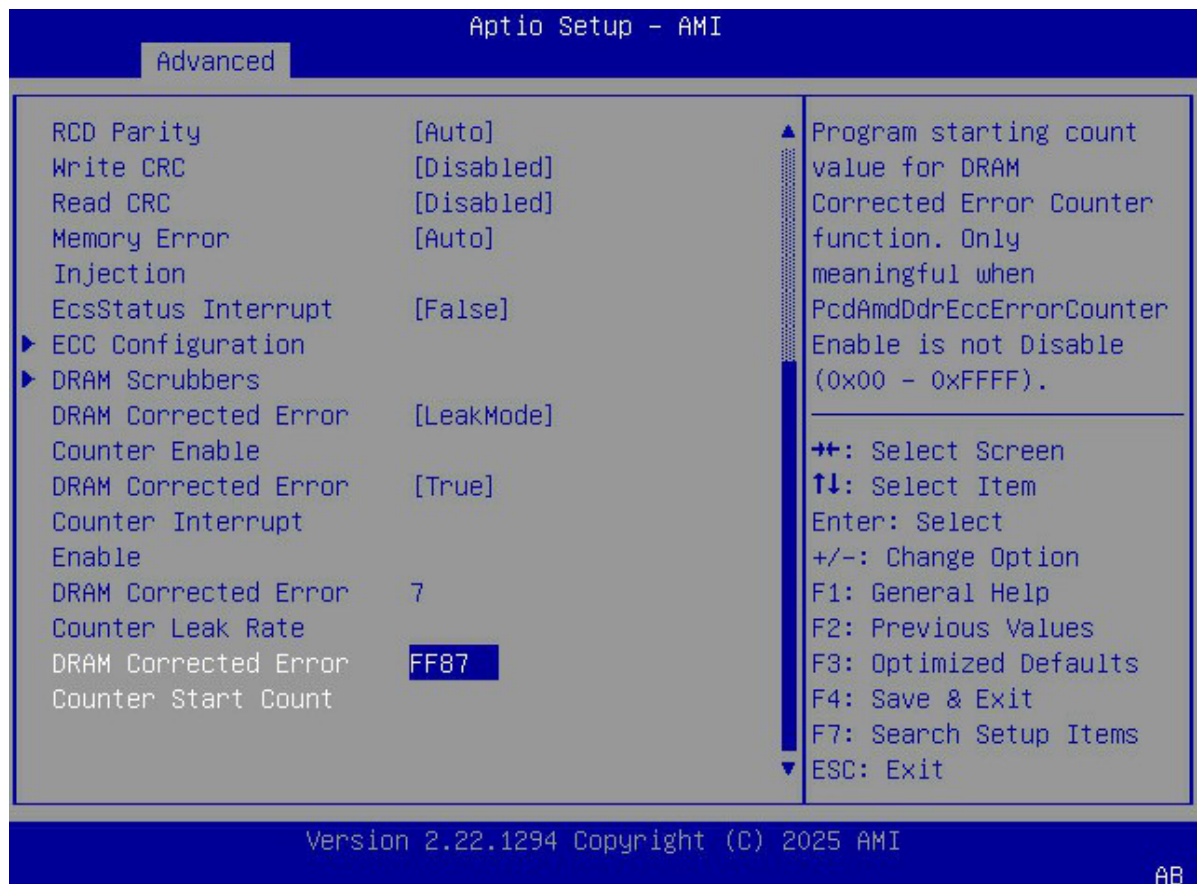


Figure 3-53 DDR RAS Screen 2



For a description of the parameters on the **DDR RAS** screen, refer to [Table 3-37](#).

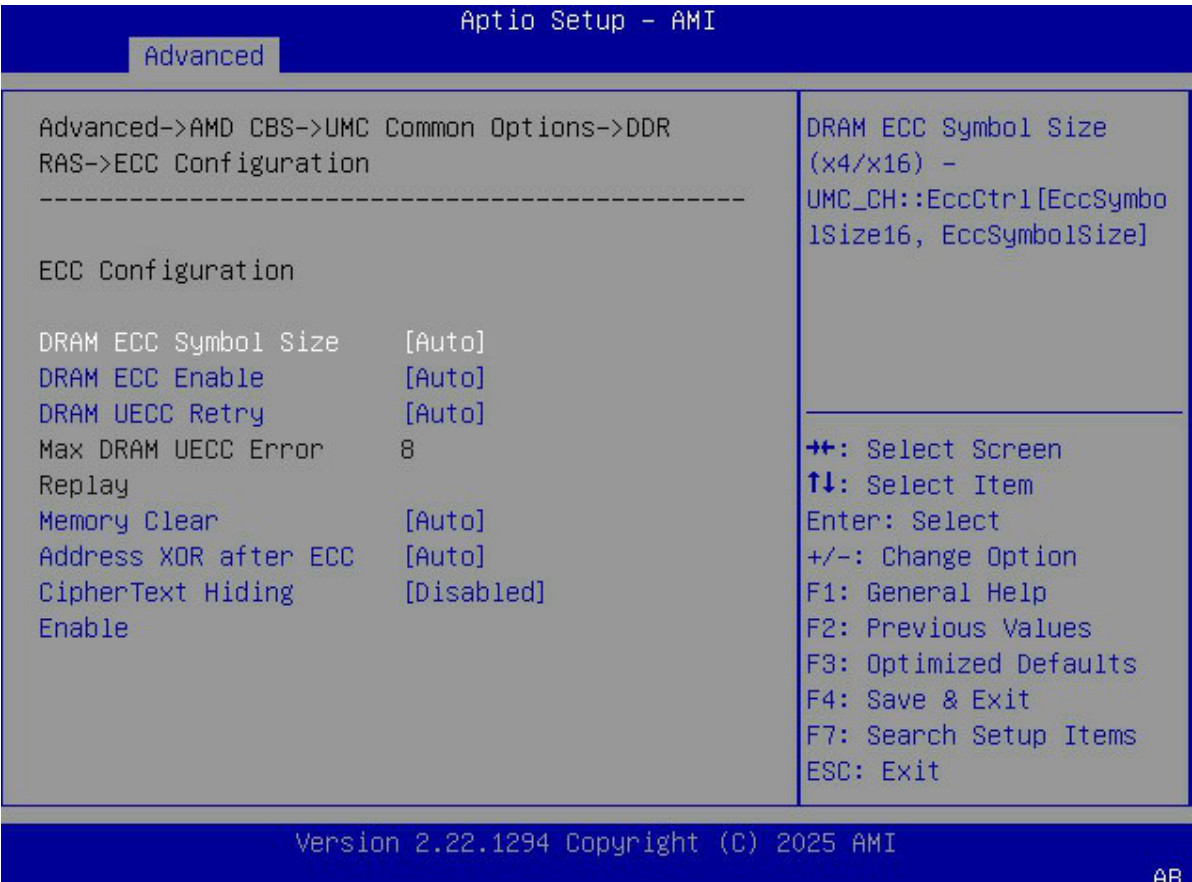
Table 3-37 Parameter Descriptions for the DDR RAS Screen

Parameter	Description	Default Value
Data Poisoning	Sets whether to enable the data poisoning function. Options: - Auto. - Enabled: enables the data poisoning function. - Disabled: disables the data poisoning function.	Auto
DRAM Boot Time Post Package Repair	Sets whether to enable post package repair during DRAM boot. Options: - Enabled: enables post package repair during DRAM boot. - Disabled: disables post package repair during DRAM boot.	Disabled

Parameter	Description	Default Value
DRAM Runtime Post Package Repair	Sets whether to enable post package repair during DRAM operation. Options: ● Enabled: enables post package repair during DRAM operation. ● Disabled: disables post package repair during DRAM operation.	Enabled
DRAM Post Package Repair Config Initiator	Sets the post package repair mode. Options: ● In-Band: implements in-band repair. ● Out of Band: implements out-of-band repair.	In-Band
RCD Parity	Sets whether to enable the RCD parity function. Options: ● Auto. ● Enabled: enables the RCD parity function. ● Disabled: disables the RCD parity function.	Auto
Write CRC	Sets whether to enable the CRC write function. Options: ● Auto. ● Enabled: enables the CRC write function. ● Disabled: disables the CRC write function.	Disabled
Read CRC	Sets whether to enable the CRC read function. Options: ● Auto. ● Enabled: enables the CRC read function. ● Disabled: disables the CRC read function.	Disabled
Memory Error Injection	Sets whether to enable the UMC error injection function. Options: ● Auto. ● False: disables the UMC error injection function.	Auto

Parameter	Description	Default Value
	● True: enables the UMC error injection function.	
EcsStatus Interrupt	Sets whether to enable the ECS status interruption function. Options: ● False: disables the ECS status interruption function. ● True: enables the ECS status interruption function.	False
ECC Configuration	Sets the ECC parameters. Press Enter . The ECC Configuration screen is displayed, as shown in Figure 3-54 .	-
DRAM Scrubbers	Sets the DRAM cleanup parameters. Press Enter . The DRAM Scrubbers screen is displayed, as shown in Figure 3-55 .	-
DRAM Corrected Error Counter Enable	Sets the mode of DRAM corrected error counters. Options: ● Disabled ● NoLeakMode ● LeakMode	LeakMode
DRAM Corrected Error Counter Interrupt Enable	Sets whether to enable the function of interrupting DRAM corrected error counters. Options: ● True: enables the interrupt function for DRAM corrected error counters. ● False: disables the interrupt function for DRAM corrected error counters.	True
DRAM Corrected Error Counter Leak Rate	Sets the leakage rate of DRAM corrected error counters. The value range is 0x00–0x1F.	7
DRAM Corrected Error Counter Start Count	Sets the program start count for DRAM corrected error counters. The value range is 0x0000–0xFFFF.	FFF5

Figure 3-54 ECC Configuration Screen



For a description of the parameters on the **ECC Configuration** screen, refer to [Table 3-38](#).

Table 3-38 Parameter Descriptions for the ECC Configuration Screen

Parameter	Description	Default Value
DRAM ECC Symbol Size	Sets the memory ECC symbol size. Options: ● Auto ● x4 ● x16	Auto
DRAM ECC Enabled	Sets whether to enable the memory ECC function. Options: ● Auto. ● Enabled: enables the memory ECC function. ● Disabled: disables the memory ECC function.	Auto
DRAM UECC Retry	Sets whether to enable the DRAM UECC retry function. Options:	Auto

Parameter	Description	Default Value
	● Auto. ● Enabled: enables the DRAM UECC retry function. ● Disabled: disables the DRAM UECC retry function.	
Max DRAM UECC Error Replay	This parameter can be set if DRAM UECC Retry is set to Enabled. Sets the maximum number of DRAM UECC errors that can be replayed. The value range is 0x01–0x3F.	8
Memory Clear	Sets whether to enable the memory clearing function. Options: ● Auto. ● Enabled: enables the memory clearing function. ● Disabled: disables the memory clearing function. If this function is disabled, the memory will not be cleared after training.	Auto
Address XOR after ECC	Sets whether to enable address XOR after ECC. Options: ● Auto. ● Enabled: enables address XOR after ECC. ● Disabled: disables address XOR after ECC.	Auto
CipherText Hiding Enable	Sets whether to enable the Cipher text hiding function. Options: ● Enabled: enables the Cipher text hiding function. ● Disabled: disables the Cipher text hiding function.	Disabled

Figure 3-55 DRAM Scrubber Screen



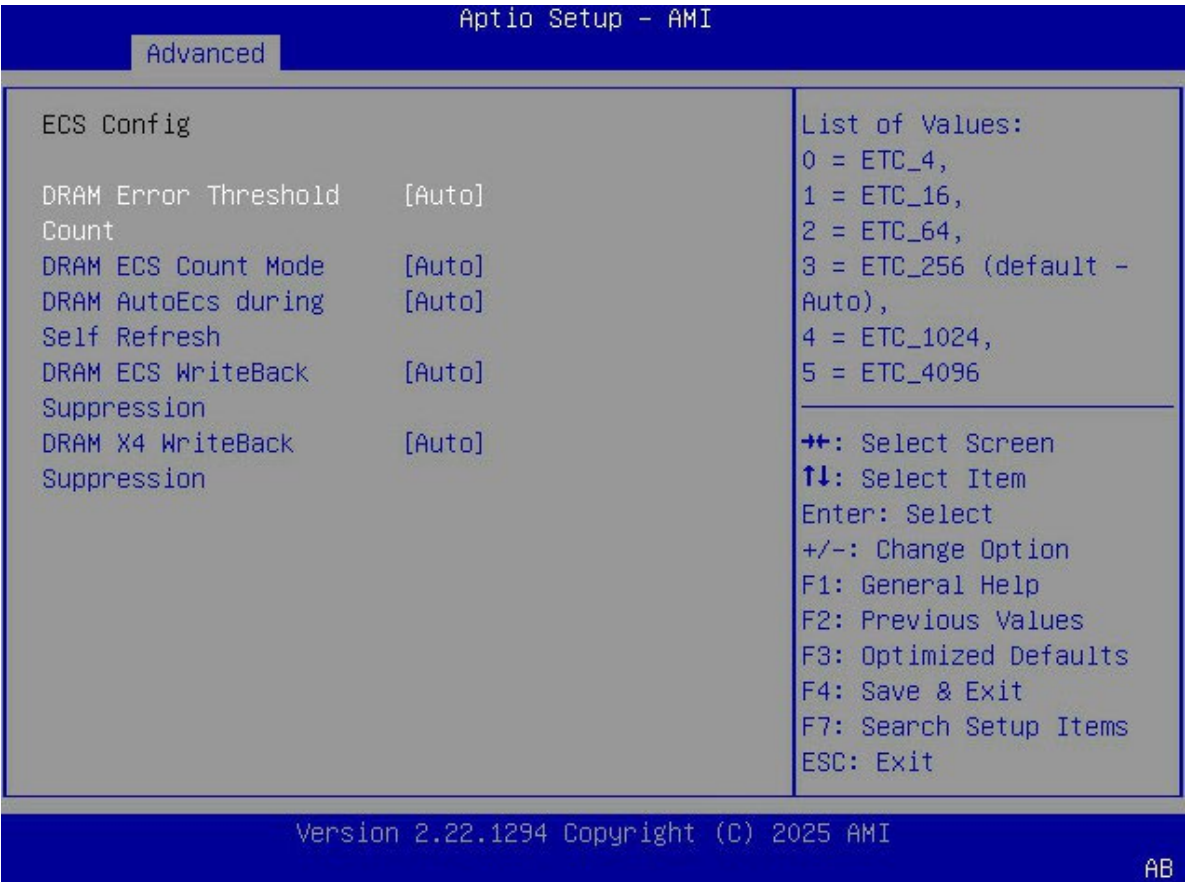
For a description of the parameters on the **DRAM Scrubbers** screen, refer to [Table 3-39](#).

Table 3-39 Parameter Descriptions for the DRAM Scrubbers Screen

Parameter	Description	Default Value
DRAM ECS Mode	Sets the DRAM ECS mode. Options: ● Auto ● DisableECS ● AutomaticECS ● ManualECS	Auto
DRAM Redirect Scrubber Enable	Sets whether to enable the DRAM redirection scrubber. Options: ● Auto. ● Enabled: enables the DRAM redirection scrubber. ● Disabled: disables the DRAM redirection scrubber.	Auto
DRAM Scrub Redirection Limit	Sets the DRAM scrub redirection limit.	Auto

Parameter	Description	Default Value
	Options: ● Auto ● 8 Scrubs ● 4 Scrubs ● 2 Scrubs ● 1 Scrub	
DRAM Scrub Time	Sets the DRAM scrub time. Options: ● Disabled ● 1 hour ● 4 hours ● 6 hours ● 8 hours ● 12 hours ● 16 hours ● 24 hours ● 48 hours	24 hours
ECS Config	Sets the parameters on the ECS Config screen. Press Enter . The ECS Config screen is displayed, as shown in Figure 3-56 .	-

Figure 3-56 ECS Config Screen



For a description of the parameters on the **ECS Config** screen, refer to [Table 3-40](#).

Table 3-40 Parameter Descriptions for the ECS Config Screen

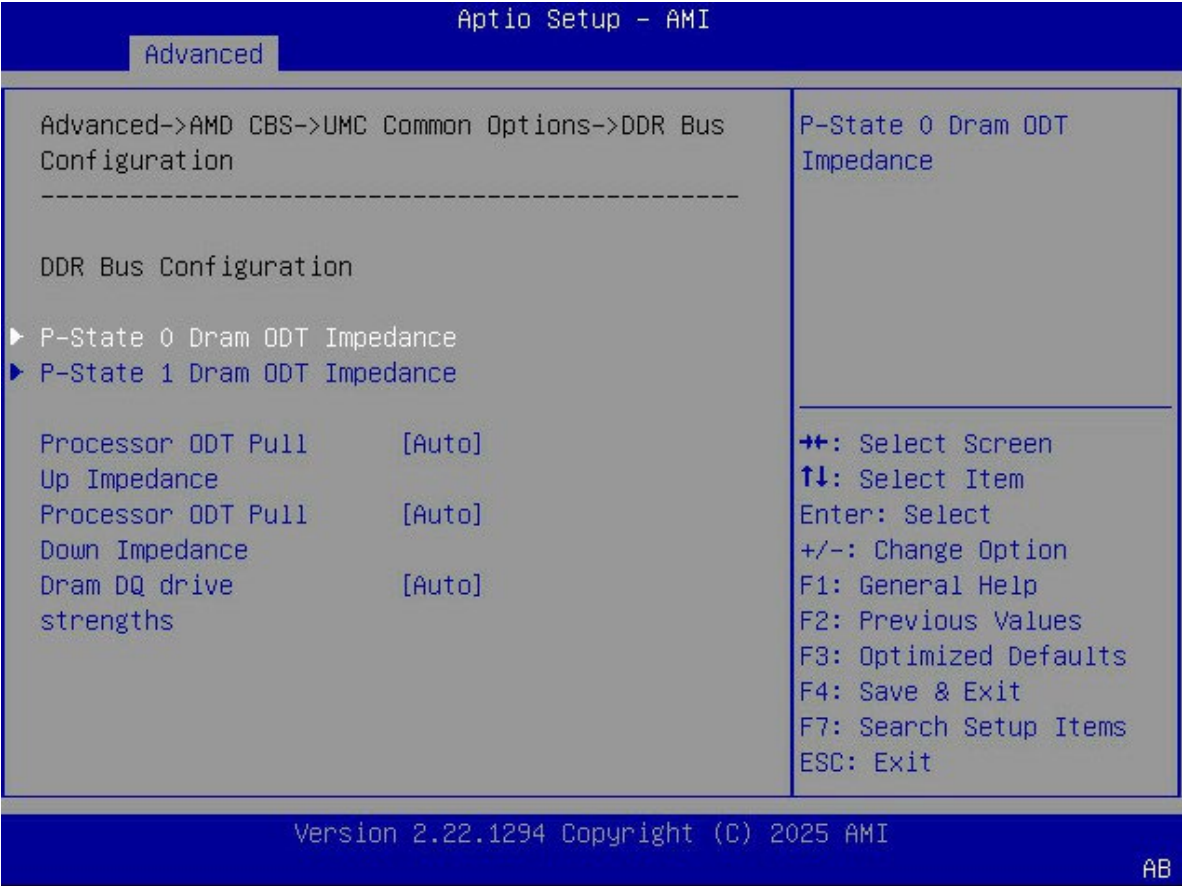
Parameter	Description	Default Value
DRAM Error Threshold Count	Sets the DRAM error threshold counting mode. Options: ● ETC_4 ● ETC_16 ● ETC_64 ● ETC_256 ● ETC_1024 ● ETC_4096 ● Auto	Auto
DRAM ECS Count Mode	Sets the DRAM ECS counting mode. Options: ● Row Count Mode ● Code Word Count Mode ● Auto	Auto

Parameter	Description	Default Value
DRAM AutoEcs during Self Refresh	Sets the DRAM auto-Ecs mode during the self-refresh period. Options: ● Auto ● AutoEcs Disabled: disables the auto-Ecs mode. ● AutoEcs Enabled: enables the auto-Ecs mode.	Auto
DRAM ECS WriteBack Suppression	Sets whether to enable the DRAM ECS write-back suppression function. Options: ● Disabled: disables the DRAM ECS write-back suppression function. ● Enabled: enables the DRAM ECS write-back suppression function. ● Auto.	Auto
DRAM X4 WriteBack Suppression	Sets whether to enable the DRAM X4 write-back suppression function. Options: ● Disabled: disables the DRAM X4 write-back suppression function. ● Enabled: enables the DRAM X4 write-back suppression function. ● Auto.	Auto

DDR Bus Configuration

Figure 3-57 shows the **DDR Bus Configuration** screen.

Figure 3-57 DDR Bus Configuration Screen



For a description of the parameters on the **DDR Bus Configuration** screen, refer to [Table 3-41](#).

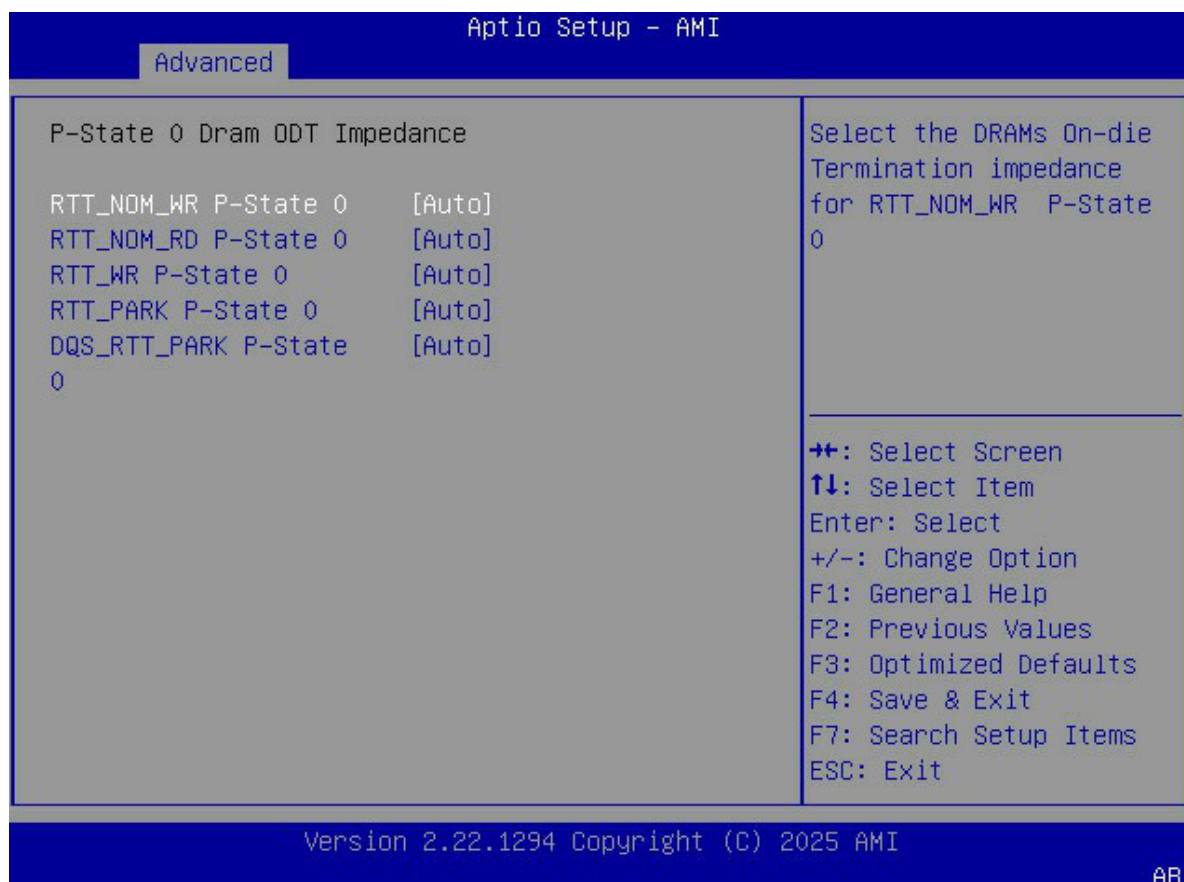
Table 3-41 Parameter Descriptions for the DDR Bus Configuration Screen

Parameter	Description	Default Value
P-State 0 Dram ODT Impedance	Sets the P-state 0 DRAM ODT impedance parameters. Press Enter . The P-State 0 Dram ODT Impedance screen is displayed, as shown in Figure 3-58 .	-
P-State 1 Dram ODT Impedance	Sets the P-state 1 DRAM ODT impedance parameters. Press . The P-State 1 Dram ODT Impedance screen is displayed, as shown in Figure 3-58 .	-
Processor ODT Pull Up Impedance	Sets the ODT pull-up impedance of the high-impedance processor. Options: ● Auto ● High Impedance	Auto

Parameter	Description	Default Value
	● 480 ohm ● 240 ohm ● 160 ohm ● 120 ohm ● 96 ohm ● 80 ohm ● 68.6 ohm ● 60 ohm ● 53.3 ohm ● 48 ohm ● 43.6 ohm ● 40 ohm ● 36.9 ohm ● 34.3 ohm ● 32 ohm ● 30 ohm ● 28.2 ohm ● 26.7 ohm ● 25.3 ohm	
Processor ODT Pull Down Impedance	Sets the ODT pull-down impedance of the processor. Options: ● Auto ● High Impedance ● 480 ohm ● 240 ohm ● 160 ohm ● 120 ohm ● 96 ohm ● 80 ohm ● 68.6 ohm ● 60 ohm ● 53.3 ohm ● 48 ohm ● 43.6 ohm ● 40 ohm ● 36.9 ohm ● 34.3 ohm ● 32 ohm ● 30 ohm ● 28.2 ohm ● 26.7 ohm	Auto

Parameter	Description	Default Value
	25.3 ohm	
Dram DQ drive strengths	Sets the impedance of the DRAM pull-up and pull-down output drivers. Options: - Auto 48 ohm 40 ohm 34 ohm	Auto

Figure 3-58 P-State 0 Dram ODT Impedance Screen



For a description of the parameters on the **P-State 0 Dram ODT Impedance** screen, refer to [Table 3-42](#).

Table 3-42 Parameter Descriptions for the P-State 0 Dram ODT Impedance Screen

Parameter	Description	Default Value
RTT_NOM_WR P-States 0	Sets the terminal impedance of the DRAM in RTT_NOM_WR P-state 0. Options: - Auto - RTT_OFF	Auto

Parameter	Description	Default Value
	● RZQ (240) ● RZQ/2 (120) ● RZQ/3 (80) ● RZQ/4 (60) ● RZQ/5 (48) ● RZQ/6 (40) ● RZQ/7 (34)	
RTT_NOM_RD P-States 0	Sets the terminal impedance of the DRAM in RTT_NOM_RD P-state 0. Options: ● Auto ● RTT_OFF ● RZQ (240) ● RZQ/2 (120) ● RZQ/3 (80) ● RZQ/4 (60) ● RZQ/5 (48) ● RZQ/6 (40) ● RZQ/7 (34)	Auto
RTT_WR P-State 0	Sets the terminal impedance of the DRAM in RTT_WR P-state 0. Options: ● Auto ● RTT_OFF ● RZQ (240) ● RZQ/2 (120) ● RZQ/3 (80) ● RZQ/4 (60) ● RZQ/5 (48) ● RZQ/6 (40) ● RZQ/7 (34)	Auto
RTT_PARK P-State 0	Sets the terminal impedance of the DRAM in RTT_PARK P-state 0. Options: ● Auto ● RTT_OFF ● RZQ (240) ● RZQ/2 (120) ● RZQ/3 (80) ● RZQ/4 (60) ● RZQ/5 (48) ● RZQ/6 (40)	Auto

Parameter	Description	Default Value
	● RZQ/7 (34)	
DQS_RTT_PARK P-State 0	Sets the terminal impedance of the DRAM in DQS_RTT_PARK P-state 0. Options: ● Auto ● RTT_OFF ● RZQ (240) ● RZQ/2 (120) ● RZQ/3 (80) ● RZQ/4 (60) ● RZQ/5 (48) ● RZQ/6 (40) ● RZQ/7 (34)	Auto

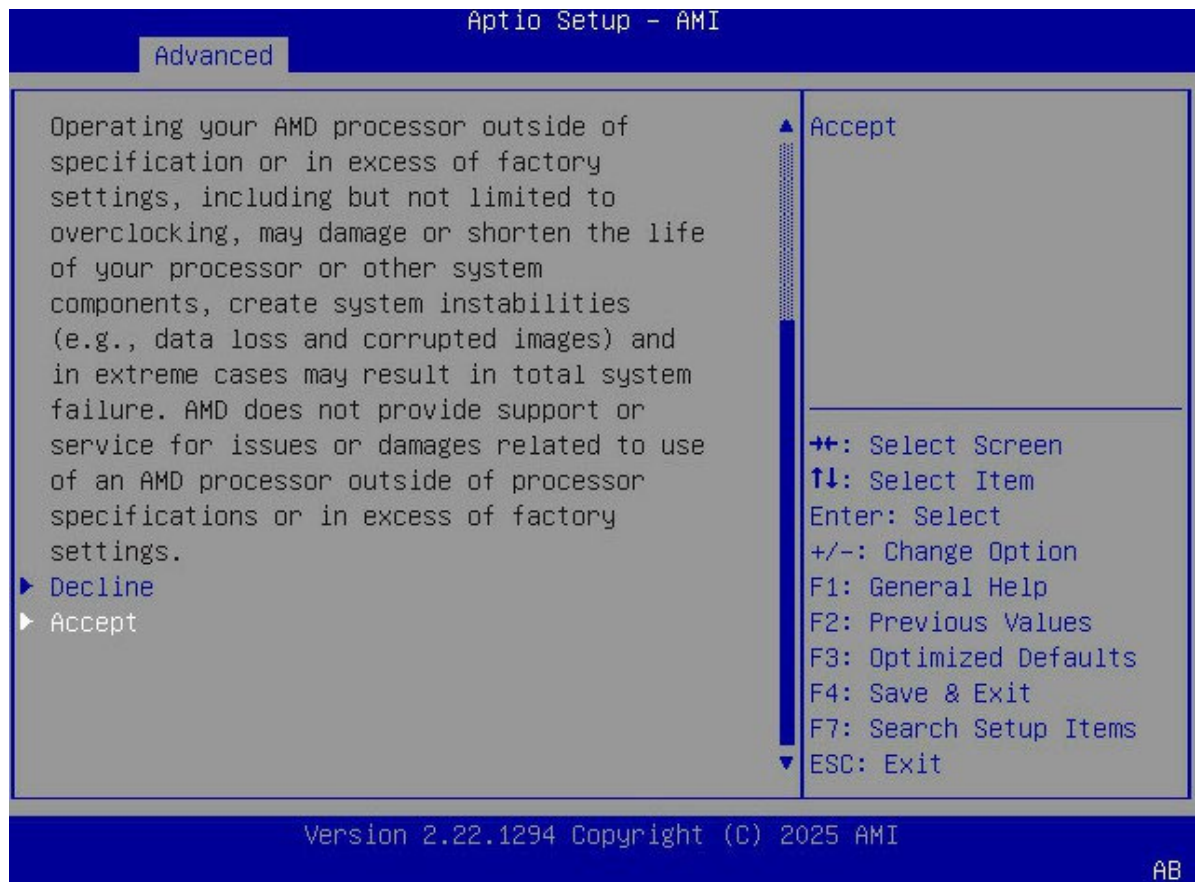
Note

The parameters on the **P-State 1 DRAM ODT Impedance** screen are similar with those on the **P-State 0 DRAM ODT Impedance** screen. The parameters on the **P-State 0 DRAM ODT Impedance** screen are used as an example.

DDR Timing Configuration

[Figure 3-59](#) shows the **DDR Timing Configuration** screen.

Figure 3-59 DDR Timing Configuration Screen

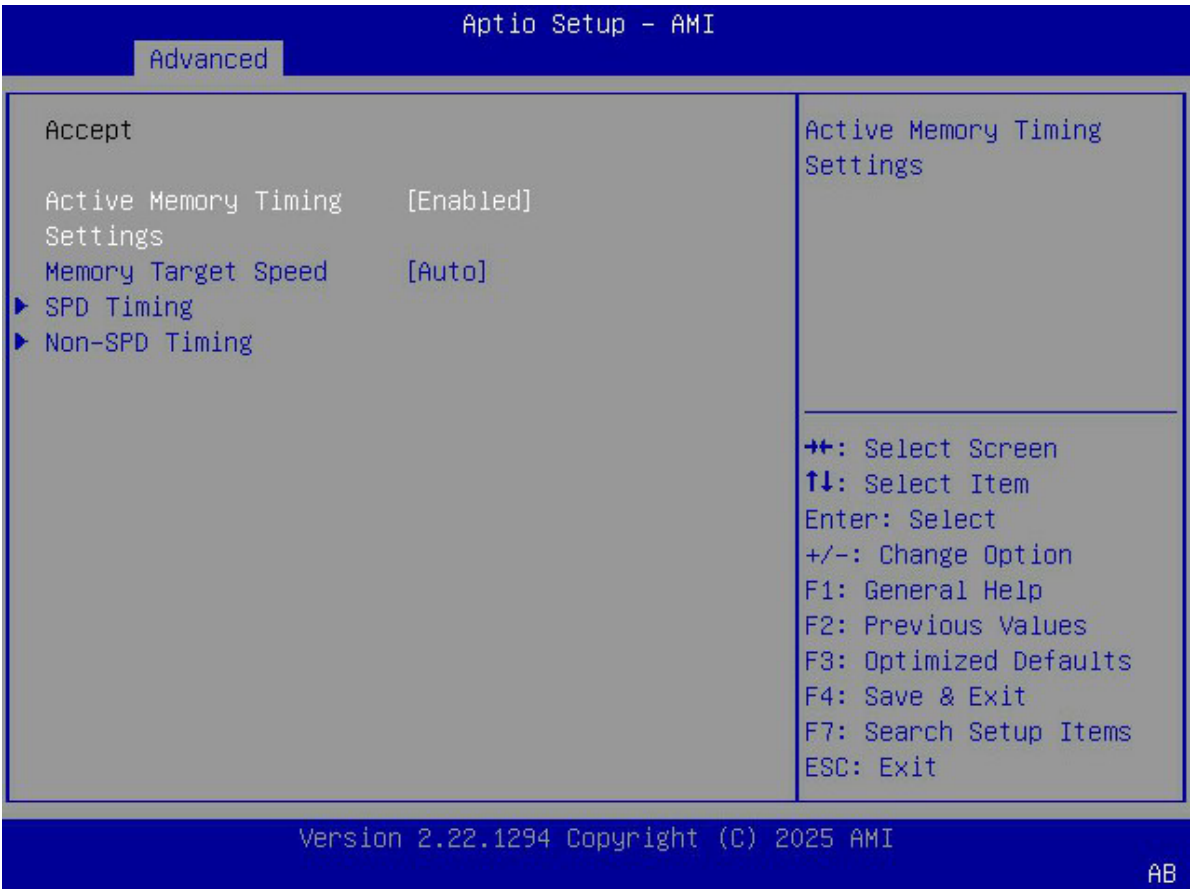


For a description of the parameters on the **DDR Timing Configuration** screen, refer to [Table 3-43](#).

Table 3-43 Parameter Descriptions for the DDR Timing Configuration Screen

Parameter	Description
Decline	Displays the alarms not allowed to be shown on the screen. Press Enter to return to the UMC Common Options screen.
Accept	Displays the alarms allowed to be shown on the screen. Press Enter . The Accept screen is displayed, as shown in Figure 3-60 .

Figure 3-60 Accept Screen



For a description of the parameters on the **Accept** screen, refer to [Table 3-44](#).

Table 3-44 Parameter Descriptions for the Accept Screen

Parameter	Description	Default Value
Active Memory Timing Settings	Sets whether to enable the active memory timing function. ● Auto ● Enabled: enables the active memory timing function.	Enabled
Memory Target Speed	Sets the memory target speed. Options: ● Auto ● DDR3600 ● DDR4000 ● DDR4400 ● DDR4800 ● DDR5200 ● DDR5600	Auto
SPD Timing	Sets the SPD timing parameters.	-

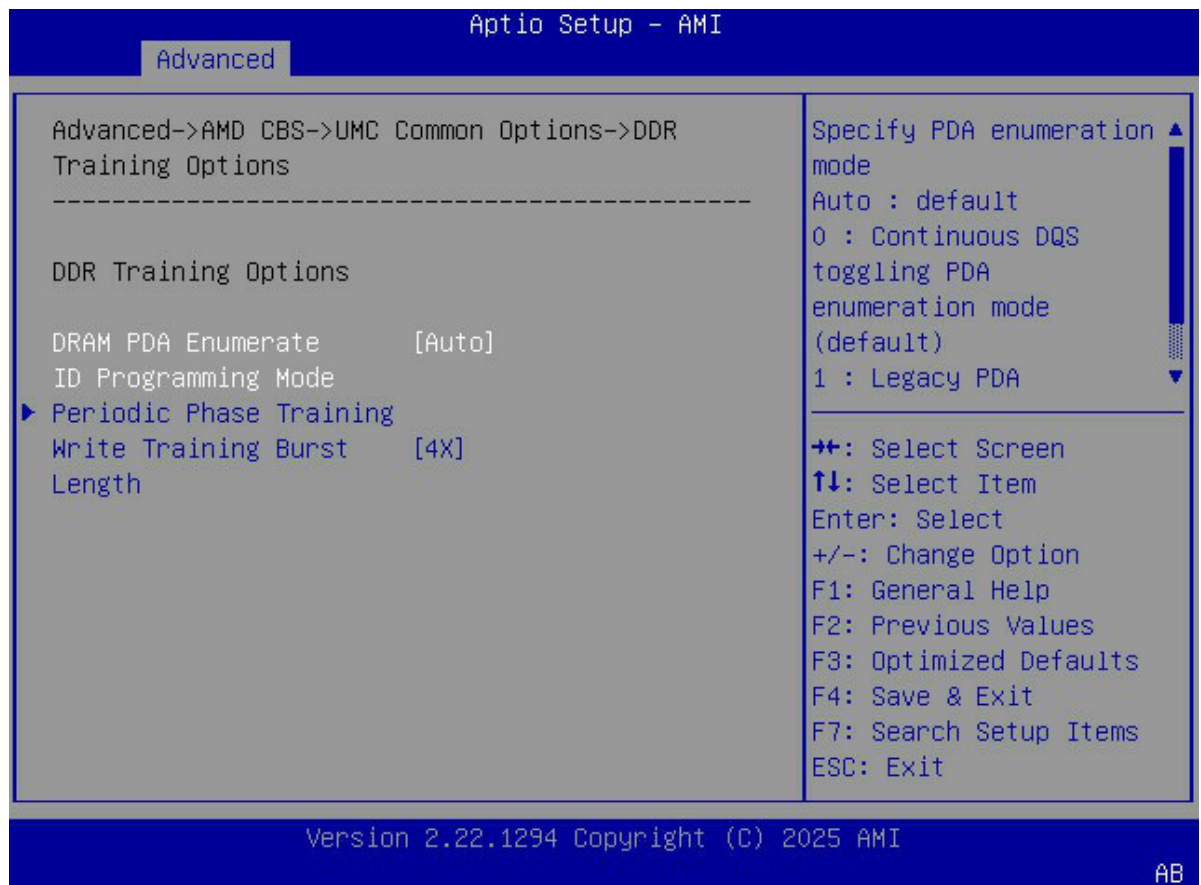
Parameter	Description	Default Value
	Press Enter. The SPD Timing screen is displayed. ● TcI Ctrl: sets the mode for configuring the CAS delay time. The default value is Auto. ● Trcd Ctrl: sets the mode for configuring the RAS# Active to CAS# Read delay time. The default value is Auto. ● Trp Ctrl: sets the mode for configuring the precharge delay time. The default value is Auto. ● Tras Ctrl: sets the mode for configuring the minimum Active to Precharge delay time. The default value is Auto. ● Trc Ctrl: sets the mode for configuring the Active to Active/Refresh delay time. The default value is Auto. ● Twr Ctrl: sets the mode for configuring the minimum Write recovery delay time. The default value is Auto. ● Trfc1 Ctrl: sets the mode for configuring the refresh recovery delay time (tRFC1). The default value is Auto. ● Trfc2 Ctrl: sets the mode for configuring the refresh recovery delay time (tRFC2). The default value is Auto. ● TrfcSb Ctrl: sets the mode for configuring the refresh recovery delay time (tRFCSb). The default value is Auto.	
Non-SPD Timing	Sets the non-SPD timing parameters. Press Enter. The Non-SPD Timing screen is displayed. ● Tcwl Ctrl: sets the mode for configuring the Write CAS delay time. The default value is Auto. ● Trtp Ctrl: sets the mode for configuring the Read CAS to Precharge delay time. The default value is Auto. ● TrrdL Ctrl: sets the mode for configuring the Activate to Activate delay time in a group (tRRD_L). The default value is Auto. ● TeedS Ctrl: sets the mode for configuring the Activate to Activate delay time in another group (tRRD_S). The default value is Auto. ● Tfaw Ctrl: sets the mode for configuring the Four Activate Window time. The default value is Auto.	-

Parameter	Description	Default Value
	● TwtrL Ctrl: sets the minimum write-to-read time for a group. The default value is Auto. ● TwtrS Ctrl: sets the minimum write-to-read time for another group. The default value is Auto. ● TrdScL Ctrl: sets the mode for configuring the CAS to CAS delay time in the same bank group. The default value is Auto. ● TrdrdSc Ctrl: sets the mode for configuring the Read to Read turnaround time in the same chipselect. The default value is Auto. ● TrdrdSd Ctrl: sets the mode for configuring the Read to Read turnaround time in the same DIMM. The default value is Auto. ● TrdrdDd Ctrl: sets the mode for configuring the Read to Read turnaround time in a different DIMM. The default value is Auto. ● TwrwrScL Ctrl: sets the mode for configuring the CAS to CAS delay time in the same bank group. The default value is Auto. ● TwrwrSc Ctrl: sets the mode for configuring the Write to Write turnaround time in the same chipselect. The default value is Auto. ● TwrwrSd Ctrl: sets the mode for configuring the Write to Write turnaround time in the same DIMM. The default value is Auto. ● TwrwrDd Ctrl: sets the mode for configuring the Write to Write turnaround time in a different DIMM. The default value is Auto. ● Twrrd Ctrl: sets the mode for configuring the Write to Read turnaround time. The default value is Auto. ● Trdwr Ctrl: sets the mode for configuring the Read to Write turnaround time. The default value is Auto.	

DDR Training Options

Figure 3-61 shows the **DDR Training Options** screen.

Figure 3-61 DDR Training Options Screen



For a description of the parameters on the **DDR Training Options** screen, refer to [Table 3-45](#).

Table 3-45 Parameter Descriptions for the DDR Training Options Screen

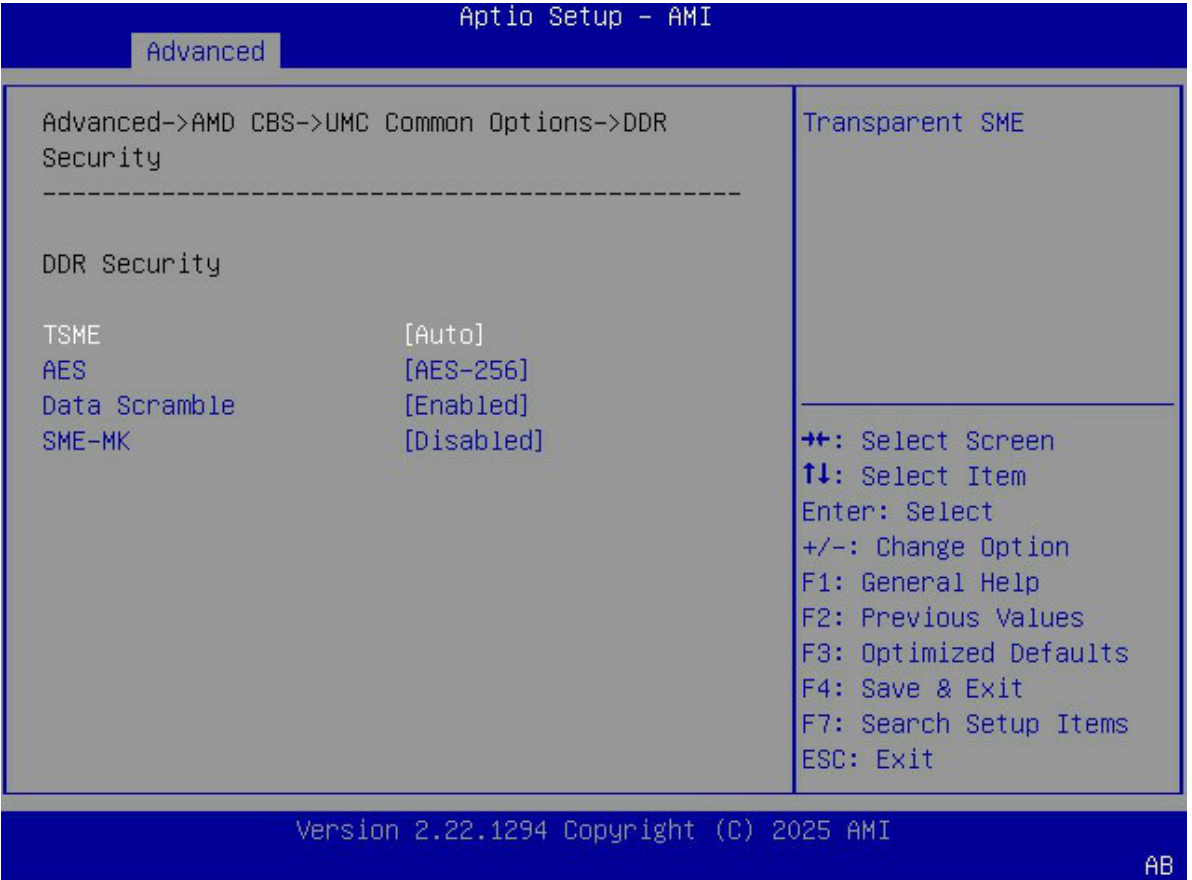
Parameter	Description	Default Value
DRAM PDA Enumerate ID Programming Mode	Sets the PDA enumeration mode. Options: ● Auto ● Toggling PDA enumeration mode ● Legacy PDA enumeration mode	Auto
Periodic Phase Training	Sets the periodic phase training parameters. Press Enter . The Periodic Phase Training screen is displayed. ● Periodic Training Mode: specifies the periodic training mode. The default value is Legacy. ● Periodic Interval Mode: specifies the periodic interval mode. The default value is Auto.	-
Write Training Burst Length	Sets the write training burst length.	4X

Parameter	Description	Default Value
	Options: ● 4X ● 8X	

DDR Security

Figure 3-62 shows the **DDR Security** screen.

Figure 3-62 DDR Security Screen



For a description of the parameters on the **DDR Security** screen, refer to [Table 3-46](#).

Table 3-46 Parameter Descriptions for the DDR Security Screen

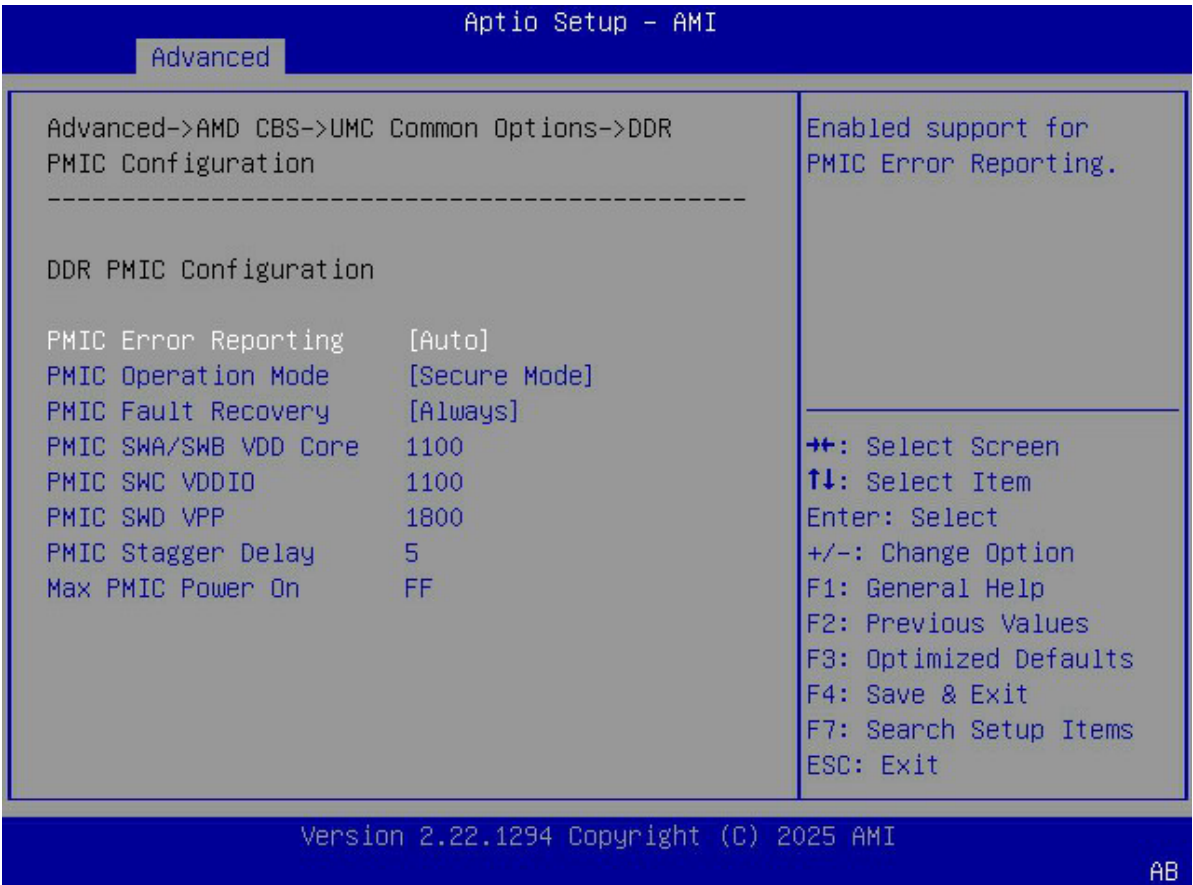
Parameter	Description	Default Value
TSME	Sets whether to enable the TSME function. Options: ● Auto. ● Enabled: enables the TSME function. ● Disabled: disables the TSME function.	Auto
AES	Sets the AES mode.	AES-256

Parameter	Description	Default Value
	Options: ● AES-128 ● AES-256	
Data Scramble	Sets whether to enable the data scrambling function. Options: ● Enabled: enables the data scrambling function. ● Disabled: disables the data scrambling function.	Enabled
SME-MK	Sets whether to enable the SME-MK encryption mode. Options: ● Enabled: enables the SME-MK encryption mode. ● Disabled: disables the SME-MK encryption mode.	Disabled

DDR PMIC Configuration

[Figure 3-63](#) shows the **DDR PMIC Configuration** screen.

Figure 3-63 DDR PMIC Configuration Screen



For a description of the parameters on the **DDR PMIC Configuration** screen, refer to [Table 3-47](#).

Table 3-47 Parameter Descriptions for the DDR PMIC Configuration Screen

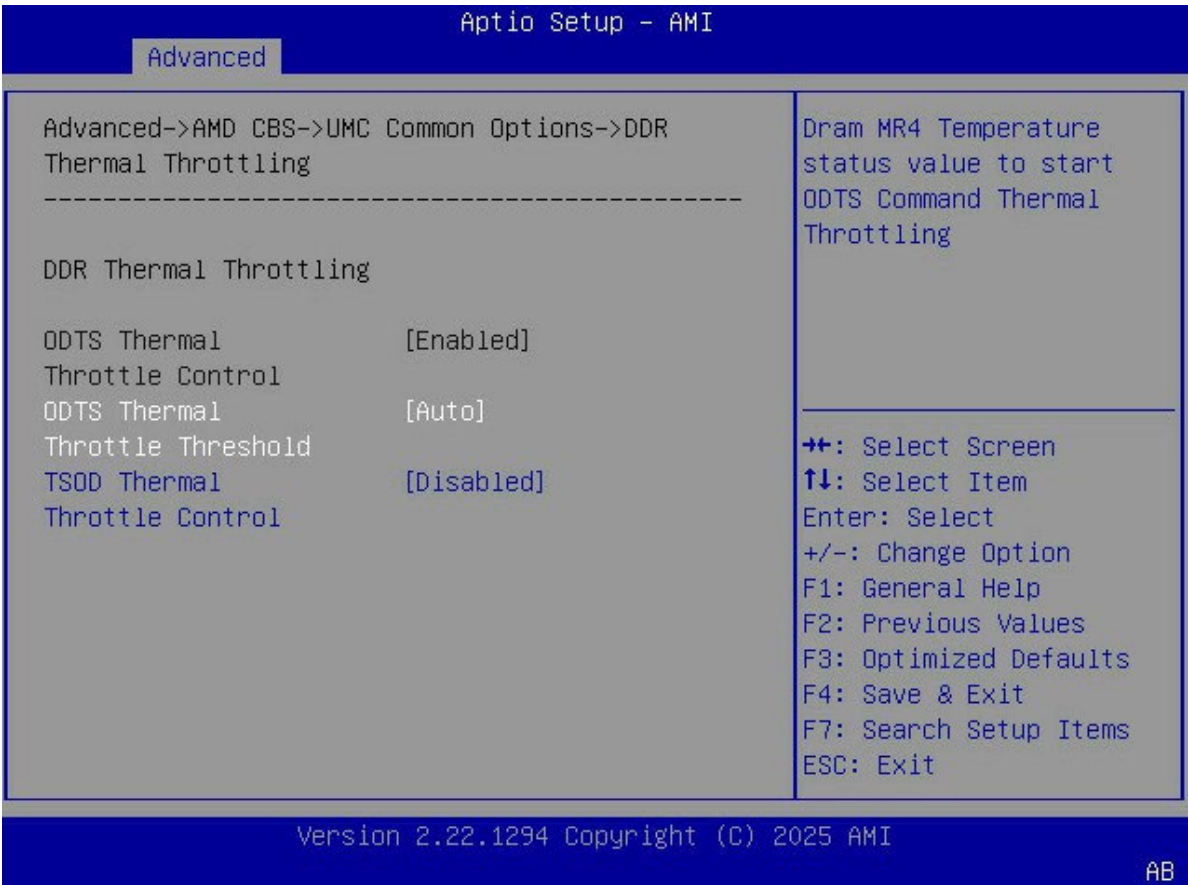
Parameter	Description	Default Value
PMIC Error Reporting	Sets whether to enable the PMIC error reporting function. Options: ● Auto. ● True: enables the PMIC error reporting function. ● False: disables the PMIC error reporting function.	Auto
PMIC Operation Mode	Sets the PMIC operation mode. Options: ● Safe Mode: uses the safe mode. ● Programmable Mode: uses the programmable mode.	Secure Mode
PMIC Fault Recovery	Sets the PMIC fault recovery mode.	Always

Parameter	Description	Default Value
	Options: • Always • Never • Once	
PMIC SWC VDDIO	Sets PMIC SWC VDDIO. The value range is 1000–1200, and the unit is mV.	1100
PMIC SWA/SWB VDD Core	Sets the PMIC SWA/SWB VDD core. The value range is 1000–1200, and the unit is mV.	1100
PMIC SWD VPP	Sets PMIC SWD VPP. The value range is 1500–2135, and the unit is mV.	1800
PMIC Stagger Delay	Sets the waiting time between power-on of the DIMMs. The value range is 0–99, and the unit is ms.	5
Max PMIC Power On	Sets the maximum number of DIMMs that can be powered on at the same time. The value range is 0x00–0xFF.	FF

DDR Thermal Throttling

Figure 3-64 shows the **DDR Thermal Throttling** screen.

Figure 3-64 DDR Thermal Throttling Screen



For a description of the parameters on the **DDR Thermal Throttling** screen, refer to [Table 3-48](#).

Table 3-48 Parameter Descriptions for the DDR Thermal Throttling Screen

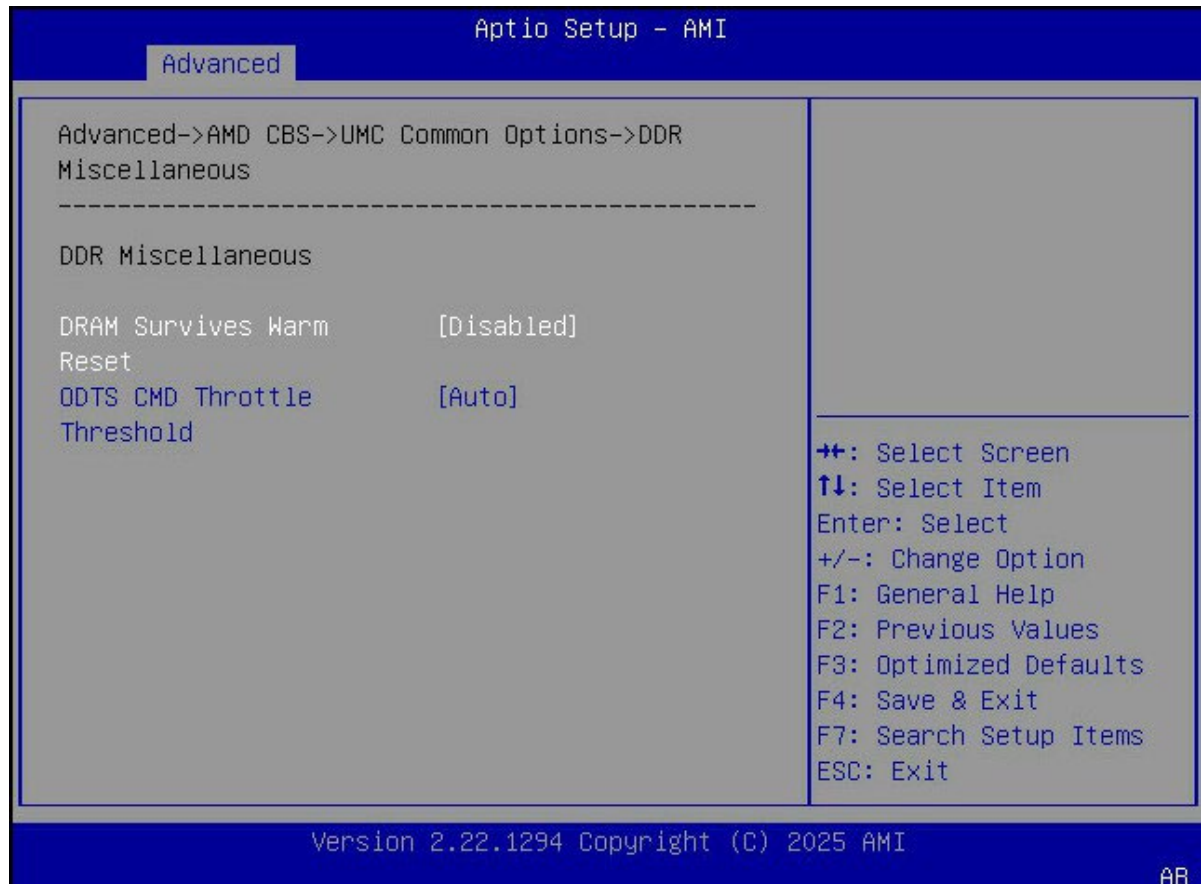
Parameter	Description	Default Value
ODTS Thermal Throttle Control	Displays the ODTS thermal throttling control status.	Enabled
ODTS Thermal Throttle Threshold	Sets the ODTS thermal throttling threshold. Options: • Auto • > 85°C • > 90°C • > 95°C	Auto
TSOD Thermal Throttle Control	Sets whether to enable the TSOD thermal throttling control function. Options: • Enabled: enables the TSOD thermal throttling control function.	Disabled

Parameter	Description	Default Value
	Disabled: disables the TSOD thermal throttling control function.	

DDR Miscellaneous

Figure 3-65 shows the **DDR Miscellaneous** screen.

Figure 3-65 DDR Miscellaneous Screen



For a description of the parameters on the **DDR Miscellaneous** screen, refer to [Table 3-49](#).

Table 3-49 Parameter Descriptions for the DDR Miscellaneous Screen

Parameter	Description	Default Value
DRAM Survives Warm Reset	Sets whether to enable the warm reset function for DRAM survival. Options: - Enabled: enables the warm reset function for DRAM survival. - Disabled: disables the warm reset function for DRAM survival.	Disabled

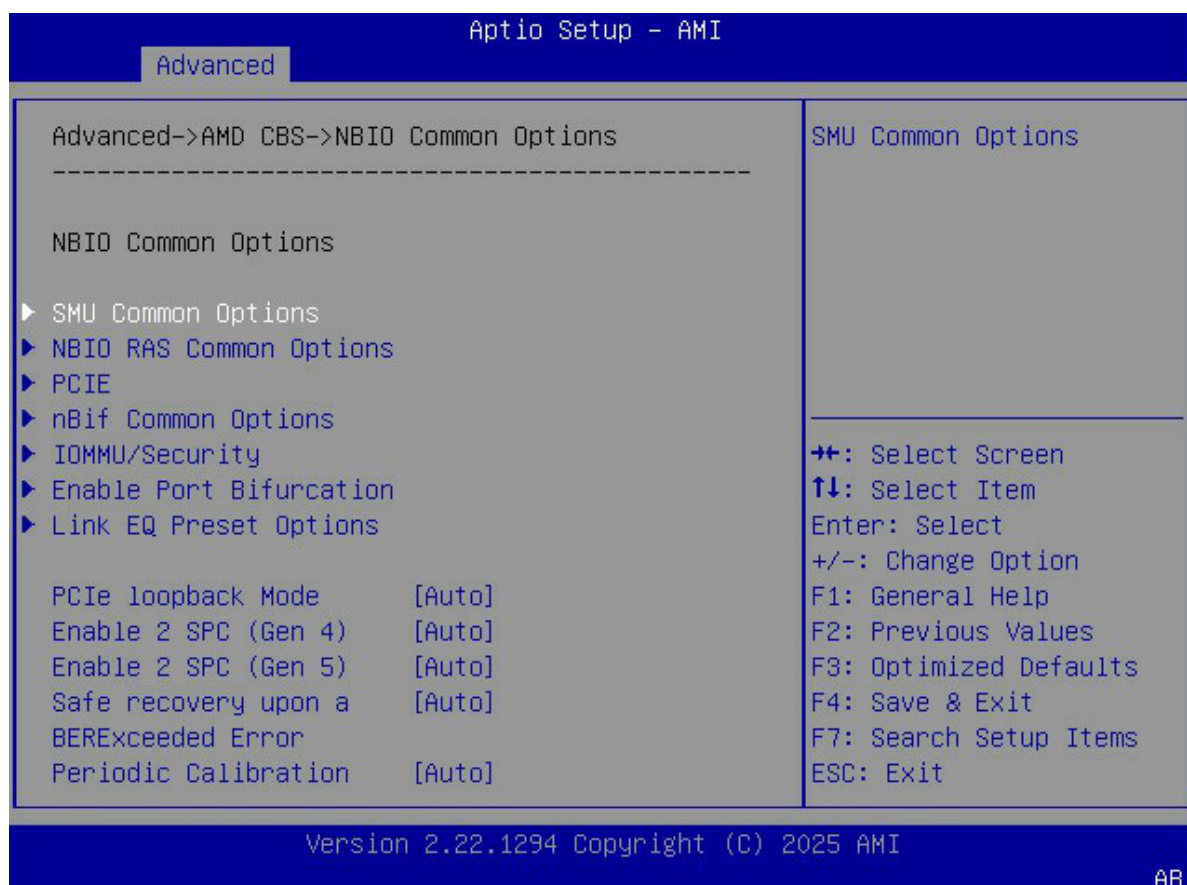
Parameter	Description	Default Value
ODTS CMD Throttle Mode	Sets the ODTS CMD throttling threshold. Options: • Auto • > 85°C • > 90°C • > 95°C	Auto

3.2.7.4 NBIO Common Options

NBIO Common Options

Figure 3-66 shows the **NBIO Common Options** screen.

Figure 3-66 NBIO Common Options Screen 1



For a description of the parameters on the **NBIO Common Options** screen, refer to [Table 3-50](#).

Table 3-50 Parameter Descriptions for the NBIO Common Options Screen

Parameter	Description	Default Value
SMU Common Options	Sets the common SMU parameters.	-

Parameter	Description	Default Value
	For details, refer to SMU Common Options .	
NBIO RAS Common Options	Sets the NBIO RAS common parameters. For details, refer to NBIO RAS Common Options .	-
PCIE	Sets the PCIE parameters. For details, refer to PCIE .	-
nBif Common Options	Sets the nBif common parameters. For details, refer to nBif Common Options .	-
IOMMU/Security	Sets the IO memory management unit and security parameters. For details, refer to IOMMU/Security .	-
Enable Port Bifurcation	Sets the port bifurcation parameters. For details, refer to Enable Port Bifurcation .	-
Link EQ Preset Options	Set the link EQ preset parameters. For details, refer to Link EQ Preset Options .	-
PCIE loopback Mode	Sets whether to enable the PCIE loopback mode. Options: ● Auto. ● Enabled: enables the PCIE loopback mode. ● Disabled: disables the PCIE loopback mode.	Auto
Enable 2 SPC (Gen 4)	Sets whether to enable the Enable 2 SPC (Gen 4) function. Options: ● Auto. ● Enabled: enables the Enable 2 SPC (Gen 4) function. After this function is enabled, two symbols can be used for each clock of a Gen 4 device. ● Disabled: disables the Enable 2 SPC (Gen 4) function.	Auto
Enable 2 SPC (Gen 5)	Sets whether to enable the Enable 2 SPC (Gen 5) function. Options: ● Auto. ● Enabled: enables the Enable 2 SPC (Gen 5) function. After this function is enabled, two symbols can be used for each clock of a Gen 5 device.	Auto

Parameter	Description	Default Value
	● Disabled: disables the Enable 2 SPC (Gen 5) function.	
Safe recovery upon a BERExceeded Error	Sets whether to enable the security recovery function upon an exceeded error. Options: ● Auto. ● Enabled: enables the security recovery function upon an exceeded error. ● Disabled: disables the security recovery function upon an exceeded error.	Auto
Periodic Calibration	Sets whether to enable periodic calibration. Options: ● Auto. ● Enabled: enables periodic calibration. ● Disabled: disables periodic calibration.	Auto

SMU Common Options

Figure 3-67 and Figure 3-68 show the **SMU Common Options** screen.

Figure 3-67 SMU Common Options Screen 1

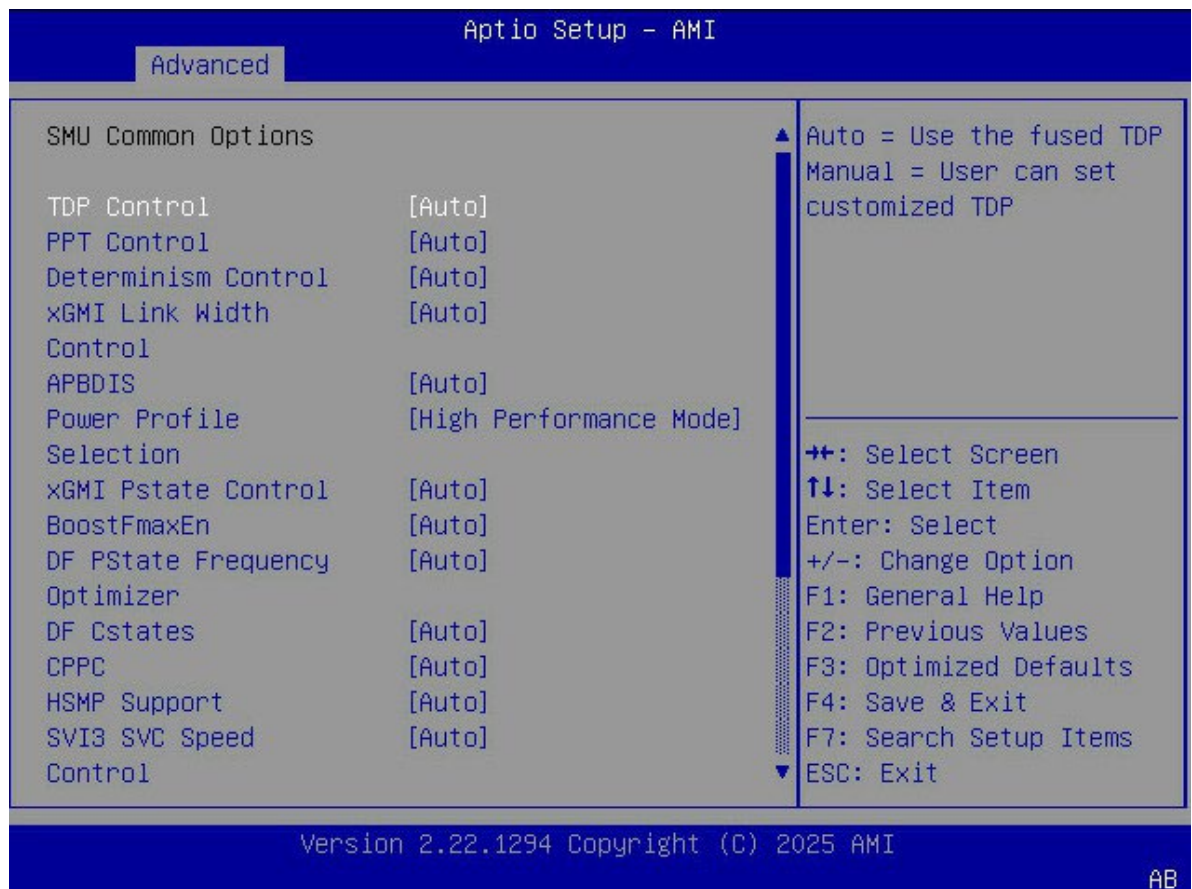
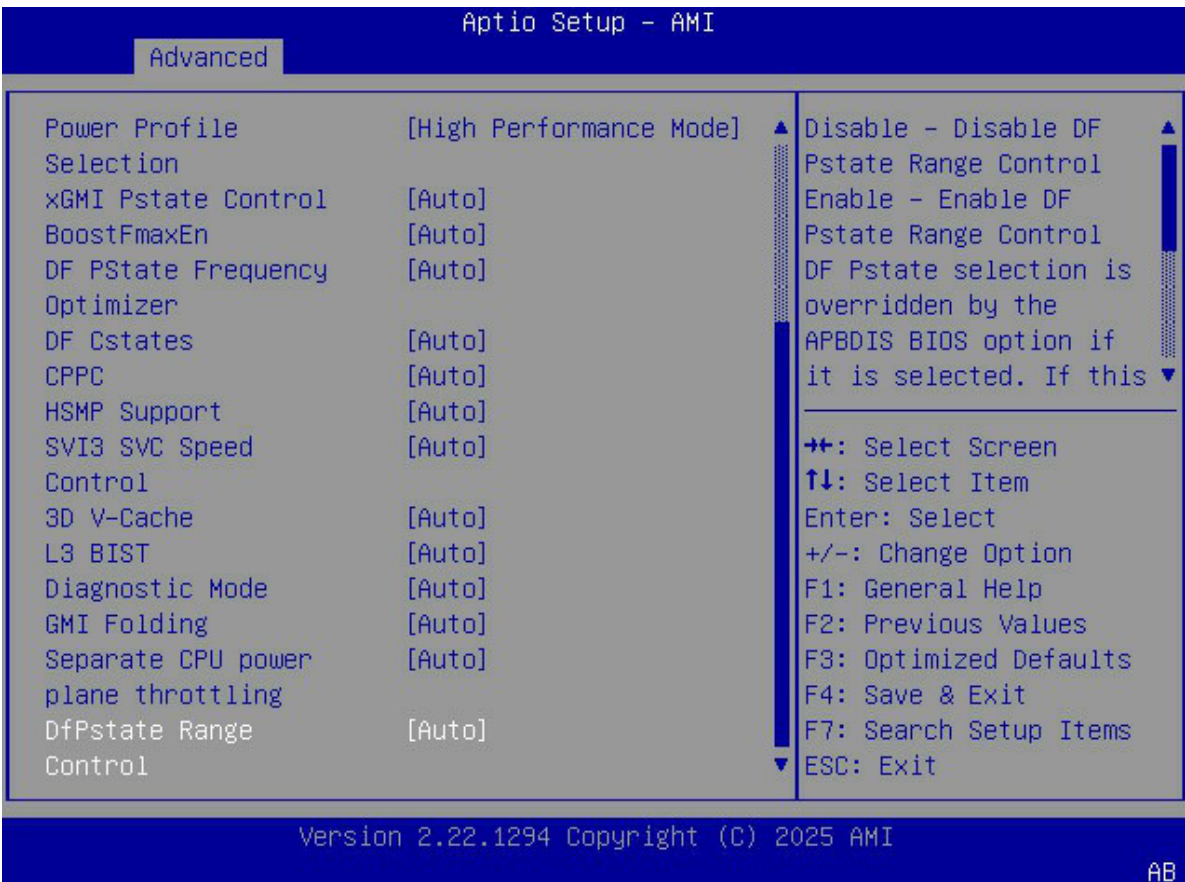


Figure 3-68 SMU Common Options Screen 2



For a description of the parameters on the **SMU Common Options** screen, refer to [Table 3-51](#).

Table 3-51 Parameter Descriptions for the SMU Common Options Screen

Parameter	Description	Default Value
TDP Control	Sets the TDP control mode. Options: ● Auto: automatic. ● Manual: manual mode.	Auto
PPT Control	Sets the PPT control mode. Options: ● Auto: automatic. ● Manual: manual mode.	Auto
Determinism Control	Sets the determinism control mode. Options: ● Auto: automatic. ● Manual: manual mode.	Auto
Determinism Enable	This parameter is displayed if Determinism Control is set to Manual . Sets the determinism enabling mode.	Power

Parameter	Description	Default Value
	Options: ● Power ● Performance	
xGMI Link Width Control	Sets the xGMI link width control mode. Options: ● Auto: automatic. ● Manual: manual mode.	Auto
xGMI Force Link Width Control	This parameter is displayed if xGMI Link Width Control is set to Manual . Sets the xGMI link width control mode. Options: ● Auto: automatic. ● Force: forced. ● Unforce: not forced.	Auto
xGMI Force Link Width	This parameter is displayed if xGMI Force Link Width Control is set to Force . Sets the forced xGMI link width. Options: ● Auto ● 2 ● 1 ● 0	Auto
xGMI Max Link Width Range Control	This parameter is displayed if xGMI Link Width Control is set to Manual . Sets the mode for controlling the maximum xGMI link width. Options: ● Auto: automatic. ● Manual: manual mode.	Auto
xGMI Max Link Width	This parameter is displayed if xGMI Max Link Width Range Control is set to Manual . Sets the maximum xGMI link width. Options: ● Auto ● 2 ● 1 ● 0	Auto
xGMI Min Link Width	This parameter is displayed if xGMI Max Link Width Range Control is set to .	Auto

Parameter	Description	Default Value
	Sets the minimum xGMI link width. Options: ● Auto ● 2 ● 1 ● 0	
APBDIS	Sets the APBDIS mode. Options: ● Auto ● 0: APBDIS ● 1: not APBDIS (task mode)	Auto
DfPstate	This parameter is displayed if APBDIS is set to 1 . Sets the Df P-state index.	0
Power Profile Selection	Sets the power mode. Options: ● Auto ● High Performance Mode ● Efficiency Mode ● Maximum IO Performance Mode ● Balanced Memory Performance Mode ● Balanced Core Performance Mode ● Balanced Core Memory Performance Mode	High Performance Mode
xGMI Pstate Control	Sets the xGMI state control mode. Options: ● Auto: automatic. ● Manual: manual mode.	Auto
xGMI Pstate Selection	This parameter is displayed if xGMI Pstate Control is set to Manual . Sets the xGMI state. Options: ● High Speed ● Low Speed	High Speed
BoostFmaxEn	Sets the BoostFmaxEn configuration mode. Options: ● Auto: The default boost Fmax is used. ● Manual: The boost Fmax can be manually set.	Auto

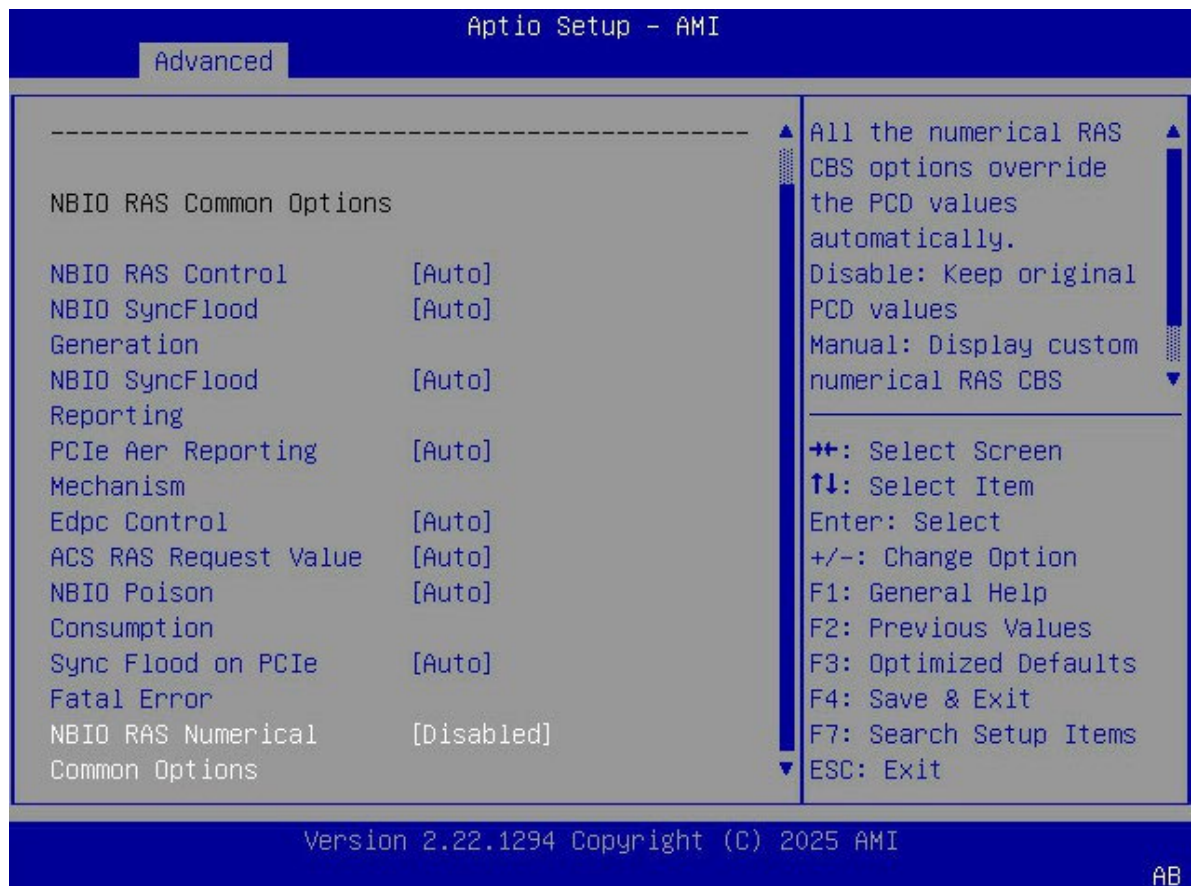
Parameter	Description	Default Value
DF PState Frequency Optimizer	Sets whether to enable the DF P-state frequency optimizer. Options: ● Auto. ● Enabled: enables the DF P-state frequency optimizer. ● Disabled: disables the DF P-state frequency optimizer.	Auto
DF Cstates	Sets whether to enable the DF C-state. Options: ● Auto ● Enabled: enables the DF C-state. ● Disabled: disables the DF C-state.	Auto
CPPC	Sets whether to enable the CPPC function. Options: ● Auto. ● Enabled: enables the CPPC function. ● Disabled: disables the CPPC function.	Auto
HSMP Support	Sets whether to enable HSMP support. Options: ● Auto. ● Enabled: HSMP is supported. ● Disabled: HSMP is not supported.	Auto
SVI3 SVC Speed Control	Sets the SVI3 SVC speed control mode. Options: ● Auto ● Manual	Auto
3D V-Cache	Sets the 3D V-cache mode. Options: ● Auto ● Disabled ● 1 stack	Auto
L3 BIST	Sets whether to enable L3 BIST. Options: ● Auto. ● Enabled: enables L3 BIST. ● Disabled: disables L3 BIST.	Auto

Parameter	Description	Default Value
Diagnostic Mode	Sets whether to enable the diagnostic mode. Options: ● Auto. ● Enabled: enables the diagnostic mode. ● Disabled: disables the diagnostic mode.	Auto
GMI Folding	Sets whether to enable the GMI folding function. Options: ● Auto. ● Enabled: enables the GMI folding function. ● Disabled: disables the GMI folding function.	Auto
Separate CPU power plane throttling	Sets whether to enable the separate link throttling restriction function on the CPU power plane. Options: ● Auto. ● Enabled: lifts the link throttling restriction on the CPU power plane. ● Disabled: performs the link throttling restriction on the CPU power plane.	Auto
DfPstate Range Control	Sets whether to enable the DF P-state range control function. Options: ● Auto. ● Enabled: enables the DF P-state range control function. ● Disabled: disables the DF P-state range control function.	Auto

NBIO RAS Common Options

Figure 3-69 shows the **NBIO RAS Common Options** screen.

Figure 3-69 NBIO RAS Common Options Screen 1



For a description of the parameters on the **NBIO RAS Common Options** screen, refer to [Table 3-52](#).

Table 3-52 Parameter Descriptions for the NBIO RAS Common Options Screen

Parameter	Description	Default Value
NBIO RAS Control	Sets the NBIO RAS control mode. Options: • Auto • Disabled • MCA	Auto
NBIO SyncFlood Generation	Sets whether to enable the NBIO sync flood generation function. Options: • Auto. • Enabled: enables the NBIO sync flood generation function. • Disabled: disables the NBIO sync flood generation function.	Auto

Parameter	Description	Default Value
NBIO SyncFlood Reporting	Sets whether to enable the NBIO sync flood reporting function. Options: ● Auto. ● Enabled: enables the NBIO sync flood reporting function. ● Disabled: disables the NBIO sync flood reporting function.	Auto
PCIe Aer Reporting Mechanism	Selects the PCIe Aer reporting mechanism. Options: ● Auto ● Firmware First: enables the firmware to report errors preferentially. ● Firmware First but allow OS First: enables the firmware to report errors preferentially. However, the preference can be changed to the OS. ● Edpc Control	Auto
Edpc Control	Sets whether to enable the Edpc control function. Options: ● Auto. ● Enabled: enables the Edpc control function. ● Disabled: disables the Edpc control function.	Auto
ACS RAS Request Value	Selects the ACS RAS request value. Options: ● Auto ● Direct Request Access Enabled ● Request Blocking Enabled ● Request Redirect Enabled	Auto
NBIO Poison Consumption	Sets whether to enable the NBIO poison consumption function. Options: ● Auto. ● Enabled: enables the NBIO poison consumption function. ● Disabled: disables the NBIO poison consumption function.	Auto

Parameter	Description	Default Value
Sync Flood on PCIe Fatal Error	Sets whether to enable the sync flood function on a PCIe fatal error. Options: ● Auto. ● Enabled: enables the sync flood function on a PCIe fatal error. ● Disabled: disables the sync flood function on a PCIe fatal error.	Auto
NBIO RAS Numerical Common Options	Sets whether to enable the NBIO RAS numerical common options. Options: ● Disabled: disables the NBIO RAS numerical common options. ● Manual: sets the NBIO RAS numerical common options manually.	Disabled
Egress Poison Severity High	This parameter is displayed if NBIO RAS Numerical Common Options is set to Manual . Sets the severity level (high 32 bits) for each egress port.	0x30011
Egress Poison Severity Low	This parameter is displayed if NBIO RAS Numerical Common Options is set to Manual . Sets the severity level (low 32 bits) for each egress port.	0x4
Egress Poison Mask High	This parameter is displayed if NBIO RAS Numerical Common Options is set to Manual . Sets the mask level (high 32 bits) for each egress port.	0xFFFFCFFF
Egress Poison Mask Low	This parameter is displayed if NBIO RAS Numerical Common Options is set to Manual . Sets the mask level (low 32 bits) for each egress port.	0xFFFFFFF8
Uncorrected Converted to Poison Enable Mask High	This parameter is displayed if NBIO RAS Numerical Common Options is set to Manual . Sets the mask of uncorrected (high 32 bits) converted to poison errors for each egress port.	0x30000

Parameter	Description	Default Value
Uncorrected Converted to Poison Enable Mask Low	This parameter is displayed if NBIO RAS Numerical Common Options is set to Manual . Sets the mask of uncorrected (low 32 bits) converted to poison errors for each egress port.	0x4
System Hub Watchdog Timer	This parameter is displayed if NBIO RAS Numerical Common Options is set to Manual . Sets the interval of the hub watchdog timer, in milliseconds.	2600

PCIE

Figure 3-70 and Figure 3-72 show the **PCIE** screen.

Figure 3-70 PCIE Screen–1

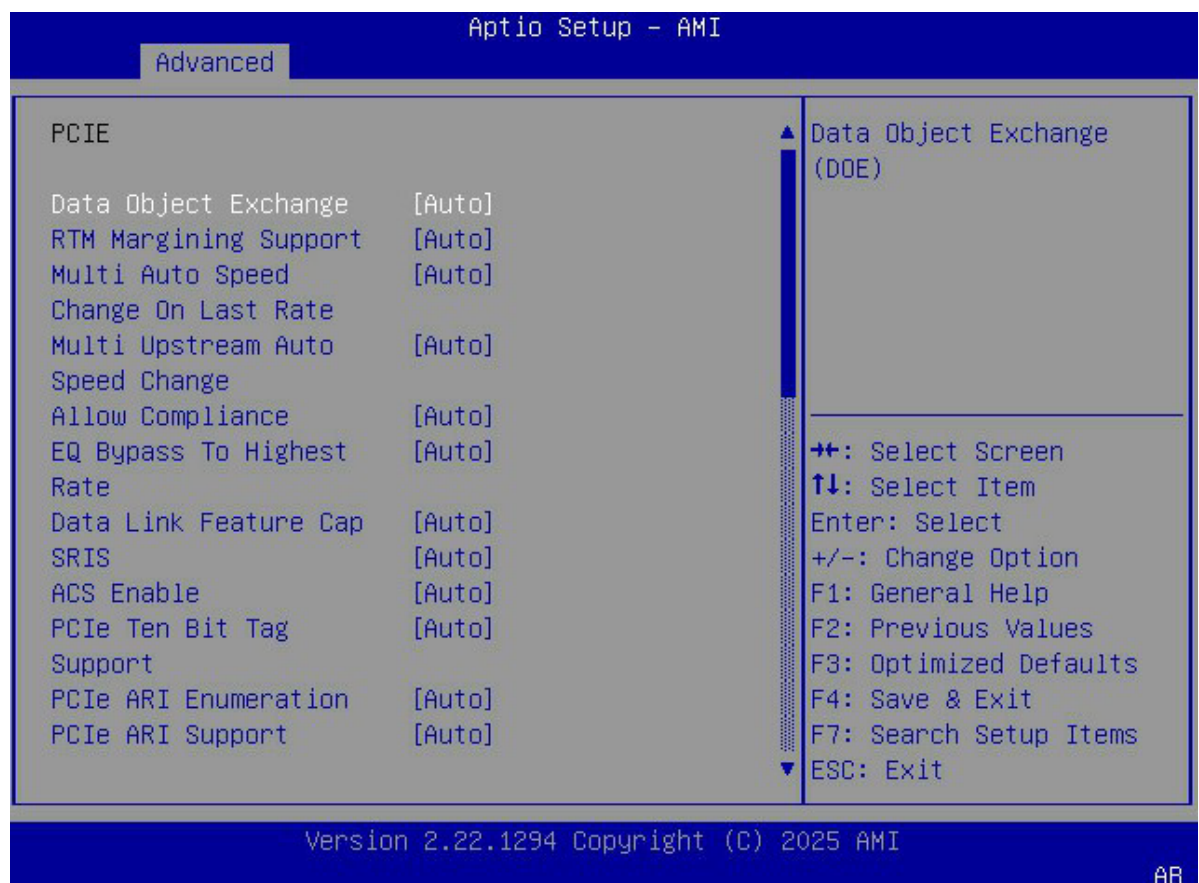


Figure 3-71 PCIE Screen-2

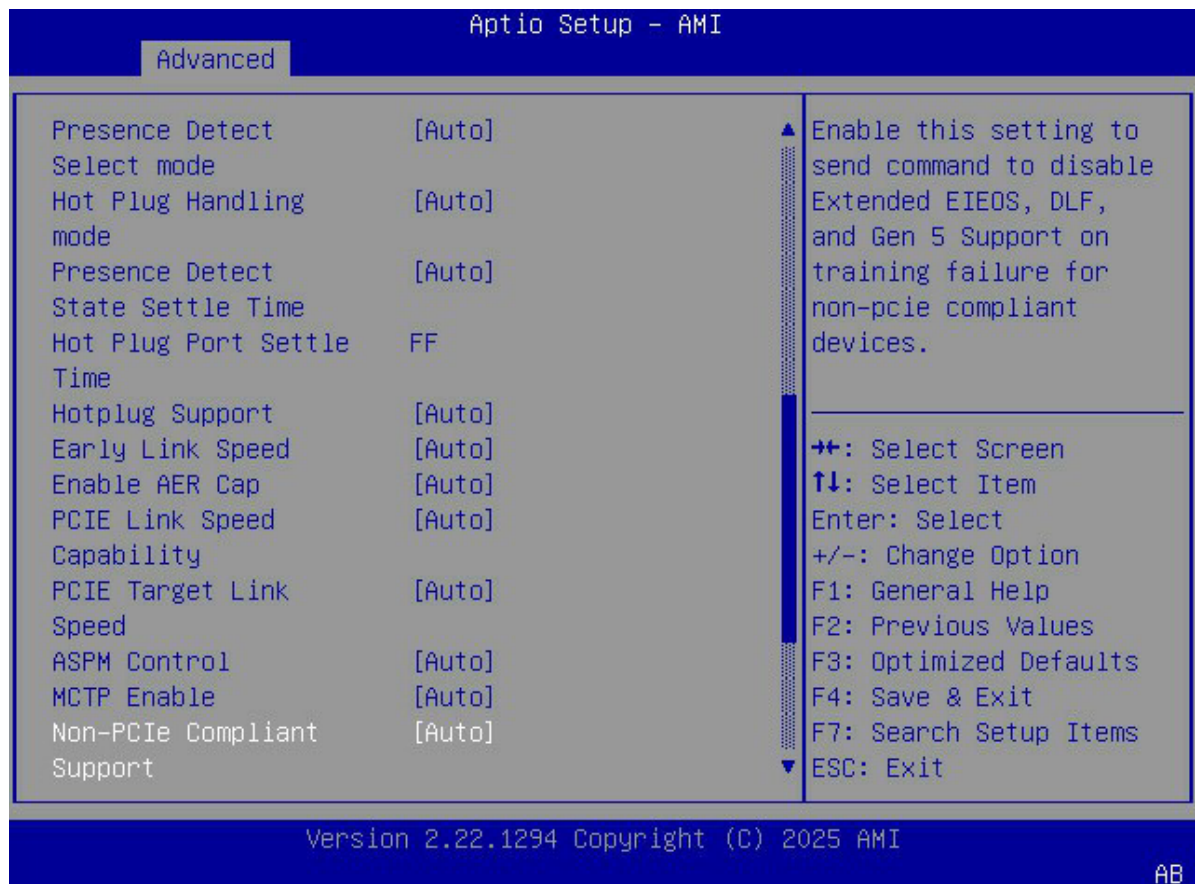
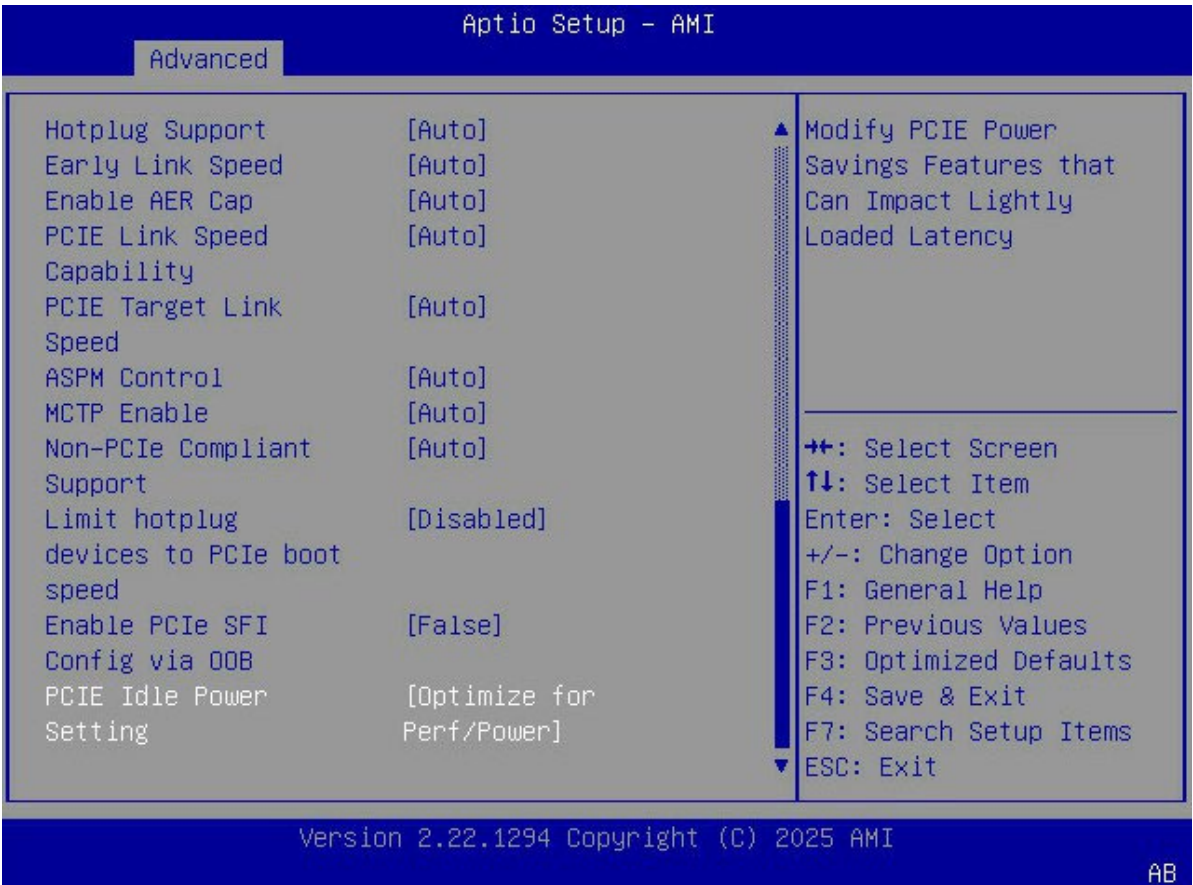


Figure 3-72 PCIE Screen–3



For a description of the parameters on the **PCIE** screen, refer to [Table 3-53](#).

Table 3-53 Parameter Descriptions for the PCIE Screen

Parameter	Function Description	Default Value
Data Object Exchange	Sets whether to enable the data object exchange function. Options: ● Auto. ● Enabled: enables the data object exchange function. ● Disabled: disables the data object exchange function.	Auto
RTM Margining Support	Sets whether to enable the RTM margin function. Options: ● Auto. ● Enabled: enables the RTM margin function. ● Disabled: disables the RTM margin function.	Auto
Multi Auto Speed Change On Last Rate	Sets the PCIe link training speed. Options:	Auto

Parameter	Function Description	Default Value
	● Auto: uses the default value. ● Enabled: uses the last value. ● Disabled: uses the maximum speed.	
Multi Upstream Auto Speed Change	Sets whether to enable the uplink auto speed change function for all PCIe devices. Options: ● Auto. ● Enabled: enables the uplink auto speed change function for all PCIe devices. ● Disabled: disables the uplink auto speed change function for all PCIe devices.	Auto
Allow Compliance	Sets whether to allow the PCIe RP to enter polling compliance status. Options: ● Auto. ● Enabled: allows the PCIe RP to enter polling compliance status. ● Disabled: disallows the PCIe RP to enter polling compliance status.	Auto
EQ Bypass To Highest Rate	Sets whether to enable the EQ bypass to reach the highest rate. Options: ● Auto. ● Enabled: enables the EQ bypass to reach the highest rate. ● Disabled: disables the EQ bypass to reach the highest rate.	Auto
Data Link Feature Cap	Sets whether to enable the data link feature capability. Options: ● Auto. ● Enabled: enables the data link feature capability. ● Disabled: disables the data link feature capability.	Auto
SRIS	Sets whether to enable the SRIS function. Options: ● Auto. ● Enabled: enables the SRIS function. ● Disabled: disables the SRIS function.	Auto
ACS Enable	Sets whether to enable the ACS function.	Auto

Parameter	Function Description	Default Value
	Options: ● Auto. ● Enabled: enables the ACS function. Before enabling the ACS function, you must enable the AER function first. ● Disabled: disables the ACS function.	
PCIe Ten Bit Tag Support	Sets whether to enable 10-bit tag support for PCIe devices. Options: ● Auto. ● Enabled: enables 10-bit tag support for PCIe devices. ● Disabled: disables 10-bit tag support for PCIe devices.	Auto
PCIe ARI Enumeration	Sets whether to enable the PCIe ARI enumeration function. Options: ● Auto. ● Enabled: enables the PCIe ARI enumeration function. ● Disabled: disables the PCIe ARI enumeration function.	Auto
PCIe ARI Support	Sets whether to enable the PCIe ARI support function. Options: ● Auto. ● Enabled: enables the PCIe ARI support function. ● Disabled: disables the PCIe ARI support function.	Auto
Presence Detect Select mode	Sets whether to enable the presence signal detection mode. Options: ● Auto. ● OR. ● AND. ● In-Band Only. ● Out-of-Band Only.	Auto
Hot Plug Handling mode	Sets the hot plugging handling mode. Options: ● Auto.	Auto

Parameter	Function Description	Default Value
	● OS First: enables hot plugging for the OS preferentially. ● Firmware First/EDR if OS supports: enables hot plugging for the firmware preferentially or enables EDR if the OS supports it. ● Firmware First but allow OS first: enables hot plugging for the firmware preferentially but allows the OS to report errors preferentially. ● System Firmware Intermediary: selects system firmware intermediary.	
Presence Detect State Settle Time	Sets whether to enable the end time of the status check. Options: ● Auto ● True: enables the end time of the status check. ● False: disables the end time of the status check.	Auto
Hot Plug Port Settle Time	Sets the time for locating hot plugging ports. Range: 0x1 through 0xFF.	FF
Hotplug Support	Sets whether to enable hot plugging support. Options: ● Auto: uses the automatic setting. ● Disabled: disables hot plugging support.	Auto
Early Link Speed	Selects the early link speed. Options: ● Auto ● Gen1 ● Gen2 ● Max	Auto
Enable AER Cap	Sets whether to enable the AER capability. Options: ● Auto. ● Enabled: enables the AER capability. ● Disabled: disables the AER capability.	Auto
PCIE Link Speed Capability	Sets the link speed capability of all PCIe ports. Options: ● Auto ● Maximum speed ● GEN1 ● GEN2 ● GEN3	Auto

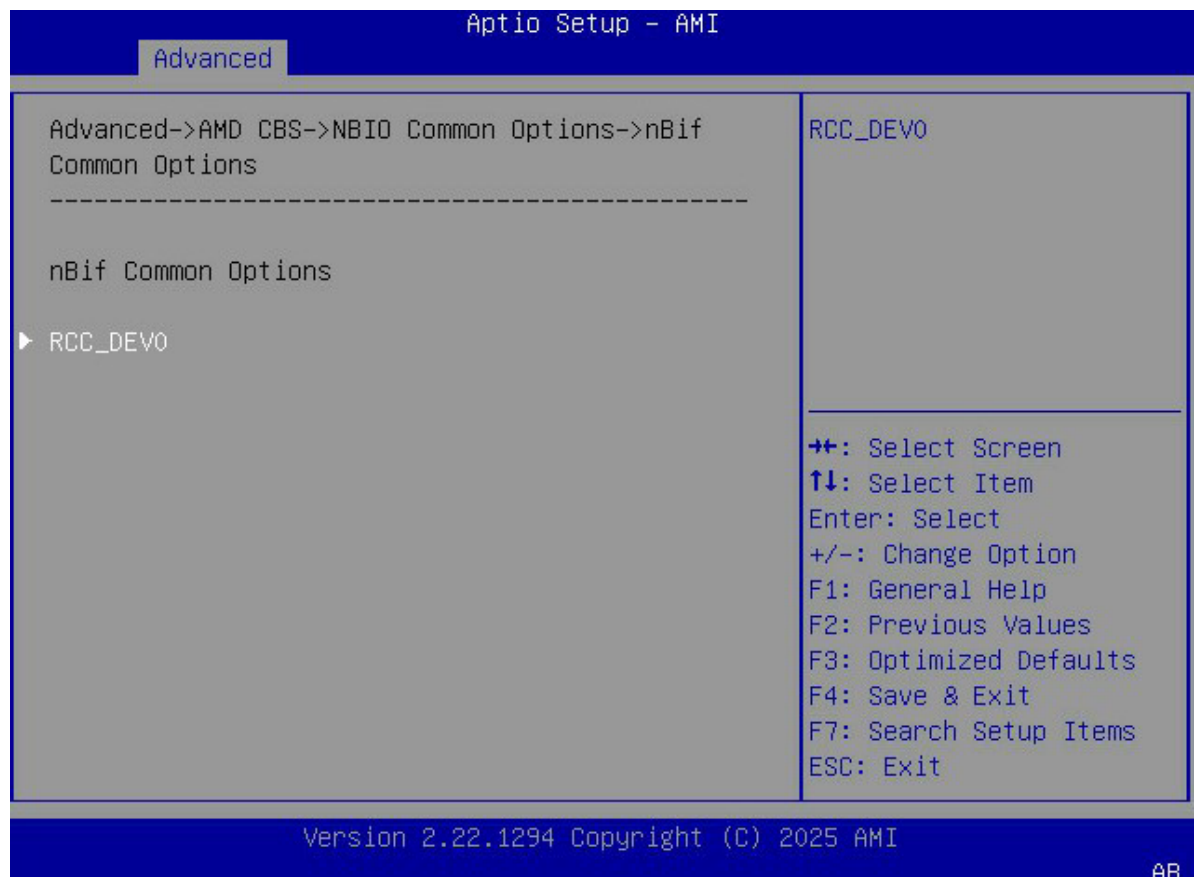
Parameter	Function Description	Default Value
	● GEN4 ● GEN5	
PCIe Target Link Speed	Sets the target link speed of all ports. Options: ● Auto ● Maximum speed ● GEN1 ● GEN2 ● GEN3 ● GEN4 ● GEN5	Auto
ASPM Control	Sets the ASPM support function. Options: ● Auto. ● L0s. ● L1. ● Disabled: disables the ASPM support function.	Auto
MCTP Enable	Sets whether to enable MCTP support. Options: ● Auto. ● Enabled: enables MCTP support. ● Disabled: disables MCTP support.	Auto
Non-PCIe Compliant Support	Sets whether to enable the non-PCIe compatibility support function. Options: ● Auto. ● Enabled: enables the non-PCIe compatibility support function. ● Disabled: disables the non-PCIe compatibility support function.	Auto
Limit hotplug devices to PCIe boot speed	Sets whether to enable the function of limiting the speed of hotplug devices to the PCIe boot speed. Options: ● Auto. ● Enabled: enables the function of limiting the speed of hotplug devices to the PCIe boot speed. ● Disabled: disables the function of limiting the speed of hotplug devices to the PCIe boot speed.	Disabled

Parameter	Function Description	Default Value
Enabled PCIe SFI Config via OOB	Sets whether to allow the enablement of PCIe SFI through OOB. Options: • True: allows the enablement of PCIe SFI through OOB. • False: disallows the enablement of PCIe SFI through OOB.	False
PCIE Idle Power Setting	Sets the PCIe idle power policy. Options: • Optimize for Latency: enables optimization for latency. • Optimize for Perf/Power: enables optimization for perf or power.	Optimize for Perf/Power

nBif Common Options

Figure 3-73 shows the **nBif Common Options** screen.

Figure 3-73 nBif Common Options Screen



For a description of the parameters on the **nBif Common Options** screen, refer to [Table 3-54](#).

Table 3-54 Parameter Descriptions for the nBif Common Options Screen

Parameter	Description
RCC_DEV0	Sets RCC_DEV0F parameters. Press Enter . The RCC_DEV0 screen is displayed, as shown in Figure 3-74 and Figure 3-75 .

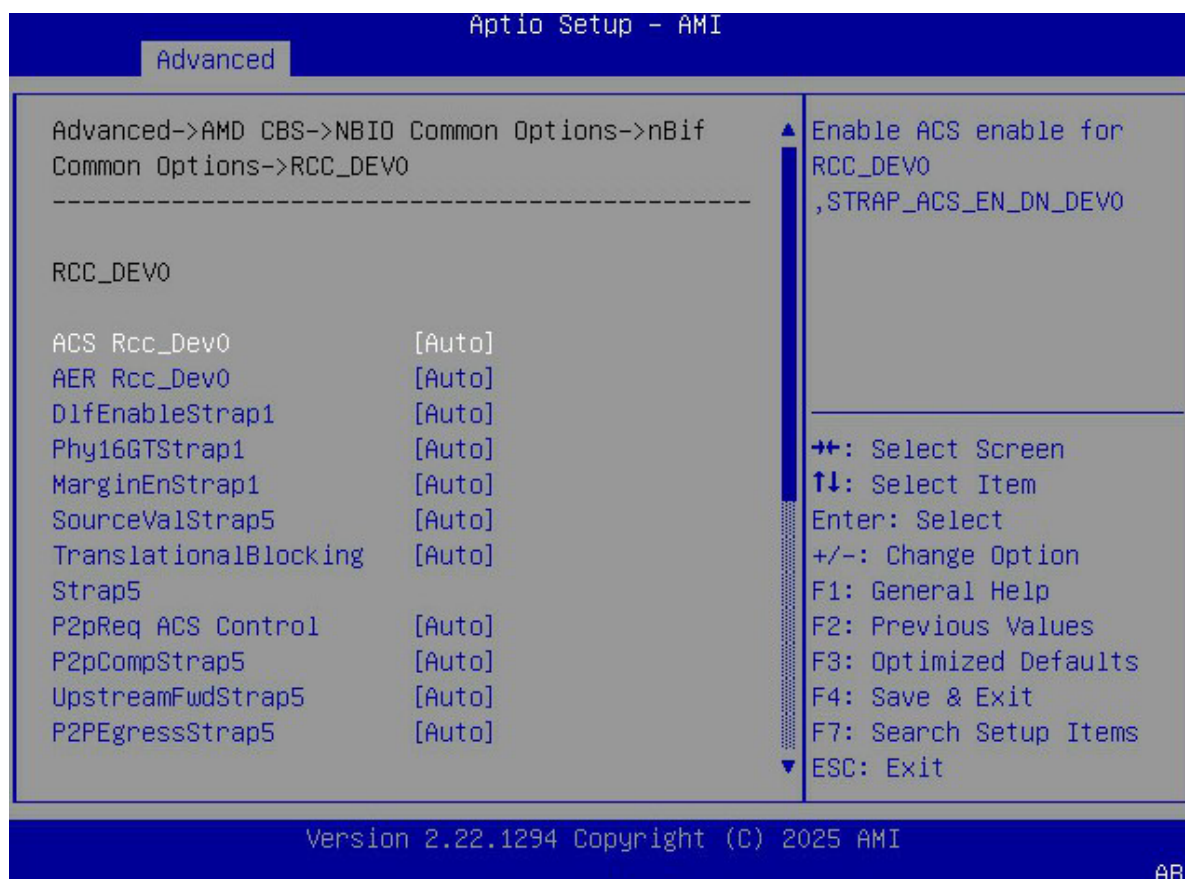
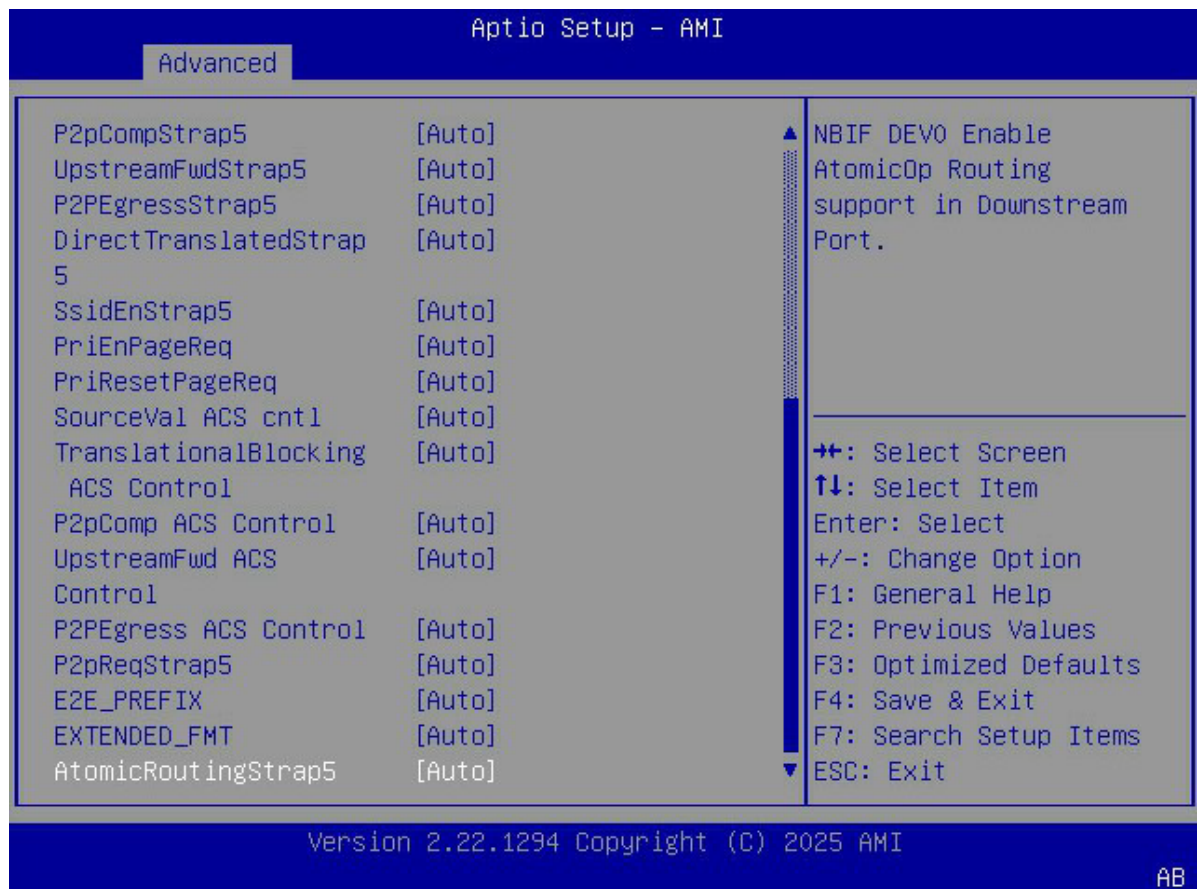
Figure 3-74 RCC_DEV0 Screen 1

Figure 3-75 RCC_DEV0 Screen 2



For a description of the parameters on the **RCC_DEV0** screen, refer to [Table 3-55](#).

Table 3-55 Parameter Descriptions for the RCC_DEV0 Screen

Parameter	Description	Default Value
ACS Rcc_Dev0	Sets whether to enable the ACS function. Options: ● Auto. ● Enabled: enables the ACS function. ● Disabled: disables the ACS function.	Auto
AER Rcc_Dev0	Sets whether to enable the AER capability. Options: ● Auto. ● Enabled: enables the AER capability. ● Disabled: disables the AER capability.	Auto
DifEnableStrap1	Sets whether to enable the DifEnableStrap1 function. Options: ● Auto.	Auto

Parameter	Description	Default Value
	● Enabled: enables the DIfEnableStrap1 function. ● Disabled: disables the DIfEnableStrap1 function.	
Phy16GTStrap1	Sets whether to enable the Phy16GTStrap1 function. Options: ● Auto ● Enabled: enables the Phy16GTStrap1 function. ● Disabled: disables the Phy16GTStrap1 function.	Auto
MarginEnStrap1	Sets whether to enable the MarginEnStrap1 function. Options: ● Auto. ● Enabled: enables the MarginEnStrap1 function. ● Disabled: disables the MarginEnStrap1 function.	Auto
SourceValStrap5	Sets whether to enable the SourceValStrap5 function. Options: ● Auto. ● Enabled: enables the SourceValStrap5 function. ● Disabled: disables the SourceValStrap5 function.	Auto
TranslationalBlockingStrap5	Sets whether to enable the TranslationalBlockingStrap5 function. Options: ● Auto. ● Enabled: enables the TranslationalBlockingStrap5 function. ● Disabled: disables the TranslationalBlockingStrap5 function.	Auto
P2pReq ACS Control	Sets whether to enable the P2pReq ACS control function. Options: ● Auto.	Auto

Parameter	Description	Default Value
	● Enabled: enables the P2pReq ACS control function. ● Disabled: disables the P2pReq ACS control function.	
P2pCompStrap5	Sets whether to enable the P2pCompStrap5 function. Options: ● Auto. ● Enabled: enables the P2pCompStrap5 function. ● Disabled: disables the P2pCompStrap5 function.	Auto
UpstreamFwdStrap5	Sets whether to enable the UpstreamFwdStrap5 function. Options: ● Auto. ● Enabled: enables the UpstreamFwdStrap5 function. ● Disabled: disables the UpstreamFwdStrap5 function.	Auto
P2PEgressStrap5	Sets whether to enable the P2PEgressStrap5 function. Options: ● Auto. ● Enabled: enables the P2PEgressStrap5 function. ● Disabled: disables the P2PEgressStrap5 function.	Auto
DirectTranslatedStrap5	Sets whether to enable the DirectTranslatedStrap5 function. Options: ● Auto. ● Enabled: enables the DirectTranslatedStrap5 function. ● Disabled: disables the DirectTranslatedStrap5 function.	Auto
SsidEnStrap5	Sets whether to enable the SsidEnStrap5 function. Options: ● Auto. ● Enabled: enables the SsidEnStrap5 function.	Auto

Parameter	Description	Default Value
	● Disabled: disables the SsidEnStrap5 function.	
PriEnPageReq	Sets whether to enable the PriEnPageReq function. Options: ● Auto. ● Enabled: enables the PriEnPageReq function. ● Disabled: disables the PriEnPageReq function.	Auto
PriResetPageReq	Sets whether to enable the PriResetPageReq function. Options: ● Auto. ● Enabled: enables the PriResetPageReq function. ● Disabled: disables the PriResetPageReq function.	Auto
SourceVal ACS cntl	Sets whether to enable the SourceVal ACS cntl function. Options: ● Auto. ● Enabled: enables the SourceVal ACS cntl function. ● Disabled: disables the SourceVal ACS cntl function.	Auto
TranslationalBlocking ACS Control	Sets whether to enable the TranslationalBlocking ACS control function. Options: ● Auto. ● Enabled: enables the TranslationalBlocking ACS control function. ● Disabled: disables the TranslationalBlocking ACS control function.	Auto
P2pComp ACS Control	Sets whether to enable the P2pComp ACS control function. Options: ● Auto.	Auto

Parameter	Description	Default Value
	● Enabled: enables the P2pComp ACS control function. ● Disabled: disables the P2pComp ACS control function.	
UpstreamFwd ACS Control	Sets whether to enable the UpstreamFwd ACS control function. Options: ● Auto. ● Enabled: enables the UpstreamFwd ACS control function. ● Disabled: disables the UpstreamFwd ACS control function.	Auto
P2PEgress ACS Control	Sets whether to enable the P2PEgress ACS control function. Options: ● Auto. ● Enabled: enables the P2PEgress ACS control function. ● Disabled: disables the P2PEgress ACS control function.	Auto
P2pReqStrap5	Sets whether to enable the P2pReqStrap5 function. Options: ● Auto. ● Enabled: enables the P2pReqStrap5 function. ● Disabled: disables the P2pReqStrap5 function.	Auto
E2E_PREFIX	Sets whether to enable the E2E_PREFIX function. Options: ● Auto. ● Enabled: enables the E2E_PREFIX function. ● Disabled: disables the E2E_PREFIX function.	Auto
EXTENDED_FMT	Sets whether to enable the EXTENDED_FMT function. Options: ● Auto.	Auto

Parameter	Description	Default Value
	- Enabled: enables the EXTENDED_FMT function. - Disabled: disables the EXTENDED_FMT function.	
AtomicRoutingStrap5	Sets whether to enable the Atomic0p route support for the downlink ports. Options: - Auto. - Enabled: enables the Atomic0p route support for the downlink ports. - Disabled: disables the Atomic0p route support for the downlink ports.	Auto

IOMMU/Security

Figure 3-76 shows the **IOMMU/Security** screen.

Figure 3-76 IOMMU/Security Screen



For a description of the parameters on the **IOMMU/Security** screen, refer to [Table 3-56](#).

Table 3-56 Parameter Descriptions for the IOMMU/Security Screen

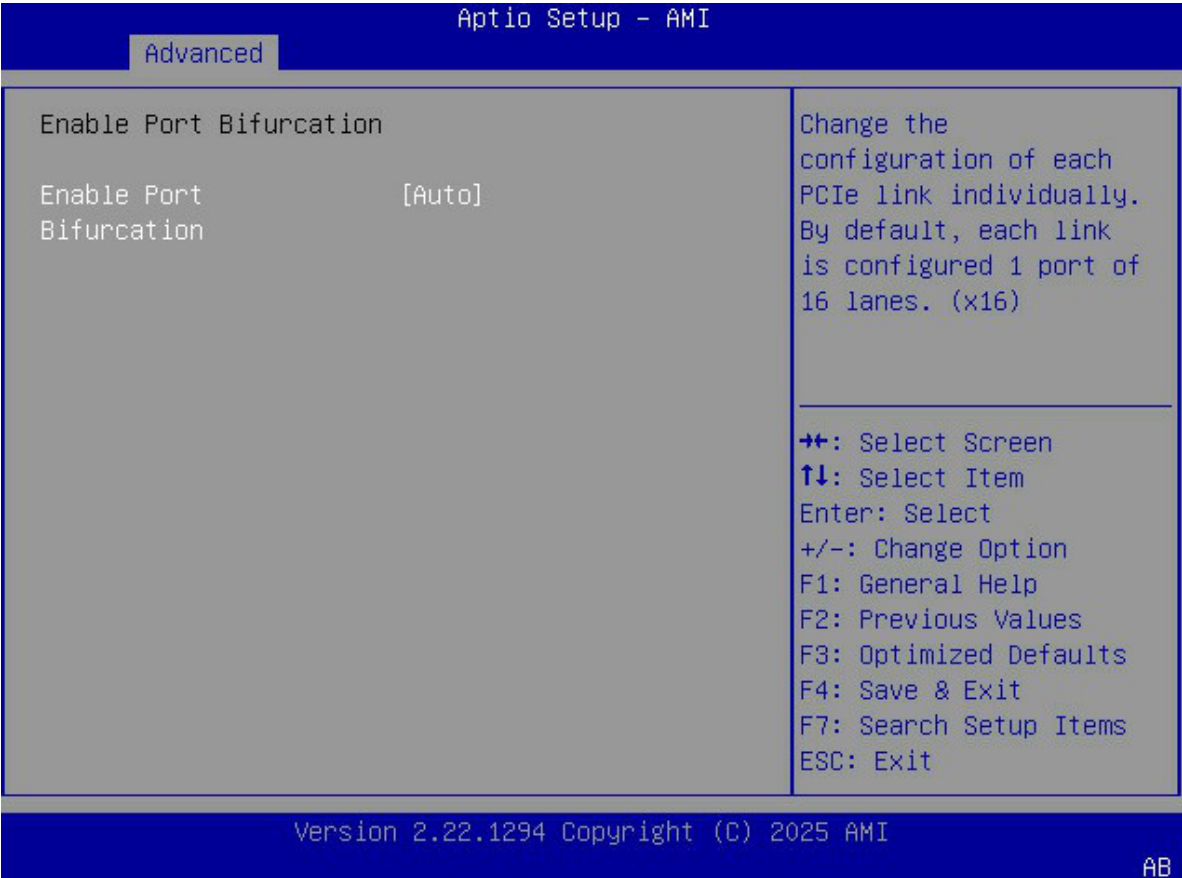
Parameter	Description	Default Value
SEV-SNP Support	Sets whether to enable the SEV-SNP support function. Options: ● Auto. ● Enabled: enables the SEV-SNP support function. ● Disabled: disables the SEV-SNP support function.	Auto
DRTM Memory Reservation	Sets whether to enable the DRTM memory reservation function. Options: ● Auto. ● Enabled: enables the DRTM memory reservation function. ● Disabled: disables the DRTM memory reservation function.	Auto
DRTM Virtual Device Support	Sets whether to enable the DRTM virtual device support function. Options: ● Auto. ● Enabled: enables the DRTM virtual device support function. ● Disabled: disables the DRTM virtual device support function.	Auto
DMA Protection	Sets whether to enable the DMA protection function. Options: ● Auto. ● Enabled: enables the DMA protection function. ● Disabled: disables the DMA protection function.	Auto
IOMMU	Sets whether to enable the IO memory management unit. Options: ● Auto. ● Enabled: enables the IO memory management unit. ● Disabled: disables the IO memory management unit.	Auto
DMAR Support	Sets whether to enable the DMAR support function. Options: ● Auto.	Auto

Parameter	Description	Default Value
	● Enabled: enables the DMAr support function. ● Disabled: disables the DMAr support function.	

Enable Port Bifurcation

Figure 3-77 shows the **Enable Port Bifurcation** screen.

Figure 3-77 Enable Port Bifurcation Screen



For a description of the parameters on the **Enable Port Bifurcation** screen, refer to [Table 3-57](#).

Table 3-57 Parameter Descriptions for the Enable Port Bifurcation Screen

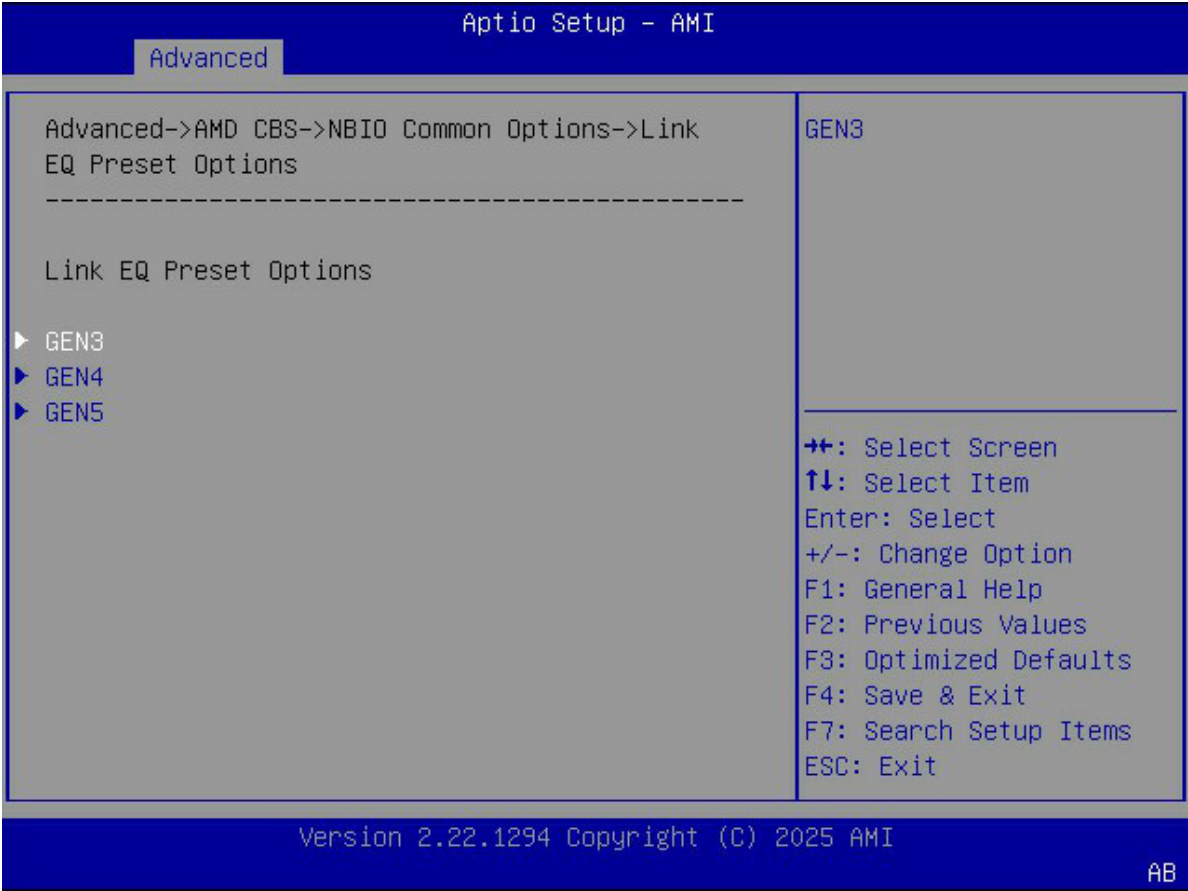
Parameter	Description	Default Value
Enable Port Bifurcation	Sets whether to enable the modification of each PCIe link independently. Options: ● Auto. ● Enabled: enables the modification of each PCIe link independently. ● Disabled: disables the modification of each PCIe link independently.	Auto

Parameter	Description	Default Value
P-Links Override	This parameter is displayed if Enable Port Bifurcation is set to Enabled. Sets the P-link override parameters. Press Enter. The P-Links Override screen is displayed. Set the P-Links override parameters as follows: ● P0 Override: sets the mode for P0 state overriding for PCIe links. The default value is Auto. ● P1 Override: sets the mode for P1 state overriding for PCIe links. The default value is Auto. ● P2 Override: sets the mode for P2 state overriding for PCIe links. The default value is Auto. ● P3 Override: sets the mode for P3 state overriding for PCIe links. The default value is Auto.	-
G-Links Override	This parameter is displayed if Enable Port Bifurcation is set to Enabled. Sets the G-Links override parameters. Press Enter. The G-Links Override screen is displayed. Set the G-Links override parameters as follows: ● G0 Override: sets the mode for G0 state overriding for PCIe links. The default value is Auto. ● G1 Override: sets the mode for G1 state overriding for PCIe links. The default value is Auto. ● G2 Override: sets the mode for G2 state overriding for PCIe links. The default value is Auto. ● G3 Override: sets the mode for G3 state overriding for PCIe links. The default value is Auto.	-

Link EQ Preset Options

Figure 3-78 shows the **Link EQ Preset Options** screen.

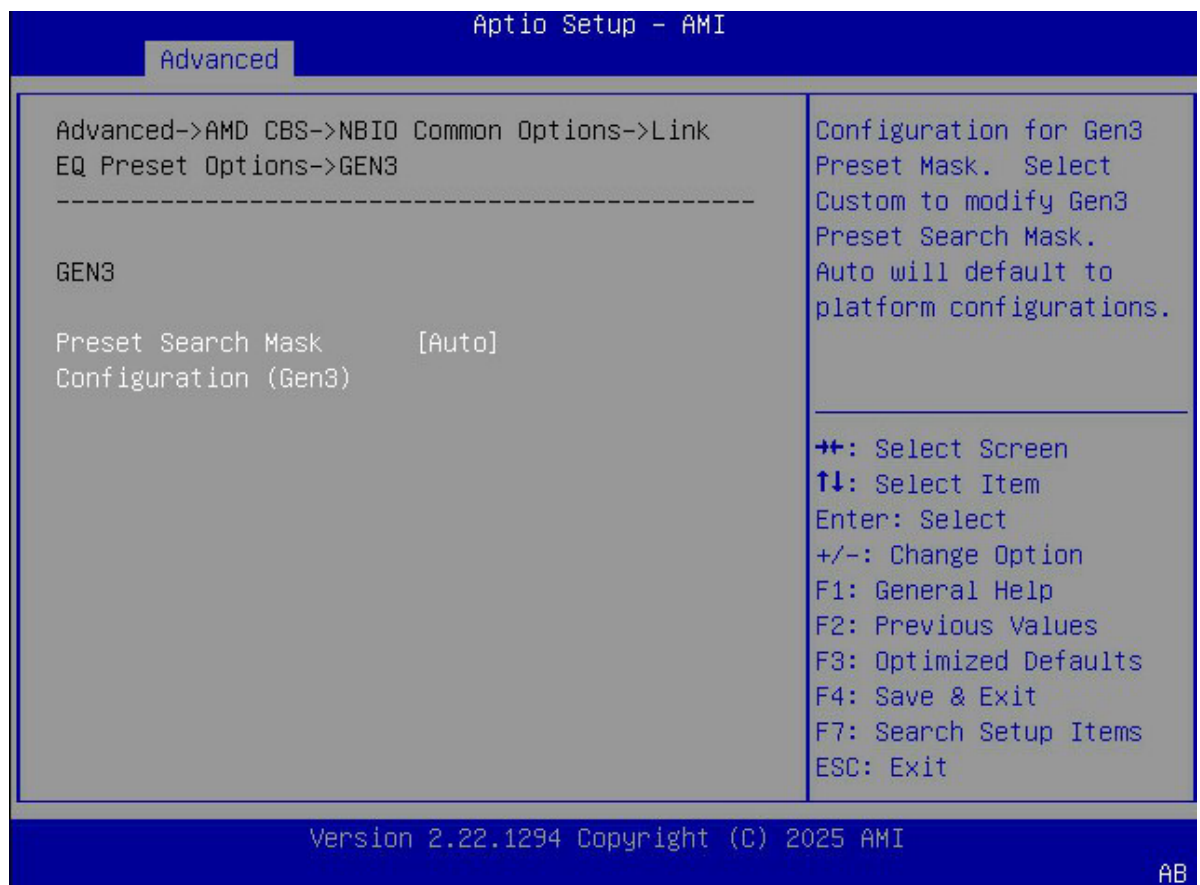
Figure 3-78 Link EQ Preset Options Screen



For a description of the parameters on the **Link EQ Preset Options** screen, refer to [Table 3-58](#).

Table 3-58 Parameter Descriptions for the Link EQ Preset Options Screen

Parameter	Description
GEN3	Sets the Gen3 parameters. Press Enter . The GEN3 screen is displayed, as shown in Figure 3-79 .
GEN4	Sets the Gen4 parameters.
GEN5	Sets the Gen5 parameters.

Figure 3-79 GEN3 Screen

For a description of the parameters on the **GEN3** screen, refer to [Table 3-59](#).

Table 3-59 Parameter Descriptions for the Gen3 Screen

Parameter	Description	Default Value
Preset Search Mask Configuration (Gen3)	Sets the mode for setting the Gen3 preset search mask. Options: ● Auto: automatically sets the Gen3 preset search mask on the platform. ● Custom: manually sets the Gen3 preset search mask on the platform.	Auto

Note

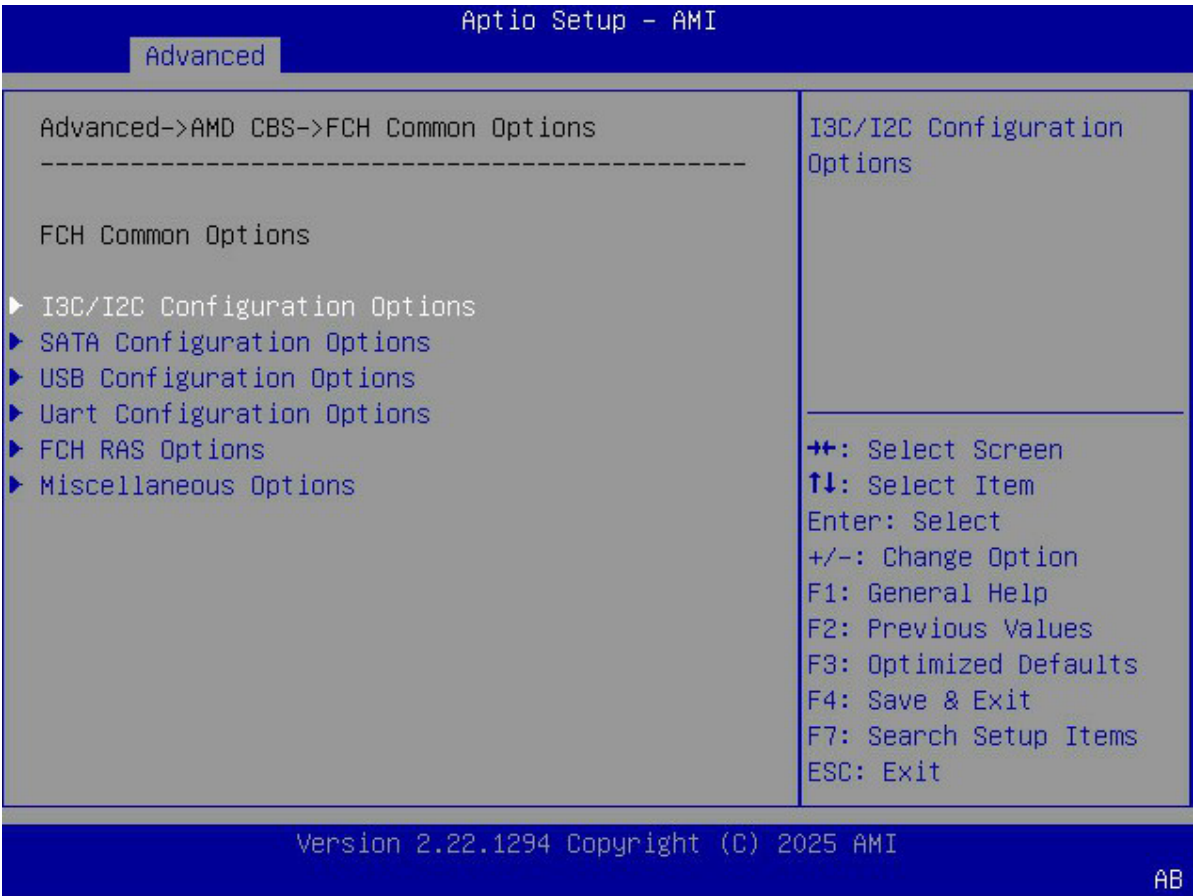
The parameters on the **GEN4** and **GEN5** screens are similar with those on the **GEN3** screen.

3.2.7.5 FCH Common Options

FCH Common Options

[Figure 3-80](#) shows the **FCH Common Options** screen.

Figure 3-80 FCH Common Options Screen



For a description of the parameters on the **FCH Common Options** screen, refer to [Table 3-60](#).

Table 3-60 Parameter Descriptions for the FCH Common Options Screen

Parameter	Description
I3C/I2C Configuration Options	Sets the I3C/I2C parameters. For details, refer to I3C/I2C Configuration Options .
SATA Configuration Options	Sets the SATA parameters. For details, refer to SATA Configuration Options .
USB Configuration Options	Sets the USB parameters. For details, refer to USB Configuration Options .
Uart Configuration Options	Sets the Uart parameters. For details, refer to Uart Configuration Options .
FCH RAS Options	Sets the FCH RAS parameters. For details, refer to FCH RAS Options .
Miscellaneous Options	Set other parameters. For details, refer to Miscellaneous Options .

I3C/I2C Configuration Options

Figure 3-81 and Figure 3-82 show the **I3C/I2C Configuration Options** screen.

Figure 3-81 I3C/I2C Configuration Options Screen 1

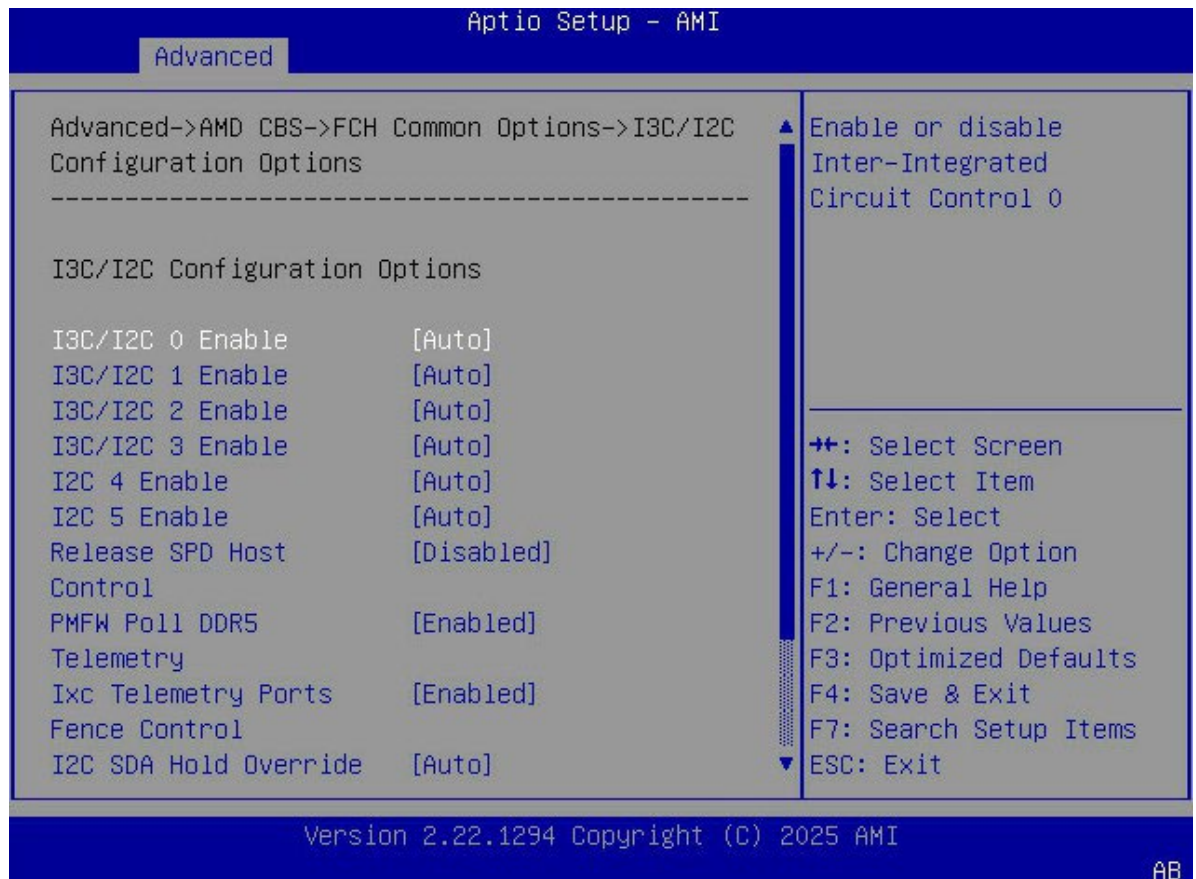
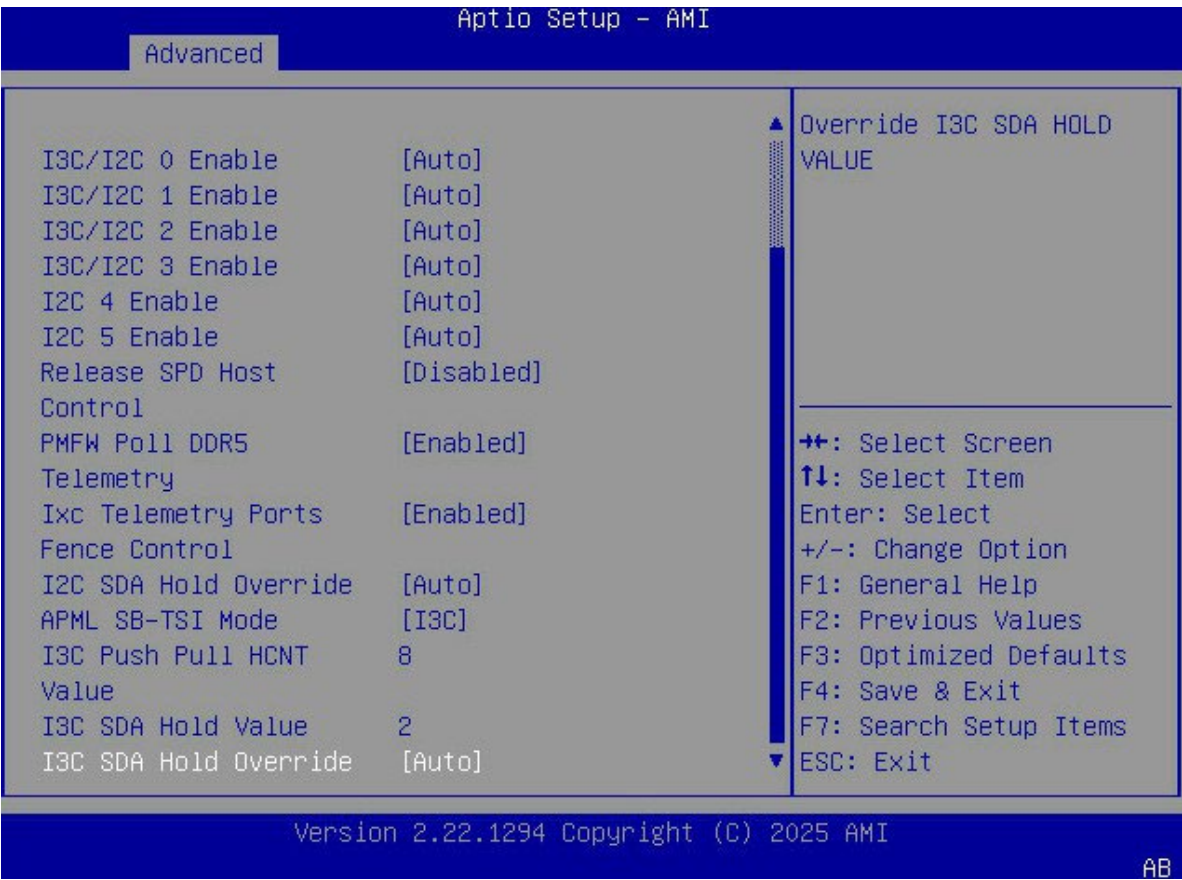


Figure 3-82 I3C/I2C Configuration Options Screen 2



For a description of the parameters on the **I3C/I2C Configuration Options** screen, refer to [Table 3-61](#).

Table 3-61 Parameter Descriptions for the I3C/I2C Configuration Options Screen

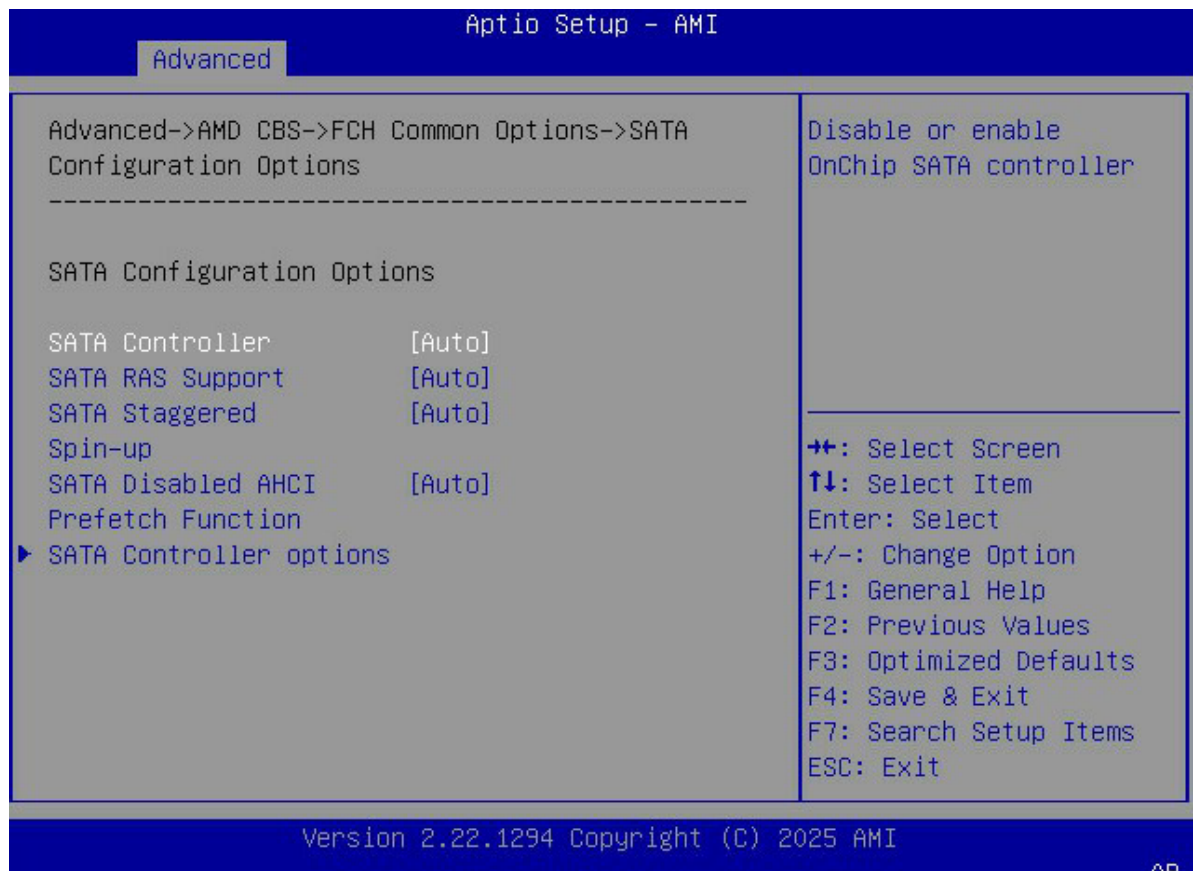
Parameter	Description	Default Value
I3C/I2C 0 Enable	Sets whether to enable internal IC control 0. Options: ● Auto. ● Both Disabled: disables both I3C and I2C. ● I3C Enabled: enables I3C. ● I2C Enabled: enables I2C.	Auto
I3C/I2C 1 Enable	Sets whether to enable internal IC control 1. Options: ● Auto. ● Both Disabled: disables both I3C and I2C. ● I3C Enabled: enables I3C. ● I2C Enabled: enables I2C.	Auto
I3C/I2C 2 Enable	Sets whether to enable internal IC control 2. Options:	Auto

Parameter	Description	Default Value
	● Auto. ● Both Disabled: disables both I3C and I2C. ● I3C Enabled: enables I3C. ● I2C Enabled: enables I2C.	
I3C/I2C 3 Enable	Sets whether to enable internal IC control 3. Options: ● Auto. ● Both Disabled: disables both I3C and I2C. ● I3C Enabled: enables I3C. ● I2C Enabled: enables I2C.	Auto
I2C 4 Enable	Sets whether to enable internal IC control 4. Options: ● Auto. ● Enabled: enables internal IC control 4. ● Disabled: disables internal IC control 4.	Auto
I2C 5 Enable	Sets whether to enable internal IC control 5. Options: ● Auto. ● Enabled: enables internal IC control 5. ● Disabled: disables internal IC control 5.	Auto
Release SPD Host Control	Sets whether to enable the release of SPD-based host control. Options: ● Enabled: enables the release of SPD-based host control. ● Disabled: disables the release of SPD-based host control.	Disabled
PMFW Poll DDR5 Telemetry	Sets whether to enable the PMFW polling DDR5 telemetry function. Options: ● Enabled: enables the PMFW polling DDR5 telemetry function. ● Disabled: disables the PMFW polling DDR5 telemetry function.	Enabled
Ixc Telemetry Ports Fence Control	Whether to enable the Ixc telemetry port fence control function. Options: ● Enabled: enables the Ixc telemetry port fence control function.	Enabled

Parameter	Description	Default Value
	Disabled: disables the lxc telemetry port fence control function.	
I2C SDA Hold Override	Sets whether to enable the I2C SDA hold overriding function. Options: - Auto. - Enabled: enables the I2C SDA hold overriding function. - Disabled: disables the I2C SDA hold overriding function.	Auto
APML SB-TSI Mode	Sets the APML SB-TSI mode. Options: - I3C - I2C	I3C
I3C Push Pull HCNT Value	Sets the I3C push-pull HCNT value.	8
I3C SDA Hold Value	Sets the I3C SDA hold value.	2
I3C SDA Hold Override	Sets whether to enable the I3C/I2C configuration option. Options: - Auto. - Enabled: enables the I3C/I2C configuration option. - Disabled: disables the I3C/I2C configuration option.	Auto

SATA Configuration Options

[Figure 3-83](#) shows the **SATA Configuration Options** screen.

Figure 3-83 SATA Configuration Options Screen

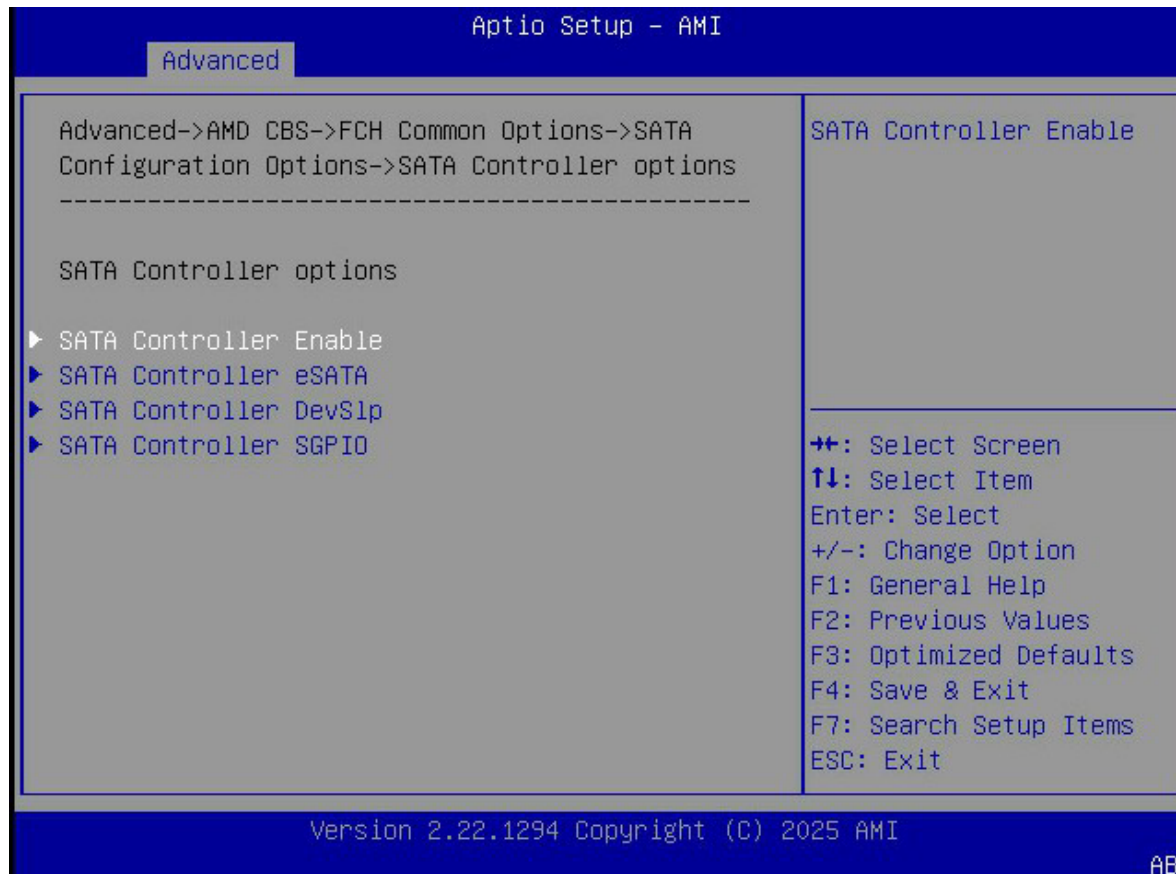
For a description of the parameters on the **SATA Configuration Options** screen, refer to [Table 3-62](#).

Table 3-62 Parameter Descriptions for the SATA Configuration Options Screen

Parameter	Description	Default Value
SATA Controller	Sets whether to enable SATA controllers. Options: - Auto. - Enabled: enables SATA controllers. - Disabled: disables SATA controllers.	Auto
SATA RAS Support	Sets whether to enable the SATA RAS support function. Options: - Auto. - Enabled: enables the SATA RAS support function. - Disabled: disables the SATA RAS support function.	Auto
SATA Staggered Spin-up	Sets whether to enable the SATA staggered spin-up function.	Auto

Parameter	Description	Default Value
	Options: • Auto. • Enabled: enables the SATA staggered spin-up function. • Disabled: disables the SATA staggered spin-up function.	
SATA Disabled AHCI Prefetch Function	Sets whether to enable the SATA that controls the AHCI prefetch function. Options: • Auto. • Enabled: enables the SATA that controls the AHCI prefetch function. • Disabled: disables the SATA that controls the AHCI prefetch function.	Auto
SATA Controller options	Sets the SATA controller parameters. Press Enter . The SATA Controller options screen is displayed, as shown in Figure 3-84 .	-

Figure 3-84 SATA Controller Options Screen



For a description of the parameters on the **SATA Controller options** screen, refer to [Table 3-63](#).

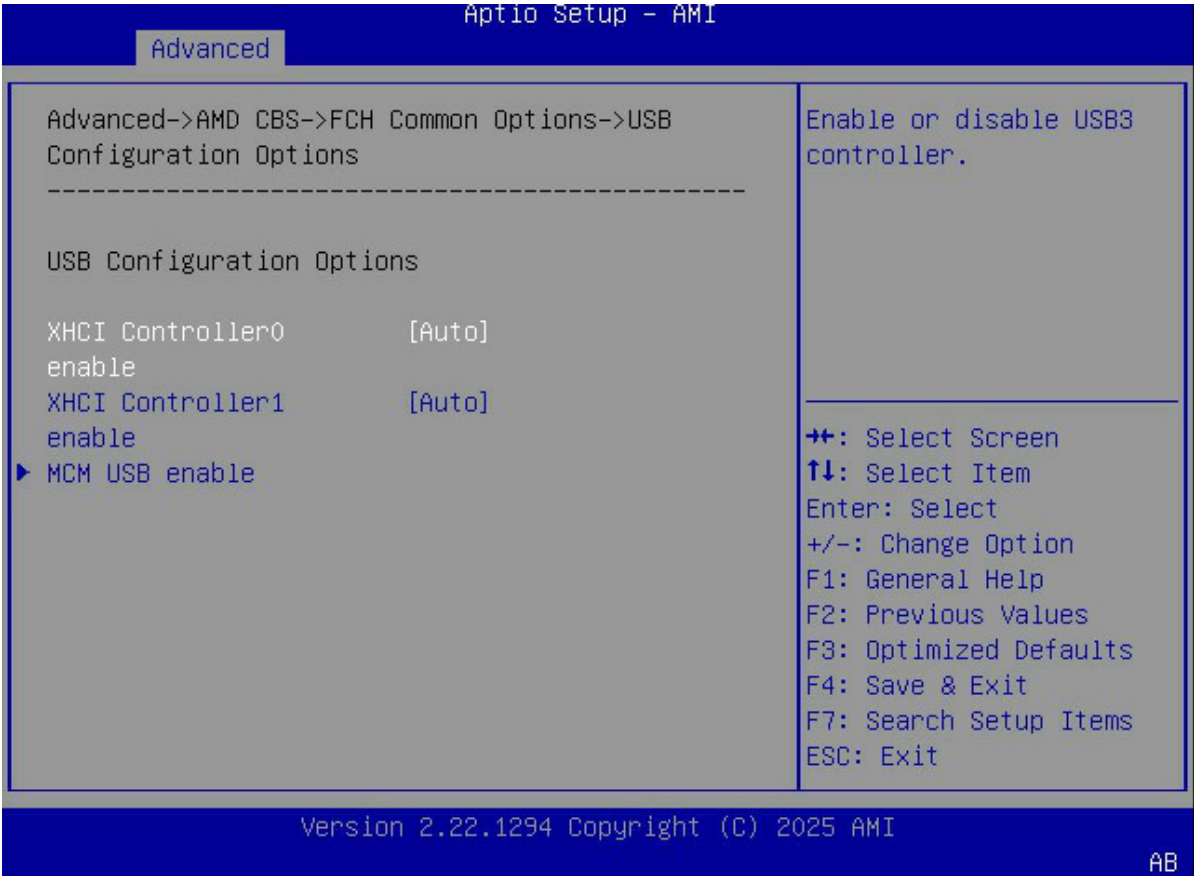
Table 3-63 Parameter Descriptions for the SATA Controller Options Screen

Parameter	Description
SATA Controller Enable	Sets the parameters for enabling SATA controllers. Press Enter. The SATA Controller Enable screen is displayed. Set the parameters as required. ● Sata0Enabled: sets whether to enable SATA0. The default value is Auto. ● Sata1Enabled: sets whether to enable SATA1. The default value is Auto. ● Sata2Enabled: sets whether to enable SATA2. The default value is Auto. ● Sata3Enabled: sets whether to enable SATA3. The default value is Auto. ● Sata4 (Socket1) Enable: sets whether to enable SATA4. The default value is Auto. ● Sata5 (Socket1) Enable: sets whether to enable SATA5. The default value is Auto. ● Sata6 (Socket1) Enable: sets whether to enable SATA6. The default value is Auto. ● Sata7 (Socket1) Enable: sets whether to enable SATA7. The default value is Auto.
SATA Controller eSATA	Sets the eSATA parameters for the SATA controller.
SATA Controller DevSlp	Sets the DevSlp parameters for the SATA controller.
SATA Controller SGPIO	Sets the SGPIO parameters for the SATA controller. Press Enter. The SATA Controller SGPIO screen is displayed. Set the parameters as required. ● Sata0 SGPIO: sets whether to enable SATA0 SGPIO. The default value is Enabled. ● Sata1 SGPIO: sets whether to enable SATA1 SGPIO. The default value is Enabled. ● Sata2 SGPIO: sets whether to enable SATA2 SGPIO. The default value is Enabled. ● Sata3 SGPIO: sets whether to enable SATA3 SGPIO. The default value is Enabled. ● Sata4 SGPIO: sets whether to enable SATA4 SGPIO. The default value is Enabled. ● Sata5 SGPIO: sets whether to enable SATA5 SGPIO. The default value is Enabled. ● Sata6 SGPIO: sets whether to enable SATA6 SGPIO. The default value is Enabled. ● Sata7 SGPIO: sets whether to enable SATA7 SGPIO. The default value is Enabled.

USB Configuration Options

Figure 3-85 shows the **USB Configuration Options** screen.

Figure 3-85 USB Configuration Options Screen

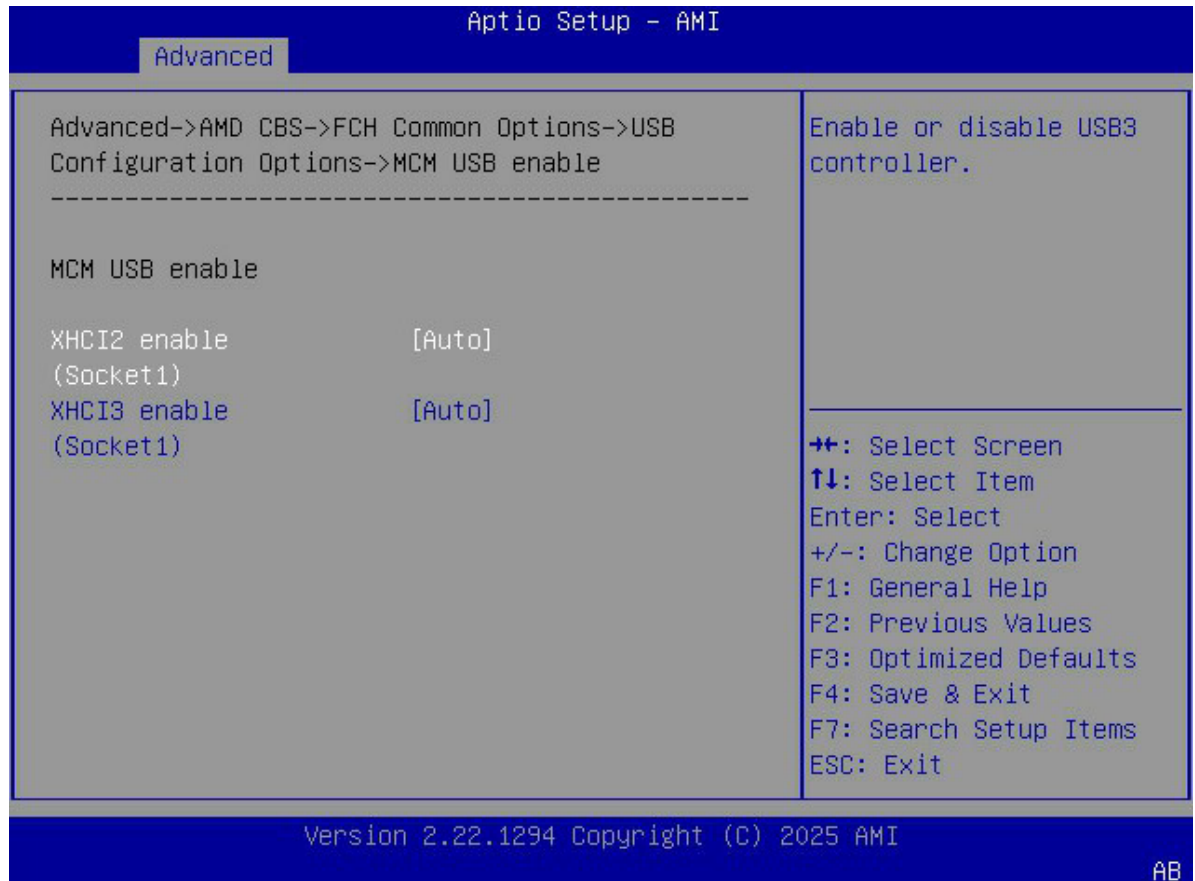


For a description of the parameters on the **USB Configuration Options** screen, refer to [Table 3-64](#).

Table 3-64 Parameter Descriptions for the USB Configuration Options Screen

Parameter	Description	Default Value
XHCI Controller0 enable	Sets whether to enable XHCI controller0. Options: ● Auto. ● Enabled: enables XHCI controller0. ● Disabled: disables XHCI controller0.	Auto
XHCI Controller1 enable	Sets whether to enable XHCI controller1. Options: ● Auto. ● Enabled: enables XHCI controller1. ● Disabled: disables XHCI controller1.	Auto
MCM USB enable	Sets the parameters for enabling MCM USBs.	-

Parameter	Description	Default Value
	Press Enter . The MCM USB enable screen is displayed, as shown in Figure 3-86 .	

Figure 3-86 MCM USB Enable Screen

For a description of the parameters on the **MCM USB enable** screen, refer to [Table 3-65](#).

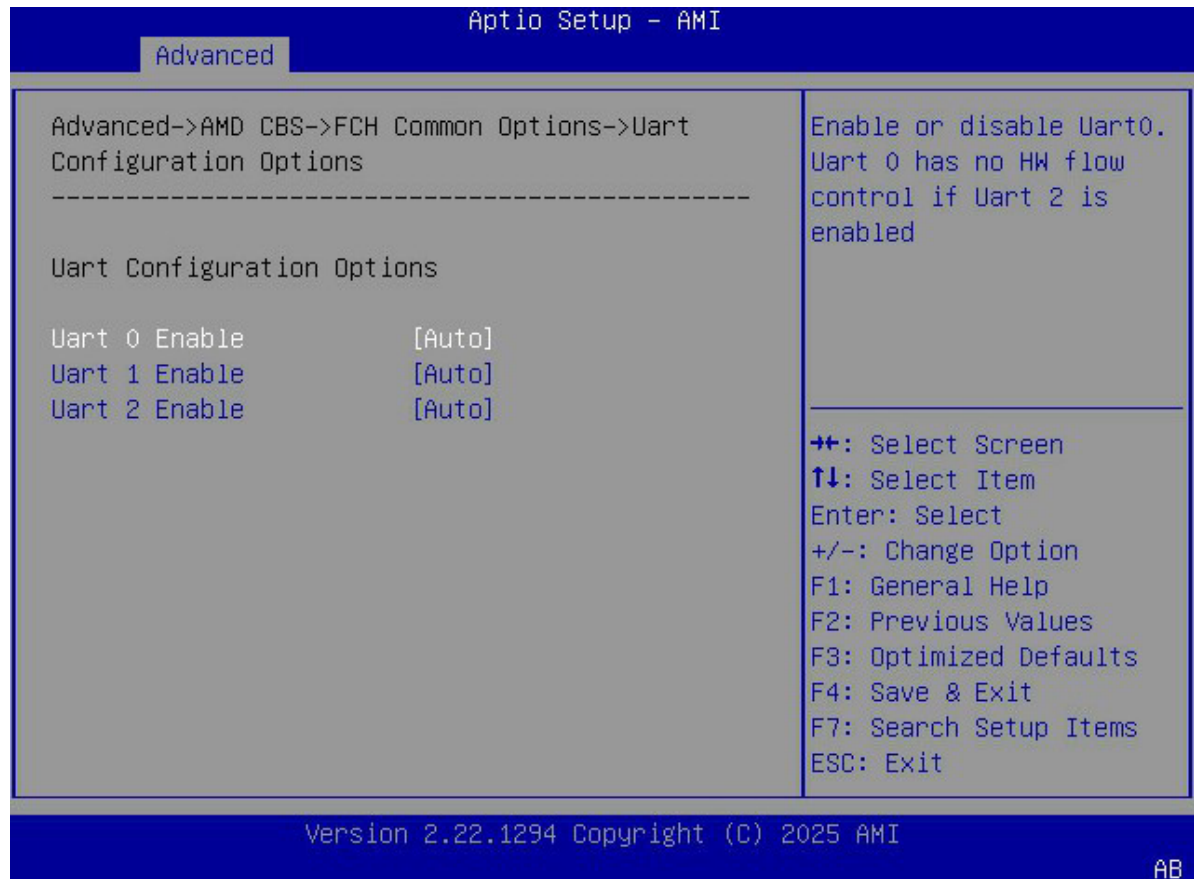
Table 3-65 Parameter Descriptions for the MCM USB Enable Screen

Parameter	Description	Default Value
XHCI2 enable (Socket1)	Sets whether to enable XHCI2. Options: • Auto. • Enabled: enables XHCI2. • Disabled: disables XHCI2.	Auto
XHCI3 enable (Socket1)	Sets whether to enable XHCI3. Options: • Auto. • Enabled: enables XHCI3. • Disabled: disables XHCI3.	Auto

Uart Configuration Options

Figure 3-87 shows the **Uart Configuration Options** screen.

Figure 3-87 Uart Configuration Options Screen



For a description of the parameters on the **Uart Configuration Options** screen, refer to [Table 3-66](#).

Table 3-66 Parameter Descriptions for the Uart Configuration Options Screen

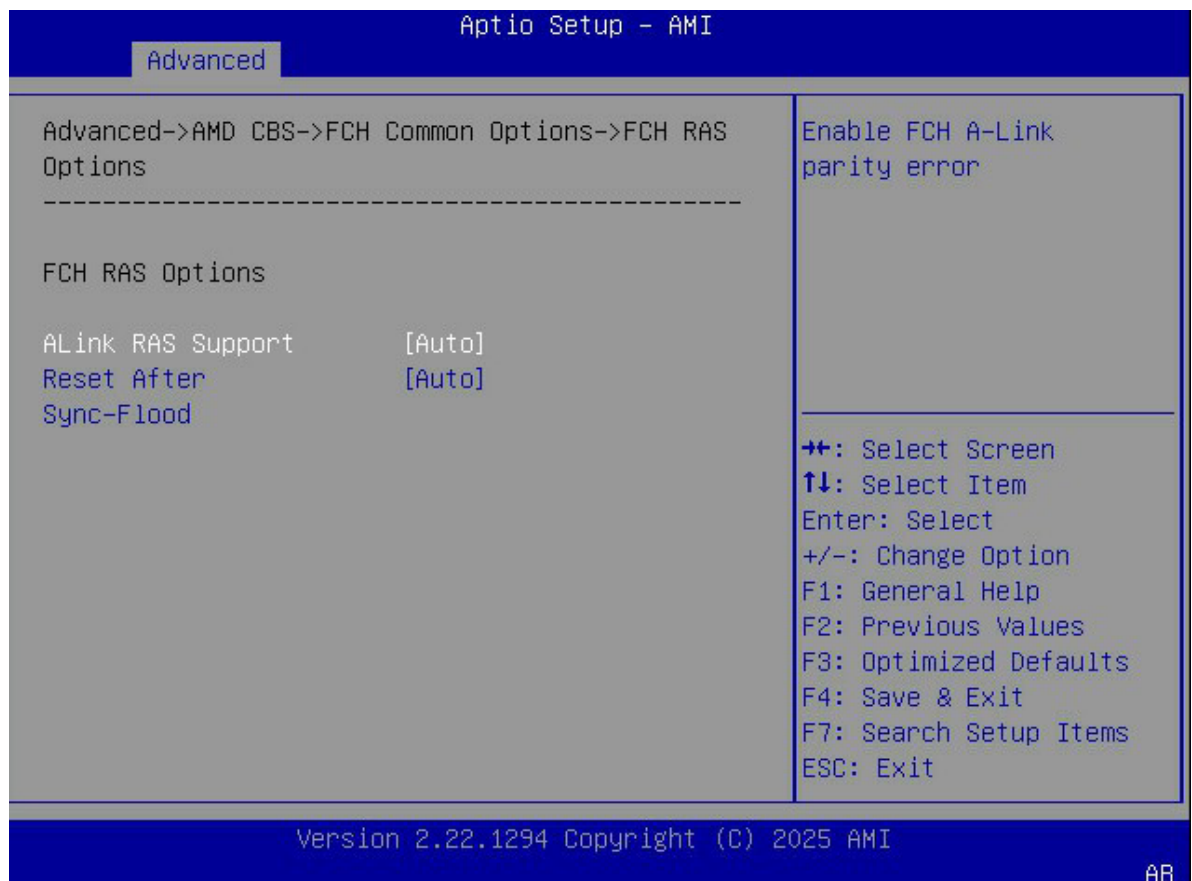
Parameter	Description	Default Value
Uart 0 Enable	Sets whether to enable Uart 0. Options: • Auto. • Enabled: enables Uart 0. • Disabled: disables Uart 0.	Auto
Uart 1 Enable	Sets whether to enable Uart 1. Options: • Auto. • Enabled: enables Uart 1. • Disabled: disables Uart 1.	Auto
Uart 2 Enable	Sets whether to enable Uart 2.	Auto

Parameter	Description	Default Value
	Options: • Auto. • Enabled: enables Uart 2. After Uart 2 is enabled, there will no HW flow monitoring for Uart 0. • Disabled: disables Uart 2.	

FCH RAS Options

Figure 3-88 shows the **FCH RAS Options** screen.

Figure 3-88 FCH RAS Options Screen



For a description of the parameters on the **FCH RAS Options** screen, refer to [Table 3-67](#).

Table 3-67 Parameter Descriptions for the FCH RAS Options Screen

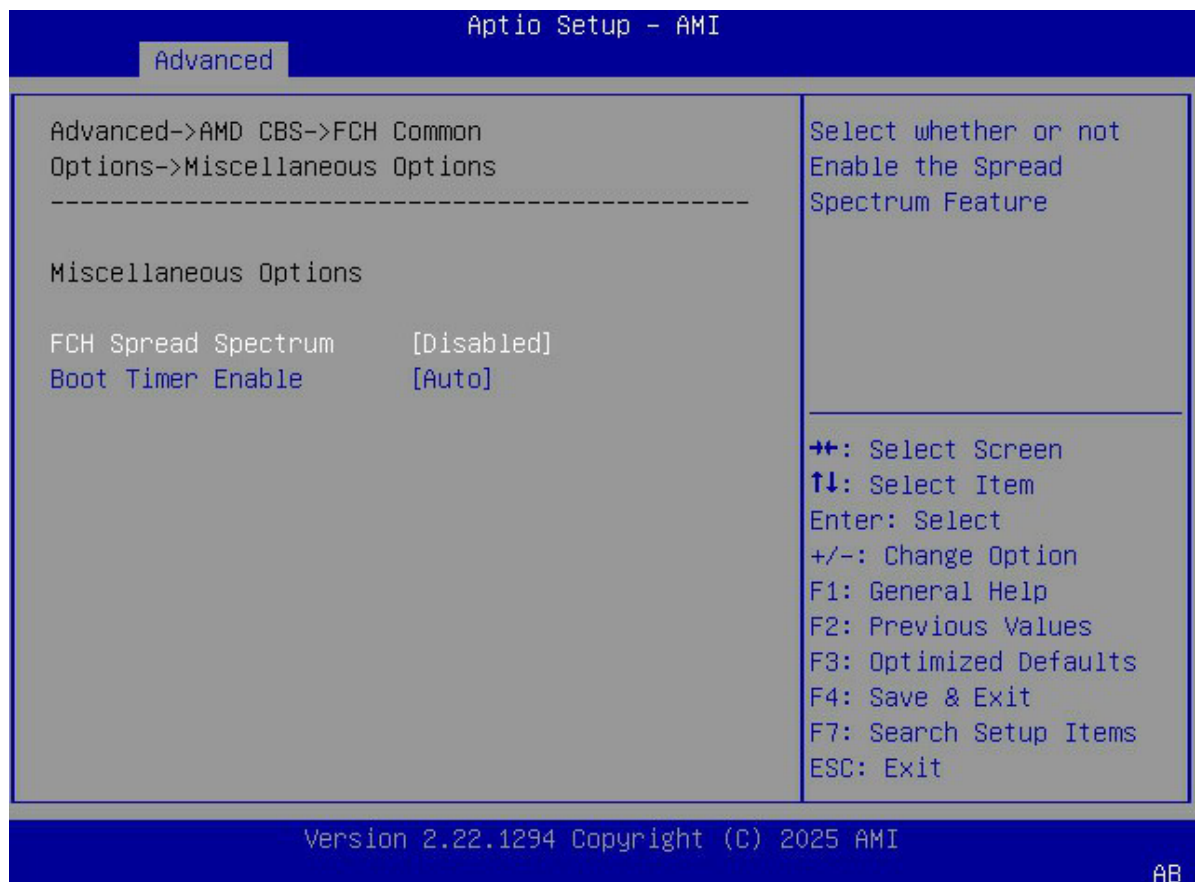
Parameter	Description	Default Value
ALink RAS Support	Sets whether to enable the A-Link parity function. Options: • Auto.	Auto

Parameter	Description	Default Value
	- Enabled: enables the A-Link parity function. - Disabled: disables the A-Link parity function.	
Reset After Sync-Flood	Sets whether to enable the resetting function after a sync flood. Options: - Auto. - Enabled: enables the resetting function after a sync flood. - Disabled: disables the resetting function after a sync flood.	Auto

Miscellaneous Options

Figure 3-89 shows the **Miscellaneous Options** screen.

Figure 3-89 Miscellaneous Options Screen



For a description of the parameters on the **Miscellaneous Options** screen, refer to [Table 3-68](#).

Table 3-68 Parameter Descriptions for the Miscellaneous Options Screen

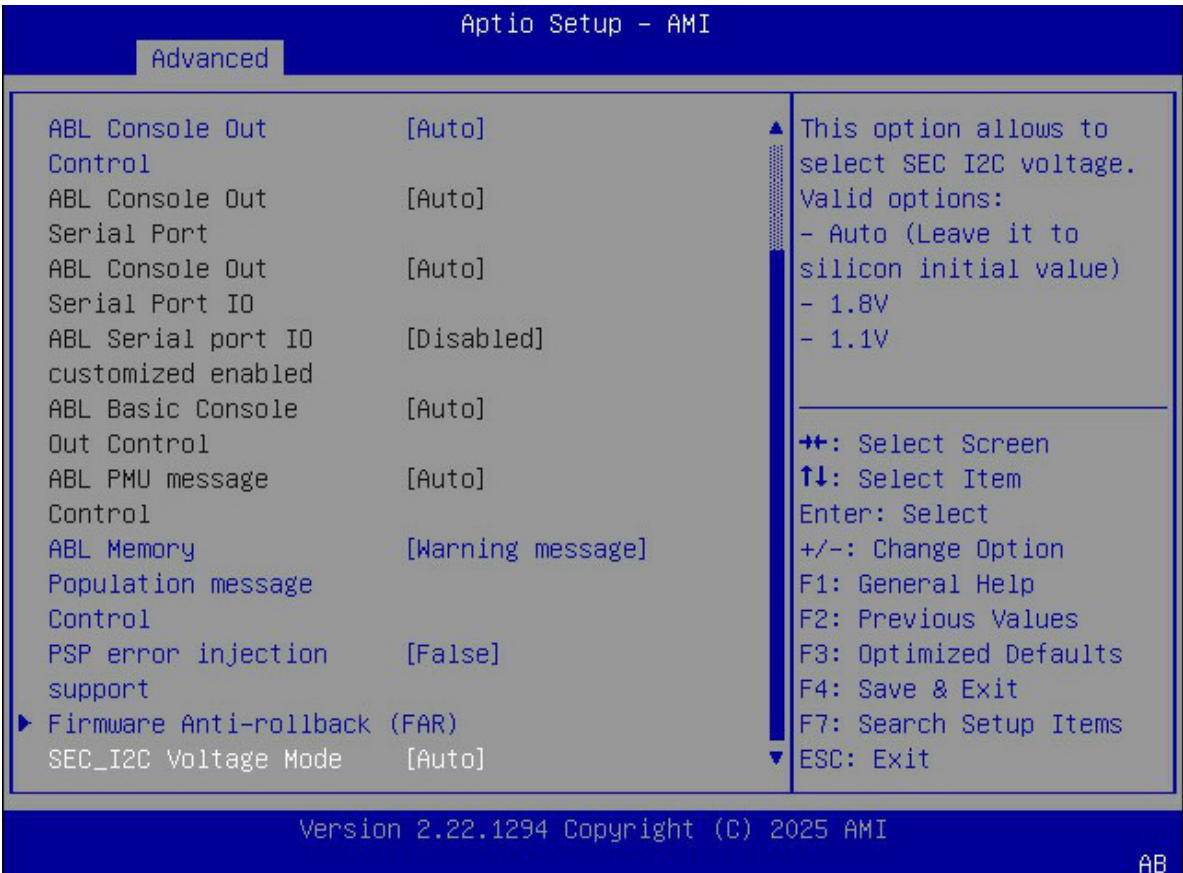
Parameter	Description	Default Value
FCH Spread Spectrum	Sets whether to enable the FCH spread spectrum function. Options: ● Auto. ● Enabled: enables the FCH spread spectrum function. ● Disabled: disables the FCH spread spectrum function.	Disabled
Boot Timer Enable	Sets whether to enable the boot time counter. Options: ● Auto: PMx44 bit 27 = PcdBootTimerEnable. ● Enabled: forces PMx44 bit 27 to 1. ● Disabled: forces PMx44 bit 27 to 0.	Auto

3.2.7.6 Soc Miscellaneous Control

Soc Miscellaneous Control

Figure 3-90 shows the **Soc Miscellaneous Control** screen.

Figure 3-90 Soc Miscellaneous Control Screen



For a description of the parameters on the **Soc Miscellaneous Control** screen, refer to [Table 3-69](#).

Table 3-69 Parameter Descriptions for the Soc Miscellaneous Control Screen

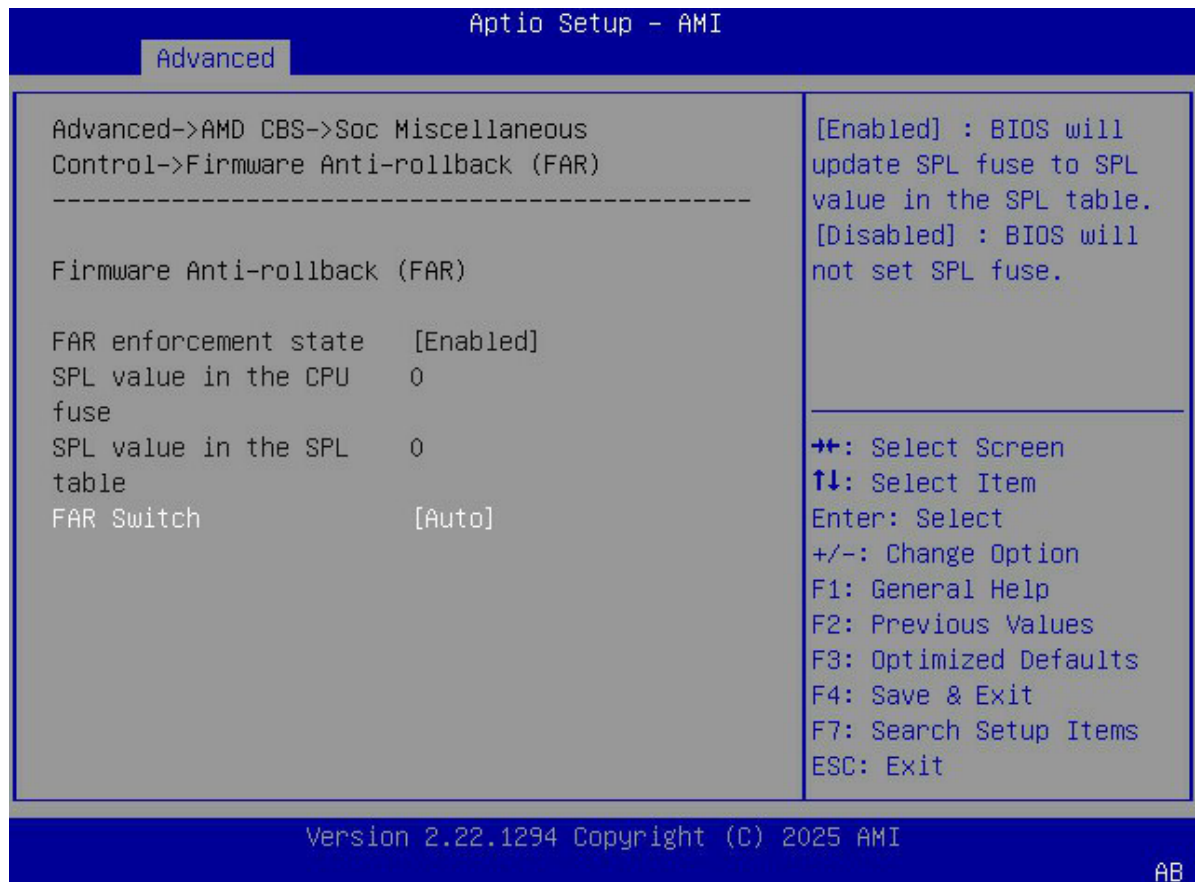
Parameter	Description	Default Value
ABL Console Out Control	Sets whether to enable the ABL console output function. Options: ● Auto. ● Enabled: enables the ABL console output function. ● Disabled: disables the ABL console output function.	Auto
ABL Console Out Serial Port	This parameter can be set if ABL Console Out Control is set to Enabled . Sets the serial port for the the ABL console output. Options: ● Auto ● eSPI UART	Auto

Parameter	Description	Default Value
	● SOC UART0 ● SOC UART1	
ABL Console Out Serial Port IO	This parameter can be set if ABL Console Out Serial Port is set to eSPI UART. Sets the serial port IO for the the ABL console output. Options: ● Auto ● 0x3F8 ● 0x2F8 ● 0x3E8 ● 0x2E8	Auto
ABL Serial port IO customized enabled	This parameter can be set if ABL Console Out Serial Port is set to eSPI UART. Sets whether to enable the IO customization function for the ABL serial port. Options: ● Enabled: enables the IO customization function for the ABL serial port. ● Disabled: disables the IO customization function for the ABL serial port.	Disabled
ABL Basic Console Out Control	This parameter can be set if ABL Console Out Control is set to Enabled. Sets whether to enable the ABL basic console output function. Options: ● Auto. ● Enabled: enables the ABL basic console output function. ● Disabled: disables the ABL basic console output function.	Auto
ABL PMU message Control	This parameter can be set if ABL Console Out Control is set to Enabled. Sets whether to enable ABL PMU message control. Options: ● Auto ● Detailed debug message ● Coarse debug message ● Stage completion	Auto

Parameter	Description	Default Value
ABL Memory Population message Control	Sets the ABL memory population message option. Options: ● Warning message ● Fatal error	Warning message
PSP error injection support	Sets whether to enable the PSP error injection support function. Options: ● True: enables the PSP error injection support function. ● False: disables the PSP error injection support function.	False
Firmware Anti-rollback (FAR)	Sets the Firmware Anti-Rollback (FAR) parameters. For details, refer to Firmware Anti-rollback (FAR) .	-
SEC_I2C Voltage Mode	Sets the SEC_I2C voltage mode. Options: ● Auto ● 1.8 V ● 1.1 V	Auto

Firmware Anti-rollback (FAR)

[Figure 3-91](#) shows the **Firmware Anti-rollback (FAR)** screen.

Figure 3-91 Firmware Anti-Rollback (FAR) Screen

For a description of the parameters on the **Firmware Anti-Rollback (FAR)** screen, refer to [Table 3-70](#).

Table 3-70 Parameter Descriptions for the Firmware Anti-Rollback (FAR) Screen

Parameter	Description	Default Value
FAR enforcement state	Sets whether to enable FAR enforcement state. Options: - Enabled: enables FAR enforcement state. - Disabled: disables FAR enforcement state.	Enabled
SPL value in the CPU fuse	Sets the SPL value in the CPU fuse.	0
SPL value in the SPL table	Sets the SPL value in the SPL table.	0
FAR Switch	Sets whether to enable the FAR function. Options: - Auto. - Enabled: updates the SPL fuse to the SPL value in the SPL table.	Auto

Parameter	Description	Default Value
	Disabled: does not set the SPL fuse.	

3.2.7.7 CXL Common Options

CXL Common Options

Figure 3-92 and Figure 3-93 show the **CXL Common Options** screen.

Figure 3-92 CXL Common Options Screen 1

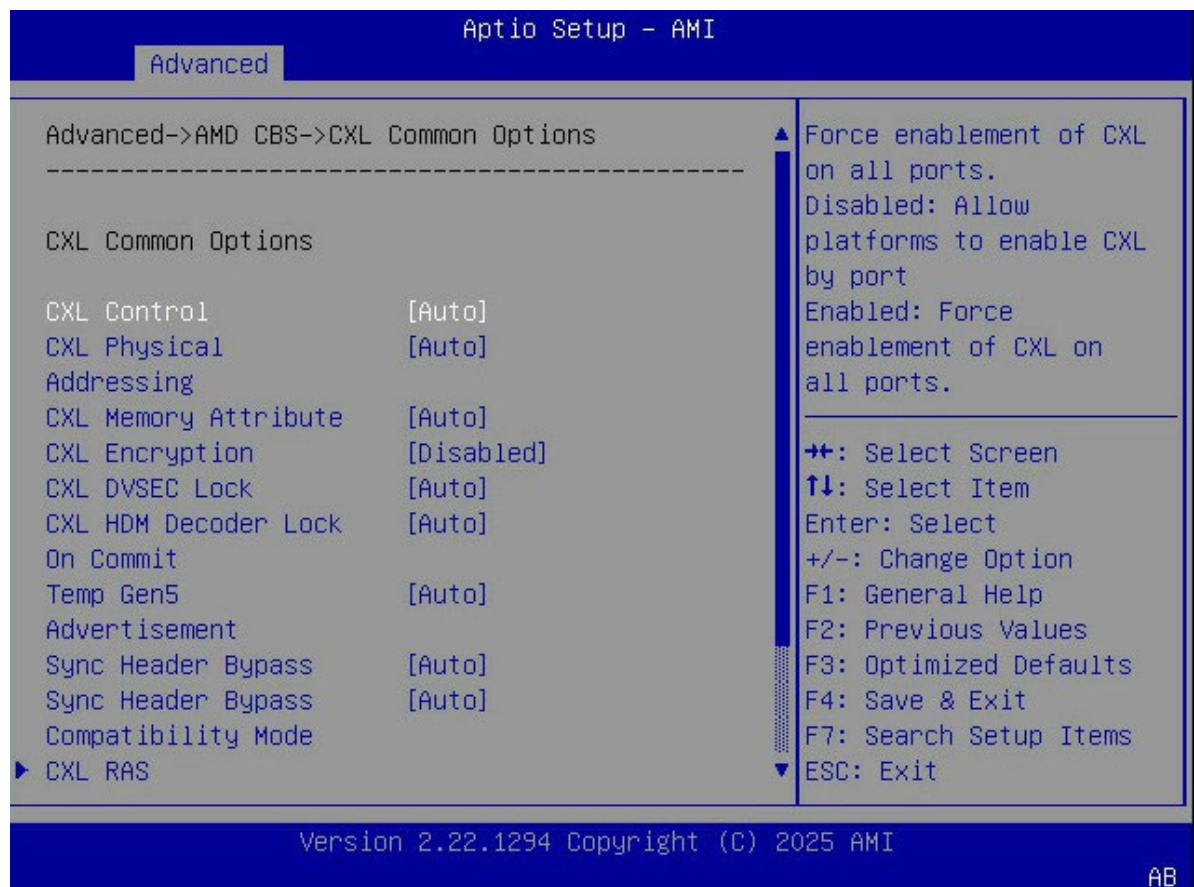
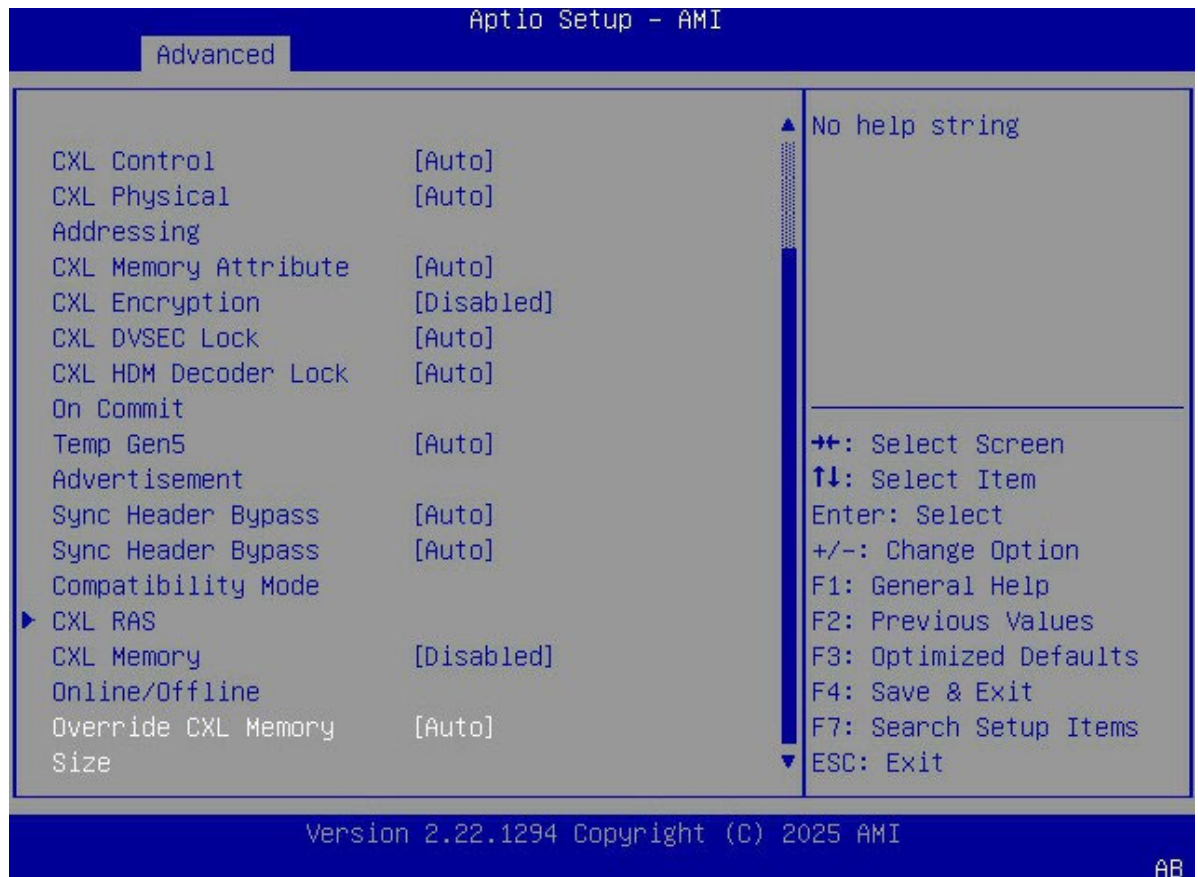


Figure 3-93 CXL Common Options Screen 2

For a description of the parameters on the **CXL Common Options** screen, refer to [Table 3-71](#).

Table 3-71 Parameter Descriptions for the CXL Common Options Screen

Parameter	Description	Default Value
CXL Control	Sets whether to enable CXL on all ports. Options: ● Auto. ● Enabled: enables CXL on all ports. ● Disabled: disables CXL on all ports.	Auto
CXL Physical Addressing	Sets the CXL physical addressing mode. Options: ● Auto. ● Normalized address: uses normalized addresses. ● System address: uses system addresses.	Auto
CXL Memory Attribute	Sets whether to enable the CXL memory attribute function. Options: ● Auto.	Auto

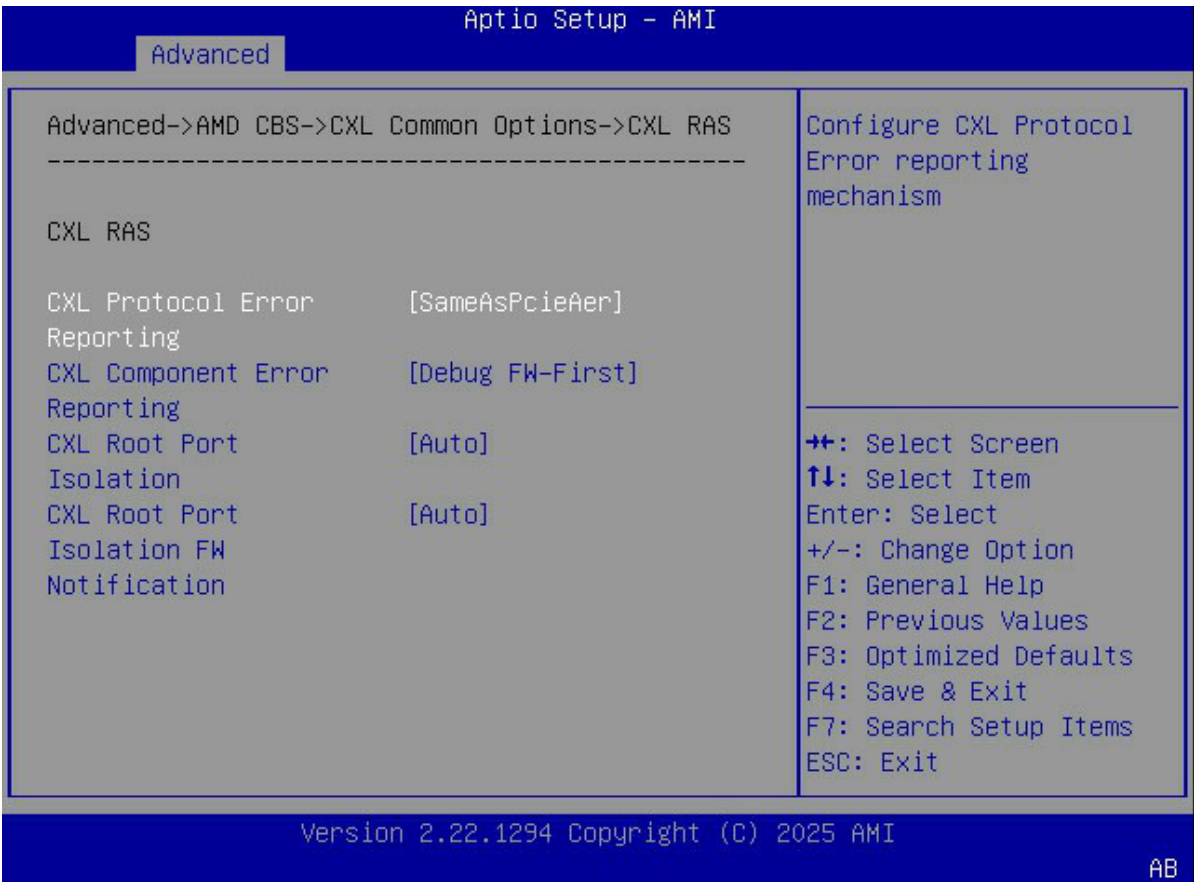
Parameter	Description	Default Value
	● Enabled: enables the CXL memory attribute function. ● Disabled: disables the CXL memory attribute function.	
CXL Encryption	Sets whether to enable the CXL encryption function. Options: ● Enabled: enables the CXL encryption function. ● Disabled: disables the CXL encryption function.	Disabled
CXL DVSEC Lock	Sets whether to enable the CXL DVSEC locking function. Options: ● Auto. ● Enabled: enables the CXL DVSEC locking function. ● Disabled: disables the CXL DVSEC locking function.	Auto
CXL HDM Decoder Lock On Commit	Sets whether to enable the CXL decoder lock commit function. Options: ● Auto. ● Enabled: enables the CXL decoder lock commit function. ● Disabled: disables the CXL decoder lock commit function.	Auto
Temp Gen5 Advertisement	Sets whether to enable the Temp Gen5 advertisement function. Options: ● Auto. ● Enabled: enables the Temp Gen5 advertisement function. ● Disabled: disables the Temp Gen5 advertisement function.	Auto
Sync Header Bypass	Sets whether to enable the synchronous header bypass function. Options: ● Auto. ● Enabled: enables the synchronous header bypass function.	Auto

Parameter	Description	Default Value
	● Disabled: disables the synchronous header bypass function.	
Sync Header Bypass Compatibility Mode	Sets whether to enable the synchronous header bypass compatibility mode. Options: ● Auto. ● Enabled: enables the synchronous header bypass compatibility mode. ● Disabled: disables the synchronous header bypass compatibility mode.	Auto
CXL RAS	Sets the CXL RAS parameters. For details, refer to CXL RAS .	-
CXL Memory Online/Offline	Sets whether to enable the CXL memory online function and CXL memory offline function. Options: ● Disabled: disables the CXL memory online function and CXL memory offline function. ● Enabled: enables the CXL memory online function and CXL memory offline function.	Disabled
Override CXL Memory Size	Sets the size of the CXL memory that can be overwritten. Options: ● Auto ● 32GB ● 64GB ● 128GB	Auto

CXL RAS

[Figure 3-94](#) shows the **CXL RAS** screen.

Figure 3-94 CXL RAS Screen



For a description of the parameters on the **CXL RAS** screen, refer to [Table 3-72](#).

Table 3-72 Parameter Descriptions for the CXL RAS Screen

Parameter	Description	Default Value
CXL Protocol Error Reporting	Sets the mechanism for reporting CXL protocol errors. Options: ● Disabled ● SameAsPcieAer ● ForceAerFwFirstIfCxlPresent	SameAsPcieAer
CXL Component Error Reporting	Sets the mechanism for reporting CXL component errors. Options: ● Allow OS-First ● Force FW-First ● Debug FW-First	Debug FW-First
CXL Root Port Isolation	Sets whether to enable CXL.mem root port isolation. Options: ● Auto.	Auto

Parameter	Description	Default Value
	- Enabled: enables CXL.mem root port isolation. - Disabled: disables CXL.mem root port isolation.	
CXL Root Port Isolation FW Notification	Sets whether to enable the CXL root port isolation notification function. Options: - Auto. - Enabled: enables the CXL root port isolation notification function. - Disabled: disables the CXL root port isolation notification function.	Auto

3.2.8 UEFI Variables Protection

Figure 3-95 shows the **UEFI Variables Protection** screen.

Figure 3-95 UEFI Variables Protection Screen



For a description of the parameters on the **UEFI Variables Protection** screen, refer to [Table 3-73](#).

Table 3-73 Parameter Descriptions for the UEFI Variables Protection Screen

Parameter	Description	Default Value
Password protection of Runtime Variables	Sets whether to enable password protection for runtime variables. Options: - Enabled: enables password protection for runtime variables. - Disabled: disables password protection for runtime variables.	Disabled

3.2.9 Serial Port Console Redirection

Figure 3-96 and Figure 3-97 show the **Serial Port Console Redirection** screen.

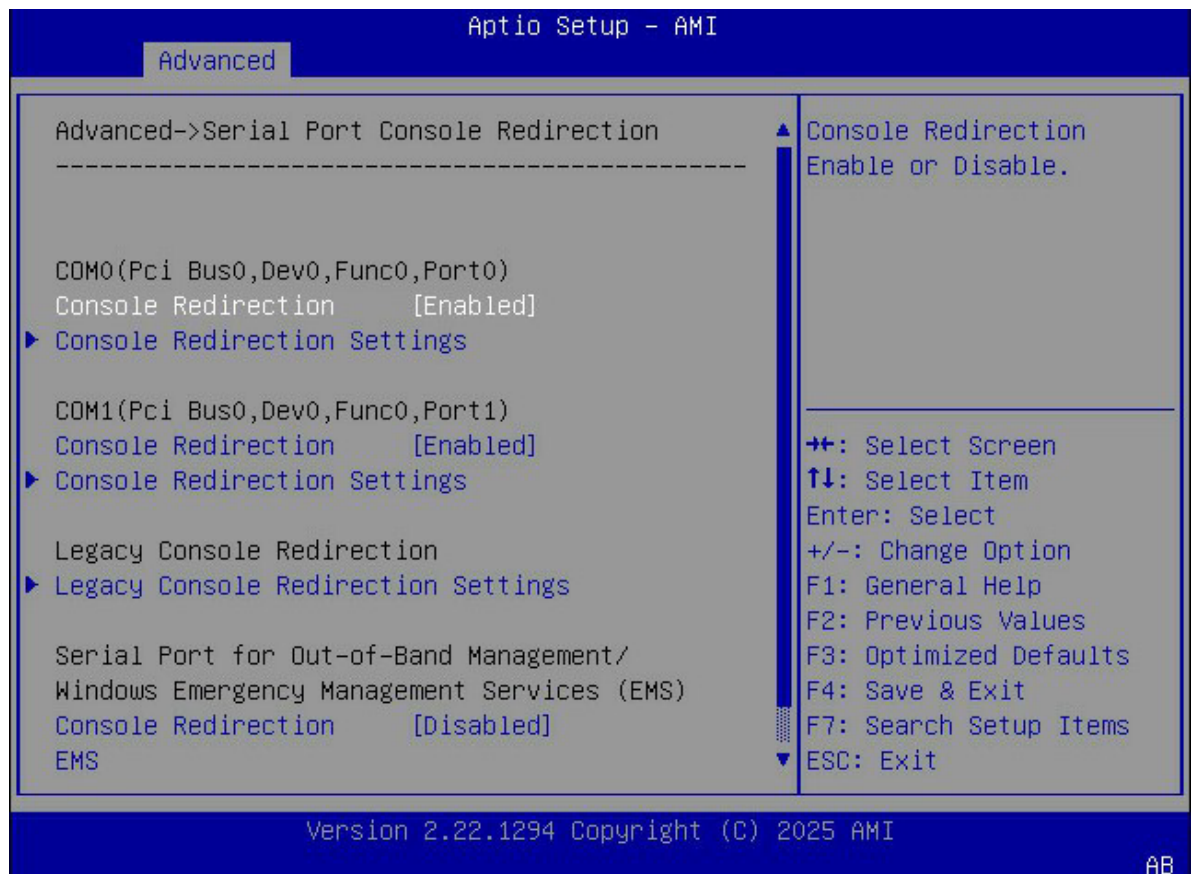
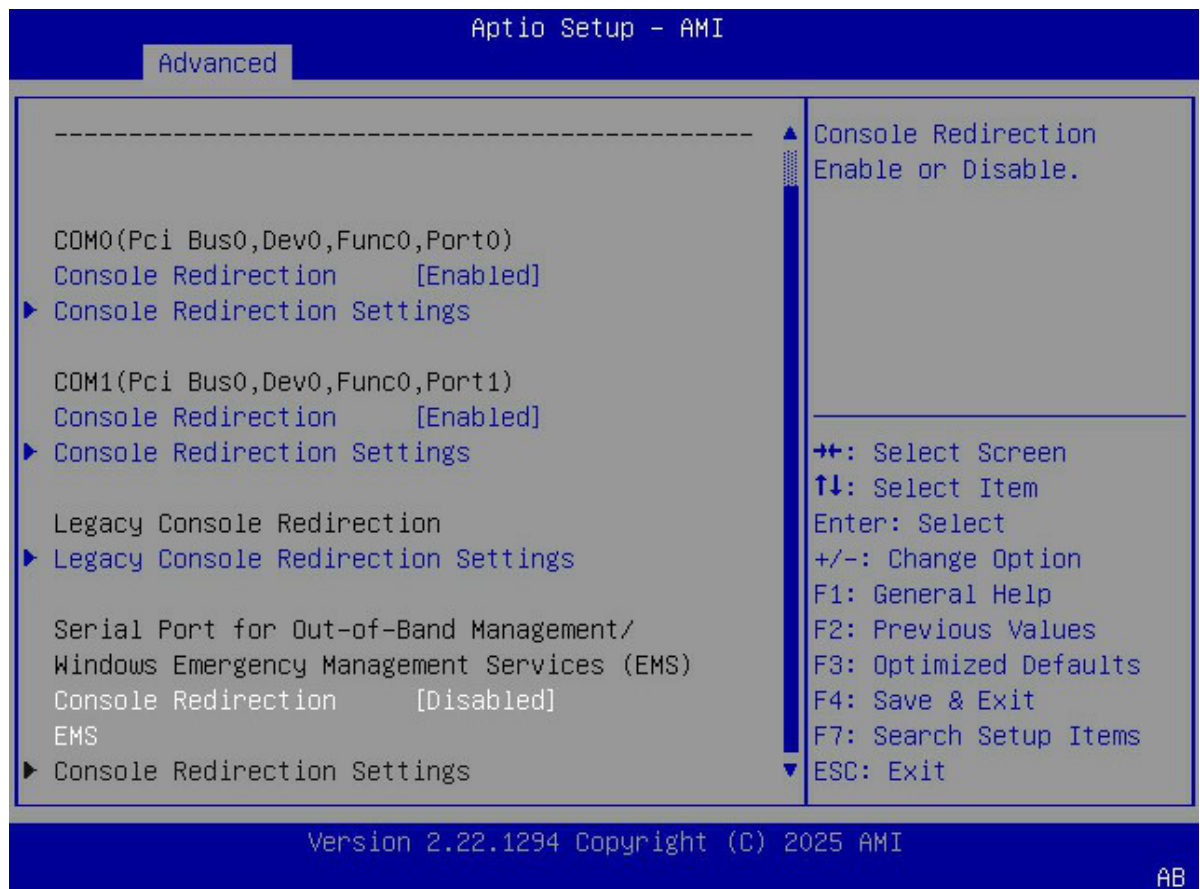
Figure 3-96 Serial Port Console Redirection Screen 1

Figure 3-97 Serial Port Console Redirection Screen 2



For a description of the parameters on the **Serial Port Console Redirection** screen, refer to [Table 3-74](#).

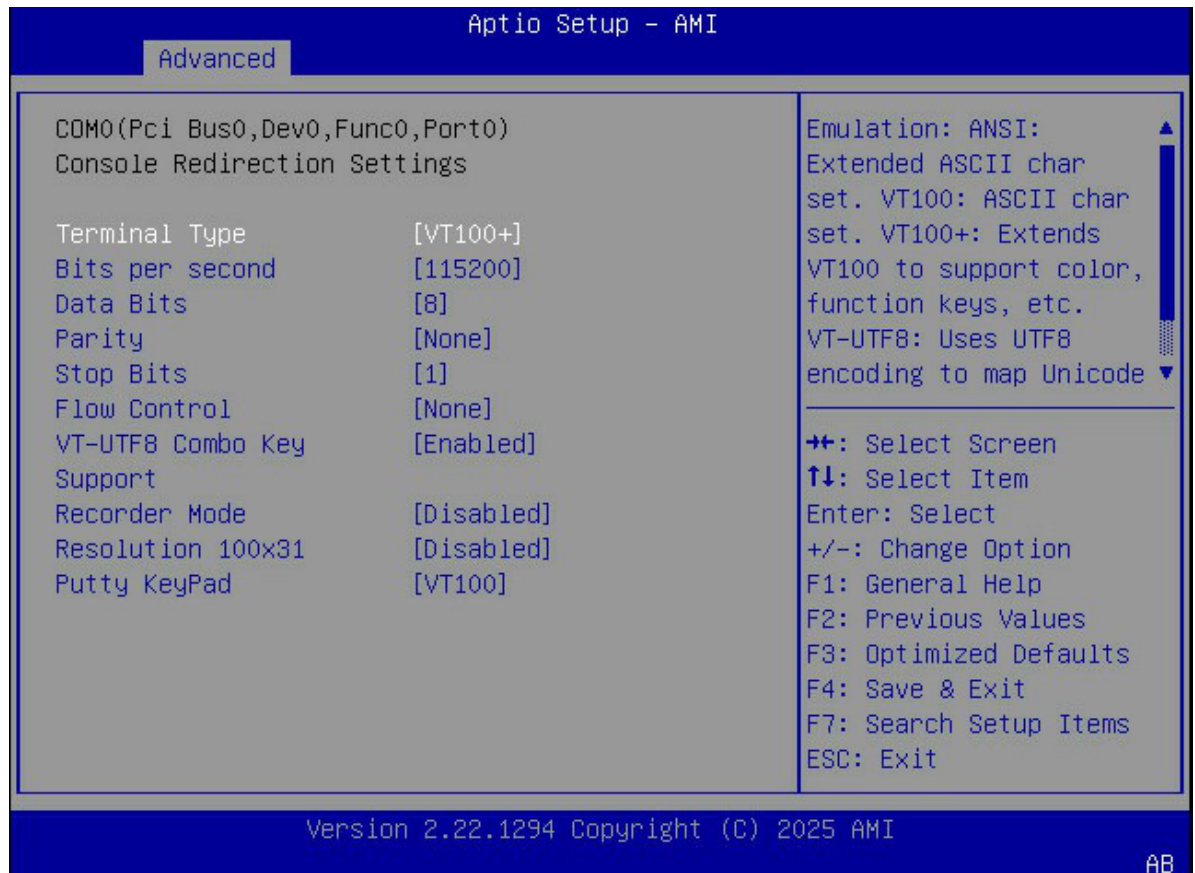
Table 3-74 Parameter Descriptions for the Serial Port Console Redirection Screen

Parameter	Description	Default Value
Console Redirection	Sets whether to enable the serial port console redirection function. Options: - Enabled: enables the serial port console redirection function. - Disabled: disables the serial port console redirection function. After this function is disabled, Console Redirection Settings below will be unavailable.	Enabled
Console Redirection Settings	Sets the serial port redirection parameters to specify how the host and the remote computer exchange data. The host and the remote computer must have the same or compatible settings.	-

Parameter	Description	Default Value
	For details, refer to 3.2.9.1 Console Redirection Settings .	
Legacy Console Redirection Settings	Sets the serial port console redirection parameters in Legacy mode. For details, refer to 3.2.9.2 Legacy Console Redirection Settings .	-
Console Redirection EMS	Sets whether to enable the serial port consoleredirection function of the EMS. Options: ● Enabled: enables the serial port console redirection function of the EMS. ● Disabled: disables the serial port console redirection function of the EMS. After this function is disabled, Console Redirection Settings below will be unavailable.	Disabled
Console Redirection Settings	Sets the console redirection parameters of the EMS. For details, refer to 3.2.9.3 Console Redirection Settings .	-

3.2.9.1 Console Redirection Settings

[Figure 3-98](#) shows the **Console Redirection Settings** screen.

Figure 3-98 Console Redirection Settings Screen

For a description of the parameters on the **Console Redirection Settings** screen, refer to [Table 3-75](#).

Table 3-75 Parameter Descriptions for the Console Redirection Settings Screen

Parameter	Description	Default Value
Terminal Type	Sets the terminal type. Options: - ANSI: extended ASCII character set. - VT100: ASCII character set. - VT100+: extended VT100, which is used to support color display and functional keys. - VT-UTF8: UTF8 encoding, which is used to map unicode characters to one or more bytes.	VT100+
Bits per second	Sets the number of bits transmitted per second. The transmission speed must match the serial port, and very long lines or lines with noise may require lower speeds. Options: 9600	115200

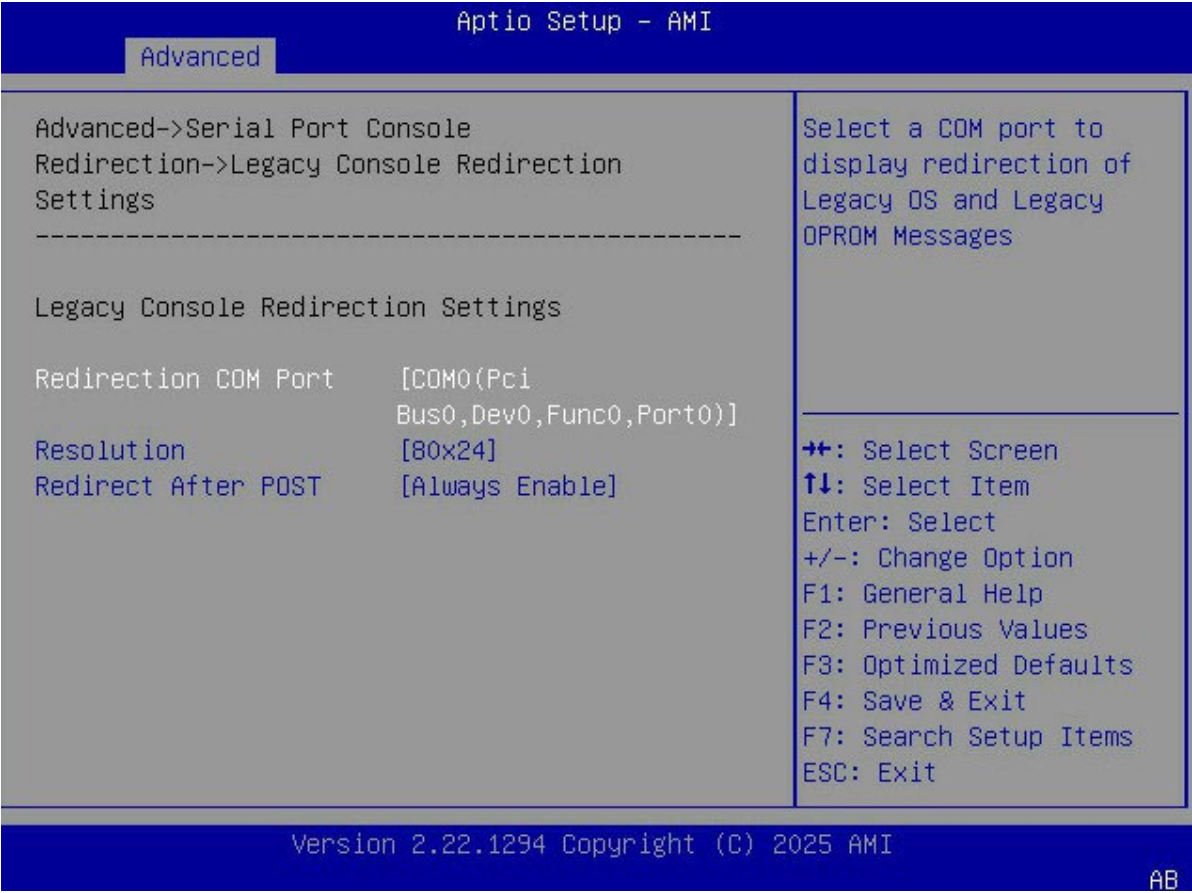
Parameter	Description	Default Value
	• 19200 • 38400 • 57600 • 115200 • 230400 • 460800 • 921600	
Data Bits	Sets the number of bits used within a byte. Options: • 7 • 8	8
Parity	Sets the parity check mode, which can be transmitted together with data bits to detect transmission errors. Options: • None: No parity bit is transmitted. • Even: If the number of 1s in the data bits is an even number, the parity bit is 0. • Odd: If the number of 1s in the data bits is an odd number, the parity bit is 0. • Mark: The parity bit is always a binary 1. • Space: The parity bit is always a binary 0. For Mark and Space Parity, error detection is not performed. Mark and Space Parity can be used as an additional data bit.	None
Stop Bits	Sets the number of stop bits, which indicate the end of a packet. The standard setting is one stop bit. More than one stop bit may be required for communication with a slow-speed device. Options: • 1: 1 stop bit • 2: 2 stop bits	1
Flow Control	Sets a flow control mode. Flow control prevents data loss caused by buffer overflow. During data transmission, if the receive buffer is full, a "stop" signal can be sent to stop the data flow. Once the buffer is empty, a "start" signal can be sent to restart the process. Options: • None: no flow control.	None

Parameter	Description	Default Value
	Hardware RTS/CTS: hardware flow control. Hardware flow control uses two lines. One is used to send the "stop" signal and the other is used to send the "start" signal.	
VT-UTF8 Combo Key Support	Sets whether to enable the VT-UTF8 combination key support for ANSI/VT 100 terminals. Options: - Enabled: enables the VT-UTF8 combination key support. - Disabled: disables the VT-UTF8 combination key support.	Enabled
Recorder Mode	Sets whether to enable recorder mode for capturing terminal text data. Options: - Enabled: enables recorder mode. - Disabled: disables recorder mode.	Disabled
Resolution 100×31	Sets whether to enable the extended terminal resolution function. Options: - Enabled: enables the extended terminal resolution function. - Disabled: disables the extended terminal resolution function.	Disabled
Putty KeyPad	Sets FunctionKey and KeyPad in PuTTY. Options: - VT100 - LINUX - XTERMR6 - SCO - ESCN - VT400	VT100

3.2.9.2 Legacy Console Redirection Settings

Figure 3-99 shows the **Legacy Console Redirection Settings** screen.

Figure 3-99 Legacy Console Redirection Settings Screen



For a description of the parameters on the **Legacy Console Redirection Settings** screen, refer to [Table 3-76](#).

Table 3-76 Parameter Descriptions for the Legacy Console Redirection Settings Screen

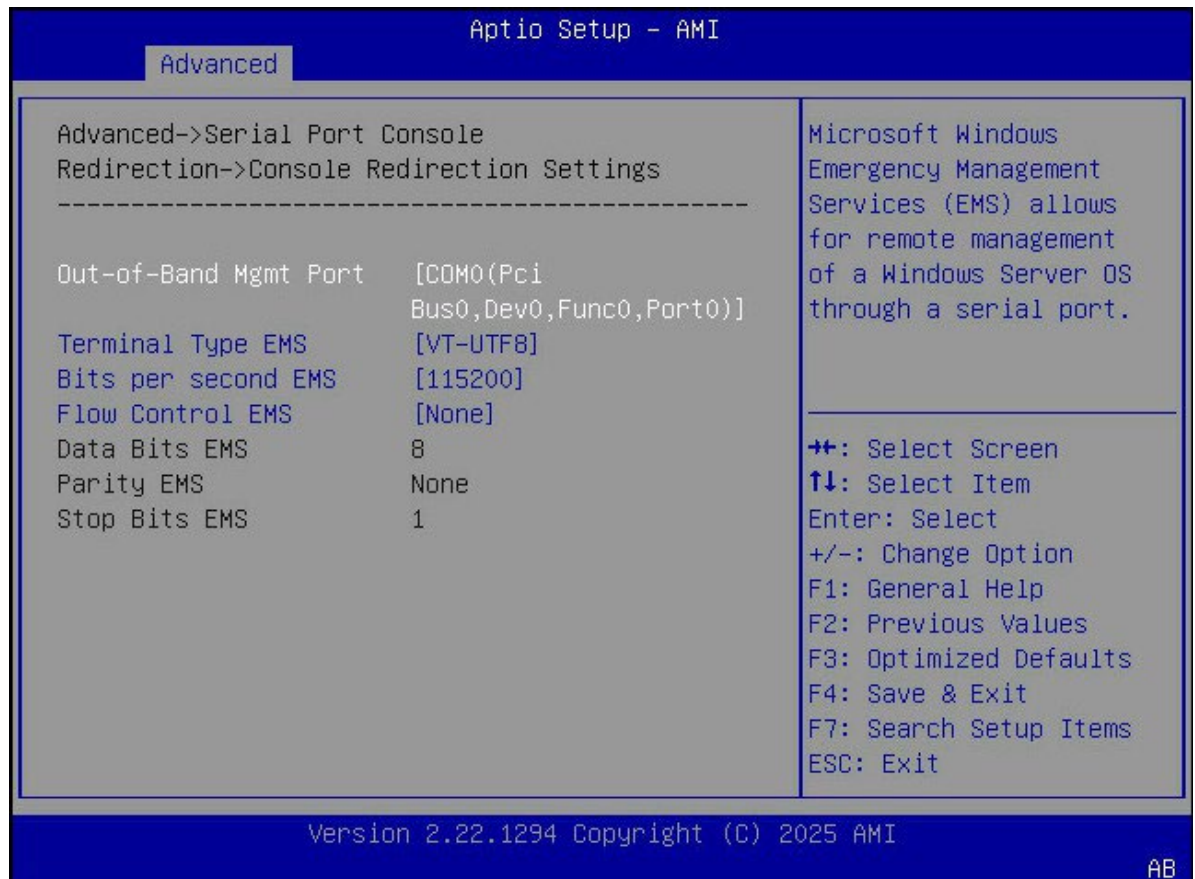
Parameter	Description	Default Value
Redirection COM Port	Sets the COM port for redirection of OS, Option, and ROM information in Legacy mode. Options: - COM0(Pci Bus0, Dev0, Func0, Port0) - COM1(Pci Bus0, Dev0, Func0, Port1)	COM0(Pci Bus0, Dev0, Func0, Port0)
Resolution	Sets the number of rows and columns that can be redirected in Legacy mode. Options: 80×24 80×25	80×24
Redirect After POST	Sets whether to enable redirection after POST. Options:	Always Enable

Parameter	Description	Default Value
	- Always Enable: enables legacy console redirection for the legacy OS. - BootLoader: disables legacy console redirection before the legacy OS is loaded.	

3.2.9.3 Console Redirection Settings

Figure 3-100 shows the **Console Redirection Settings** screen.

Figure 3-100 Console Redirection Settings Screen



For a description of the parameters on the **Console Redirection Settings** screen, refer to [Table 3-77](#).

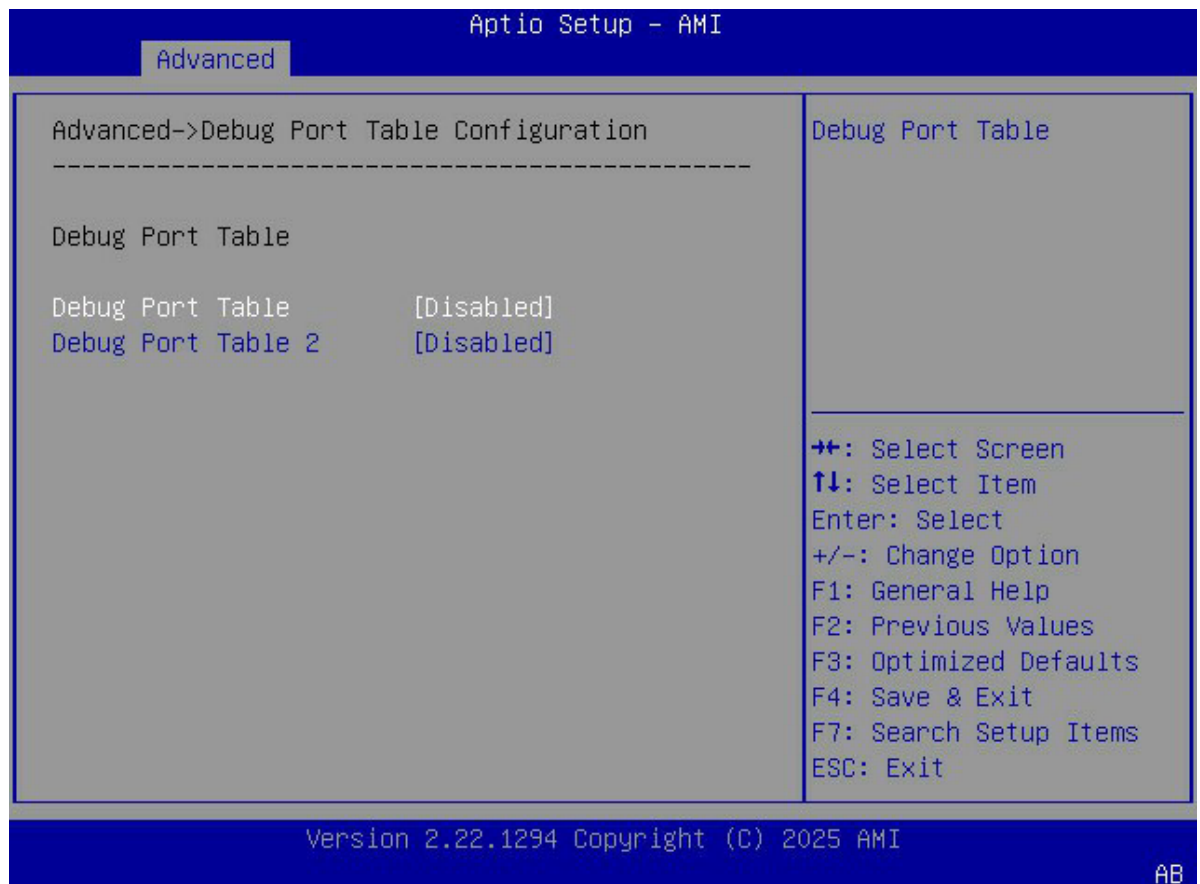
Table 3-77 Parameter Descriptions for the Console Redirection Settings Screen

Parameter	Description	Default Value
Out-of-Band Mgmt Port	Out-of-band management serial port. Options: - COM0(Pci Bus0, Dev0, Func0, Port0) - COM1(Pci Bus0, Dev0, Func0, Port1)	COM0(Pci Bus0, Dev0, Func0, Port0)
Terminal Type EMS	EMS terminal type.	VT-UTF8

Parameter	Description	Default Value
	Options: - VT100: ASCII character set - VT100+: extended to VT100, which is used to support color display and functional keys - VT-UTF8: UTF8 encoding, which is used to map unicode characters to one or more bytes ANSI: extended ASCII character set EMS terminal types are sorted as follows: - VT-UTF8 - VT100+ - VT100	
Bits per second EMS	Number of bits transmitted per second by the EMS. The transmission speed must match the serial port, and very long lines or lines with noise may require lower speeds. Options: 9600 19200 57600 115200	115200
Flow Control EMS	Sets the EMS flow control mode. Flow control of the EMS prevents data loss caused by buffer overflow. During data transmission, if the receive buffer is full, a "stop" signal can be sent to stop the data flow. Once the buffer is empty, a "start" signal can be sent to restart the process. Options: - None: No EMS flow control is used. - Hardware RTS/CTS: Hardware flow control uses two lines. One is used to send the "stop" signal and the other is used to send the "start" signal. - Software Xon/Xoff: Software flow control is used.	None
Data Bits EMS	Number of bits used within a byte in the EMS.	8
Parity EMS	Parity of the EMS.	None
Stop Bits EMS	Stop bit of the EMS.	1

3.2.10 Debug Port Table Configuration

[Figure 3-101](#) shows the **Debug Port Table Configuration** screen.

Figure 3-101 Debug Port Table Configuration Screen

For a description of the parameters on the **Debug Port Table Configuration** screen, refer to [Table 3-78](#).

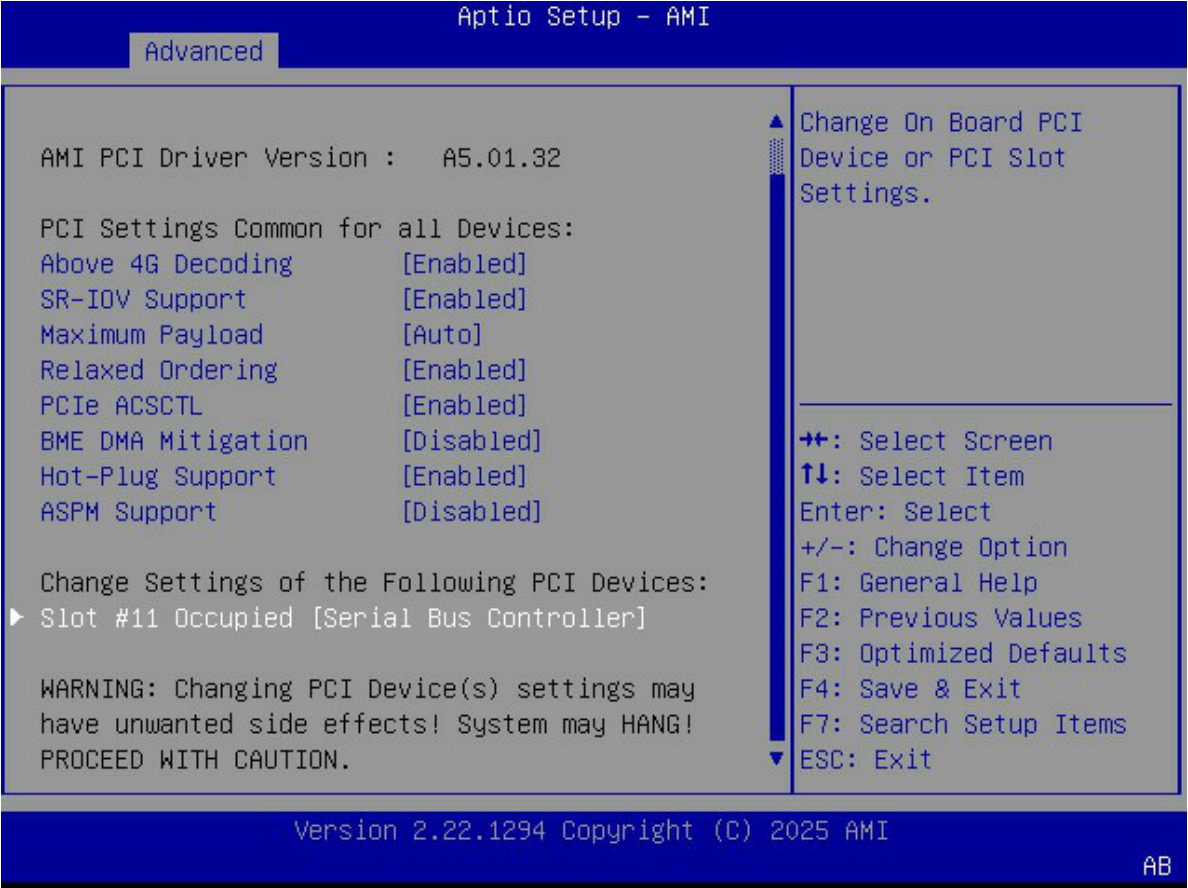
Table 3-78 Parameter Descriptions for the Debug Port Table Configuration Screen

Parameter	Description	Default Value
Debug Port Table	Sets whether to enable the debug port table. Options: - Enabled: enables the debug port table. - Disabled: disables the debug port table.	Disabled
Debug Port Table 2	Sets whether to enable debug port table 2. Options: - Enabled: enables debug port table 2. - Disabled: disables debug port table 2.	Disabled

3.2.11 PCI Subsystem Settings

Figure 3-102 shows the **PCI Subsystem Settings** screen.

Figure 3-102 PCI Subsystem Settings Screen



For a description of the parameters on the **PCI Subsystem Settings** screen, refer to [Table 3-79](#).

Table 3-79 Parameter Descriptions for the PCI Subsystem Settings Screen

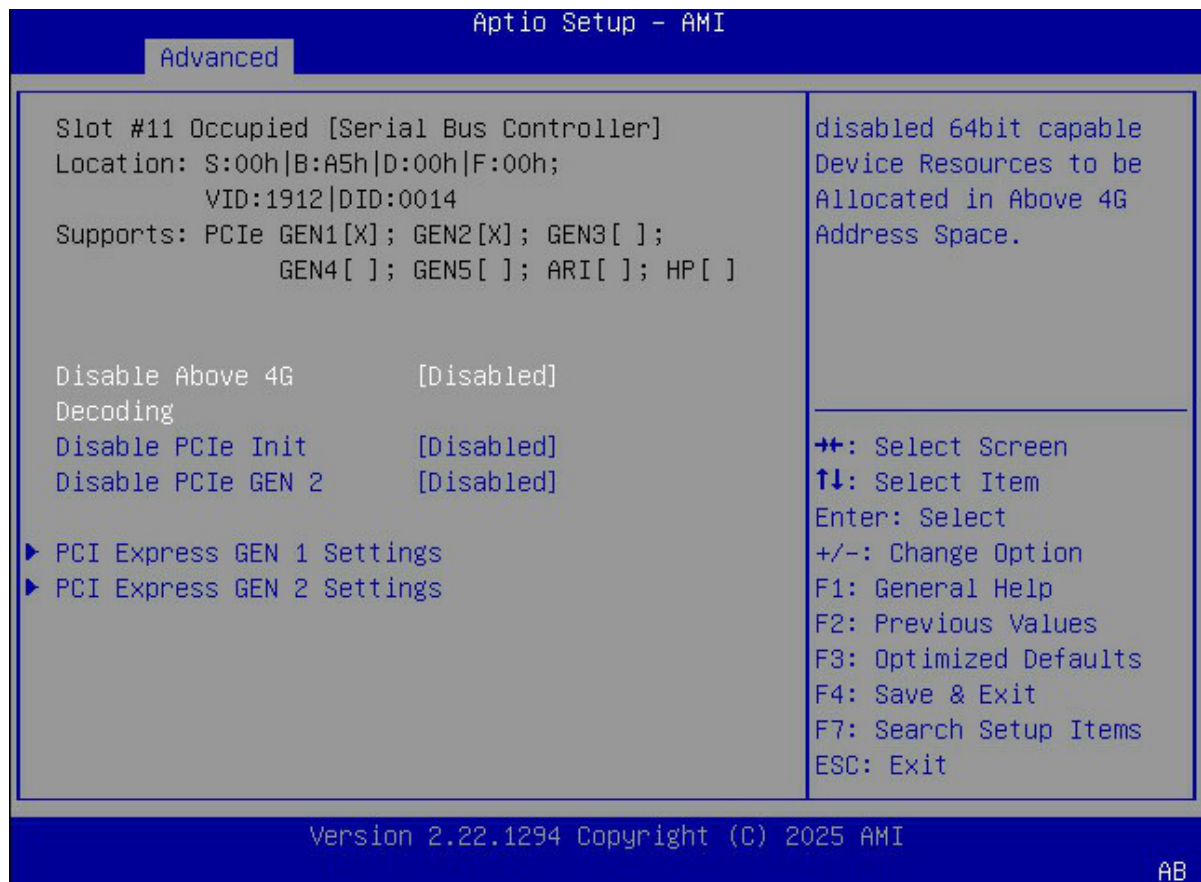
Parameter	Description	Default Value
AMI PCI Driver Version	Displays the version of the AMI PCI bus driver.	-
Above 4G Decoding	Sets whether to enable decoding of 64-bit devices in the address space above 4 G (only if the system supports 64-bit PCI decoding). Options: ● Enabled: enables decoding of 64-bit devices in the address space above 4G. ● Disabled: disables decoding of 64-bit devices in the address space above 4G.	Enabled

Parameter	Description	Default Value
SR-IOV Support	Sets whether to enable SR-IOV support if the system has PCIe devices that support SR-IOV. Options: ● Enabled: enables SR-IOV support. ● Disabled: disables SR-IOV support.	Enabled
Maximum Payload	Sets the maximum load of the serial bus device. If this parameter is set to Auto, the BIOS selects the maximum load. Options: ● Auto ● 128 Bytes ● 256 Bytes ● 512 Bytes ● 1024 Bytes ● 2048 Bytes ● 4095 Bytes	Auto
Relaxed Ordering	Sets whether to enable the relaxed ordering function. Options: ● Enabled: enables the relaxed ordering function. ● Disabled: disables the relaxed ordering function.	Enabled
PCIe ACSCTL	Sets whether to enable the PCIe ACSCTL function. Options: ● Enabled: enables the PCIe ACSCTL function. ● Disabled: disables the PCIe ACSCTL function.	Enabled
BME DMA Mitigation	Sets whether to enable BME DMA mitigation measures. Options: ● Enabled: enables BME DMA mitigation measures. ● Disabled: disables BME DMA mitigation measures.	Disabled
Hot-Plug Support	Sets whether to enable hot swapping support for the entire system.	Enabled

Parameter	Description	Default Value
	Options: - Enabled: enables hot swapping support for the entire system. After the function is enabled, if the system has slots that support hot swapping, a configuration page will be displayed for you to set PCI resource parameters for hot swapping. - Disabled: disables hot swapping support for the entire system.	
ASPM Support	Sets whether to enable the ASPM support function. Options: - Enabled: enables the ASPM support function. - Disabled: disables the ASPM support function.	Disabled
Slot #11 Occupied [Serial Bus Controller]	Modifies the parameters of onboard PCI devices or PCI slots. This parameter is related to the system device. Slot #11 Occupied [Serial Bus Controller] is used as an example. For details, refer to 3.2.11.1 PCI Subsystem Settings-Single Device Setting.	-

3.2.11.1 PCI Subsystem Settings-Single Device Setting

[Figure 3-103](#) shows the **PCI Subsystem Settings-Single Device Setting** screen.

Figure 3-103 PCI Subsystem Settings-Single Device Setting Screen

For a description of the parameters on the **PCI Subsystem Settings-Single Device Setting** screen, refer to [Table 3-80](#).

Table 3-80 Parameter Descriptions for the PCI Subsystem Settings-Single Device Setting Screen

Parameter	Description	Default Value
Location	Displays the location, VID , and DID of the PCI device.	-
Supports	Displays the features supported by the PCI device.	-
Disable Above 4G Decoding	Sets whether to enable decoding of 64-bit devices in the address space above 4G. Options: - Enabled: enables decoding of 64-bit devices in the address space above 4G. - Disabled: disables decoding of 64-bit devices in the address space above 4G.	Disabled

Parameter	Description	Default Value
Disable PCIe Init	Sets whether to enable the BIOS-based PCIe initialization function on the selected devices and their subordinate PCI devices. Options: - Enabled: enables the BIOS-based PCIe initialization function on the selected devices and their subordinate PCI devices. - Disabled: disables the BIOS-based PCIe initialization function on the selected devices and their subordinate PCI devices.	Disabled
Disable PCIe GEN 2	Sets whether to enable the BIOS-based PCIe Gen 2 initialization function on the selected devices and their subordinate PCI devices. Options: - Enabled: enables the BIOS-based PCIe Gen 2 initialization function on the selected devices and their subordinate PCI devices. - Disabled: disables the BIOS-based PCIe Gen 2 initialization function on the selected devices and their subordinate PCI devices.	Disabled
PCI Express GEN 1 Settings	Sets the PCIe Gen 1 parameters.	-
PCI Express Gen 2 Settings	Sets the PCIe Gen 2 parameters.	-

3.2.12 USB Configuration

[Figure 3-104](#) and [Figure 3-105](#) show the **USB Configuration** screen.

Figure 3-104 USB Configuration Screen 1

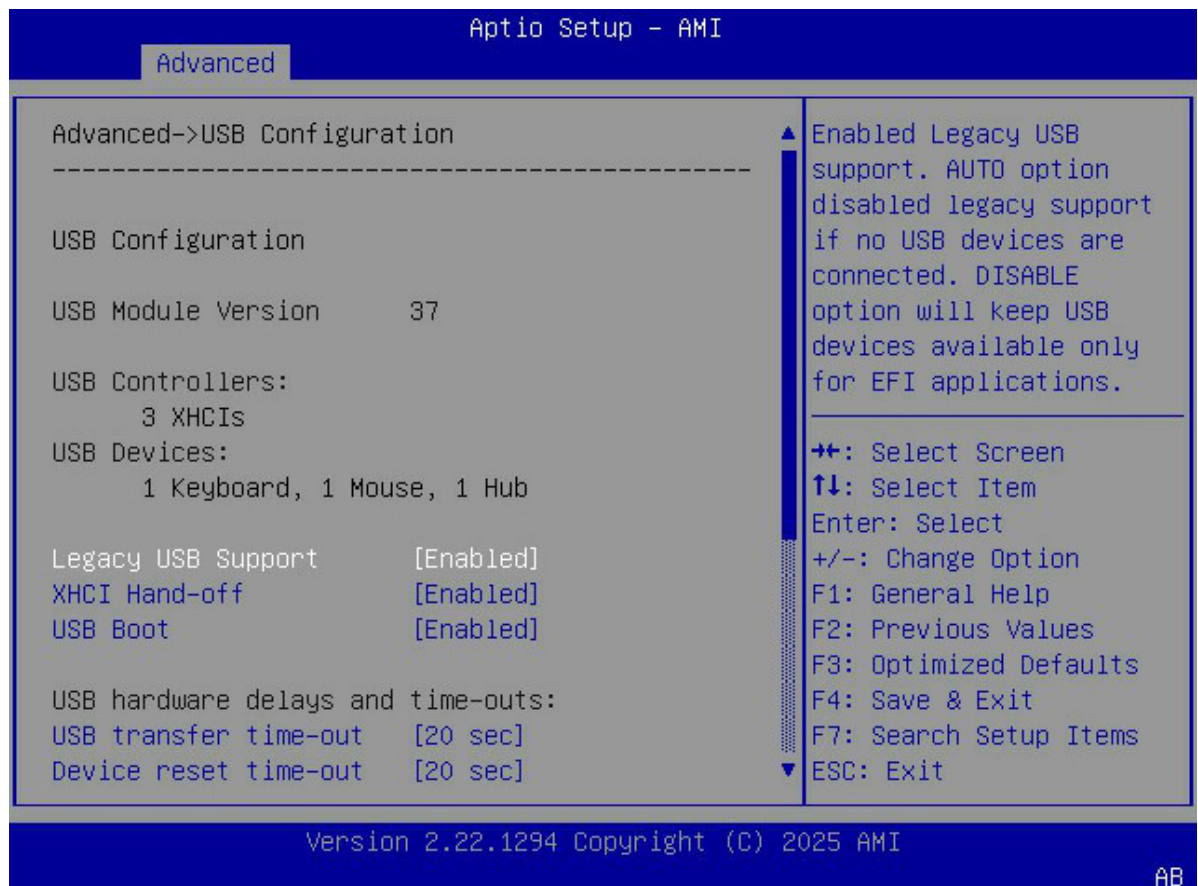
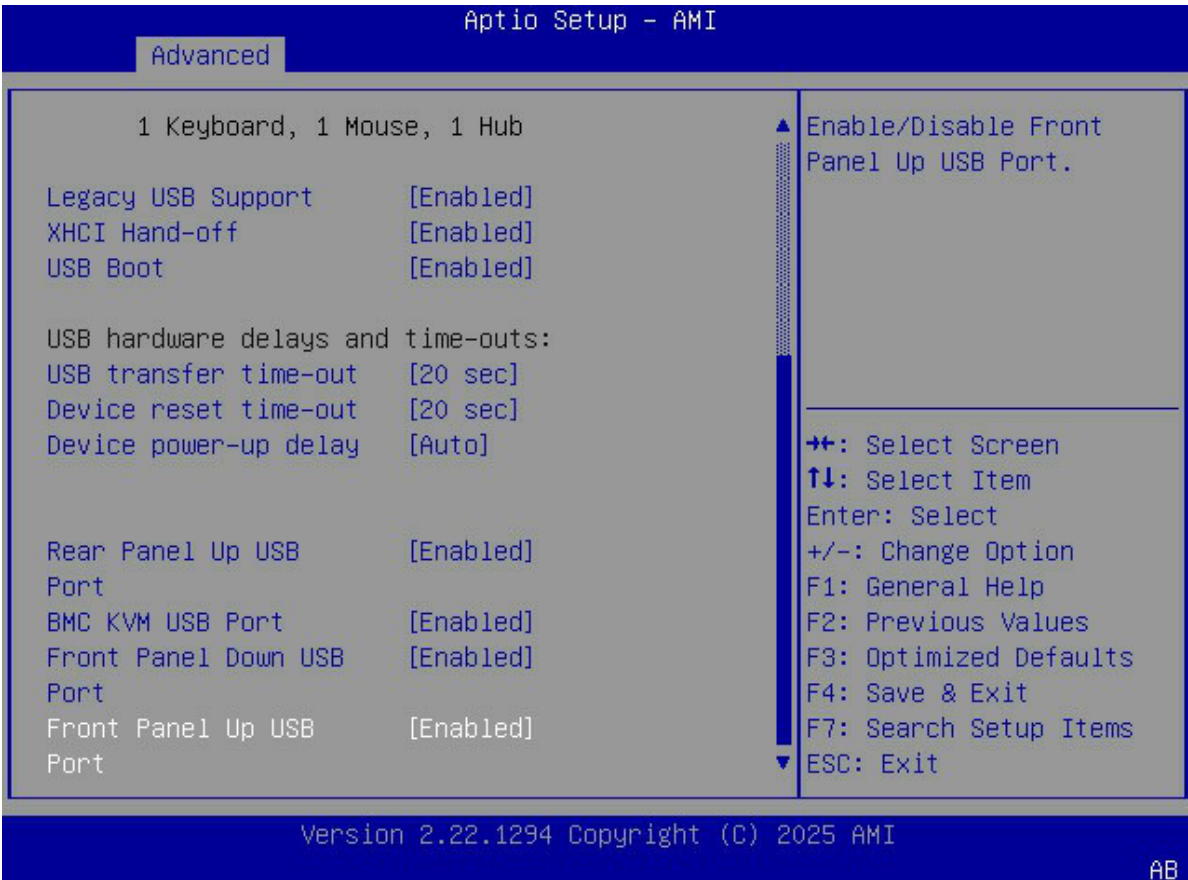


Figure 3-105 USB Configuration Screen 2



For a description of the parameters on the **USB Configuration** screen, refer to [Table 3-81](#).

Table 3-81 Parameter Descriptions for the USB Configuration Screen

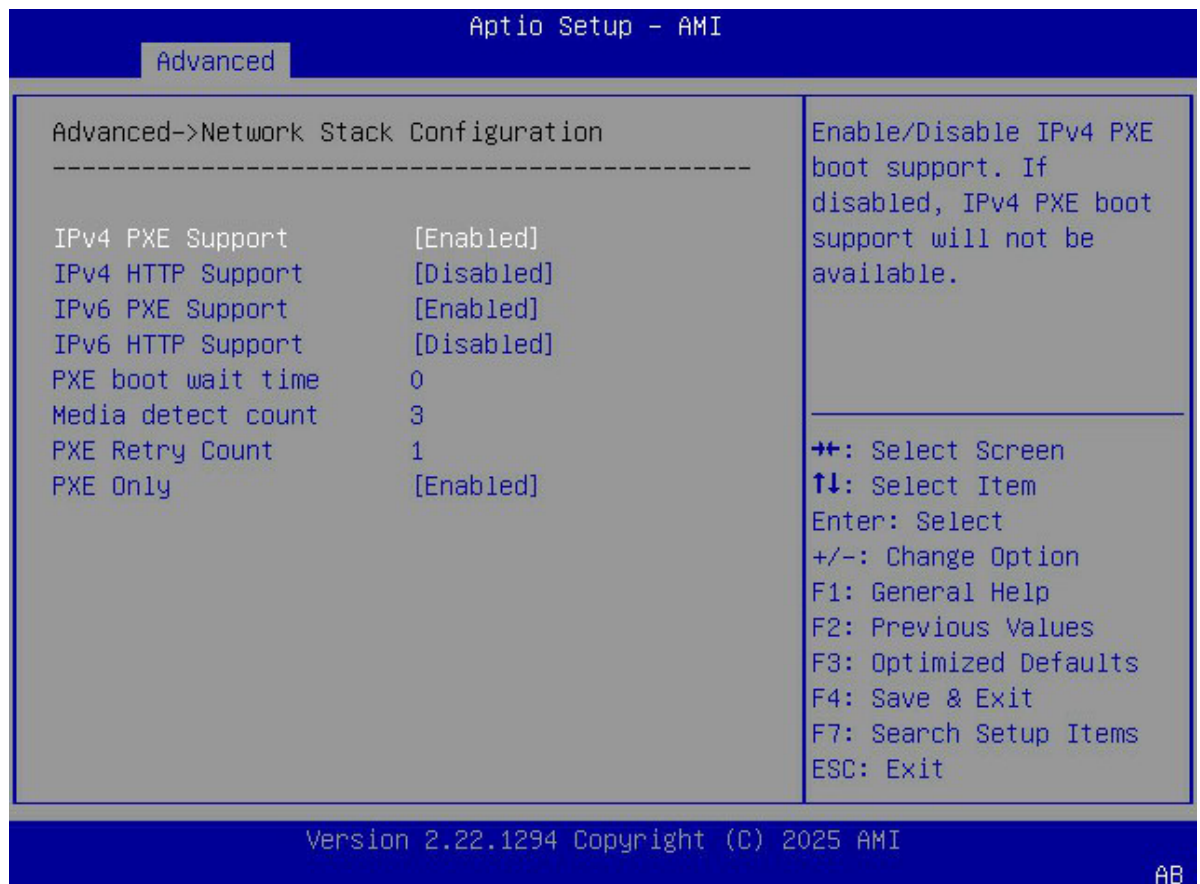
Parameter	Description	Default Value
USB Moudule Version	Displays the USB module version number.	-
USB Controllers	Displays USB controllers.	-
USB Devices	Displays USB devices.	-
Legacy USB Support	Sets whether to enable USB support in Legacy mode. Options: ● Auto: disables USB support in Legacy mode if there are no USB devices. ● Enabled: enables USB support in Legacy mode. ● Disabled: disables USB support in Legacy mode. If this function is disabled, USB devices are available only for EFI applications.	Enabled

Parameter	Description	Default Value
XHCI Hand-off	Sets whether to enable the XHCI handoff function, which provides a viable solution for OSs that do not support XHCI. XHCI ownership changes shall be declared by the XHCI driver. Options: ● Enabled: enables the XHCI handoff function. ● Disabled: disables the XHCI handoff function.	Enabled
USB Boot	Sets whether to enable support for USB mass storage drivers. Options: ● Enabled: enables support for USB mass storage drivers. ● Disabled: disables support for USB mass storage drivers.	Enabled
USB transfer time-out	Sets the device reset delay time. Options: ● 1 sec ● 5 sec ● 10 sec ● 20 sec	20 sec
Device reset time-out	Sets the device power-on delay time. Options: ● 10 sec ● 20 sec ● 30 sec ● 40 sec	20 sec
Device power-up delay	Sets the mode for configuring the maximum time before the device reports itself to the host controller. Options: ● Auto ● Manual	Auto
Device power-up delay in seconds	This parameter is displayed if Device power-up delay is set to Manual. Sets the maximum time before the device reports itself to the host controller. The value range is 1–40 and the unit is seconds.	5

Parameter	Description	Default Value
Rear Panel Up USB Port	Sets whether to enable the USB port on the rear panel. Options: ● Enabled: enables the USB port on the rear panel. ● Disabled: disables the USB port on the rear panel.	Enabled
BMC KVM USB Port	Sets whether to enable the USB keyboard and mouse of the BMC KVM. Options: ● Enabled: enables the USB keyboard and mouse of the BMC KVM. ● Disabled: disables the USB keyboard and mouse of the BMC KVM.	Enabled
Front Panel Down USB Port	Sets whether to enable the USB port in the lower right corner of the front panel. Options: ● Enabled: enables the USB port in the lower right corner of the front panel. ● Disabled: disables the USB port in the lower right corner of the front panel.	Enabled
Front Panel Up USB Port	Sets whether to enable the USB port in the upper right corner of the front panel. Options: ● Enabled: enables the USB port in the upper right corner of the front panel. ● Disabled: disables the USB port in the upper right corner of the front panel.	Enabled

3.2.13 Network Stack Configuration

[Figure 3-106](#) shows the **Network Stack Configuration** screen.

Figure 3-106 Network Stack Configuration Screen

For a description of the parameters on the **Network Stack Configuration** screen, refer to [Table 3-82](#).

Table 3-82 Parameter Descriptions for the Network Stack Configuration Screen

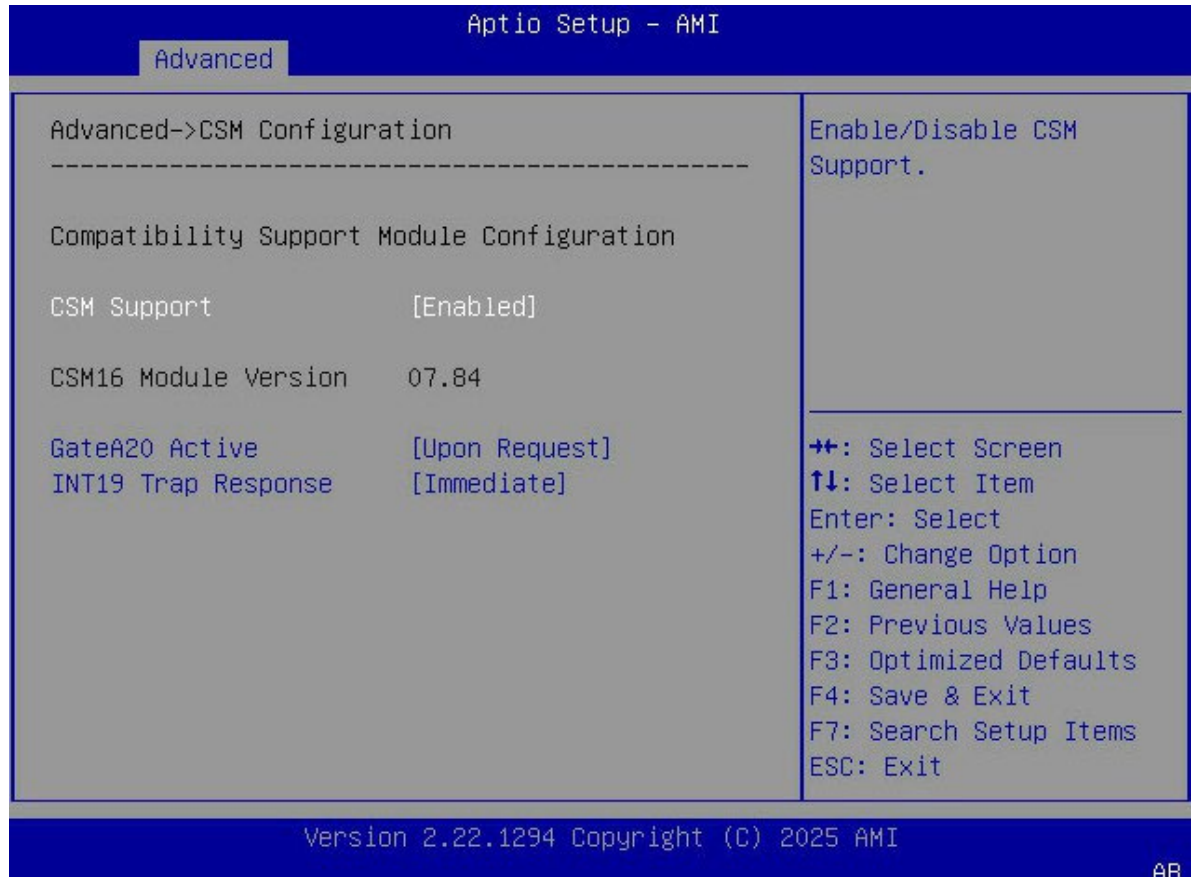
Parameter	Description	Default Value
IPv4 PXE Support	Sets whether to enable the IPv4 PXE boot function. Options: - Enabled: enables the IPv4 PXE boot function. - Disabled: disables the IPv4 PXE boot function.	Enabled
IPv4 HTTP Support	Sets whether to enable the IPv4 HTTP boot function. Options: - Enabled: enables the IPv4 HTTP boot function. - Disabled: disables the IPv4 HTTP boot function.	Disabled

Parameter	Description	Default Value
IPv6 PXE Support	Sets whether to enable the IPv6 PXE boot function. Options: - Enabled: enables the IPv6 PXE boot function. - Disabled: disables the IPv6 PXE boot function.	Enabled
IPv6 HTTP Support	Sets whether to enable the IPv6 HTTP boot function. Options: - Enabled: enables the IPv6 HTTP boot function. - Disabled: disables the IPv6 HTTP boot function.	Disabled
PXE boot wait time	Sets the PXE boot wait time. The unit is seconds. When the system is booting, you can press Esc to terminate the PXE boot wait time. - Press + to increase a value by 1. - Press - to decrease a value by 1. - Press the corresponding number keys to specify a value.	0
Media detect count	Sets the number of media device detections. This parameter specifies the number of times that the system detects that a media device is present. The value range is 1–50. - Press + to increase a value by 1. - Press - to decrease a value by 1. - Press the corresponding number keys to specify a value.	3
PXE Retry Count	Sets the number of PXE retries. - Press + to increase a value by 1. - Press - to decrease a value by 1. - Press number keys to change a value directly.	1
PXE Only	Sets whether to perform only PXE boot. Options: - Enabled: attempts to perform only PXE boot. - Disabled: performs only PXE boot.	Enabled

3.2.14 CSM Configuration

Figure 3-107 shows the **CSM Configuration** screen.

Figure 3-107 CSM Configuration Screen



For a description of the parameters on the **CSM Configuration** screen, refer to [Table 3-83](#).

Table 3-83 Parameter Descriptions for the CSM Configuration Screen

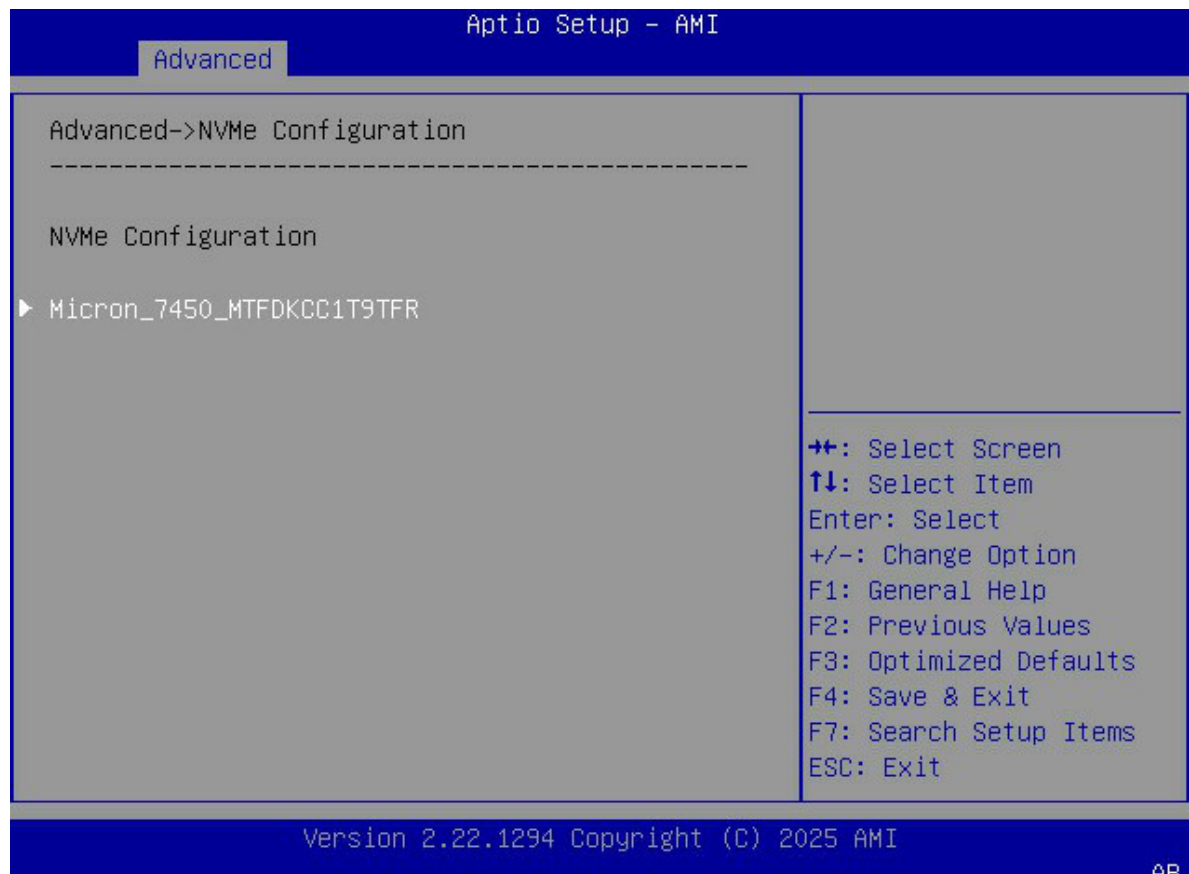
Parameter	Description	Default Value
CSM Support	Sets whether to enable CSM support. Options: - Enabled: enables CSM support. - Disabled: disables CSM support. After the function is disabled, the parameters under this parameter are hidden.	Enabled
CSM16 Module Version	Displays the CSM16 module version.	-
GateA20 Active	Sets the GateA20 status.	Upon Request

Parameter	Description	Default Value
	Options: ● Upon Request: GateA20 can be disabled by using the BIOS service. ● Always: Disabling GateA20 is not allowed. The Always option is useful if any RT code is executed above 1 MB.	
INT19 Trap Response	Sets the BIOS reaction on INT19 trapping by option ROM. Options: ● Immediate: executes the trap immediately. ● Postponed: executes the trap during legacy boot.	Immediate

3.2.15 NVMe Configuration

Figure 3-108 shows the **NVMe Configuration** screen.

Figure 3-108 NVMe Configuration Screen



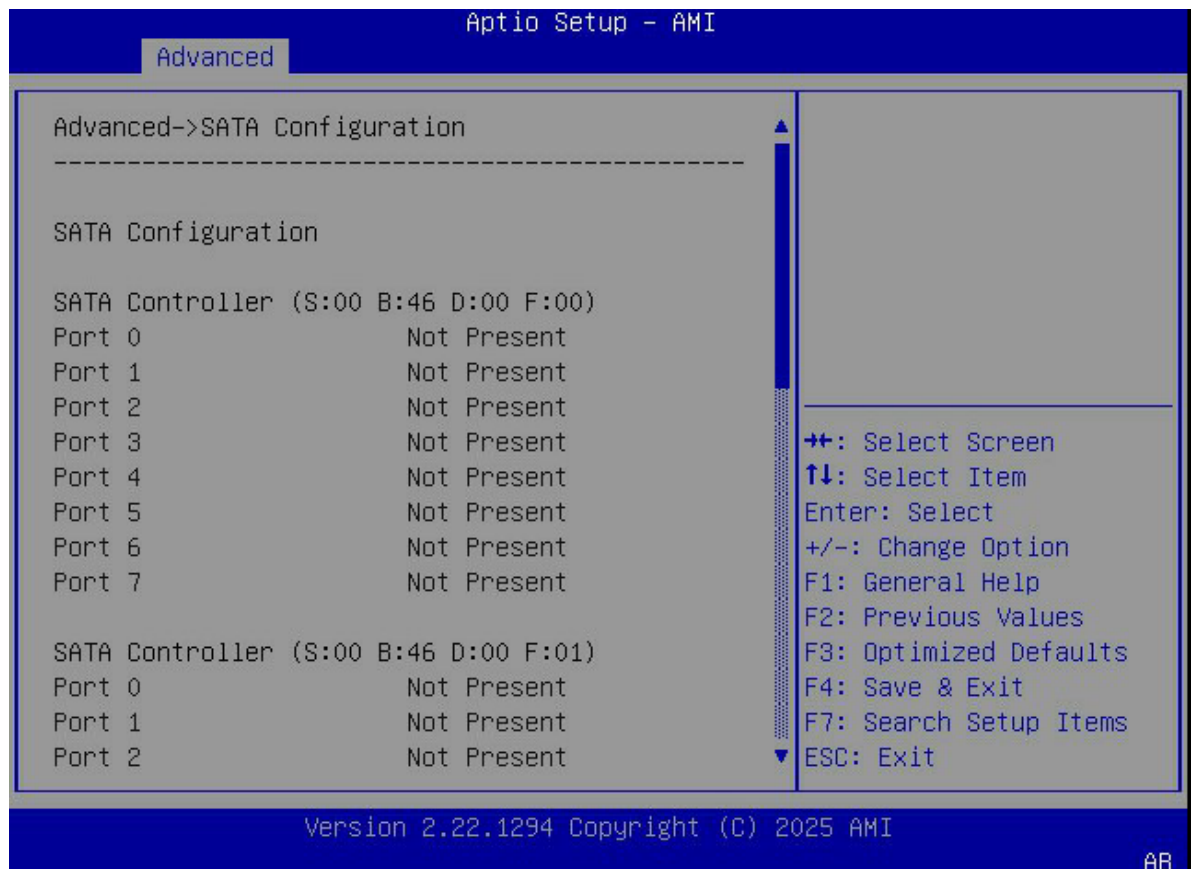
**Note**

If an [NVMe](#) drive is mounted on the mainboard, the NVMe drive information is displayed.

3.2.16 SATA Configuration

[Figure 3-109](#) shows the **SATA Configuration** screen.

Figure 3-109 SATA Configuration Screen

**Note**

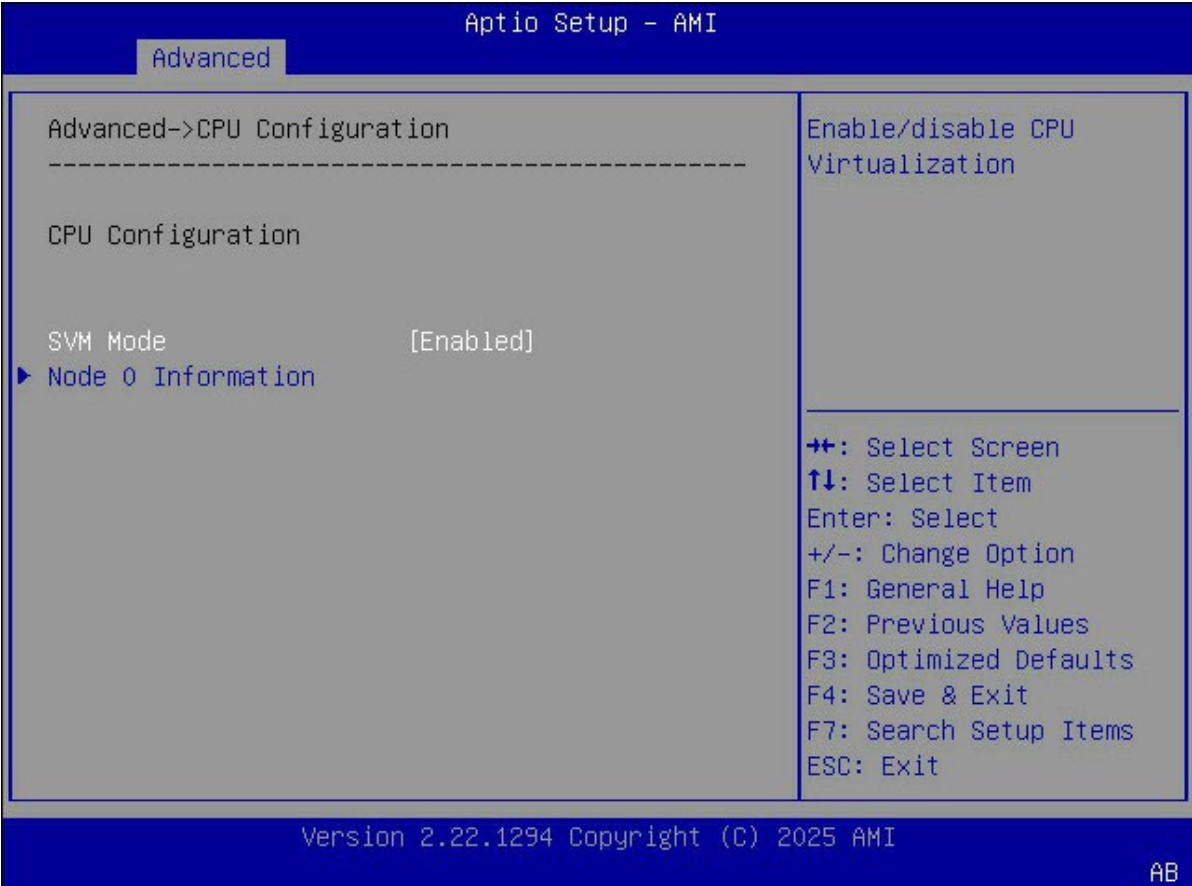
The **SATA Configuration** screen displays the location and presence information about the connected [SATA](#)s. The presence information is described as follows:

- If a SATA is present, the information about the SATA will be displayed.
- If a SATA is not present, **Not Present** will be displayed.

3.2.17 CPU Configuration

[Figure 3-110](#) shows the **CPU Configuration** screen.

Figure 3-110 CPU Configuration Screen



For a description of the parameters on the **CPU Configuration** screen, refer to [Table 3-84](#).

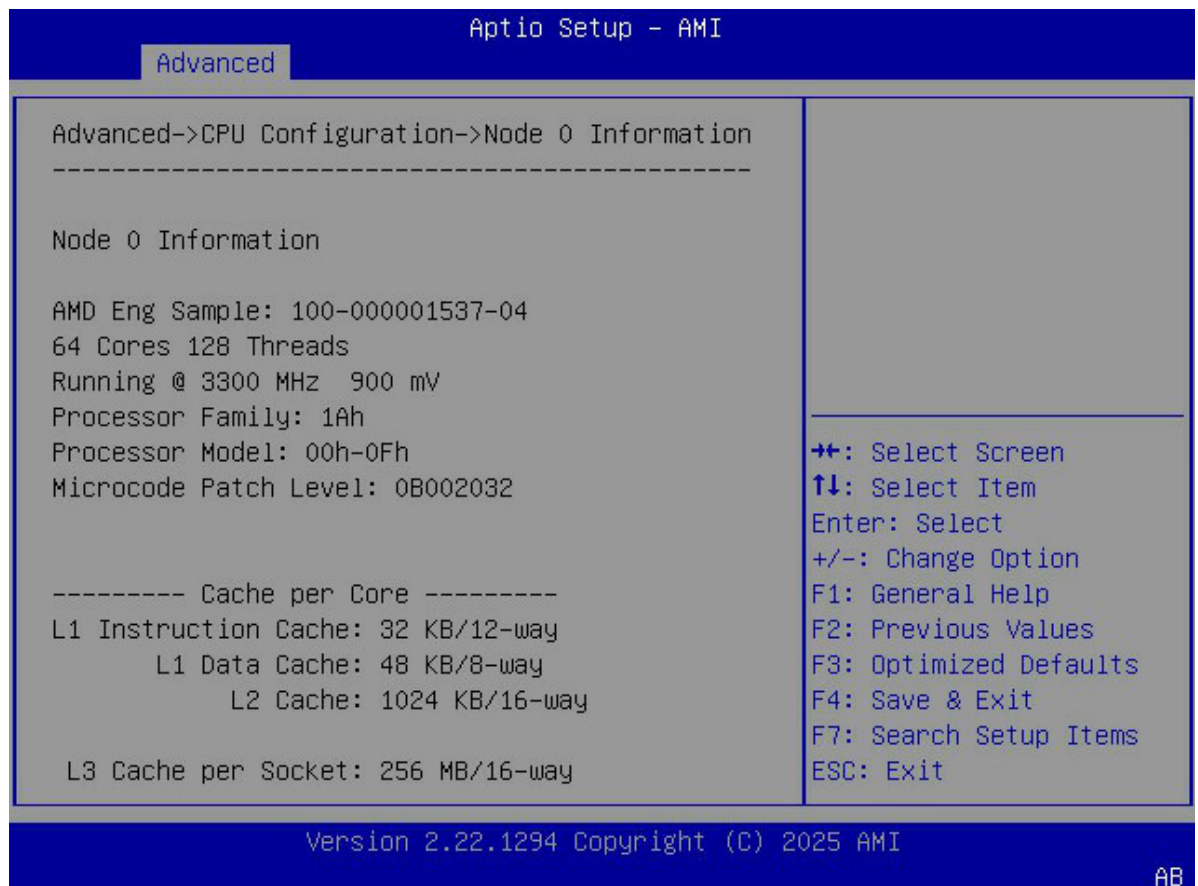
Table 3-84 Parameter Descriptions for the CPU Configuration Screen

Parameter	Description	Default Value
SVM Mode	Sets whether to enable the CPU virtualization function. Options: ● Enabled: enables the CPU virtualization function. ● Disabled: disables the CPU virtualization function.	Enabled
Node 0 Information	Displays node 0 information. For details, refer to 3.2.17.1 Node 0 Information .	-

3.2.17.1 Node 0 Information

[Figure 3-111](#) shows the **Node 0 Information** screen.

Figure 3-111 Node 0 Information Screen



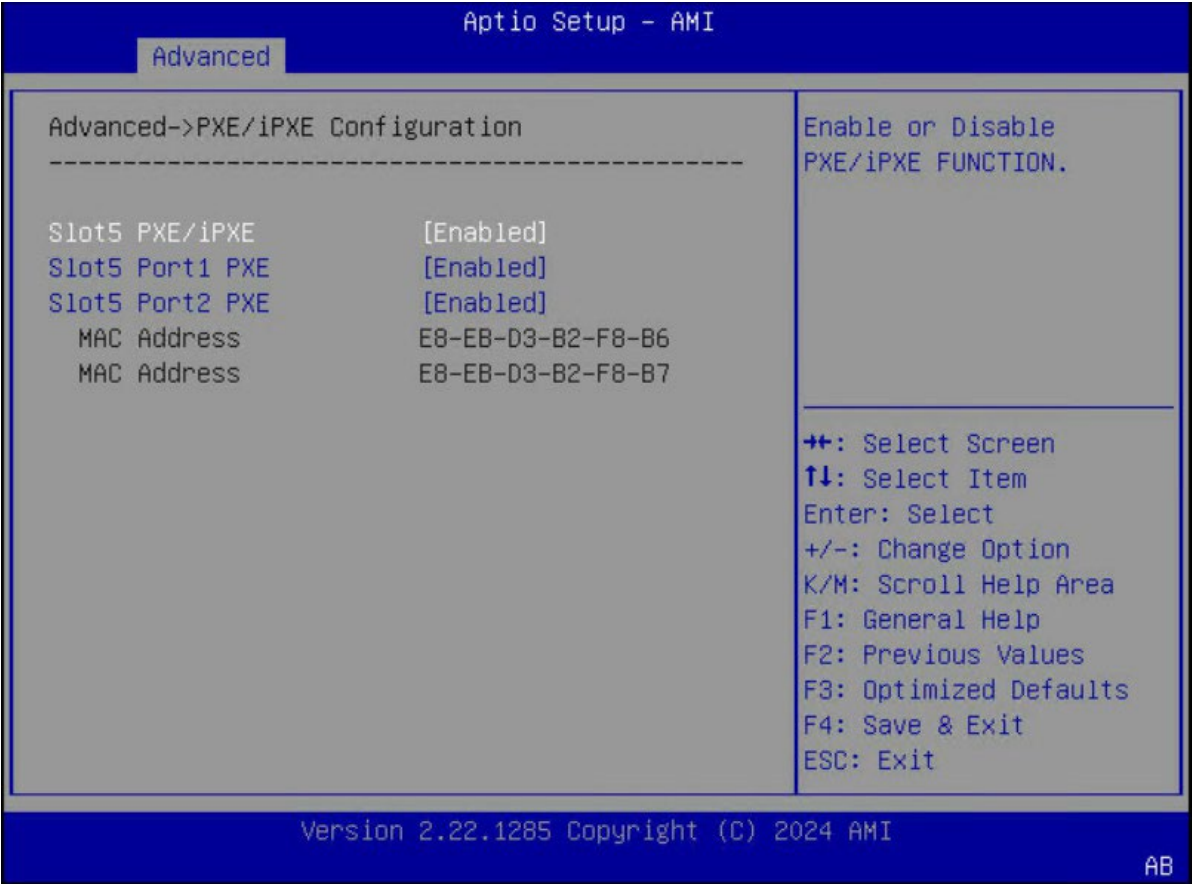
Note

The information on the **Node 0 Information** screen is similar with that on the **Node 1 Information** screen. This section uses the **Node 0 Information** screen as an example.

3.2.18 PXE/iPXE Configuration

Figure 3-112 shows the **PXE/iPXE Configuration** screen.

Figure 3-112 PXE/iPXE Configuration Screen



 Note

The **PXE/iPXE Configuration** screen is displayed based on the connected **PXE** device.

For a description of the parameters on the **PXE/iPXE Configuration** screen, refer to [Table 3-85](#).

Table 3-85 Parameter Descriptions for the PXE/iPXE Configuration Screen

Parameter	Description	Default Value
Slot 5 PXE/iPXE	Sets whether to enable the PXE function of the standard NIC in slot 5. Options: - Enabled: enables the PXE function on all ports. - Disabled: disables the PXE function on all ports.	Enabled
Slot 5 Port1 PXE	Sets whether to enable the PXE function for port 1 of the NIC in slot 5. Options:	Enabled

Parameter	Description	Default Value
	- Enabled: enables the PXE function for port 1 of the NIC in slot 5. - Disabled: disables the PXE function for port 1 of the NIC in slot 5.	
Slot 5 Port2 PXE	Sets whether to enable the PXE function for port 2 of the NIC in slot 5. Options: - Enabled: enables the PXE function for port 2 of the NIC in slot 5. - Disabled: disables the PXE function for port 2 of the NIC in slot 5.	Enabled

3.2.19 PCIe Device Info

Figure 3-113 shows the **PCIe** device information on the **PCIe Device Info** screen.

Figure 3-113 PCIe Device Info Screen

Aptio Setup - AMI			
Advanced			
SlotNum	SBDF	VIDPID	
DevClass	MaxLinkSpeed	MaxWidth	
CurrentLinkSpeed	CurrentWidth		

OnBoardDev	0000:A5:00.0	1912/0014	
USB XHCI	Gen2	x1	
Gen2	x1		
OnBoardDev	0000:A7:00.0	1A03/2000	
VGA controller	Gen2	x1	
Gen2	x1		
			++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Option F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit F7: Search Setup Items ESC: Exit
Version 2.22.1294 Copyright (C) 2025 AMI			

3.2.20 AMD Mem Configuration Status

Figure 3-114 and Figure 3-115 show the **AMD Mem Configuration Status** screen.

Figure 3-114 AMD Mem Configuration Status Screen 1

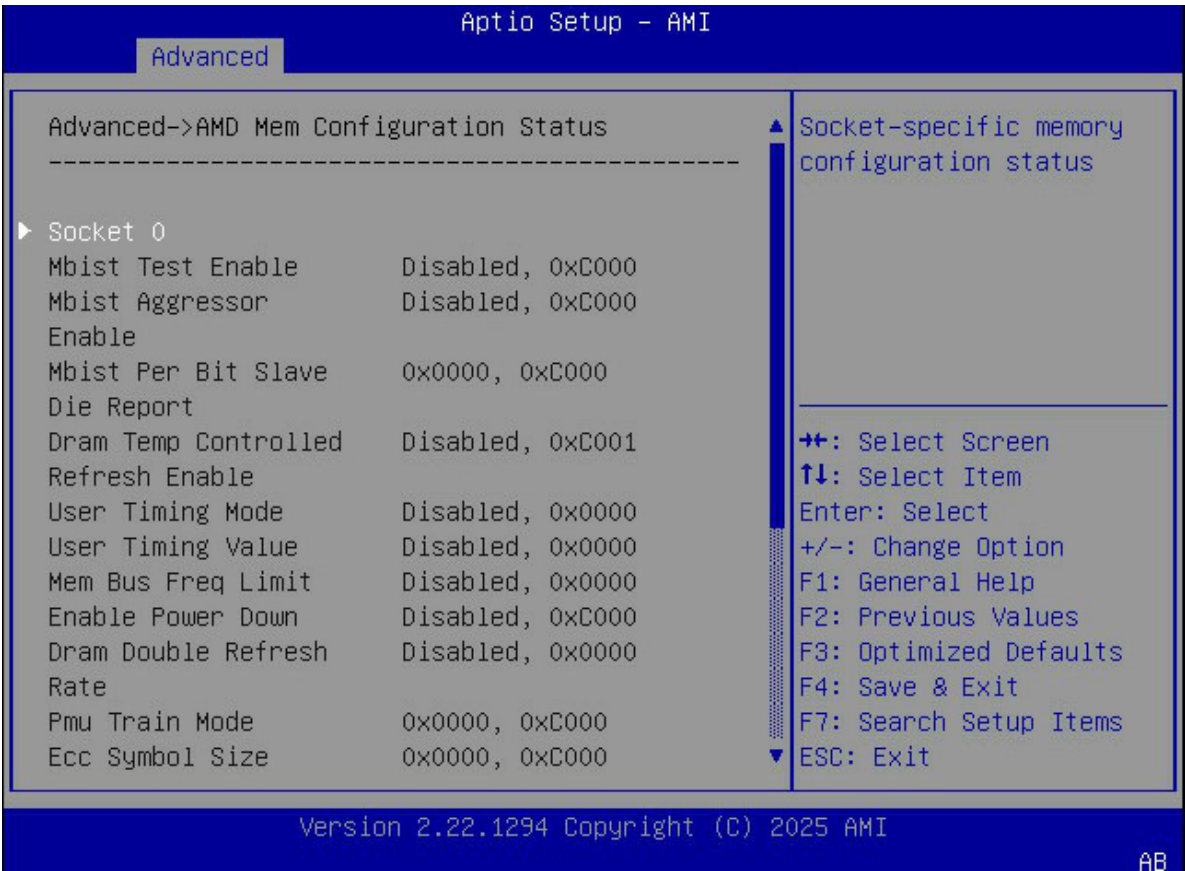
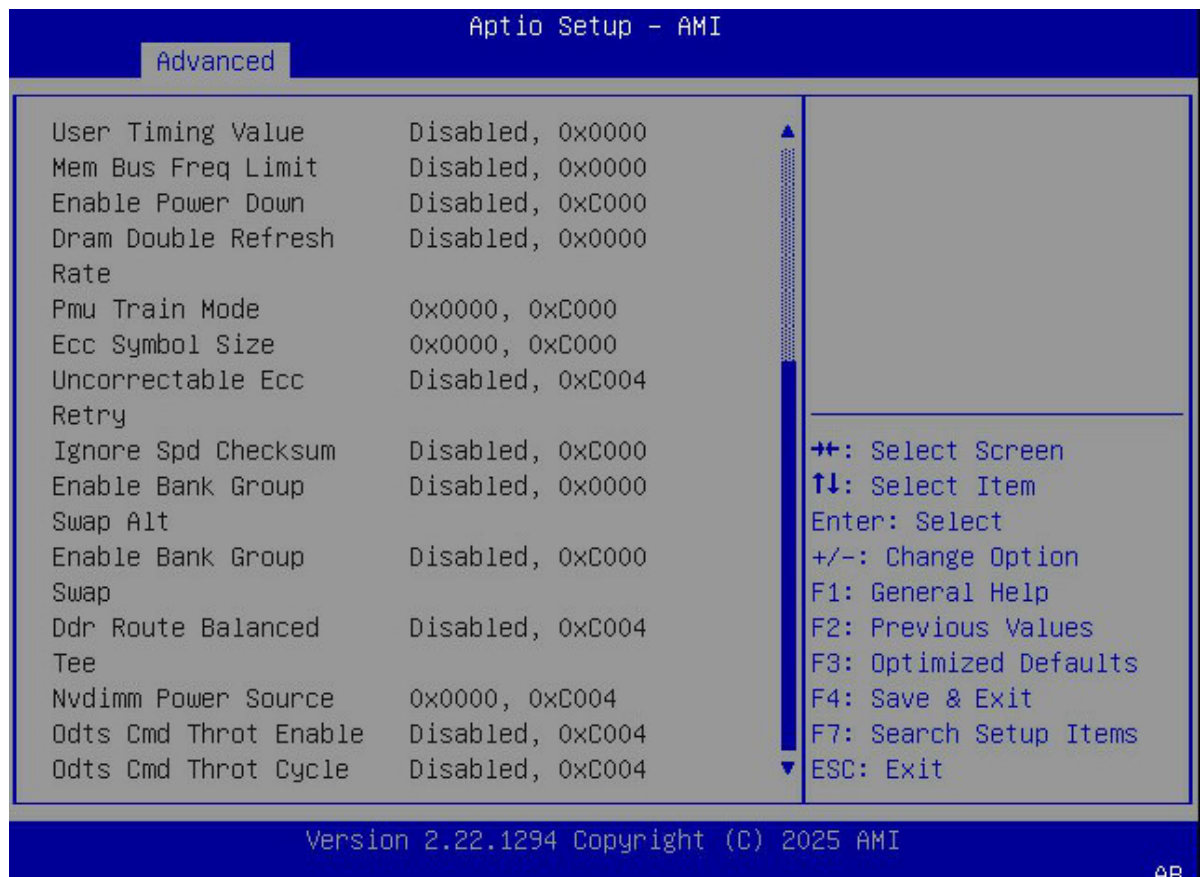


Figure 3-115 AMD Mem Configuration Status Screen 2

For a description of the parameters on the **AMD Mem Configuration Status** screen, refer to [Table 3-86](#).

Table 3-86 Parameter Descriptions for the AMD Mem Configuration Status Screen

Parameter	Description
Socket 0	Sets the memory configuration status of socket 0. For details, refer to 3.2.20.1 Socket 0 .
Mbist Test Enable	Displays the MBIST test enabling status.
Mbist Aggressor Enable	Displays the MBIST Aggressor enabling status.
Mbist Per Bit Slave Die Report	Displays the number of reports for each bit of the slave dies in MBIST.
Dram Temp Controlled Refresh Enable	Displays the enabling status of the temperature-controlled refresh function in DRAM.
User Timing Mode	Displays the user timing mode.
User Timing Value	Displays the user timing value.
Mem Bus Freq Limit	Displays the memory bus frequency limit.
Enable Power Down	Displays the power-off enabling information.

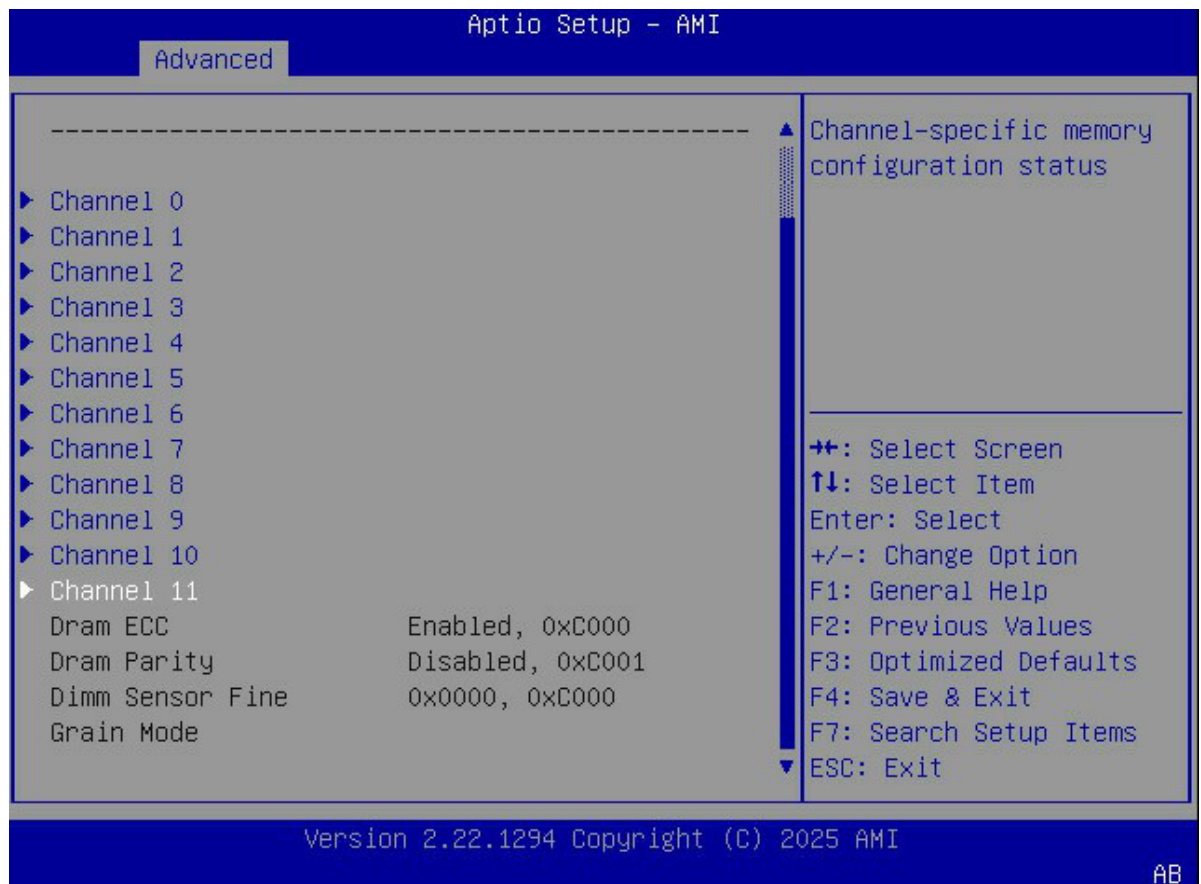
Parameter	Description
Dram Double Refresh Rate	Displays the DRAM double refresh rate.
Pmu Train Mode	Displays PMU train mode information.
Ecc Symbol Size	Displays the size of the ECC symbol.
Uncorrectable Ecc Retry	Displays uncorrectable ECC retry information.
Ignore Spd Checksum	Displays the ignored SPD check information.
Enable Bank Group Swap Alt	Displays the Enable Bank Group Swap Alt settings.
Enable Bank Group Swap	Displays the Enable Bank Group Swap settings.
Ddr Route Balanced Tee	Displays the Ddr route balance tee information.
Nvdimmm Power Source	Displays the Nvdimmm power information.
Odts Cmd Throt Enable	Displays Odts Cmd Throt enabling information.
Odts Cmd Throt Cycle	Displays Odts Cmd Throt cycle information.

3.2.20.1 Socket 0

Socket 0

Figure 3-116 shows the **Socket 0** screen.

Figure 3-116 Socket 0 Screen



For a description of the parameters on the **Socket 0** screen, refer to [Table 3-87](#).

Table 3-87 Parameter Descriptions for the Socket 0 Screen

Parameter	Description
Channel 0	Sets the status parameters for specific memory configuration of channel 0. For details, refer to Channel 0 .
Dram ECC	Displays DRAM ECC information.
Dram Parity	Displays DRAM parity information.
Dimm Sensor Fine Grain Mode	Displays the Fine Grain mode information about the Dimm sensor.

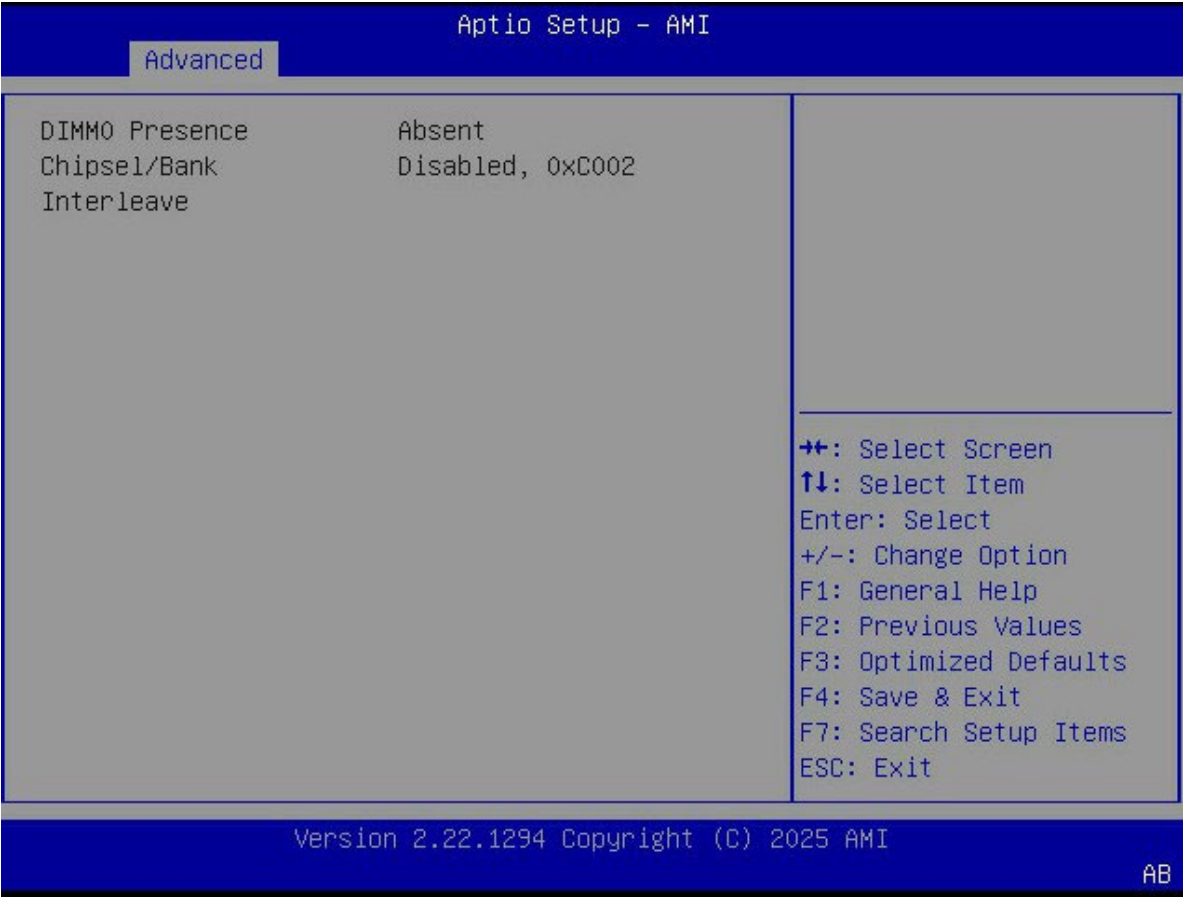
Note

The parameters on the **Channel 1** and **Channel 2** screens are similar with those on the **Channel 0** screen.

Channel 0

[Figure 3-117](#) shows the **Channel 0** screen.

Figure 3-117 Channel 0 Screen



 Note

The **Channel 0** screen is used as an example.

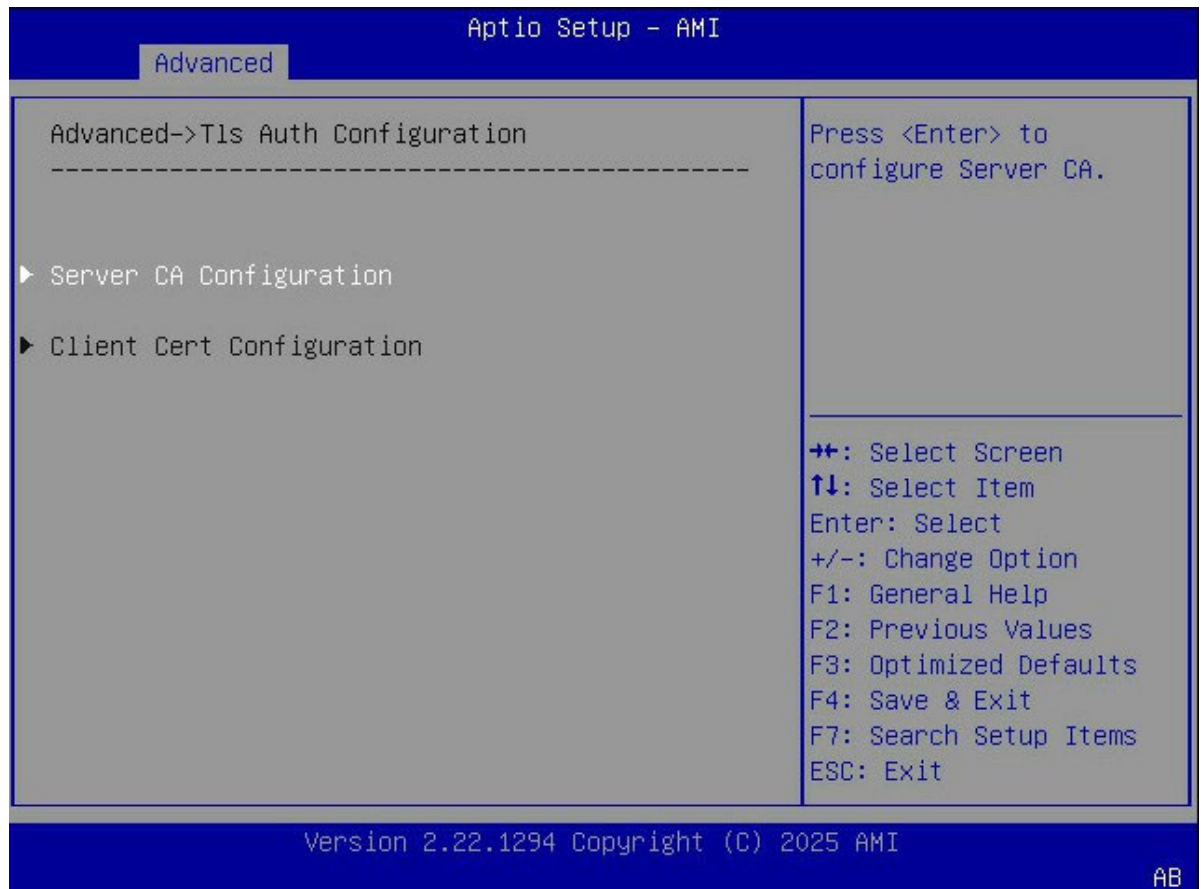
For a description of the parameters on the **Channel 0** screen, refer to [Table 3-88](#).

Table 3-88 Parameter Descriptions for the Channel 0 Screen

Parameter	Description
DIMM0 Presence	Displays the DIMM0 presence information. ● Absent: DIMM0 is absent. ● Present: DIMM0 is present.
Chipsel/Bank Interleave	Displays chipset or bank interaction information.

3.2.21 Tls Auth Configuration

[Figure 3-118](#) shows the **Tls Auth Configuration** screen.

Figure 3-118 Tls Auth Configuration Screen

For a description of the parameters on the **Tls Auth Configuration** screen, refer to [Table 3-89](#).

Table 3-89 Parameter Descriptions for the Tls Auth Configuration Screen

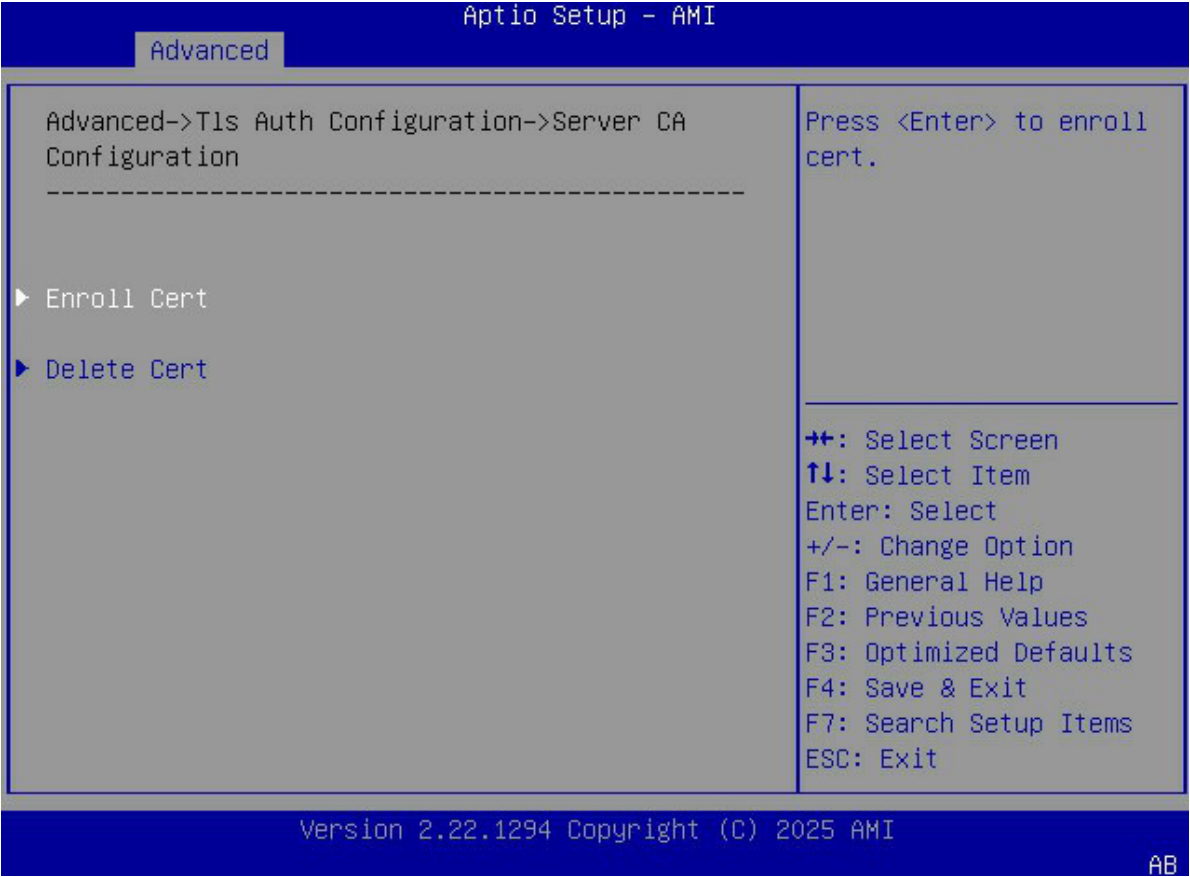
Parameter	Description
Server CA Configuration	Sets the server CA parameters. For details, refer to 3.2.21.1 Server CA Configuration .
Client Cert Configuration	Sets the client certificate parameters. The parameter value cannot be changed.

3.2.21.1 Server CA Configuration

Server CA Configuration

[Figure 3-119](#) shows the **Server CA Configuration** screen.

Figure 3-119 Server CA Configuration Screen



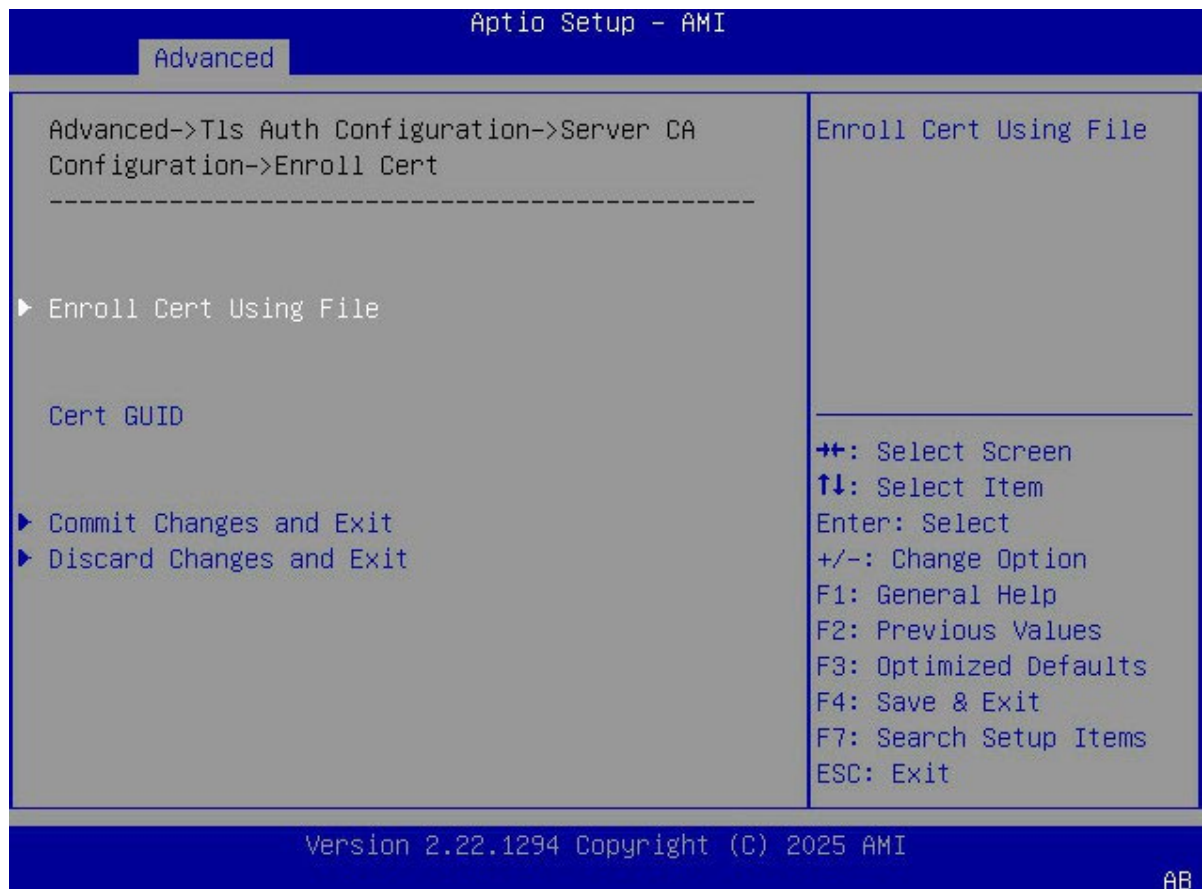
For a description of the parameters on the **Server CA Configuration** screen, refer to [Table 3-90](#).

Table 3-90 Parameter Descriptions for the Server CA Configuration Screen

Parameter	Description
Enroll Cert	Enrolls for certificates. For details, refer to Enroll Cert .
Delete Cert	Deletes certificates. For details, refer to Delete Cert .

Enroll Cert

[Figure 3-120](#) shows the **Enroll Cert** screen.

Figure 3-120 Enroll Cert Screen

For a description of the parameters on the **Enroll Cert** screen, refer to [Table 3-91](#).

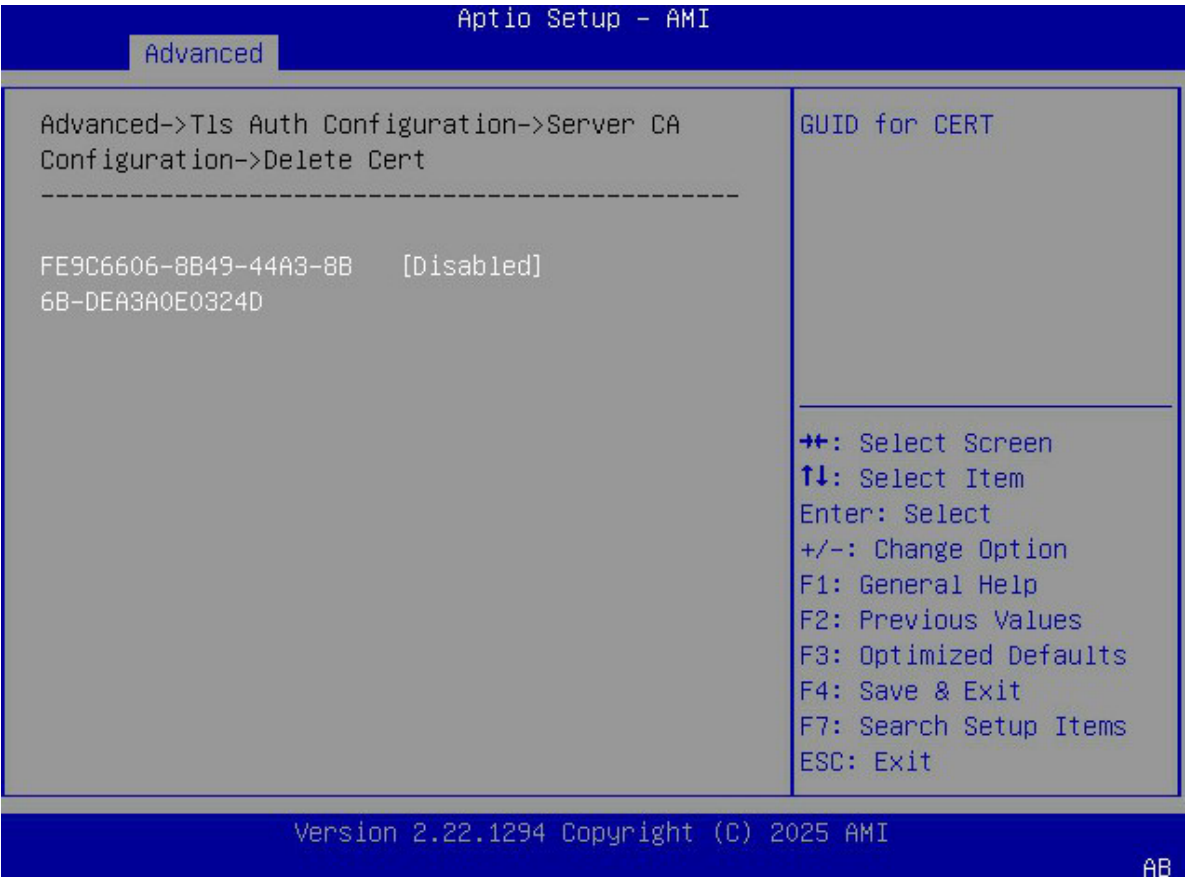
Table 3-91 Parameter Descriptions for the Enroll Cert Screen

Parameter	Description
Enroll Cert Using File	Enrolls for a certificate by using a file. Press the Enter key and then select a file.
Cert GUID	Uses alphanumeric characters as the GUID of the certificate in the following format: 11111111-2222-3333-4444-1234567890ab
Commit Changes and Exit	Submits the changes and exits.
Discard Changes and Exit	Discards the changes and exits.

Delete Cert

[Figure 3-121](#) shows the **Delete Cert** screen.

Figure 3-121 Delete Cert Screen



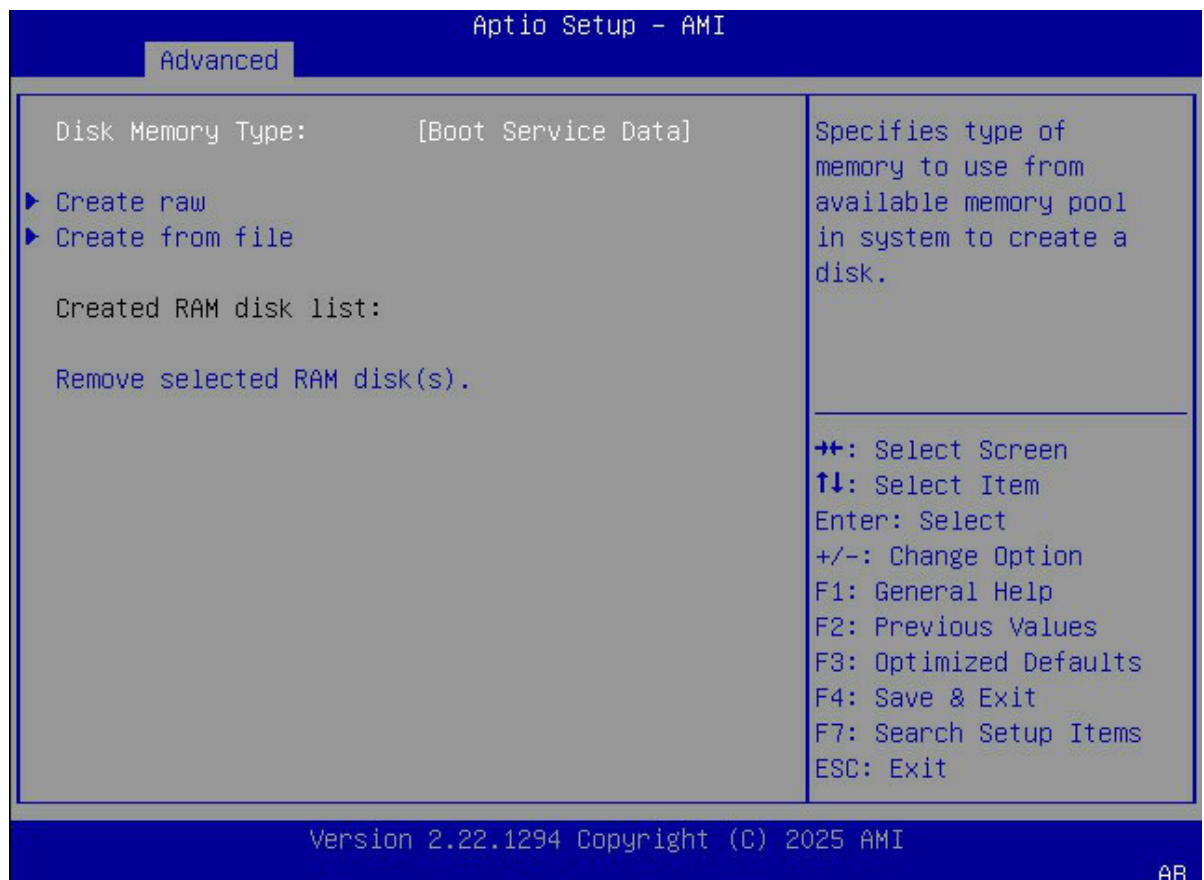
For a description of the parameters on the **Delete Cert** screen, refer to [Table 3-92](#).

Table 3-92 Parameter Descriptions for the Delete Cert Screen

Parameter	Description	Default Value
GUID of the certificate.	Enables or disables certificate deletion. Options: ● Disabled: disables certificate deletion. ● Enabled: enables certificate deletion.	Disabled

3.2.22 RAM Disk Configuration

[Figure 3-122](#) shows the **RAM Disk Configuration** screen.

Figure 3-122 RAM Disk Configuration Screen

For a description of the parameters on the **RAM Disk Configuration** screen, refer to [Table 3-93](#).

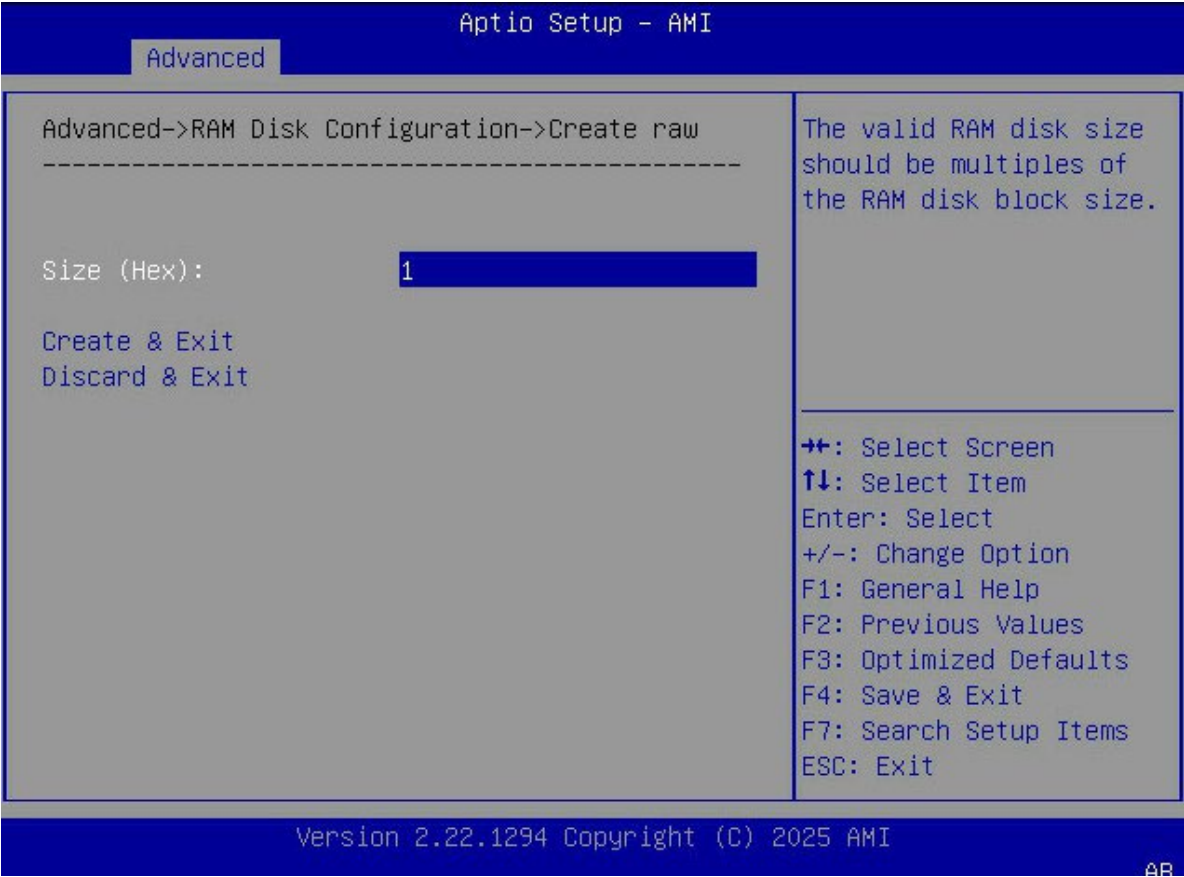
Table 3-93 Parameter Descriptions for the RAM Disk Configuration Screen

Parameter	Description	Default Value
Disk Memory Type	Sets the type of memory (in the available memory pool of the system) to be used for creating disks. Options: ● Boot Service Data ● Reserved	Boot Service Data
Create raw	Creates a raw RAM disk. For details, refer to 3.2.22.1 Create Raw .	-
Create from file	Creates a RAM disk from a given file. Press Enter and then select a file.	-
Remove selected RAM disk(s)	Deletes the enabled disks from the list of created RAM disks.	-

3.2.22.1 Create Raw

[Figure 3-123](#) shows the **Create raw** screen.

Figure 3-123 Create Raw Screen



For a description of the parameters on the **Create raw** screen, refer to [Table 3-94](#).

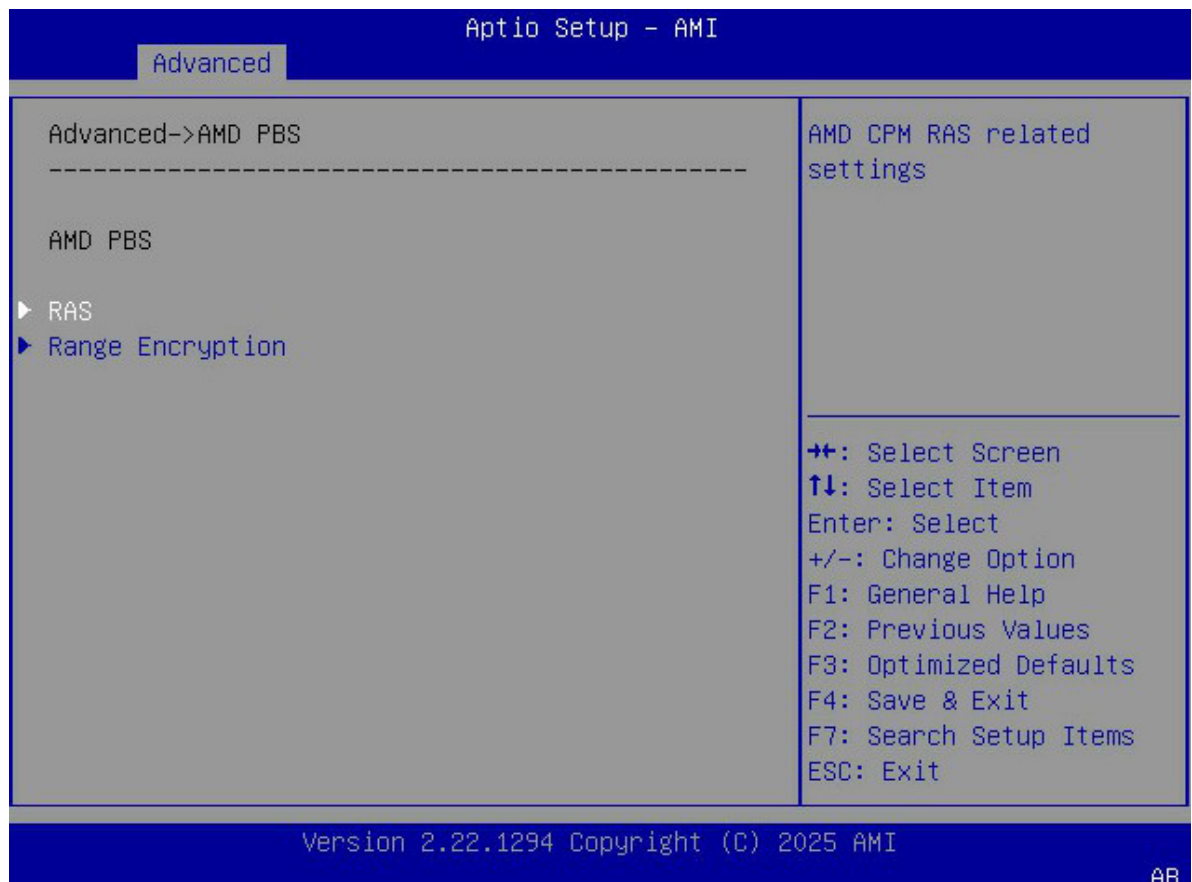
Table 3-94 Parameter Descriptions for the Create Raw Screen

Parameter	Description	Default Value
Size (Hex)	Sets the size of the disk.	1
Create & Exit	Creates the raw and exits.	-
Discard & Exit	Discards raw creation and exits.	-

3.2.23 AMD PBS

[Figure 3-124](#) shows the **AMD PBS** screen.

Figure 3-124 AMD PBS Screen



For a description of the parameters on the **AMD PBS** screen, refer to [Table 3-95](#).

Table 3-95 Parameter Descriptions for the AMD PBS Screen

Parameter	Description	Default Value
RAS	Sets the AMD CPM RAS parameters. For details, refer to 3.2.23.1 RAS .	-
Range Encryption	Sets the range encryption parameters for the AMD CXL . For details, refer to 3.2.23.2 Range Encryption .	-

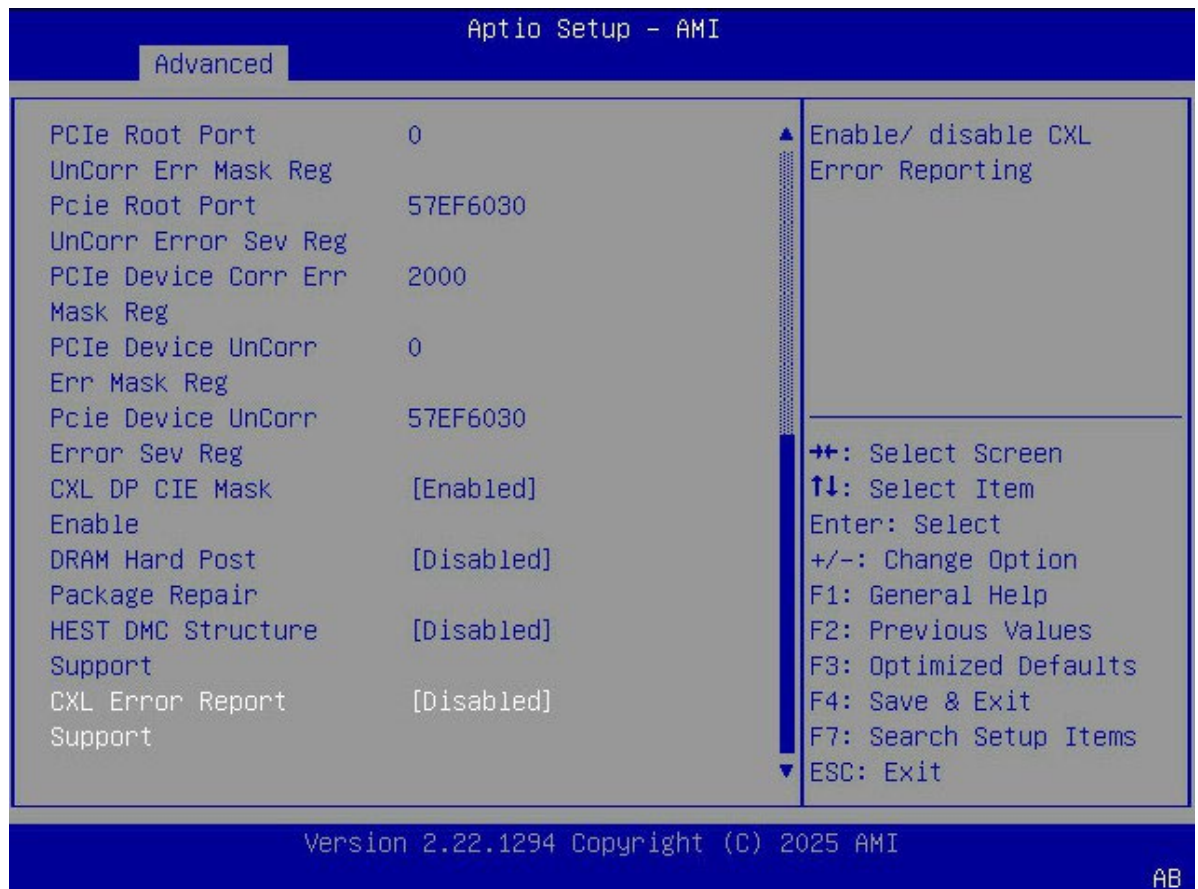
3.2.23.1 RAS

[Figure 3-125](#) and [Figure 3-126](#) show the **RAS** screen.

Figure 3-125 RAS Screen 1



Figure 3-126 RAS Screen 2



For a description of the parameters on the **RAS** screen, refer to [Table 3-96](#).

Table 3-96 RAS Screen Parameter Descriptions

Parameter	Description	Default Value
RAS Periodic SMI Control	Sets whether to enable periodic SMI to respond to polling MCA errors. Options: - Enabled: enables periodic SMI to respond to polling MCA errors. - Disabled: disables periodic SMI to respond to polling MCA errors.	Enabled
SMI Threshold	Sets the SMI threshold. The SMI threshold limits the MCA threshold and the number of sources of delayed error SMI by unit of time.	10
SMI Scale	Sets the SMI time scale.	1440
SMI Scale Unit	Sets the SMI time scale unit. Options: millisecond	minute

Parameter	Description	Default Value
	● second ● minute	
SMI Period	Sets the polling interval, range: 0–32767, unit: milliseconds. If this parameter is set to 0, the polling interval is disabled.	1000
GHEs Notify Type	Sets the notification type for GHEs. Options: ● Polled ● SCI	Polled
GHEs UnCorr Notify Type	Sets the notification type for uncorrected errors. Options: ● Polled ● NMI	NMI
PCIe GHEs Notify Type	Sets the notification type for PCIe GHEs. Options: ● Polled ● SCI	Polled
PCIe UnCorr GHEs Notify Type	Sets the notification type for PCIe uncorrected GHEs. Options: ● Polled ● NMI	NMI
PCIe Root Port Corr Err Mask Reg	Sets the mask register for correctable errors of the PCIe root port.	2000
PCIe Root Port UnCorr Err Mask Reg	Sets the mask register for uncorrectable errors of the PCIe root port.	0
Pcie Root Port UnCorr Error Sev Reg	Sets the severity register for correctable errors of the PCIe root port.	57EF6030
PCIe Device Corr Err Mask Reg	Sets the mask register for correctable errors of the PCIe device.	2000
PCIe Device UnCorr Err Mask Reg	Sets the mask register for uncorrectable errors of the PCIe device.	0
Pcie Device UnCorr Error Sev Reg	Sets the severity register for uncorrectable errors of the PCIe device.	57EF6030
CXL DP CIE Mask Enable	Sets whether to enable the function of masking CXL DP internal correctable errors.	Enabled

Parameter	Description	Default Value
	Options: ● Enabled: enables the function of masking CXL DP internal correctable errors. ● Disabled: disables the function of masking CXL DP internal correctable errors.	
DRAM Hard Post Package Repair	Sets whether to enable the DRAM hard repair function. Options: ● Enabled: enables the DRAM hard repair function. After this function is enabled, the standby DRAM rows are allowed to replace the faulty rows through the real-time recovery mechanism. ● Disabled: disables the DRAM hard repair function.	Disabled
HEST DMC Structure Support	Sets whether to enable the HEST DMC structure support function. Options: ● Enabled: enables the HEST DMC structure support function. ● Disabled: disables the HEST DMC structure support function.	Disabled
CXL Error Report Support	Sets whether to enable the CXL error reporting support function. Options: ● Enabled: enables the CXL error reporting support function. ● Disabled: disables the CXL error reporting support function.	Disabled

3.2.23.2 Range Encryption

Figure 3-127 and Figure 3-128 show the **Range Encryption** screen.

Figure 3-127 Range Encryption Screen 1

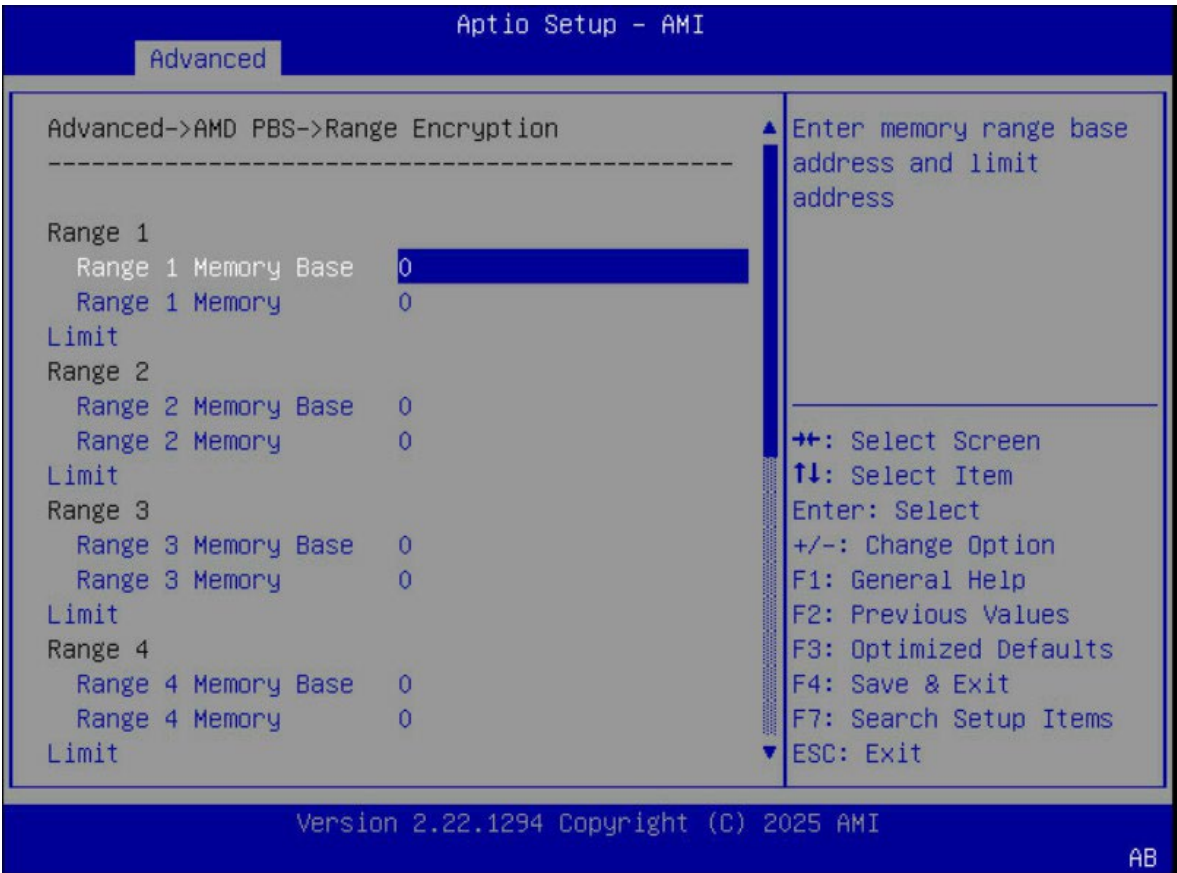
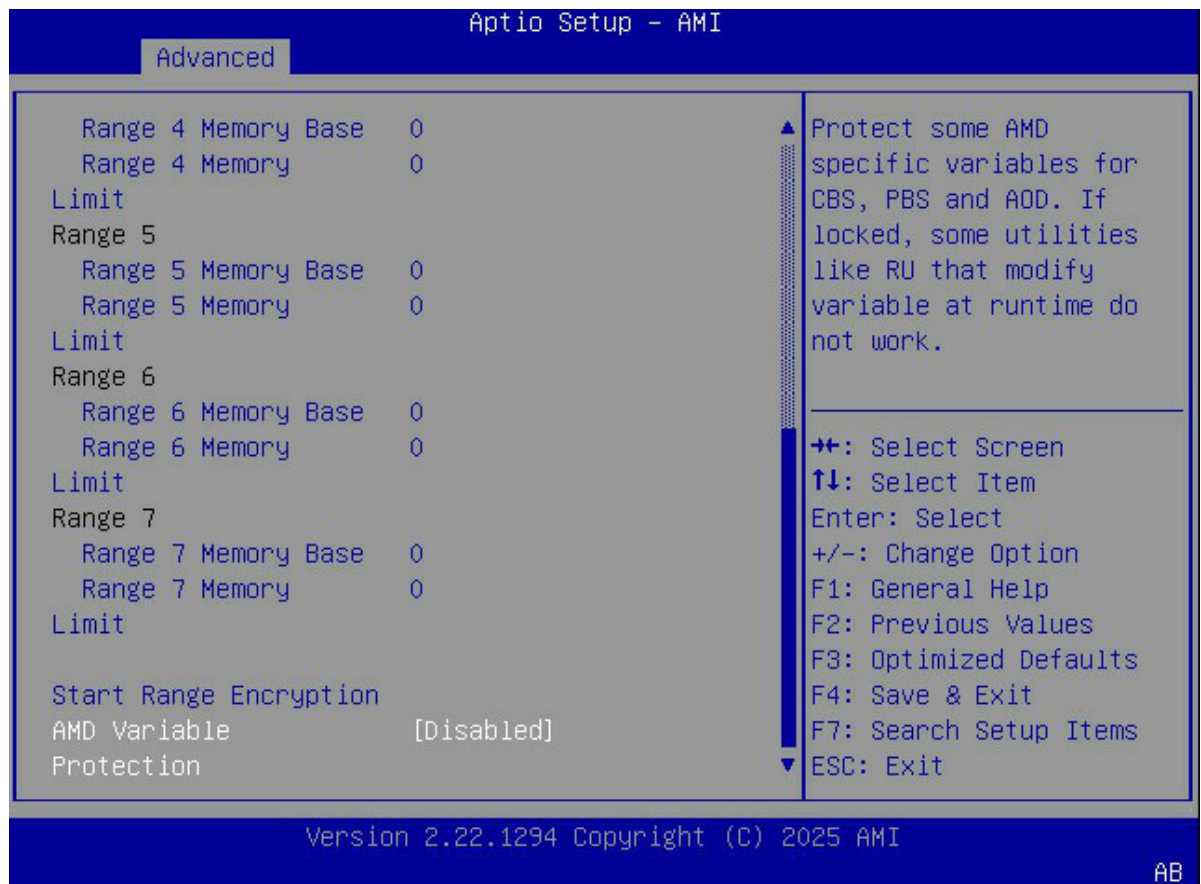


Figure 3-128 Range Encryption Screen 2

For a description of the parameters on the **Range Encryption** screen, refer to [Table 3-97](#).

Table 3-97 Parameter Descriptions for the Range Encryption Screen

Parameter	Description	Default Value
Range 1 Memory Base	Sets the base address of the memory range.	0
Range 1 Memory Limit	Sets the limit address of the memory range.	0
Start CXL Range Encryption	Encrypts all memory ranges.	-
AMD Variable Protection	Enables or disables the AMD variable protection function. Options: - Enabled: enables the AMD variable protection function. - Disabled: disables the AMD variable protection function.	Disabled



Note

The parameters for other ranges are the same as those for **Range 1**.

3.2.24 Driver Health

Figure 3-129 shows the **Driver Health** screen.

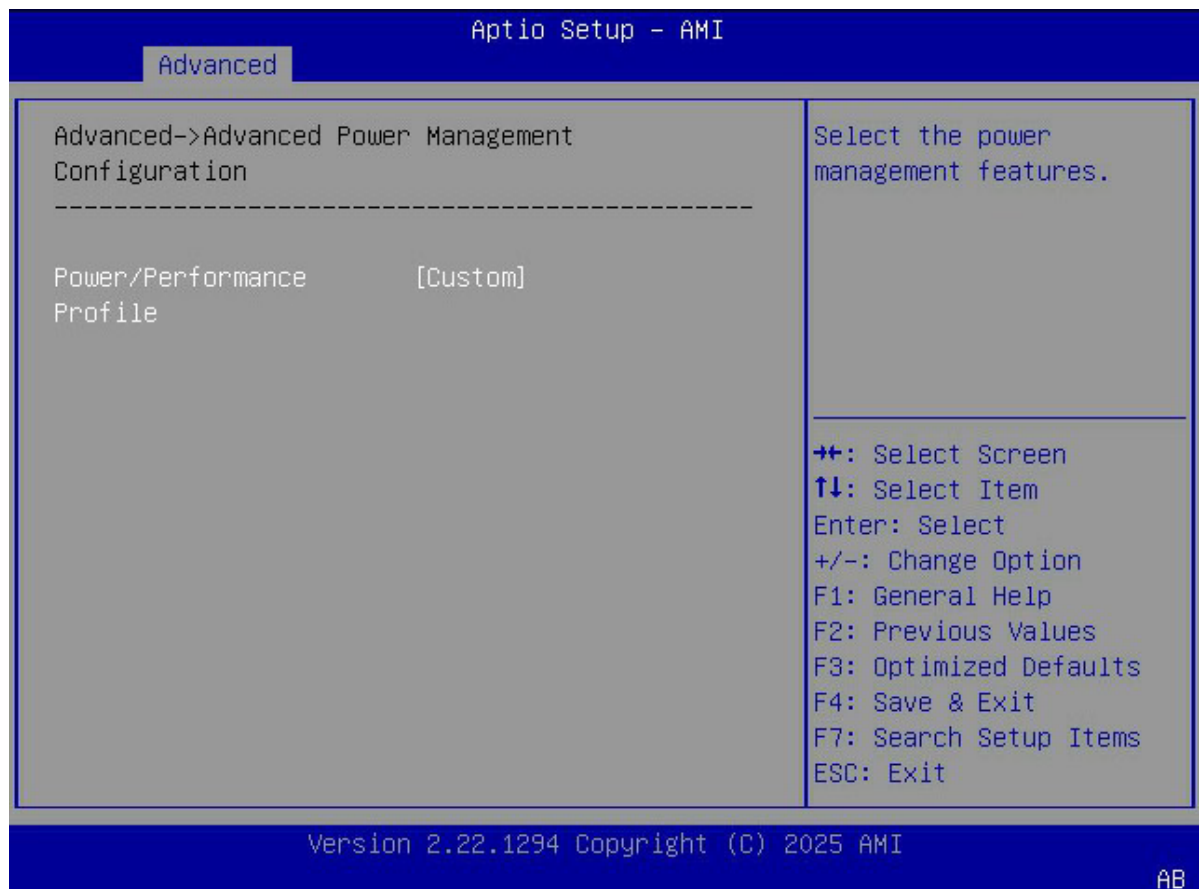
Figure 3-129 Driver Health Screen



You can select a driver, and press **Enter**. The health status of the driver is displayed.

3.2.25 Advanced Power Management Configuration

Figure 3-130 shows the **Advanced Power Management Configuration** screen.

Figure 3-130 Advanced Power Management Configuration Screen

For a description of the parameters on the **Advanced Power Management Configuration** screen, refer to [Table 3-98](#).

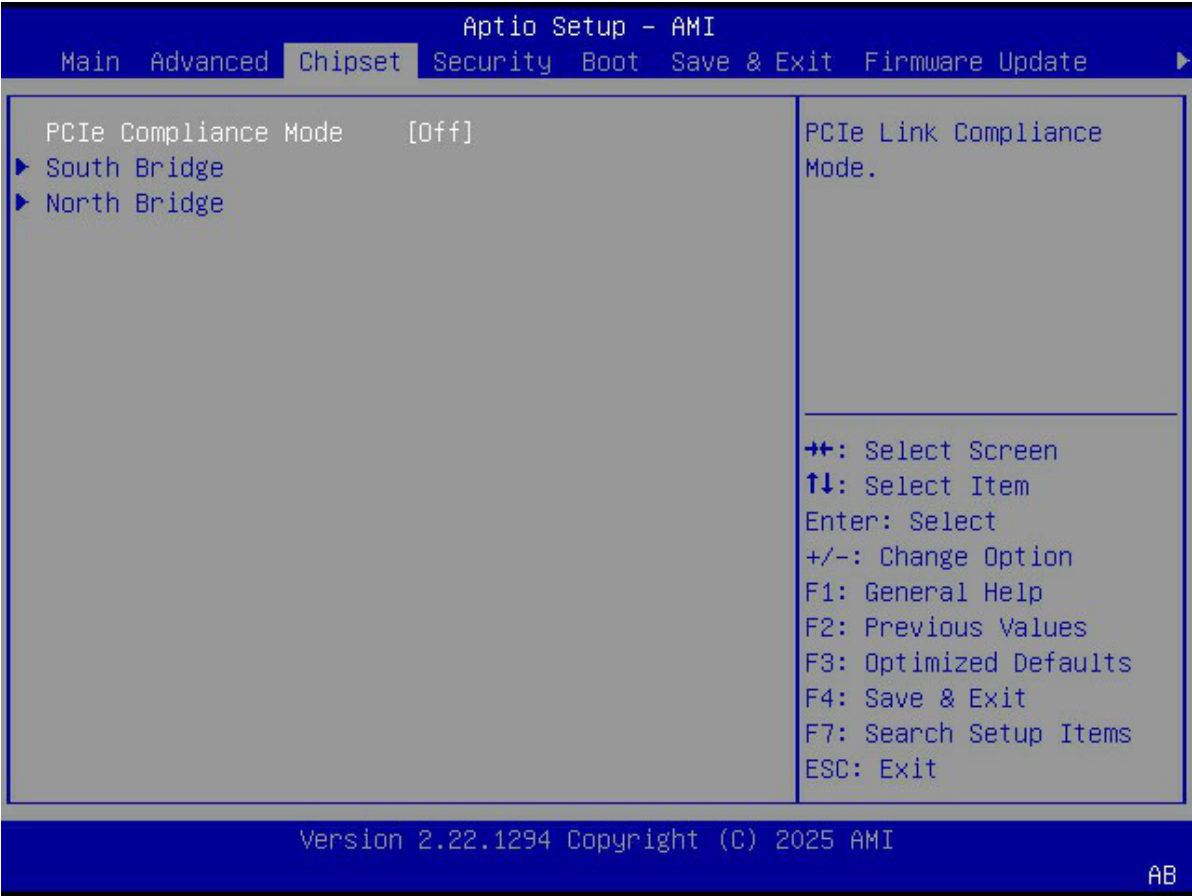
Table 3-98 Parameter Descriptions for the Advanced Power Management Configuration Screen

Parameter	Description	Default Value
Power/Performance Profile	Sets the power consumption and performance configuration policy. Options: ● General Performance ● Balance/Energy Efficiency ● Custom ● Low Latency ● General Power Saving ● Virtualization Performance ● Virtualization Power Saving	Custom

3.3 Chipset

The **Chipset** screen contains northbridge and southbridge configuration items, such as the memory information about the northbridge and the debug configuration of the southbridge, as shown in [Figure 3-131](#).

Figure 3-131 Chipset Screen



For a description of the parameters on the **Chipset** screen, refer to [Table 3-99](#).

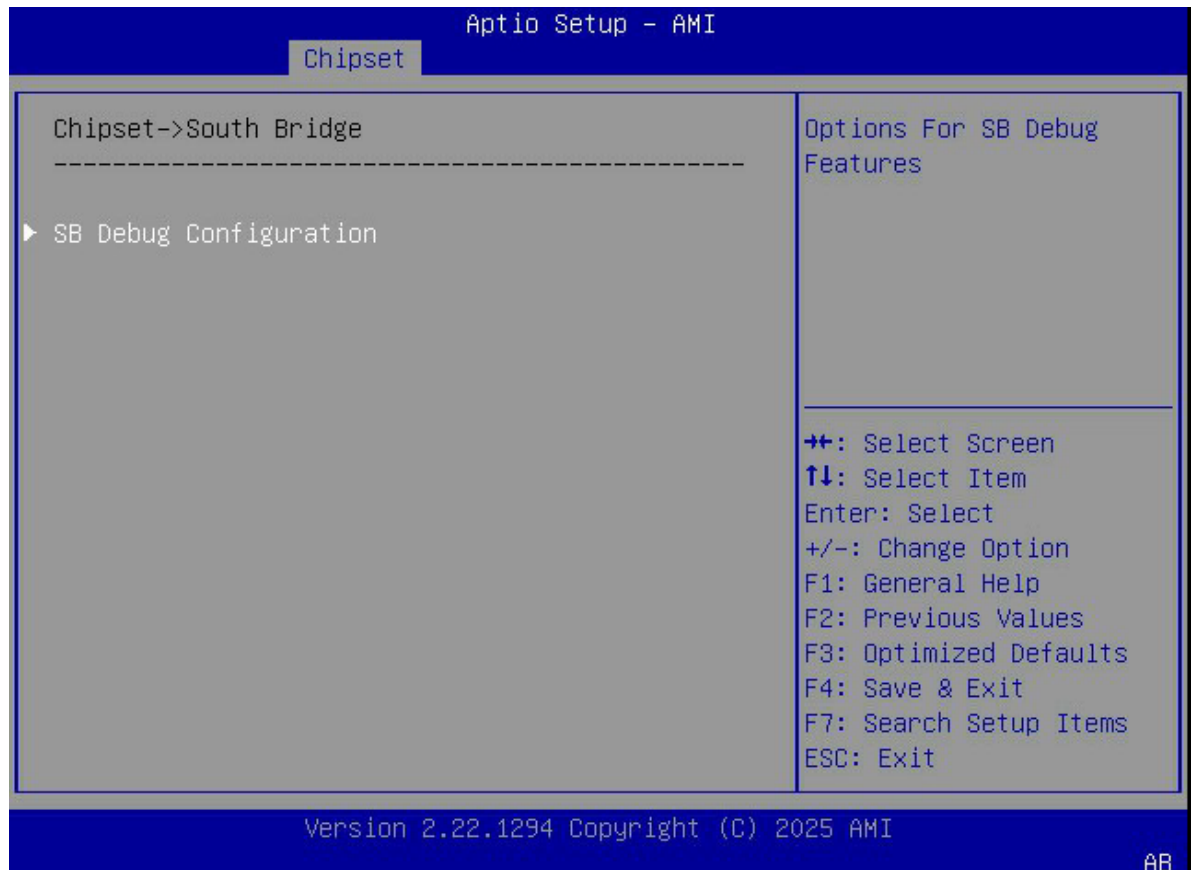
Table 3-99 Parameter Descriptions for the Chipset Screen

Parameter	Description	Default Value
PCIe Compliance Mode	Sets whether to enable the PCIe link compliance mode. Options: ● Off ● On	Off
South Bridge	Sets the southbridge parameters. For details, refer to 3.3.1 South Bridge .	-
North Bridge	Sets the northbridge parameters. For details, refer to 3.3.2 North Bridge .	-

3.3.1 South Bridge

Figure 3-132 shows the **South Bridge** screen.

Figure 3-132 SB Debug Configuration Screen



For a description of the parameters on the **South Bridge** screen, refer to [Table 3-100](#).

Table 3-100 Parameter Descriptions for the South Bridge Screen

Parameter	Description
SB Debug Configuration	Sets the southbridge debug parameters. For details, refer to 3.3.1.1 SB Debug Configuration .

3.3.1.1 SB Debug Configuration

SB Debug Configuration

The **SB Debug Configuration** screen contains [SB SATA DEBUG Configuration](#), [SB FUSION DEBUG Configuration](#), and [SB MISC DEBUG Configuration](#), as shown in [Figure 3-133](#).

Figure 3-133 SB Debug Configuration Screen



For a description of the parameters on the **SB Debug Configuration** screen, refer to [Table 3-101](#).

Table 3-101 Parameter Descriptions for the SB Debug Configuration Screen

Parameter	Description
SB SATA DEBUG Configuration	Sets the southbridge SATA debug parameters. For details, refer to SB SATA DEBUG Configuration .
SB FUSION DEBUG Configuration	Sets the southbridge fusion debug parameters. For details, refer to SB FUSION DEBUG Configuration .
SB MISC DEBUG Configuration	Sets the southbridge MISC debug parameters. For details, refer to SB MISC DEBUG Configuration .

SB SATA DEBUG Configuration

[Figure 3-134](#) and [Figure 3-135](#) show the **SB SATA DEBUG Configuration** screen.

Figure 3-134 SB SATA DEBUG Configuration Screen 1

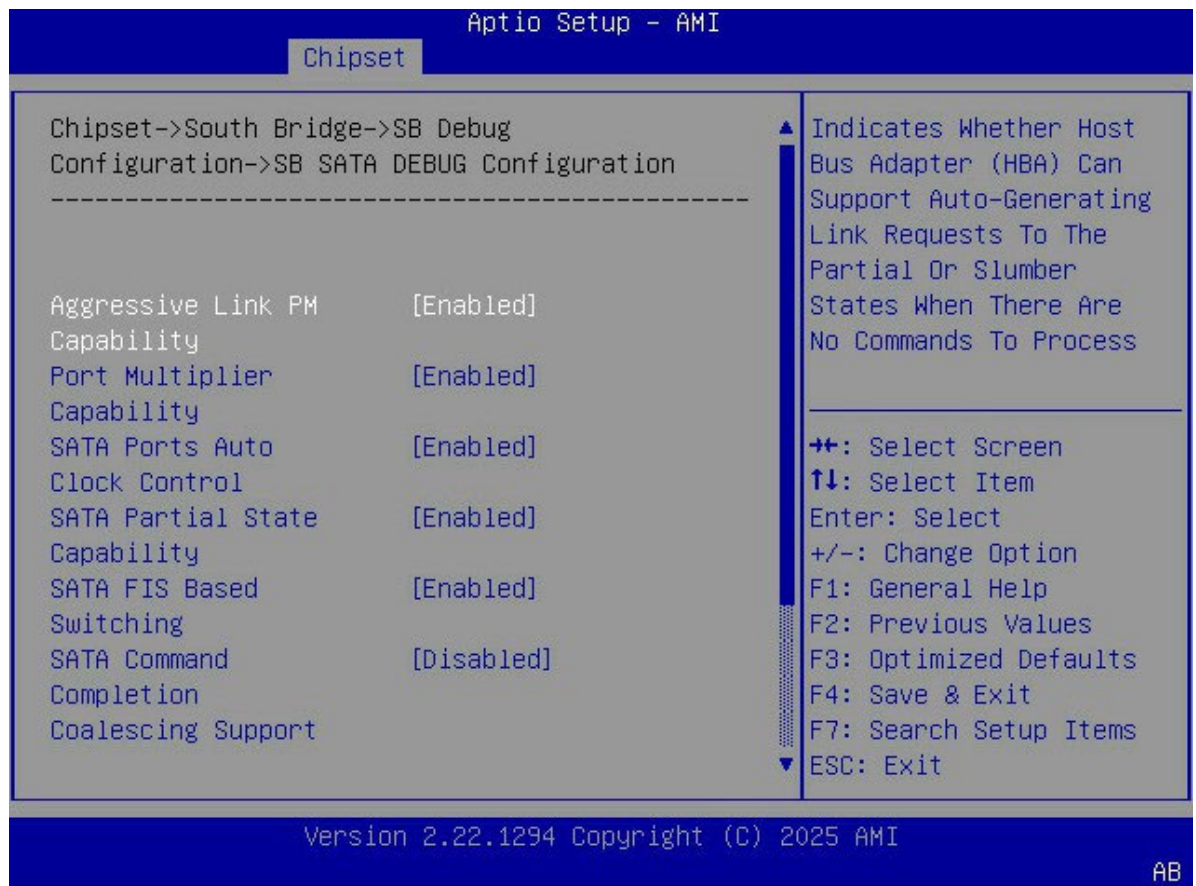
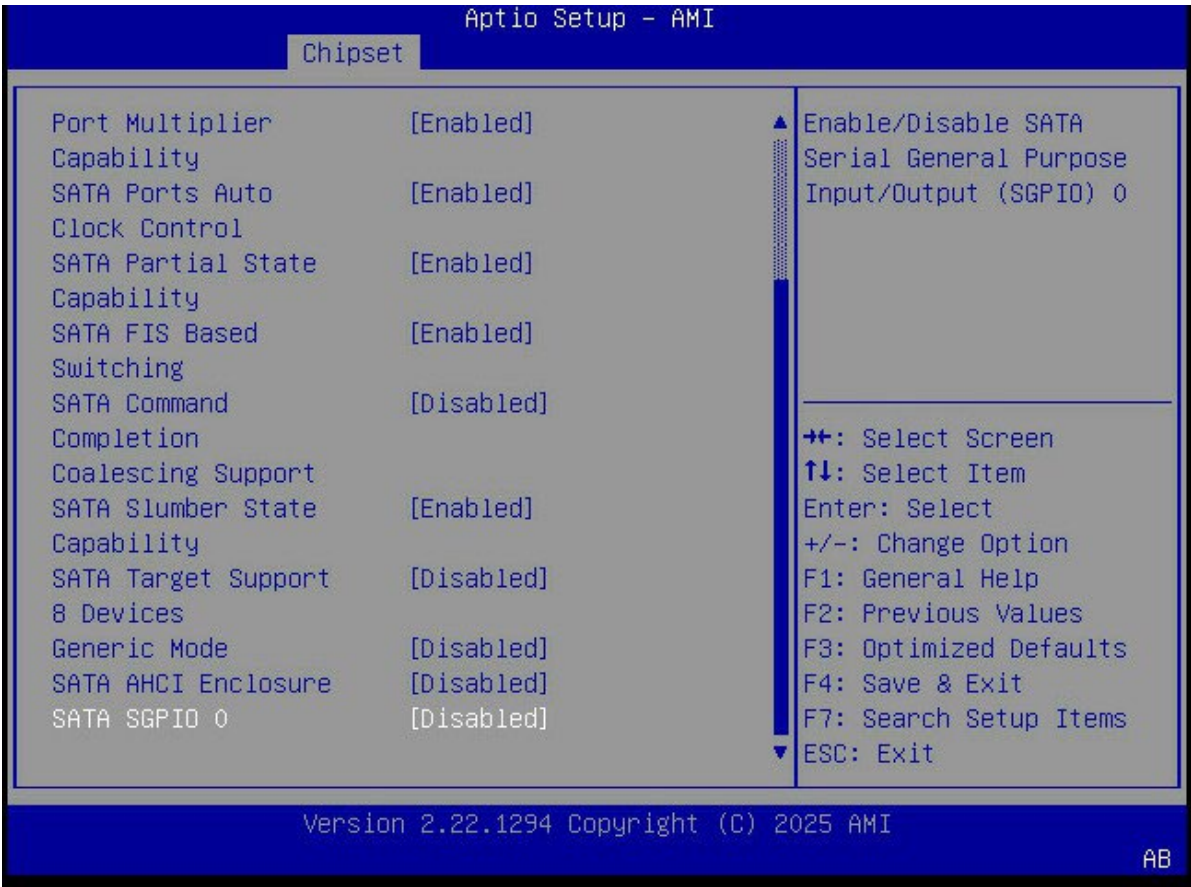


Figure 3-135 SB SATA DEBUG Configuration Screen 2



For a description of the parameters on the **SB SATA DEBUG Configuration** screen, refer to [Table 3-102](#).

Table 3-102 Parameter Descriptions for the SB SATA DEBUG Configuration Screen

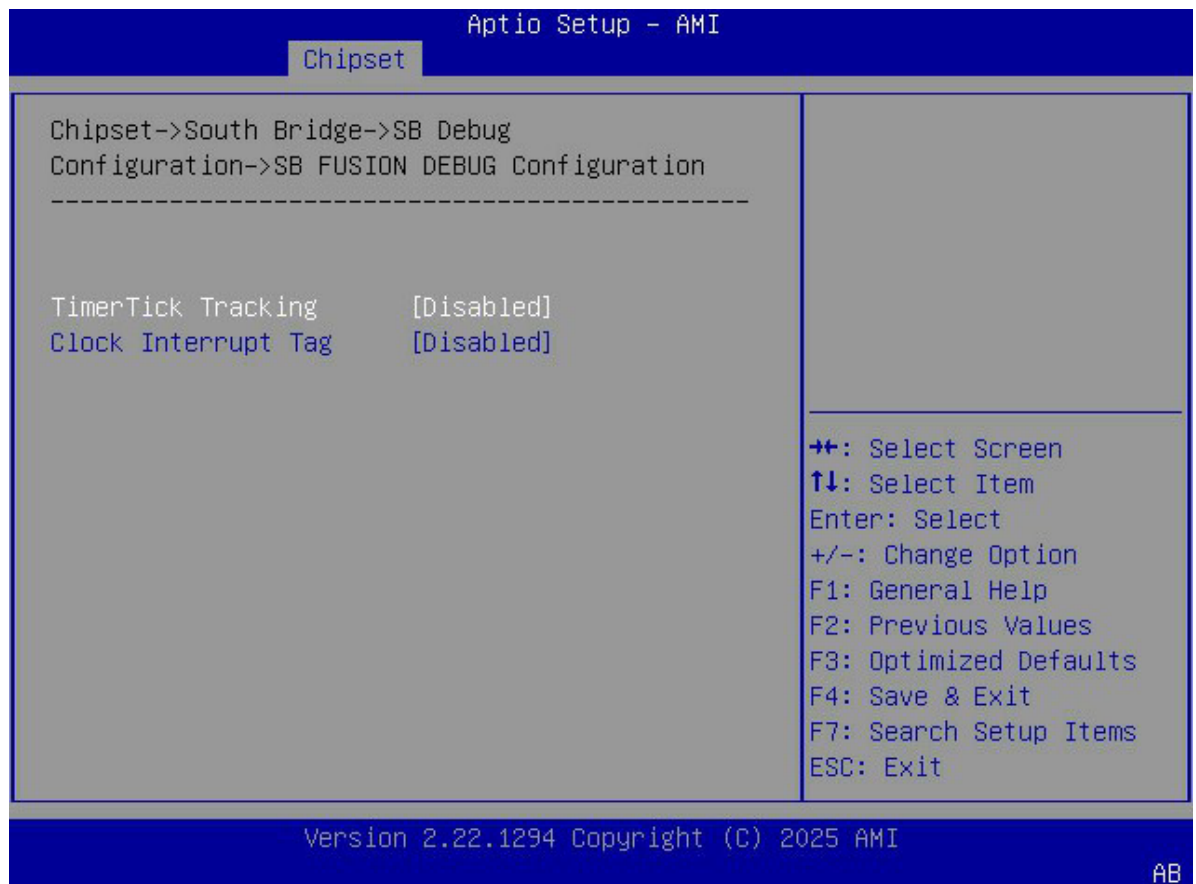
Parameter	Description	Default Value
Aggressive Link PM Capability	Sets whether to enable the aggressive link performance mode. Options: - Enabled: enables the aggressive link performance mode. After this function is enabled, the host bus adapter can automatically generate link requests to partial or sleep status when there is no command to be processed. - Disabled: disables the aggressive link performance mode.	Enabled
Port Multiplier Capability	Sets whether to enable the host bus adapter to support the port. Options:	Enabled

Parameter	Description	Default Value
	● Enabled: enables the host bus adapter to support the port. ● Disabled: disables the host bus adapter to support the port.	
SATA Ports Auto Clock Control	Sets whether to enable the automatic clock control function of the SATA port. Options: ● Enabled: enables the automatic clock control function of the SATA port. ● Disabled: disables the automatic clock control function of the SATA port.	Enabled
SATA Partial State Capability	Sets whether to enable the SATA partial state capability. Options: ● Enabled: enables the SATA partial state capability. ● Disabled: disables the SATA partial state capability.	Enabled
SATA FIS Based Switching	Sets whether to enable the FIS-based switching mechanism. Options: ● Enabled: enables the FIS-based switching mechanism. ● Disabled: disables the FIS-based switching mechanism.	Enabled
SATA Command Completion Coalescing Support	Sets whether to enable the SATA command completion coalescing support function. Options: ● Enabled: enables the SATA command completion coalescing support function. ● Disabled: disables the SATA command completion coalescing support function.	Disabled
SATA Slumber State Capability	Sets whether to enable the SATA slumber state capability. Options: ● Enabled: enables the SATA slumber state capability. ● Disabled: disables the SATA slumber state capability.	Enabled

Parameter	Description	Default Value
SATA Target Support 8 Devices	Sets whether to enable the SATA to support eight devices. Options: ● Enabled: enables the SATA to support eight devices. ● Disabled: disables the SATA to support eight devices.	Disabled
Generic Mode	Sets whether to enable the generic mode. Options: ● Enabled: enables the generic mode. ● Disabled: disables the generic mode.	Disabled
SATA AHCI Enclosure	Sets whether to enable the SATA AHCI enclosure. Options: ● Enabled: enables the SATA AHCI enclosure. ● Disabled: disables the SATA AHCI enclosure.	Disabled
SATA SGPIO 0	Sets whether to enable SATA SGPIO 0. Options: ● Enabled: enables SATA SGPIO 0. ● Disabled: disables SATA SGPIO 0.	Disabled

SB FUSION DEBUG Configuration

Figure 3-136 shows the **SB FUSION DEBUG Configuration** screen.

Figure 3-136 SB FUSION DEBUG Configuration Screen

For a description of the parameters on the **SB FUSION DEBUG Configuration** screen, refer to [Table 3-103](#).

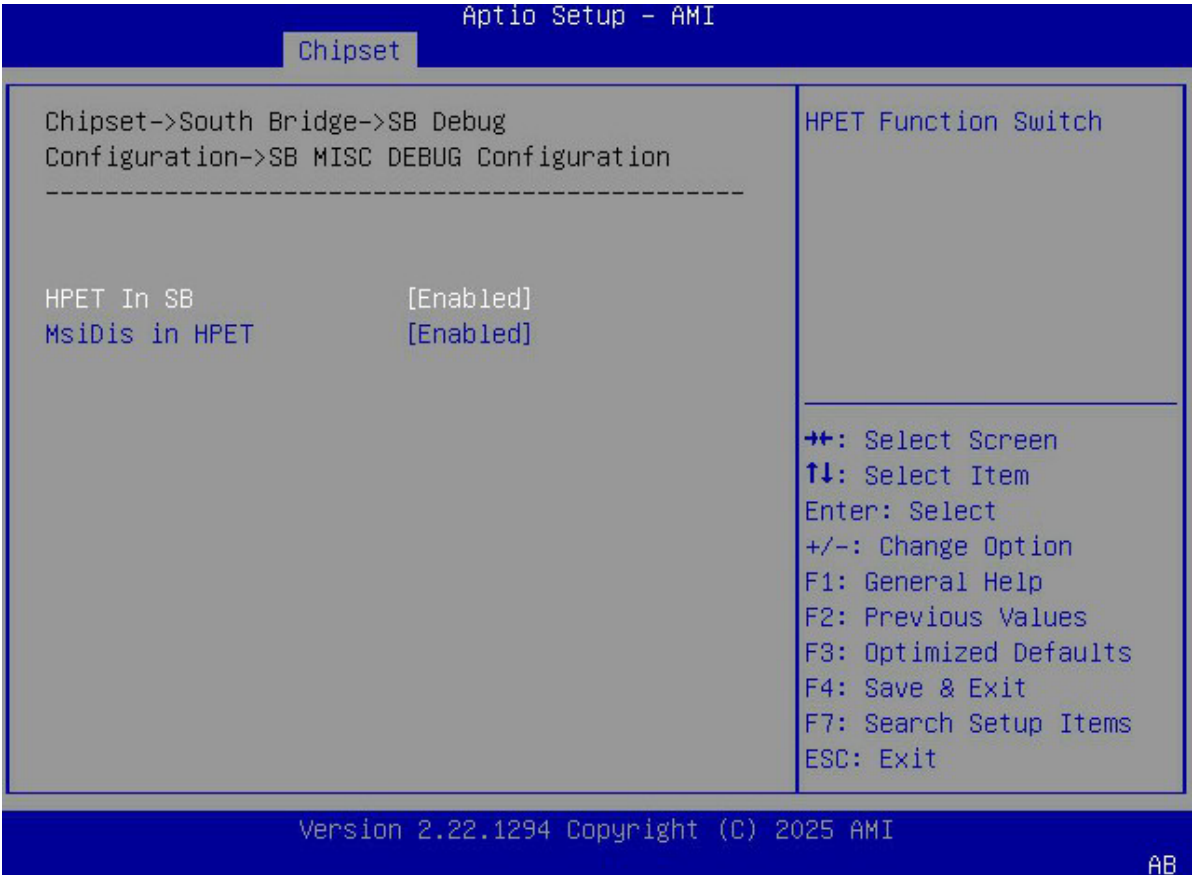
Table 3-103 Parameter Descriptions for the SB FUSION DEBUG Configuration Screen

Parameter	Description	Default Value
TimerTick Tracking	Sets whether to enable the timer tick tracking function. Options: ● Enabled: enables the timer tick tracking function. ● Disabled: disables the timer tick tracking function.	Disabled
Clock Interrupt Tag	Sets whether to enable the clock interruption tag function. Options: ● Enabled: enables the clock interruption tag function. ● Disabled: disables the clock interruption tag function.	Disabled

SB MISC DEBUG Configuration

Figure 3-137 shows the **SB MISC DEBUG Configuration** screen.

Figure 3-137 SB MISC DEBUG Configuration Screen



For a description of the parameters on the **SB MISC DEBUG Configuration** screen, refer to [Table 3-104](#).

Table 3-104 Parameter Descriptions for the SB MSIC DEBUG Configuration Screen

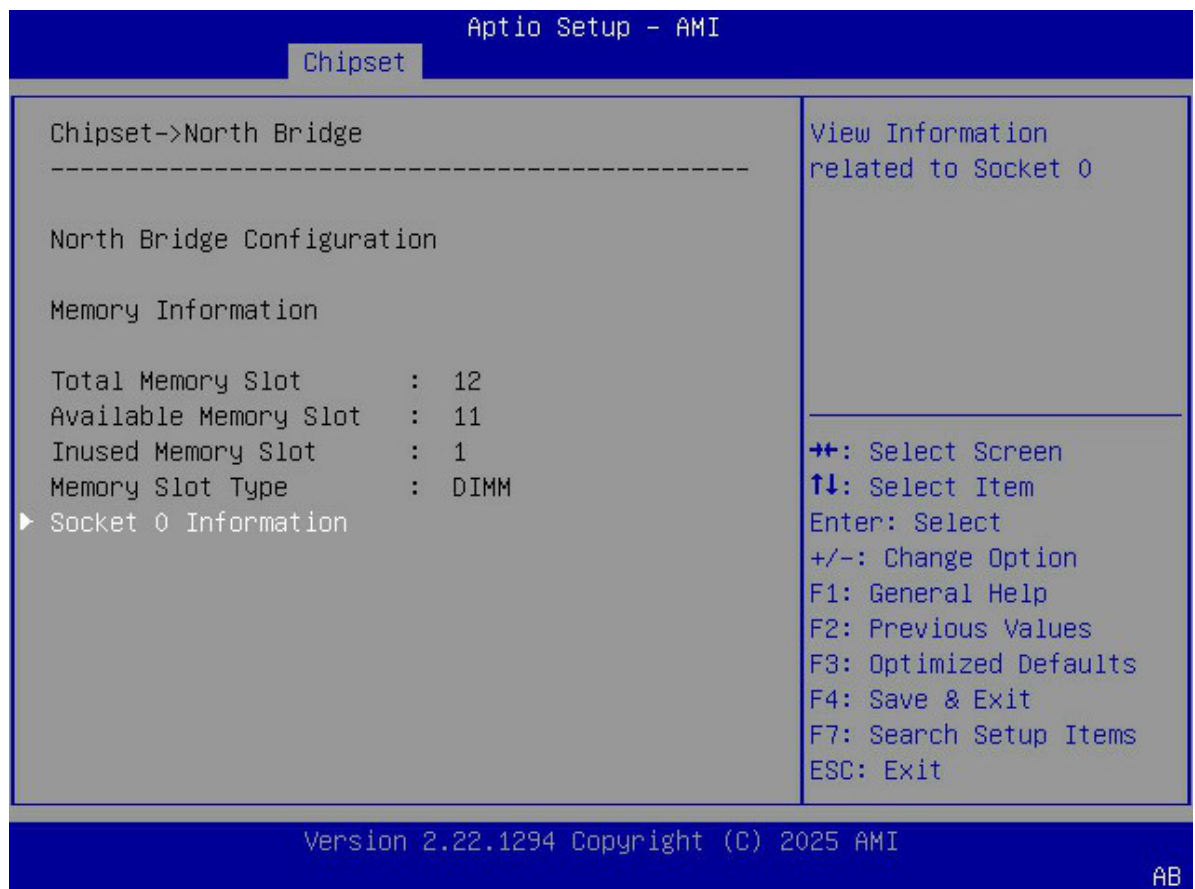
Parameter	Description	Default Value
HPET In SB	Sets whether to enable the HPET switchover function. Options: ● Enabled: enables the HPET switchover function. ● Disabled: disables the HPET switchover function.	Enabled
MsiDis in HPET	Sets whether to expose the MSI capability to the HEPT capability register. Options:	Enabled

Parameter	Description	Default Value
	- Enabled: exposes the MSI capability to the HEPT capability register. - Disabled: hides the MSI capability from the HEPT capability register.	

3.3.2 North Bridge

Figure 3-138 shows the **North Bridge** screen.

Figure 3-138 North Bridge Screen



For a description of the parameters on the **North Bridge** screen, refer to [Table 3-105](#).

Table 3-105 Parameter Descriptions for the North Bridge Screen

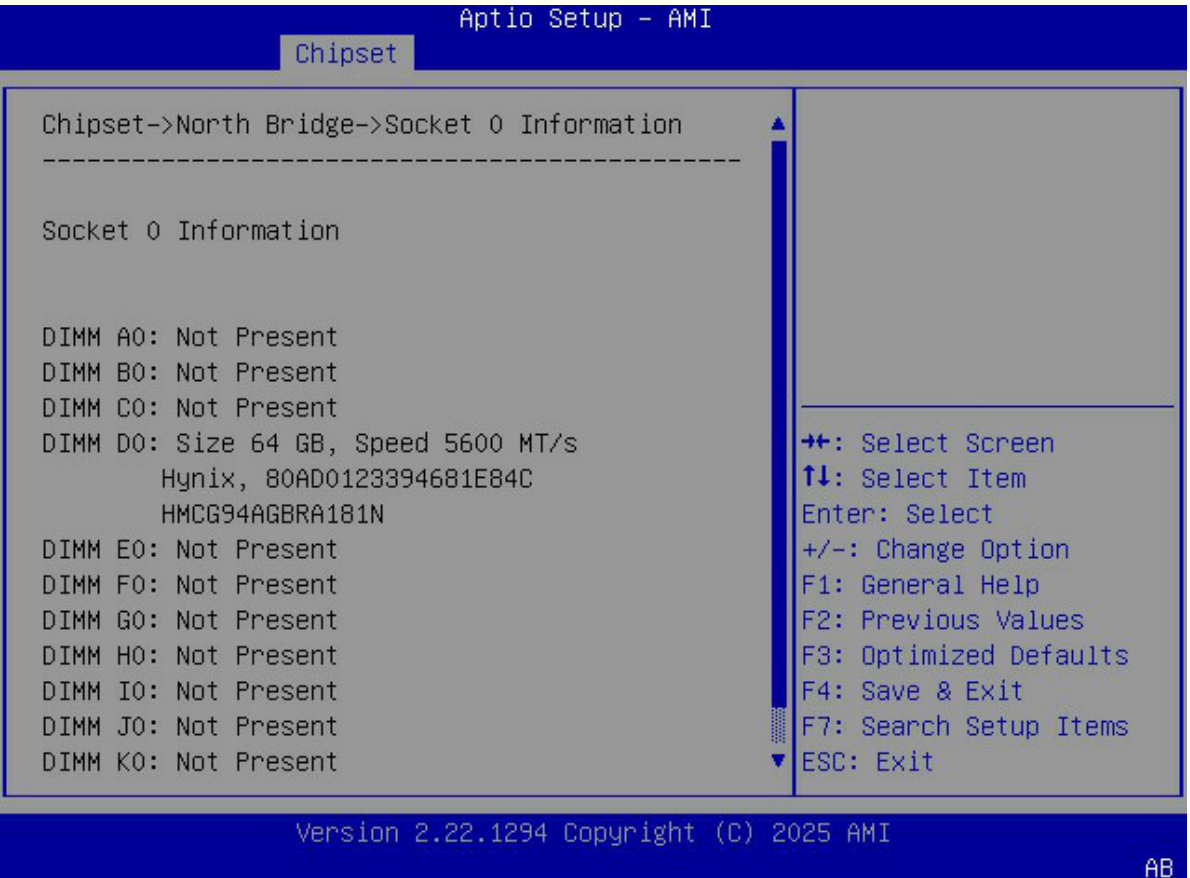
Parameter	Description
Total Memory Slot	Displays the total number of memory slots.
Available Memory Slot	Displays the number of available memory slots.
Inused Memory Slot	Displays the number of memory slots in use.
Memory Slot Type	Displays the memory slot type.
Socket 0 Information	Sets the memory parameters for CPU 0 .

Parameter	Description
	For details, refer to 3.3.2.1 Socket 0 Information.

3.3.2.1 Socket 0 Information

Figure 3-139 shows the **Socket 0 Information** screen.

Figure 3-139 Socket 0 Information Screen



For a description of the parameters on the **Socket 0 Information** screen, refer to Table 3-106.

Table 3-106 Parameter Descriptions for the Socket 0 Information Screen

Parameter	Description
DIMM A0	Sets the DIMM A0 presence information. If the device is not present, Not Present is displayed.

 Note

The above description also applies to other DIMMs.

3.4 Security

Figure 3-140 and Figure 3-141 show the **Security** screen.

Figure 3-140 Security Screen 1

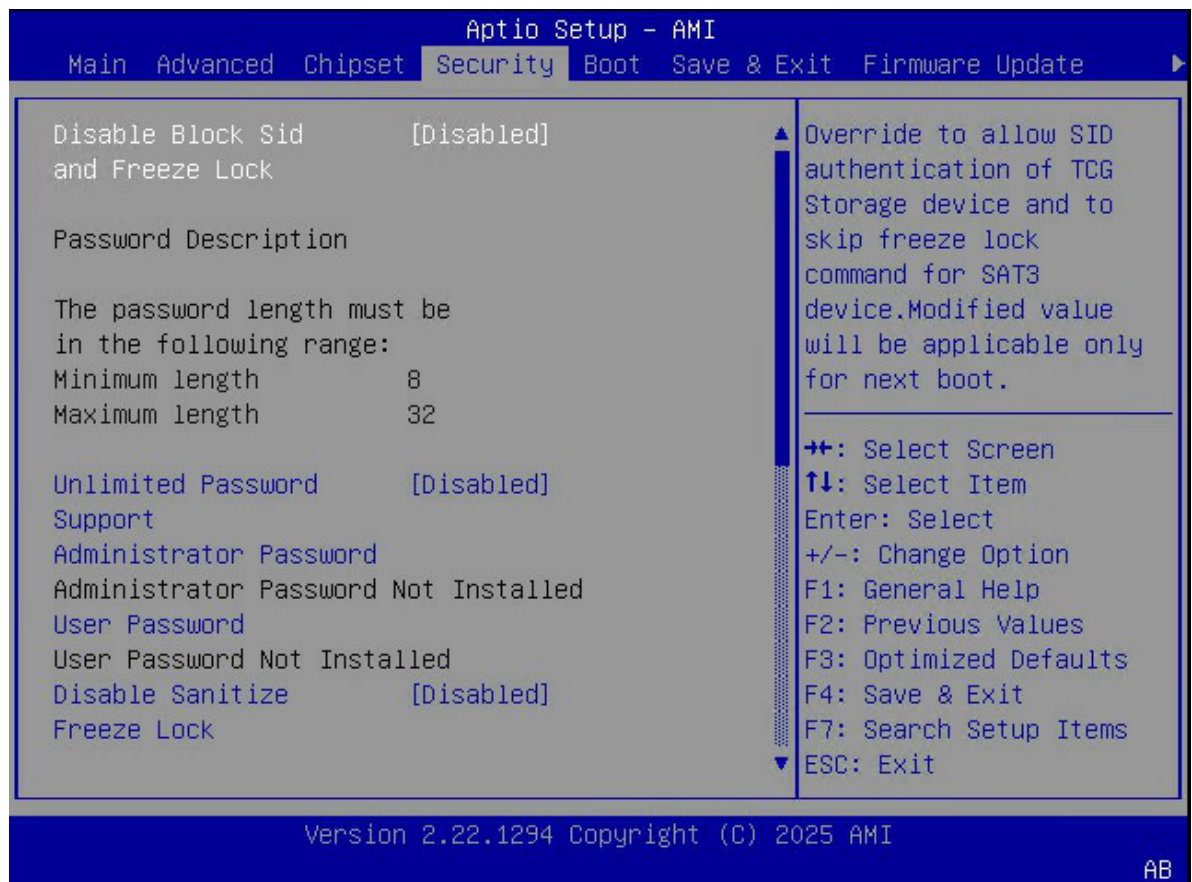
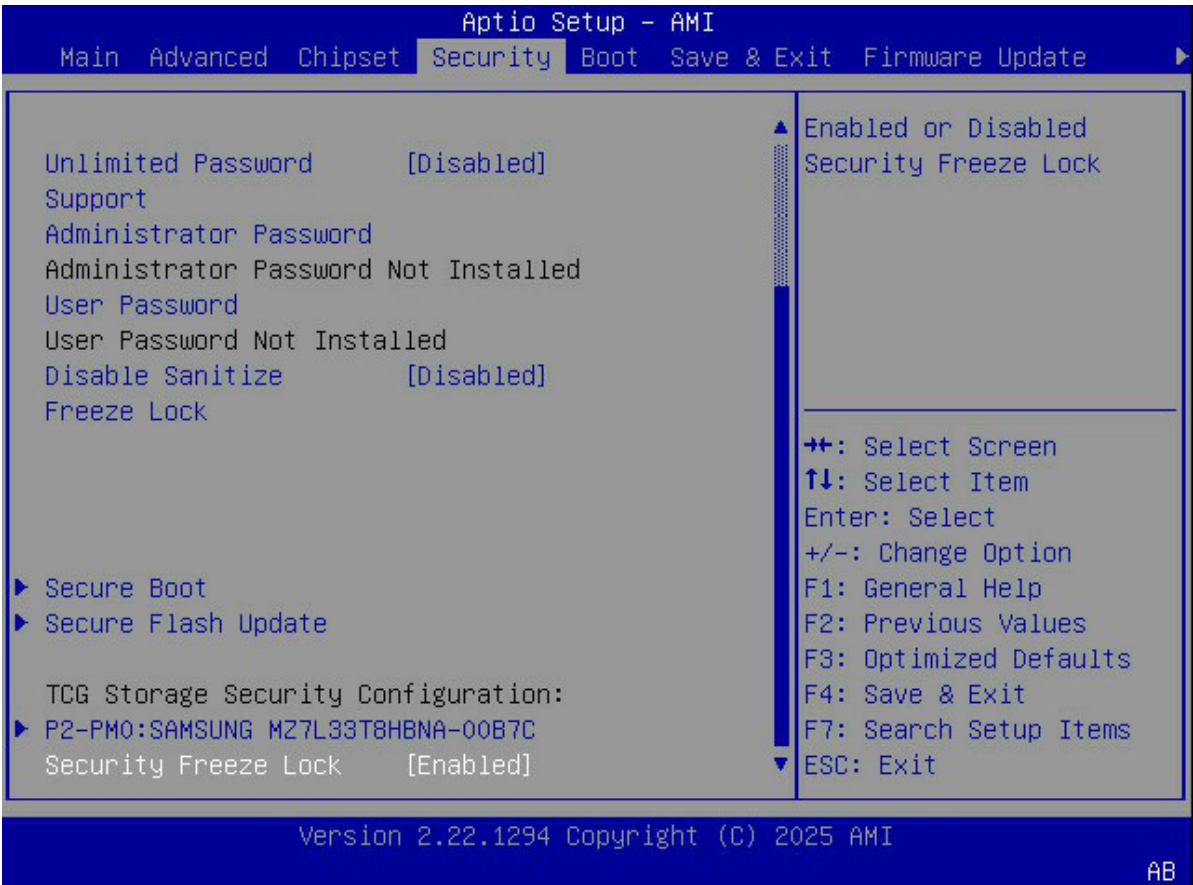


Figure 3-141 Security Screen 2



For a description of the parameters on the **Security** screen, refer to [Table 3-107](#).

Table 3-107 Parameter Descriptions for the Security Screen

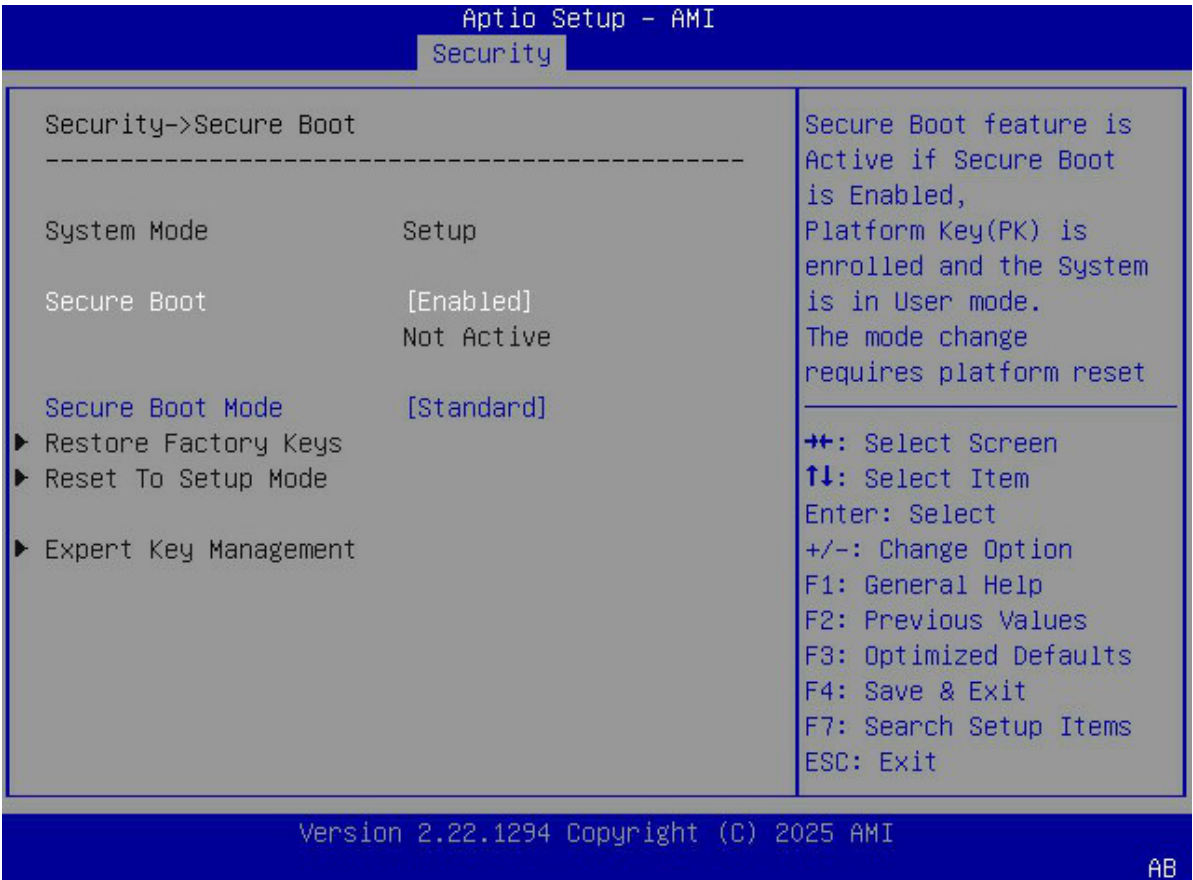
Parameter	Description	Default Value
Disable Block Sid and Freeze Lock	Sets whether to enable the Block SID and freeze lock disablement function. Options: ● Enabled: enables the Block SID and freeze lock disablement function. ● Disabled: disables the Block SID and freeze lock disablement function.	Disabled
Unlimited Password Support	Sets whether to enable the unlimited-password function. Options: ● Enabled: enables the unlimited-password function. ● Disabled: disables the unlimited-password function.	Disabled

Parameter	Description	Default Value
Administrator Password	Sets the administrator password.	Administrator Password Not Installed
User Password	Sets the user password.	User Password Not Installed
Disabled Sanitize Freeze Lock	Sets whether to enable the Sanitize Freeze function. Options: ● Enabled: enables the Sanitize Freeze function. ● Disabled: disables the Sanitize Freeze function.	Disabled
Secure Boot	Sets secure boot parameters. For details, refer to 3.4.1 Secure Boot .	-
Secure Flash Update	Sets the secure flash update parameters. For details, refer to 3.4.2 Secure Flash Update .	-
Security Freeze Lock	Sets whether to enable the security freeze lock. Options: ● Enabled: enables the security freeze lock. ● Disabled: disables the security freeze lock.	Enabled

3.4.1 Secure Boot

[Figure 3-142](#) shows the **Secure Boot** screen.

Figure 3-142 Secure Boot Screen



For a description of the parameters on the **Secure Boot** screen, refer to [Table 3-108](#).

Table 3-108 Parameter Descriptions for the Secure Boot Screen

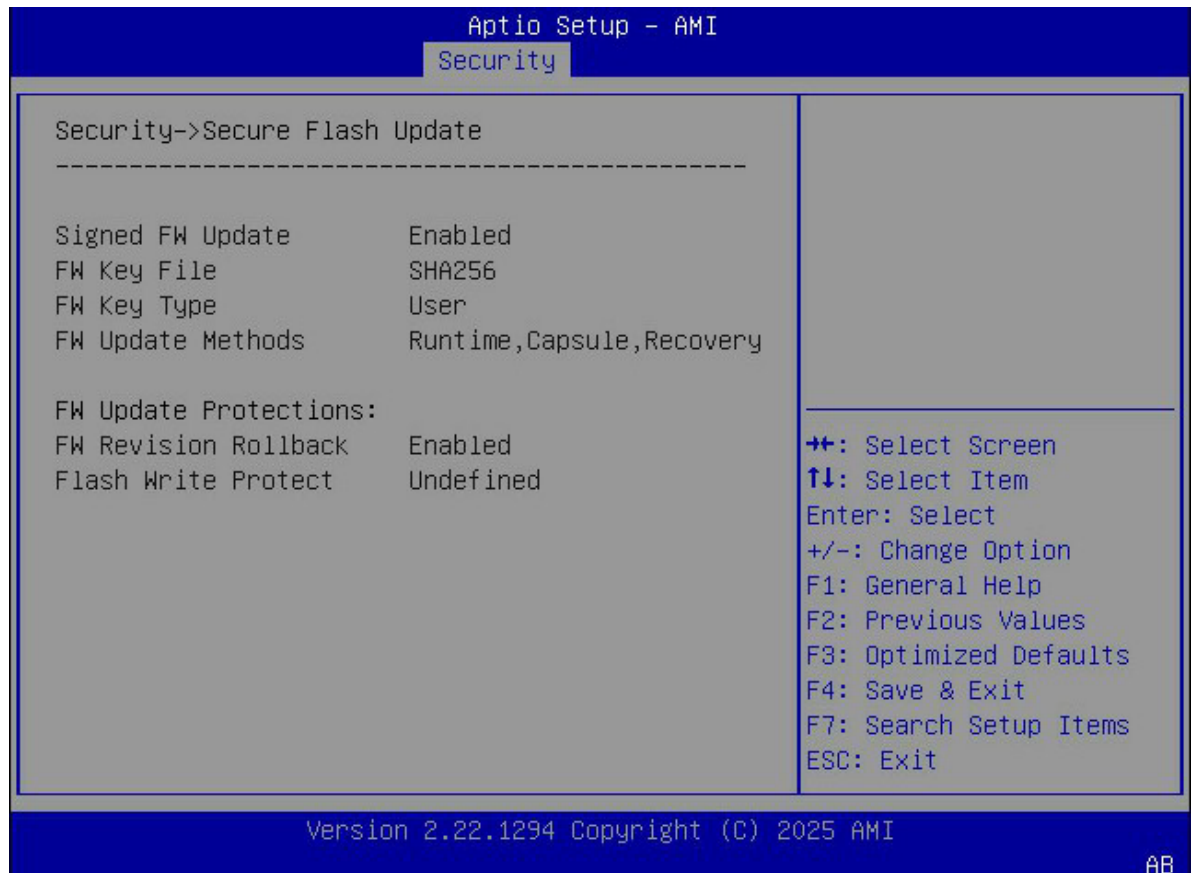
Parameter	Description	Default Value
System Mode	Sets the security system mode.	Setup
Secure Boot	Sets whether to enable the secure boot function. Options: ● Enabled: enables the secure boot function. ● Disabled: disables the secure boot function.	Enabled
Secure Boot Mode	Sets the secure boot mode. Options: ● Standard ● Custom	Standard
Restore Factory keys	Restores to the factory default key.	-
Reset To Setup Mode	Resets to the setup mode.	-

Parameter	Description	Default Value
Expert Key Management	Sets the key management mode.	-

3.4.2 Secure Flash Update

Figure 3-143 shows the **Secure Flash Update** screen.

Figure 3-143 Secure Flash Update Screen



For a description of the parameters on the **Secure Flash Update** screen, refer to [Table 3-109](#).

Table 3-109 Parameter Descriptions for the Secure Flash Update Screen

Parameter	Description
Signed FW update	Sets whether to enable BIOS update triggering.
FW Key File	Displays the firmware key file.
FW Key Type	Displays the firmware key type.
FW Update Methods	Displays the firmware update methods.
FW Revision Rollback	Sets whether to enable the firmware rollback protection function.
Flash Write Protect	Displays flash write protection.

3.5 Boot

Figure 3-144 and Figure 3-145 show the **Boot** screen.

Figure 3-144 Boot Screen 1

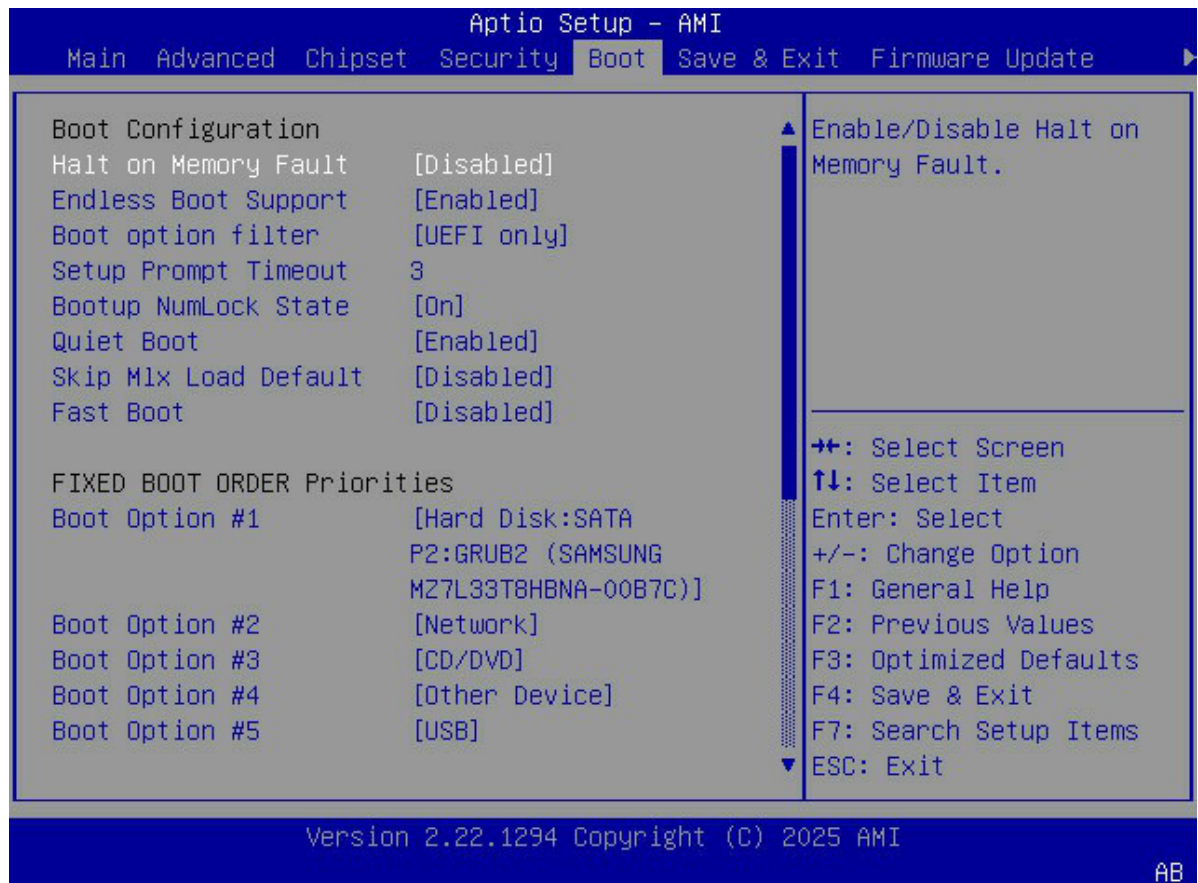
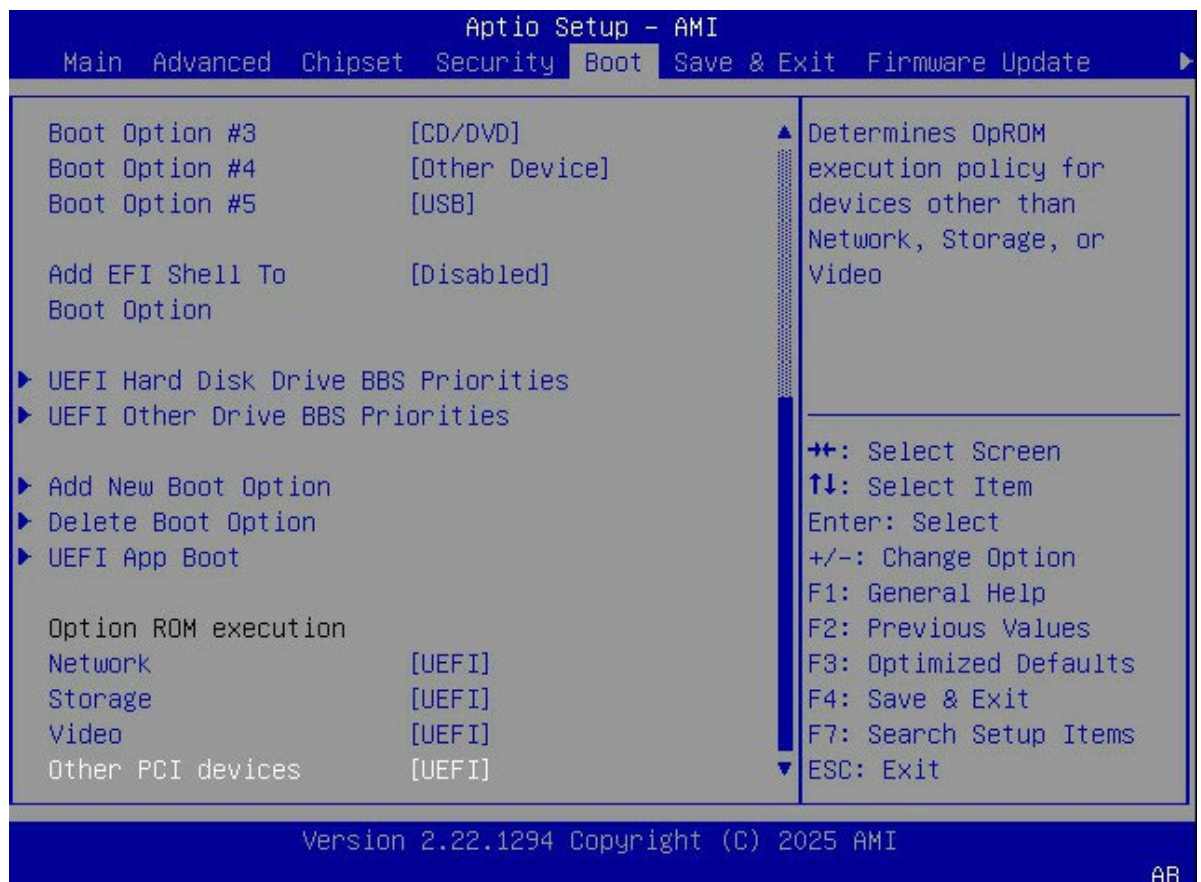


Figure 3-145 Boot Screen 2



For a description of the parameters on the **Boot** screen, refer to [Table 3-110](#).

Table 3-110 Parameter Descriptions for the Boot Screen

Parameter	Description	Default Value
Halt on Memory Fault	Sets whether to enable the halt on memory fault function. Options: - Enabled: enables the halt on memory fault function. - Disabled: disables the halt on memory fault function.	Disabled
Endless Boot Support	Sets whether to enable the endless boot function. Options: - Enabled: enables the endless boot function. - Disabled: disables the endless boot function.	Enabled
Boot option filter	Sets the boot mode. Options:	UEFI only

Parameter	Description	Default Value
	• UEFI only • Legacy only	
Setup Prompt Timeout	Sets the timeout period. The unit is seconds.	3
Bootup NumLock State	Sets whether to enable the NumLock state on the keyboard. Options: • On: enables the NumLock state on the keyboard. • Off: disables the NumLock state on the keyboard.	On
Quiet Boot	Sets whether to enable the quiet boot function. Options: • Enabled: enables the quiet boot function. • Disabled: disables the quiet boot function.	Enabled
Skip Mix Load Default	Sets whether to enable the function of skipping Mix and restoring to defaults. Options: • Enabled: enables the function of skipping Mix and restoring to defaults. • Disabled: disables the function of skipping Mix and restoring to defaults.	Disabled
Fast Boot	Sets whether to enable the fast boot function. Options: • Enabled: enables the fast boot function. • Disabled: disables the fast boot function.	Disabled
Boot Option #1	Press the up/down key to select another device that will serve as the first boot device in the boot sequence. Options: • Hard Disk:SATA P2:GRUB2 (SAMSUNG MZ7L33T8HBNA-00B7C) • Network • USB • CD/DVD • Other Device • Disabled The displayed boot items vary with boards.	Hard Disk:SATA P2:GRUB2 (SAMSUNG MZ7L33T8 HBNA-00B7C)

Parameter	Description	Default Value
Boot Option #2	Press the up/down key to select another device that will serve as the second boot device in the boot sequence. Options: ● Hard Disk:SATA P2:GRUB2 (SAMSUNG MZ7L33T8HBNA-00B7C) ● Network ● USB ● CD/DVD ● Other Device ● Disabled The displayed boot items vary with boards.	Network
Boot Option #3	Press the up/down key to select another device that will serve as the third boot device in the boot sequence. Options: ● Hard Disk:SATA P2:GRUB2 (SAMSUNG MZ7L33T8HBNA-00B7C) ● Network ● USB ● CD/DVD ● Other Device ● Disabled The displayed boot items vary with boards.	CD/DVD
Boot Option #4	Press the up/down key to select another device that will serve as the fourth boot device in the boot sequence. Options: ● Hard Disk:SATA P2:GRUB2 (SAMSUNG MZ7L33T8HBNA-00B7C) ● Network ● USB ● CD/DVD ● Other Device ● Disabled The displayed boot items vary with boards.	Other Device
Boot Option #5	Press the up/down key to select another device that will serve as the fifth boot device in the boot sequence. Options:	USB

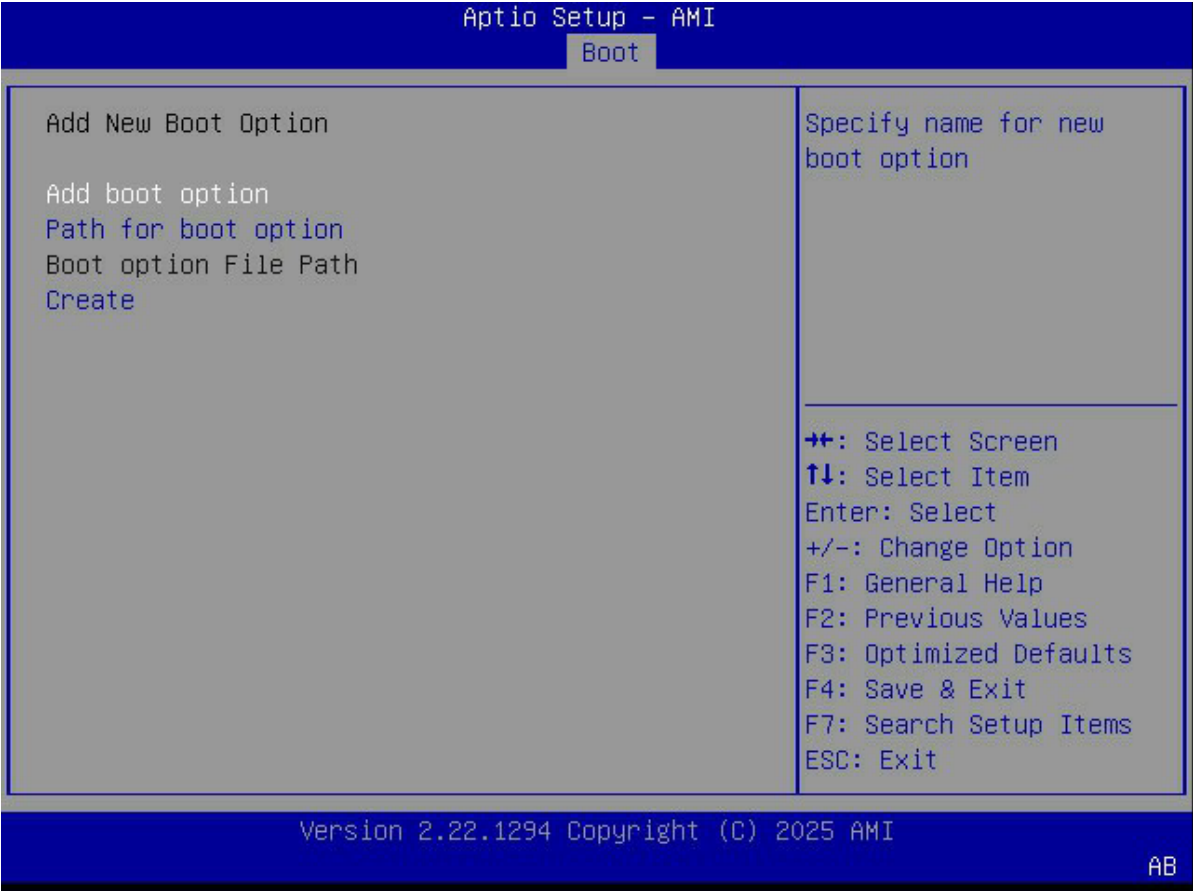
Parameter	Description	Default Value
	● Hard Disk:SATA P2:GRUB2 (SAMSUNG MZ7L33T8HBNA-00B7C) ● Network ● USB ● CD/DVD ● Other Device ● Disabled The displayed boot items vary with boards.	
Add EFI Shell To Boot Option	This parameter is displayed if Boot option filter is set to UEFI only. Sets whether to enable the embedded shell. Options: ● Enabled: enables the embedded shell. After the function is enabled, an EFI shell is added to the boot option. ● Disabled: disables the embedded shell.	Disabled
UEFI Hard Disk Drive BBS Priorities	Sets the boot priorities of available UEFI hard disk drivers.	-
UEFI Other Drive BBS Priorities	Sets the boot priorities of other available UEFI drivers.	-
Add New Boot Option	Adds a new EFI boot option to the boot order list. For details, refer to 3.5.1 Add New Boot Option.	-
Delete Boot Option	Removes an EFI boot option from the boot order list. For details, refer to 3.5.2 Delete Boot Option.	-
UEFI App Boot	Applies the boot item. For details, refer to 3.5.3 UEFI App Boot.	-
Network	Controls the execution of the option ROMs of network devices in UEFI mode and Legacy mode. Options: ● UEFI: launches the network devices in UEFI mode only. ● UEFI: launches the network devices in Legacy mode only. ● Do not launch: does not launch the network devices.	UEFI

Parameter	Description	Default Value
Storage	Controls the execution of the option ROMs of storage devices in UEFI mode and Legacy mode. Options: ● UEFI: launches the storage devices in UEFI mode only. ● Legacy: launches the storage devices in Legacy mode only. ● Do not launch: does not launch the storage devices.	UEFI
Video	Controls the execution of the option ROMs of video devices in UEFI mode and Legacy mode. Options: ● UEFI: launches the video card devices in UEFI mode only. ● Legacy: launches the video card devices in Legacy mode only.	UEFI
Other PCI devices	Controls the execution of option ROMs of other PCI devices in UEFI mode and Legacy mode. Options: ● UEFI: launches other PCI devices in UEFI mode only. ● Legacy: launches other PCI devices in Legacy mode only. ● Do not launch: disables other devices.	UEFI

3.5.1 Add New Boot Option

[Figure 3-146](#) shows the **Add New Boot Option** screen.

Figure 3-146 Add New Boot Option Screen



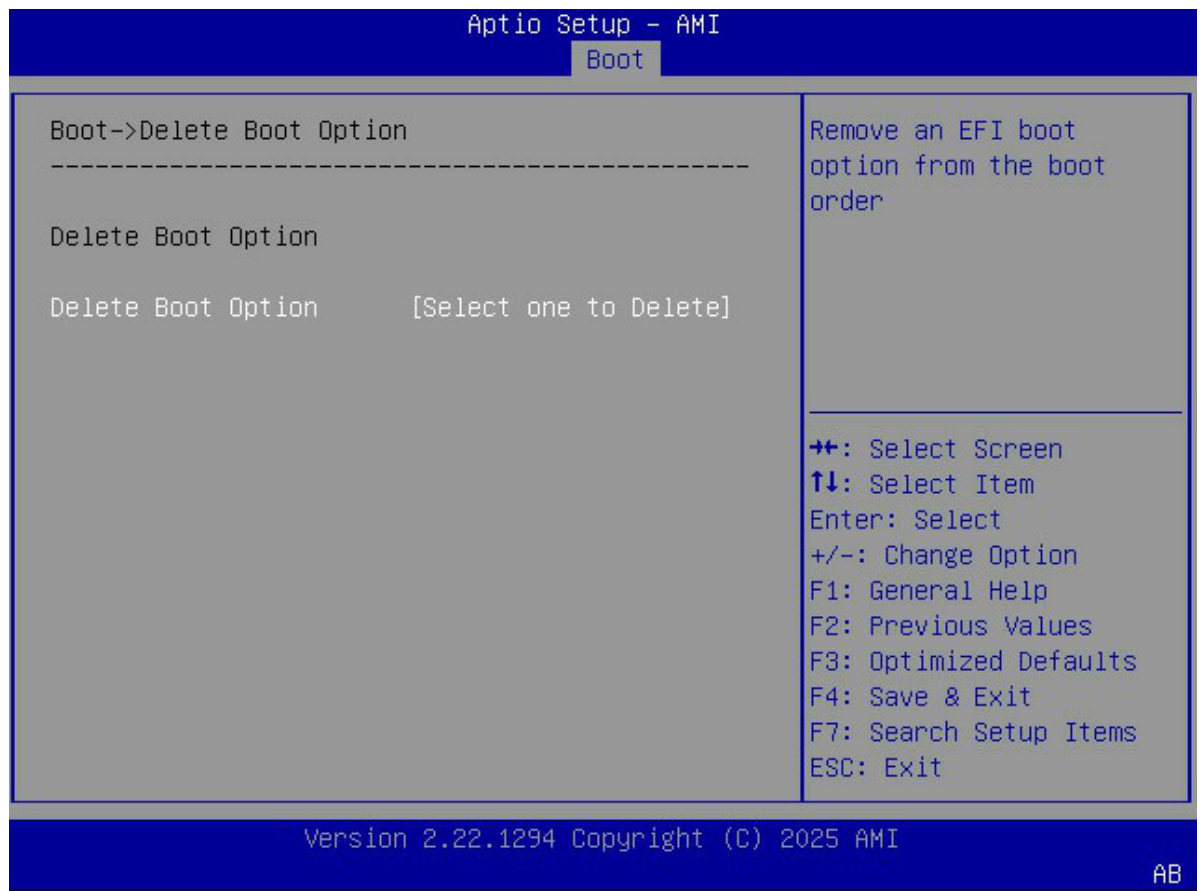
For a description of the parameters on the **Add New Boot Option** screen, refer to [Table 3-111](#).

Table 3-111 Parameter Descriptions for the Add New Boot Option Screen

Parameter	Description
Add boot option	Sets the name of the new boot item.
Path for boot option	Sets the boot path for the new boot option.
Create	Creates a boot option.

3.5.2 Delete Boot Option

[Figure 3-147](#) shows the **Delete Boot Option** screen.

Figure 3-147 Delete Boot Option Screen

For a description of the parameters on the **Delete Boot Option** screen, refer to [Table 3-112](#).

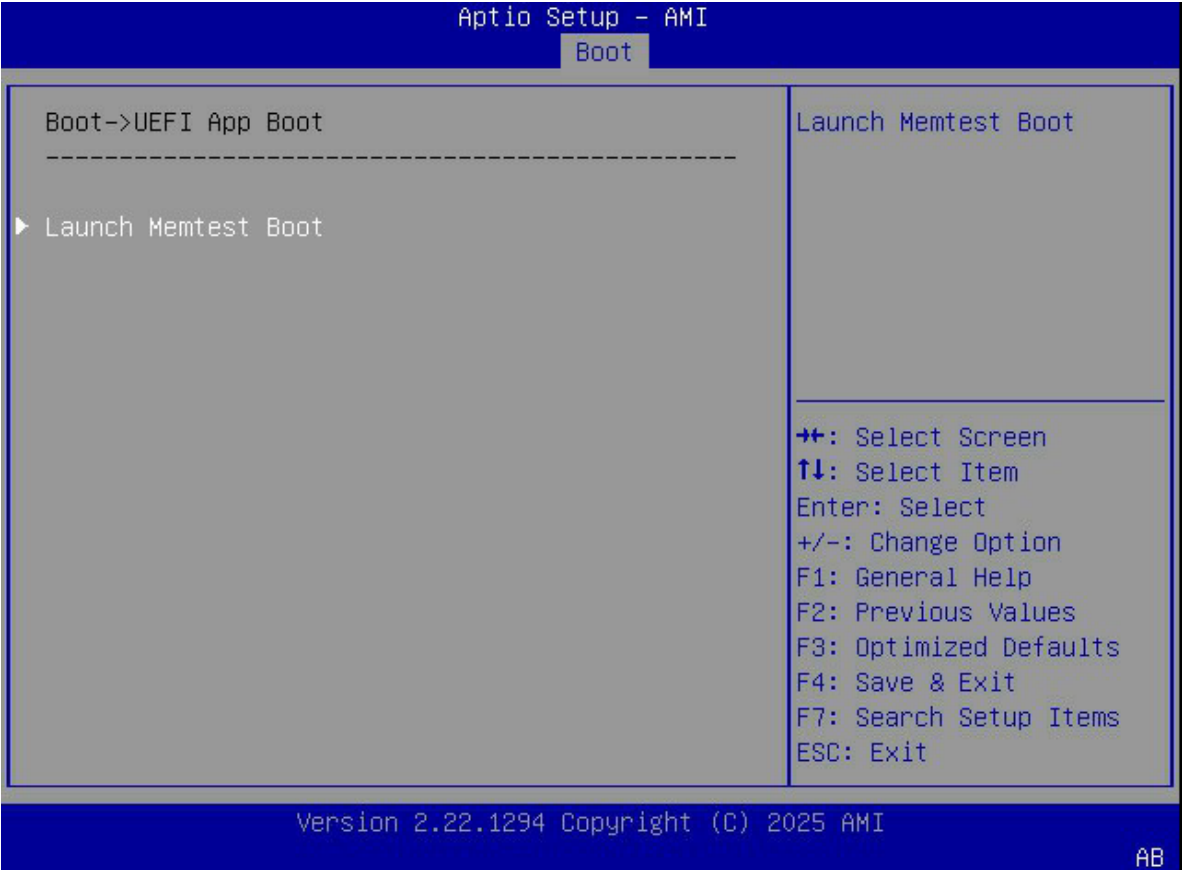
Table 3-112 Parameter Descriptions for the Delete Boot Option Screen

Parameter	Description
Delete Boot Option	Selects the boot item to be deleted.

3.5.3 UEFI App Boot

[Figure 3-148](#) shows the **UEFI App Boot** screen.

Figure 3-148 UEFI App Boot Screen



For a description of the parameters on the **UEFI App Boot** screen, refer to [Table 3-113](#).

Table 3-113 UEFI Parameter Descriptions for the UEFI App Boot Screen

Parameter	Description
Launch Memtest Boot	Starts the memory test boot.

3.6 Save & Exit

[Figure 3-149](#) and [Figure 3-150](#) show the **Save & Exit** screen.

Figure 3-149 Save & Exit Screen 1

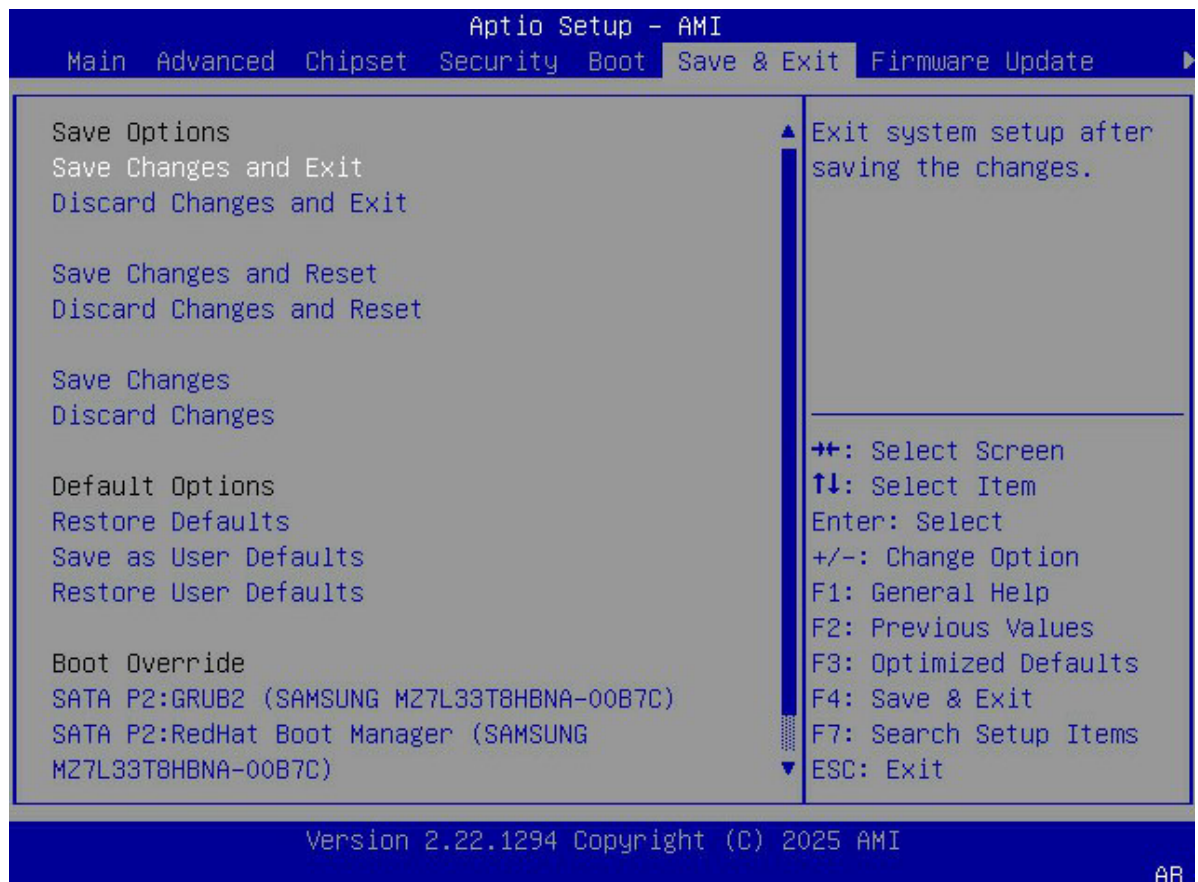
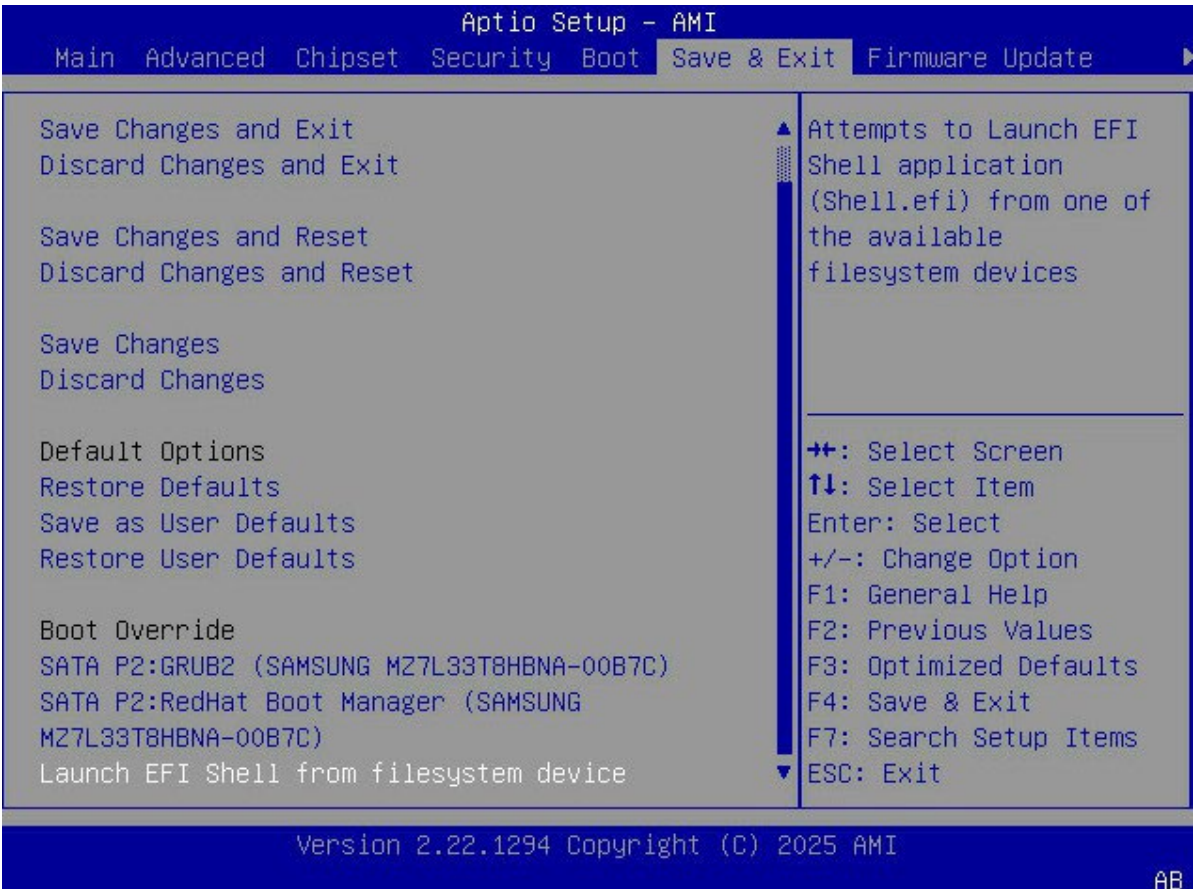


Figure 3-150 Save & Exit Screen 2



For a description of the parameters on the **Save & Exit** screen, refer to [Table 3-114](#).

Table 3-114 Parameter Descriptions for the Save & Exit Screen

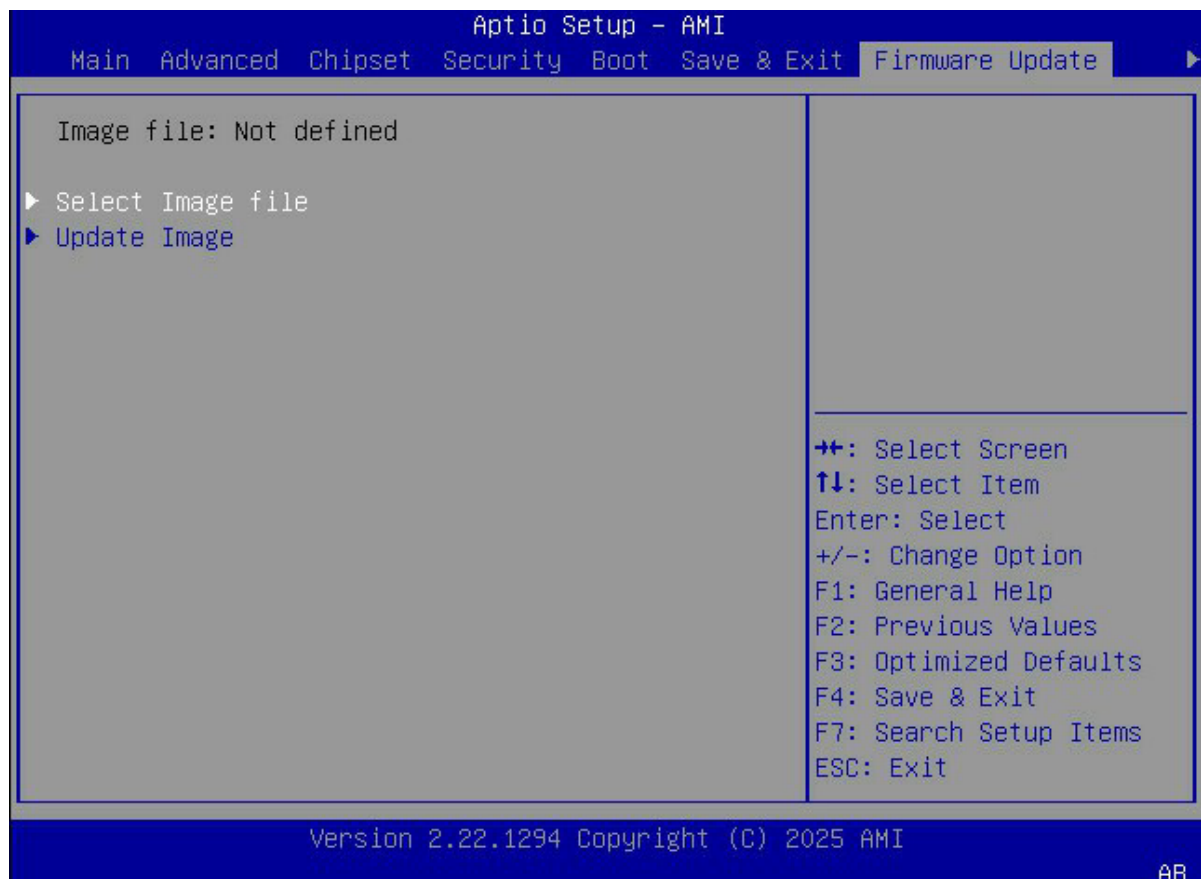
Parameter	Description
Save Changes and Exit	Saves the changes and exits from the BIOS.
Discard Changes and Exit	Exits the BIOS without saving any changes.
Save Changes and Reset	Saves the changes and restarts the system.
Discard Changes and Reset	Restarts the system without saving any changes.
Save Changes	Saves all parameter changes.
Discard Changes	Discards any parameter changes.
Restore Defaults	Restores the default settings of all parameters.
Save as User Defaults	Saves any parameter changes as the user default settings
Restore User Defaults	Restores all parameters to user default settings.
Boot Override	Rewrites the boot item.

Parameter	Description
Launch EFI Shell from filesystem device	Tries launching the EFI Shell application (Shell.efi) from one of the available file system devices.

3.7 Firmware Update

Figure 3-151 shows the **Firmware Update** screen.

Figure 3-151 Firmware Update Screen



For a description of the parameters on the **Firmware Update** screen, refer to [Table 3-115](#).

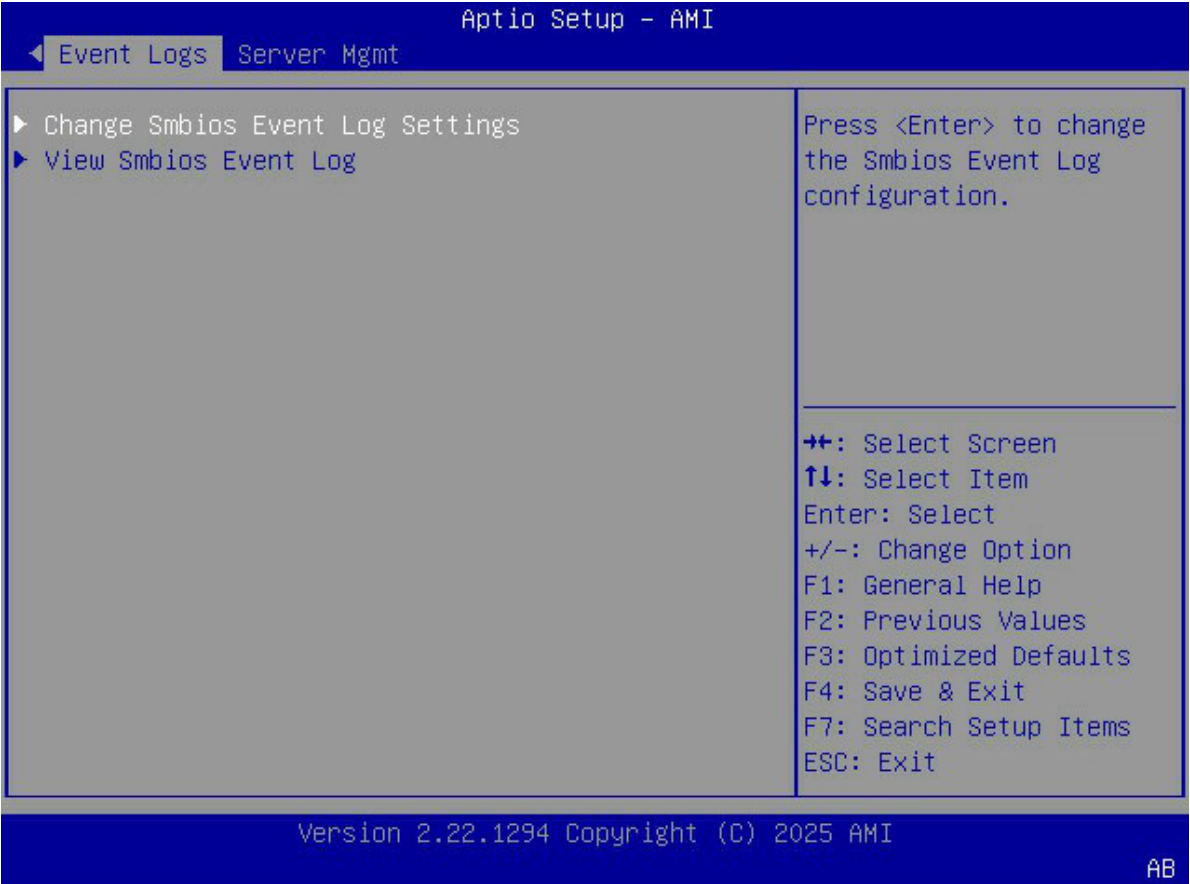
Table 3-115 Parameter Descriptions for the Firmware Update Screen

Parameter	Description
Image file	Displays an image file.
Select Image file	Selects an image file.
Update Image	Updates an image file.

3.8 Event Logs

Figure 3-152 shows the **Event Logs** screen.

Figure 3-152 Event Logs Screen



For a description of the parameters on the **Event Logs** screen, refer to [Table 3-116](#).

Table 3-116 Parameter Descriptions for the Event Logs Screen

Parameter	Description
Change Smbios Event Log Settings	Modifies the SMBIOS event log parameters. For details, refer to 3.8.1 Change Smbios Event Log Settings .
View Smbios Event Log	Displays the SMBIOS event log parameters. For details, refer to 3.8.2 View Smbios Event Log .

3.8.1 Change Smbios Event Log Settings

[Figure 3-153](#) and [Figure 3-154](#) show the **Change Smbios Event Log Settings** screen.

Figure 3-153 Change Smbios Event Log Settings Screen 1

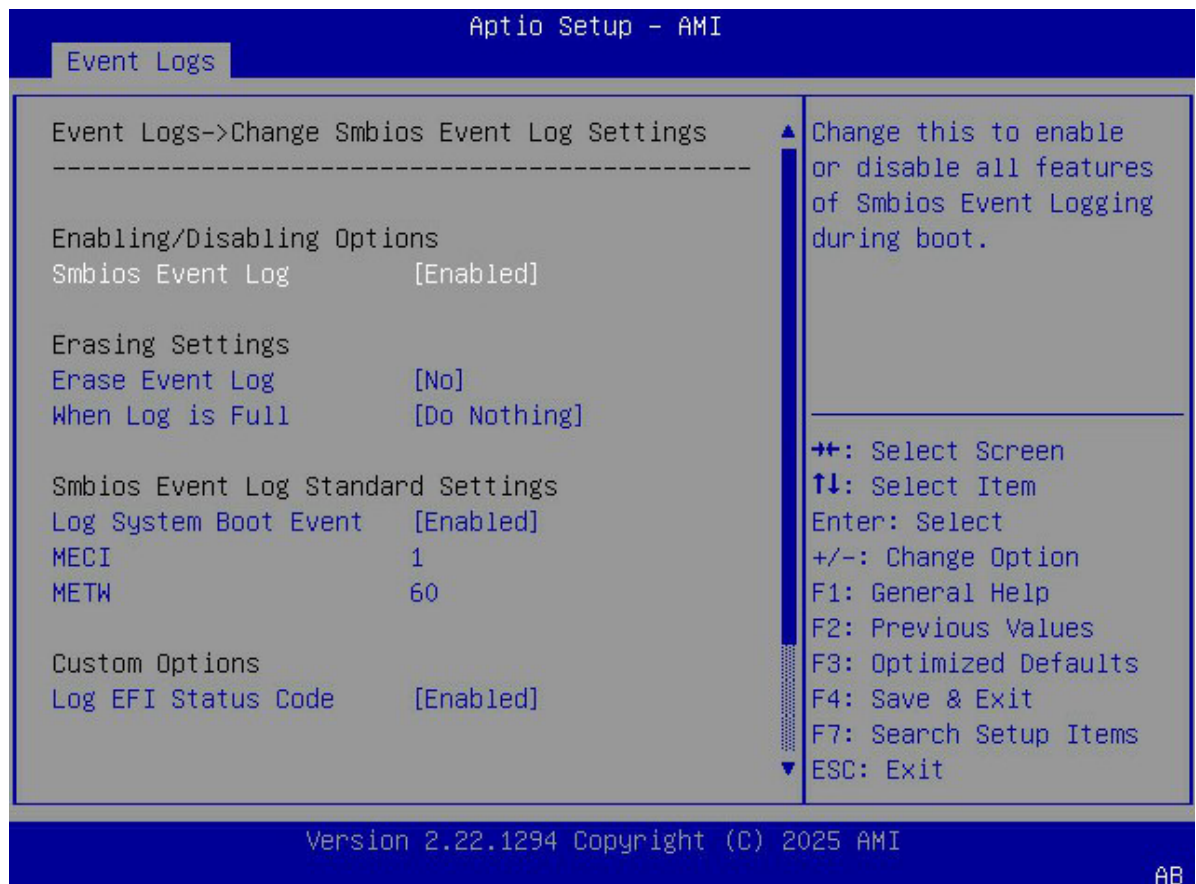
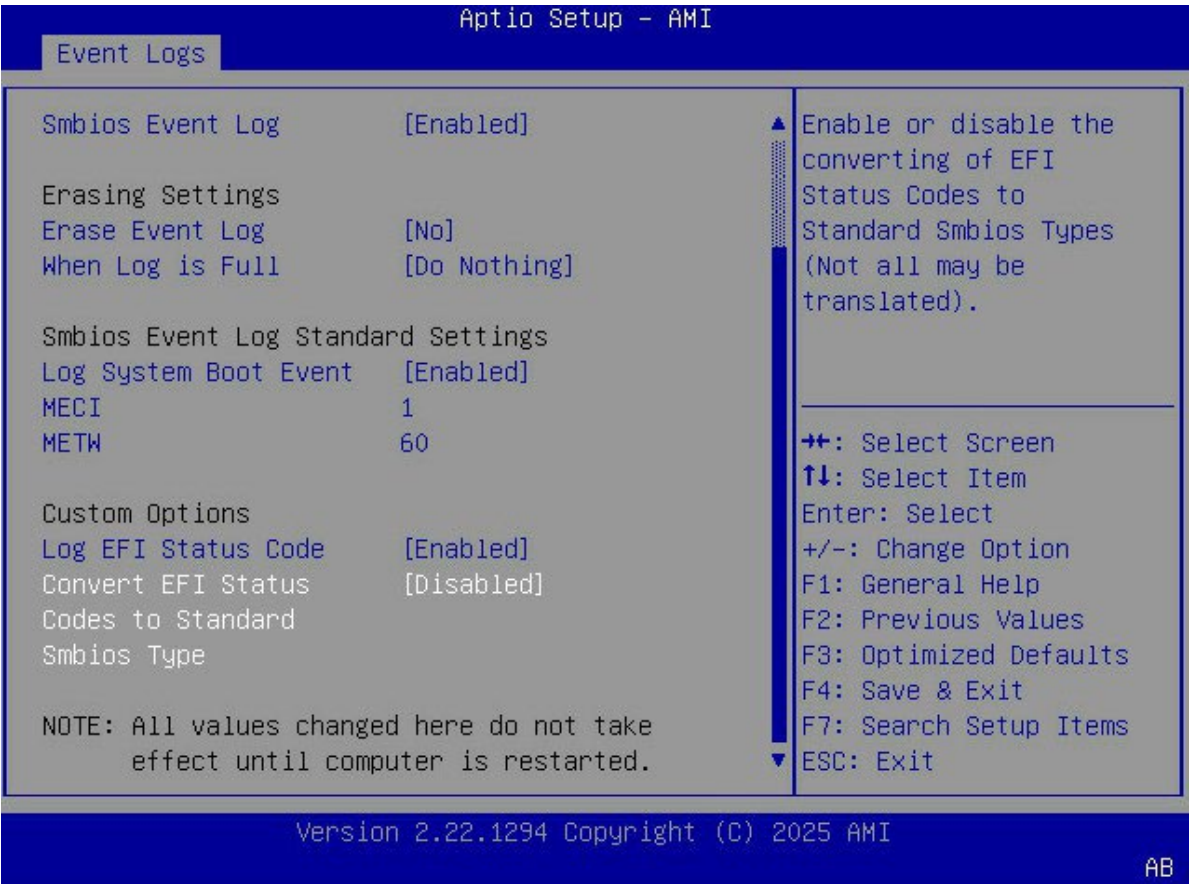


Figure 3-154 Change Smbios Event Log Settings Screen 2



For a description of the parameters on the **Change Smbios Event Log Settings** screen, refer to [Table 3-117](#).

Table 3-117 Parameter Descriptions for the Change Smbios Event Log Settings Screen

Parameter	Description	Default Value
Smbios Event Log	Sets whether to enable the SMBIOS event logging function. Options: ● Enabled: enables the SMBIOS event logging function. ● Disabled: disables the SMBIOS event logging function.	Enabled
Erase Event Log	Sets whether to clear event logs. Options: ● No ● Yes, Next reset ● Yes, Every reset	No
When Log if Full	Sets the operation to be performed when the size of SMBIOS logs reaches the threshold.	Do Nothing

Parameter	Description	Default Value
	Options: ● Do Nothing ● Erase Immediately	
Log System Boot Event	Sets whether to enable the logging of system boot events. Options: ● Enabled: enables the logging of system boot events. ● Disabled: disables the logging of system boot events.	Enabled
MECI	Sets the increment value for the multiple event counter. The value range is 1–255.	1
METW	Sets the time window between multiple log events. The value range is 0–99 and the unit is minutes.	60
Log EFI Status Code	Sets whether to enable the recording of EFI status codes. Options: ● Enabled: enables the recording of EFI status codes. ● Disabled: disables the recording of EFI status codes.	Enabled
Convert EFI Status Codes to Standard Smbios Type	Sets whether to enable the conversion of EFI status codes to standard SMBIOS types. Options: ● Enabled: enables the conversion of EFI status codes to standard SMBIOS types. ● Disabled: disables the conversion of EFI status codes to standard SMBIOS types.	Disabled

3.8.2 View Smbios Event Log

Figure 3-155 shows the **View Smbios Event Log** screen.

Figure 3-155 View Smbios Event Log Screen

Aptio Setup - AMI					
Event Logs					
Event Logs->View Smbios Event Log					DESCRIPTION Log Area Reset and Count is applicable only for Multi-Events

DATE	TIME	ERROR CODE	SEVERITY	COUNT	
04/23/11	02:35:52	Smbios 0x16	N/A	N/A	
04/23/11	02:35:52	Smbios 0x17	N/A	N/A	
04/23/11	02:37:59	Smbios 0x17	N/A	N/A	
04/23/11	02:41:41	Smbios 0x17	N/A	N/A	
04/23/11	02:43:48	Smbios 0x17	N/A	N/A	
04/23/11	02:45:05	Smbios 0x17	N/A	N/A	
04/23/11	02:55:51	Smbios 0x17	N/A	N/A	
04/23/11	02:57:58	Smbios 0x17	N/A	N/A	+*: Select Screen ↑↓: Select Item Enter: Select +/-: Change Option F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit F7: Search Setup Items ESC: Exit
04/23/11	02:59:15	Smbios 0x17	N/A	N/A	
04/23/11	17:34:02	Smbios 0x17	N/A	N/A	
04/23/11	17:38:45	Smbios 0x17	N/A	N/A	
04/23/11	17:45:34	Smbios 0x17	N/A	N/A	
04/30/11	17:01:10	Smbios 0x17	N/A	N/A	
05/01/11	17:28:49	Smbios 0x17	N/A	N/A	
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AB					

For a description of the parameters on the **View Smbios Event Log** screen, refer to [Table 3-118](#).

Table 3-118 Parameter Descriptions for the View Smbios Event Log Screen

Parameter	Description
DATE	Displays the date information.
TIME	Displays the time information.
ERROR CODE	Displays the error code information.
SEVERITY	Displays the severity.
COUNT	Displays the count information.

3.9 Server Mgmt

[Figure 3-156](#) and [Figure 3-157](#) show the **Server Mgmt** screen.

Figure 3-156 Server Mgmt Screen 1

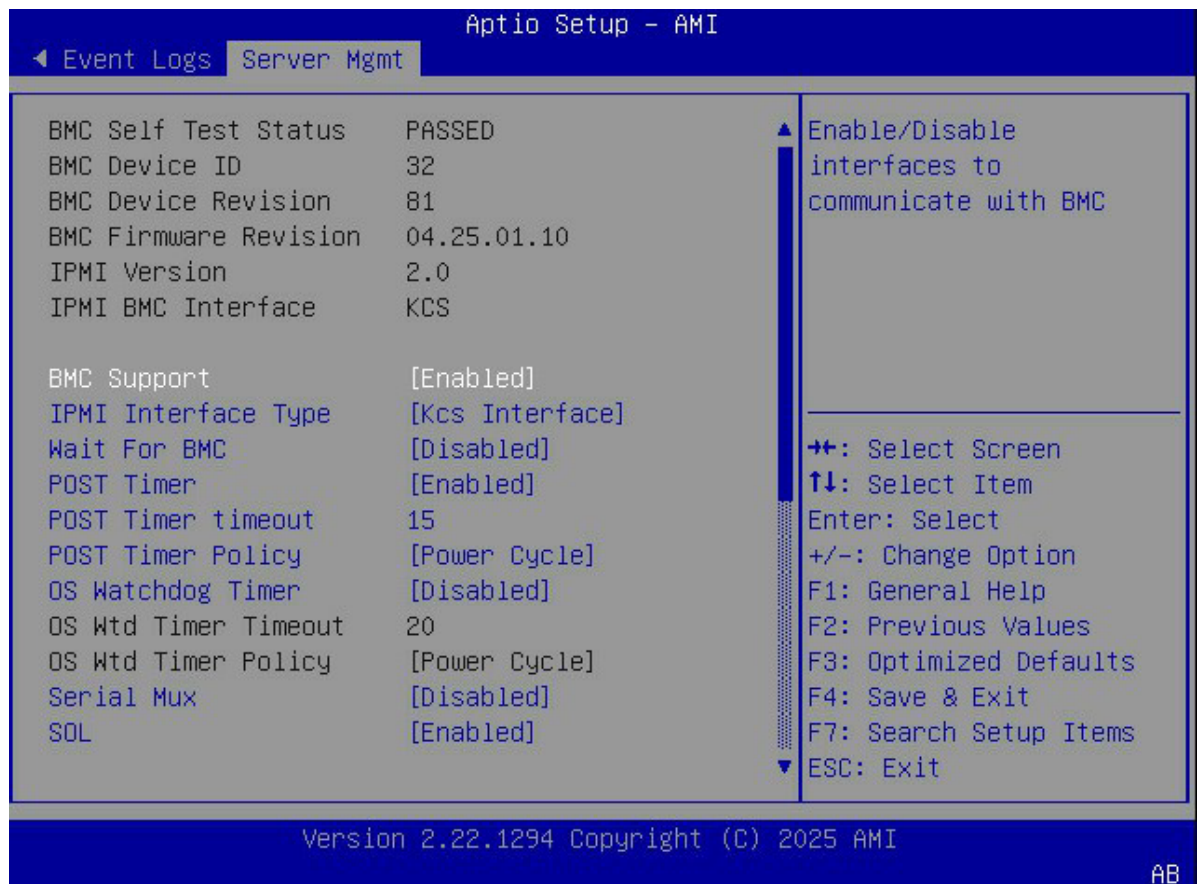
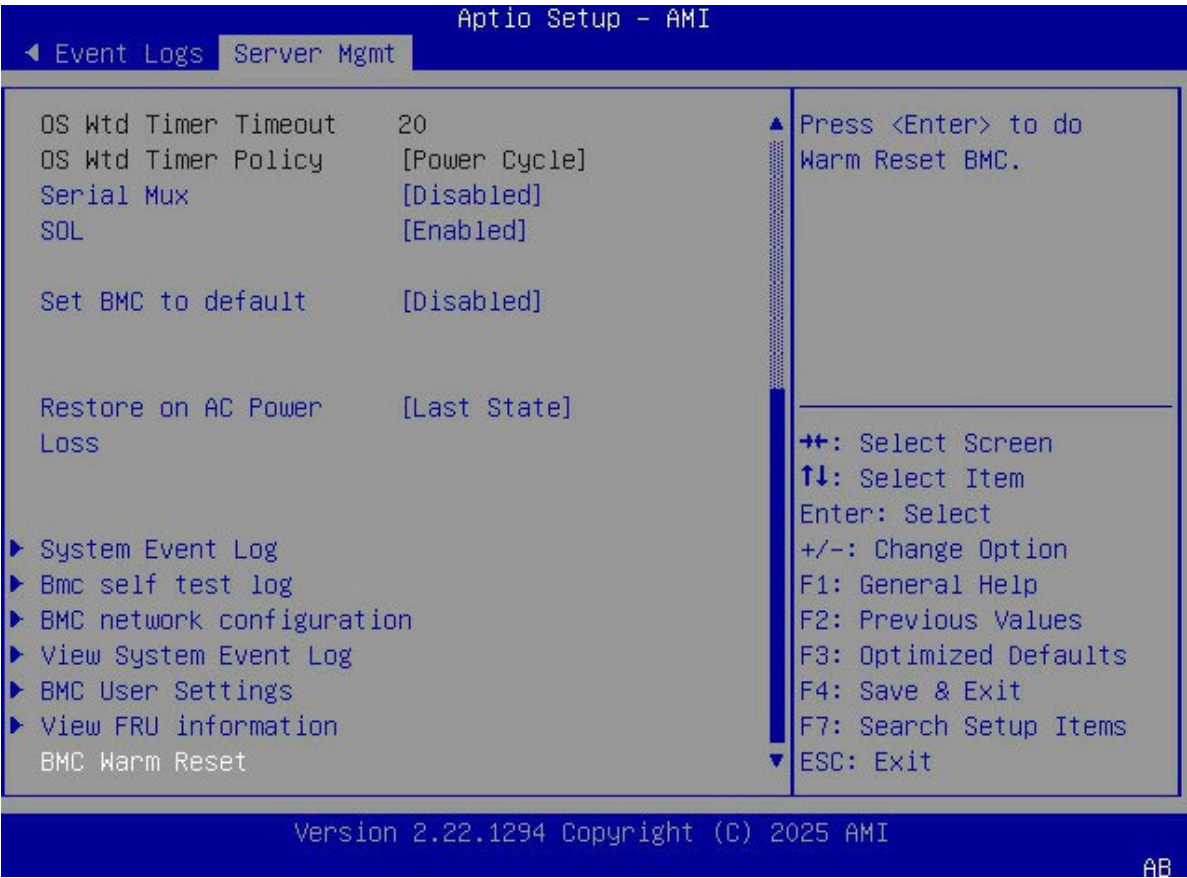


Figure 3-157 Server Mgmt Screen 2



For a description of the parameters on the **Server Mgmt** screen, refer to [Table 3-119](#).

Table 3-119 Parameter Descriptions for the Server Mgmt Screen

Parameter	Description	Default Value
BMC Self Test Status	Displays the BMC self-test status.	-
BMC Device ID	Displays the BMC device ID .	-
BMC Device Revision	Displays the BMC device version.	-
BMC Firmware Revision	Displays the BMC firmware version.	-
IPMI Version	Displays the IPMI version.	-
IPMI BMC Interface	Displays the IPMI BMC interface type.	-
BMC Support	Sets whether to enable the BMC interface. Options: ● Enabled: enables the BMC interface. ● Disabled: disables the BMC interface.	Enabled
IPMI Interface Type	Sets the IPMI interface type. Options: ● Kcs Interface	Kcs Interface

Parameter	Description	Default Value
Wait For BMC	Sets whether to enable the timeout event of waiting for BMC initialization. Options: - Enabled: enables the timeout event of waiting for BMC initialization. - Disabled: disables the timeout event of waiting for BMC initialization.	Disabled
POST Timer	Sets whether to enable the POST watchdog function. Options: - Enabled: enables the POST watchdog function. - Disabled: disables the POST watchdog function.	Enabled
POST Timer timeout	Sets the POST watchdog timeout threshold. The value range is 3–30 and the unit is minutes.	15
POST Timer Policy	Sets how the system responds when the OS watchdog timer expires. Options: - Do Nothing - Reset - Power Down - Power Cycle	Power Cycle
OS Watchdog Timer	Sets whether to enable the OS watchdog timer. Options: - Enabled: enables the OS watchdog timer. - Disabled: disables the OS watchdog timer. If this parameter is set to Disabled, the POST Timer timeout and POST Timer Policy parameters will be hidden.	Disabled
OS Wtd Timer Timeout	Sets the OS watchdog timeout threshold. the value range is 3–30 and the unit is minutes.	20
OS Wtd Timer Policy	Sets how the system responds when the OS watchdog timer expires. Options: - Do Nothing - Reset	Power Cycle

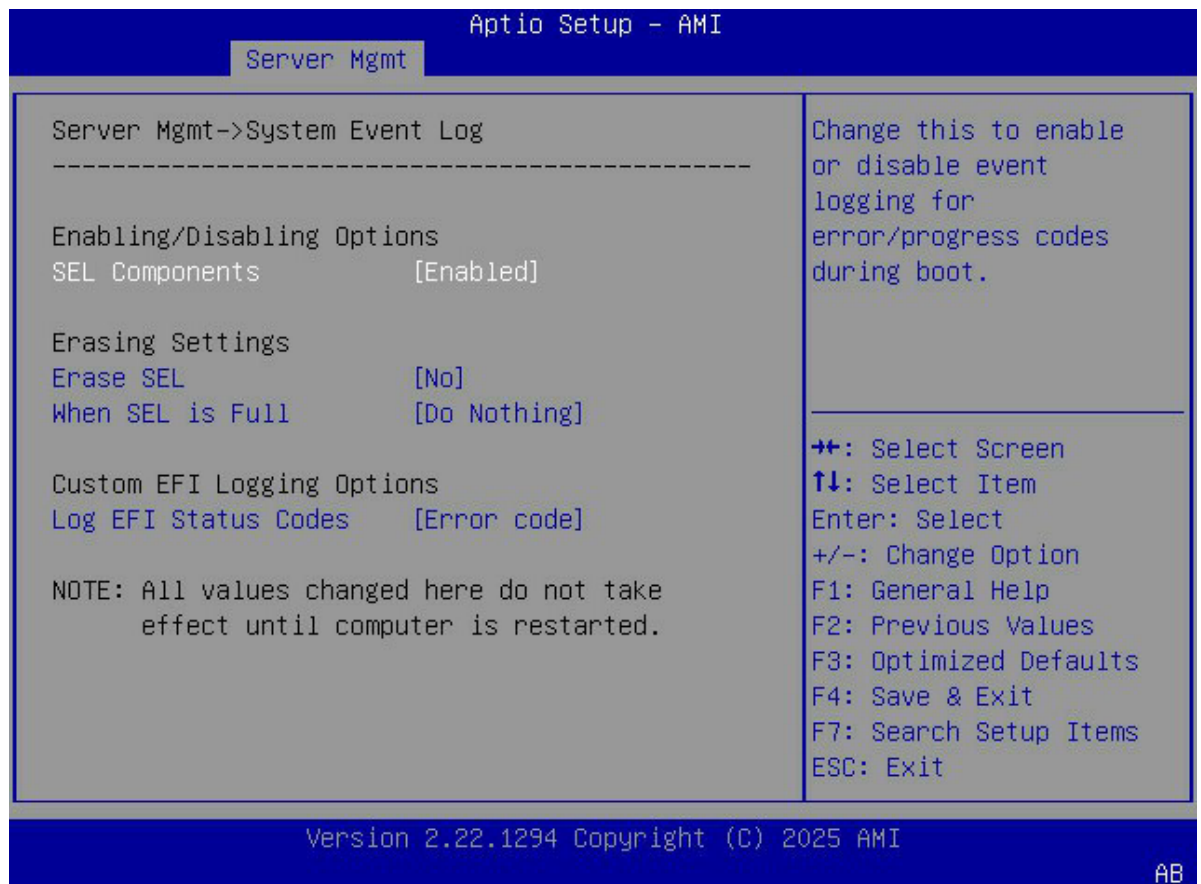
Parameter	Description	Default Value
	- Power Down - Power Cycle	
Serial Mux	Sets whether to enable the serial multiplexing function. Options: - Enabled: enables the serial multiplexing function. - Disabled: disables the serial multiplexing function.	Disabled
SOL	Sets whether to enable the BMC SOL control function. Options: - Enabled: enables the BMC SOL control function. - Disabled: disables the BMC SOL control function.	Enabled
Set BMC to default	Sets whether to enable BMC default settings. Options: - Enabled: enables BMC default settings. - Disabled: disables BMC default settings.	Disabled
Restore on AC Power Loss	Sets the startup mode after AC power failure. Options: - Power Off - Last State - Power On	Last State
System Event Log	Sets the system event log parameters. For details, refer to 3.9.1 System Event Log .	-
Bmc self test log	Sets the BMC self-test log parameters. For details, refer to 3.9.2 BMC Self Test Log .	-
BMC network configuration	Sets BMC network parameters. For details, refer to 3.9.3 BMC Network Configuration .	-
View System Event Log	Displays the system event log information. For details, refer to 3.9.4 View System Event Log .	-
BMC User Settings	Sets BMC user parameters. For details, refer to 3.9.5 BMC User Settings .	-
View FRU information	Displays the FRU information.	-

Parameter	Description	Default Value
	For details, refer to 3.9.6 View FRU Information .	
BMC Warm Reset	Configures BMC warm resetting.	-

3.9.1 System Event Log

Figure 3-158 shows the **System Event Log** screen.

Figure 3-158 System Event Log Screen



For a description of the parameters on the **System Event Log** screen, refer to [Table 3-120](#).

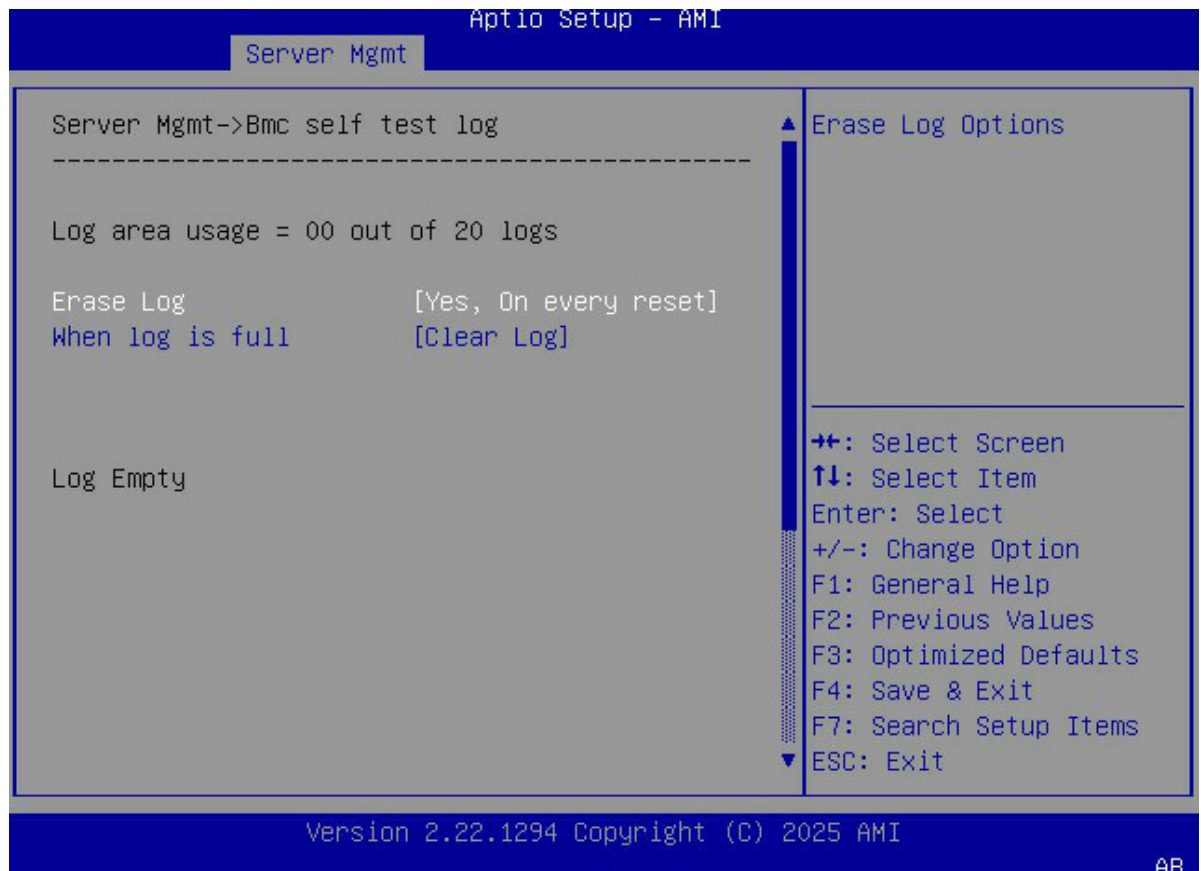
Table 3-120 Parameter Descriptions for the System Event Log Screen

Parameter	Description	Default Value
SEL Components	Sets whether to enable the event recording of error and progress codes during startup. Options: Enabled: enables the event recording of error and progress codes during startup.	Enabled

Parameter	Description	Default Value
	● Disabled: disables the event recording of error and progress codes during startup.	
Erase SEL	Sets whether to clear SELs. Options: ● No ● Yes, On next reset ● Yes, On every reset	No
When SEL is Full	Sets the operation when the SELs are full. Options: ● Do Nothing ● Erase Immediately ● Delete Oldest Record	Do Nothing
Log EFI Status Codes	Sets the mode for recording status codes. Options: ● Disabled ● Both ● Error code ● Progress code	Error code

3.9.2 BMC Self Test Log

Figure 3-159 shows the **Bmc self test log** screen.

Figure 3-159 BMC Self Test Log Screen

For a description of the parameters on the **Bmc self test log** screen, refer to [Table 3-121](#).

Table 3-121 Parameter Descriptions for the BMC Self Test Log Screen

Parameter	Description	Default Value
Log area usage	Displays the log area usage.	00 out of 20 logs
Erase Log	Sets the log erasing mode. Options: • Yes, On every reset • No	Yes, On every reset
When log is full	Sets the operation when the logs are full. Options: • Clear Log • Do not log any more	Clear Log

3.9.3 BMC Network Configuration

[Figure 3-160](#) through [Figure 3-163](#) show the **BMC network configuration** screen.

Figure 3-160 BMC Network Configuration Screen 1

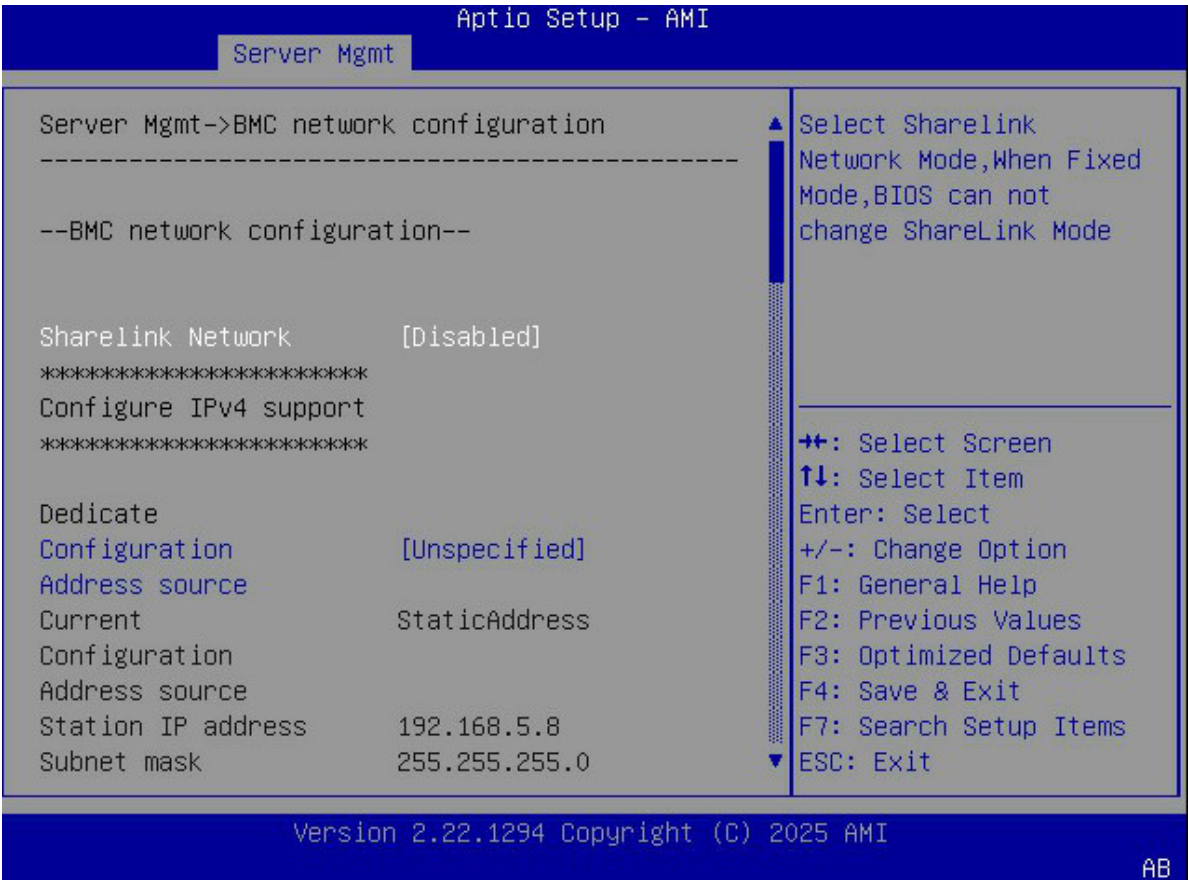


Figure 3-161 BMC Network Configuration Screen 2

Aptio Setup - AMI		
Server Mgmt		
Station MAC address	BC-F3-21-28-D8-42	▲ Select to configure LAN channel parameters statically or dynamically (by BIOS or BMC). Unspecified option will not modify any BMC network parameters during BIOS
Router IP address	0.0.0.0	
Router MAC address	00-00-00-00-00-00	

Configure IPv6 support		

Dedicate		
IPv6 Support	[Enabled]	↔: Select Screen ↑↓: Select Item Enter: Select +/-: Change Option F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit F7: Search Setup Items ESC: Exit
Configuration	[Unspecified]	
Address source		
Current	DynamicAddressBmcDhcp	
Configuration		
Address source		
Station IPv6 address		

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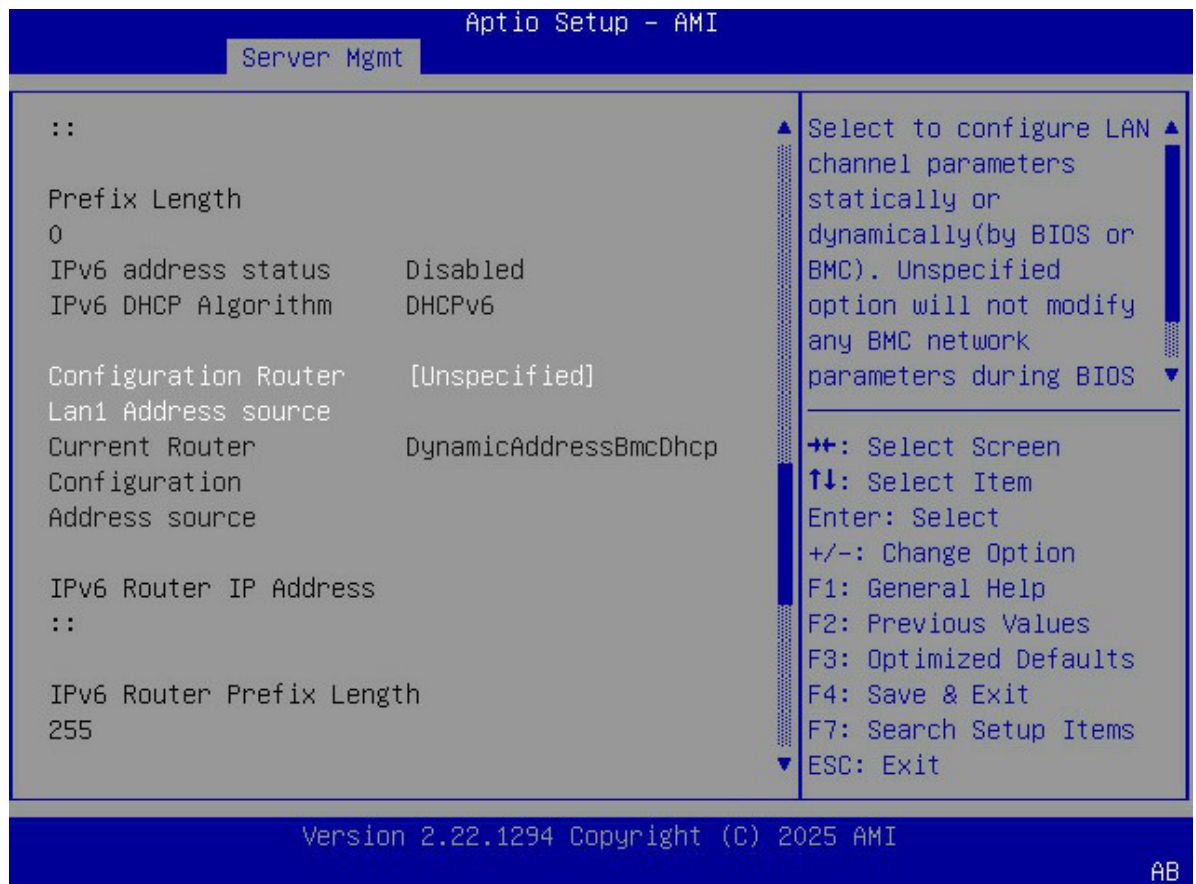
Figure 3-162 BMC Network Configuration Screen 3

Figure 3-163 BMC Network Configuration Screen 4

Aptio Setup - AMI

Server Mgmt

IPv6 Router Prefix Length
255

IPv6 Router Prefix Value
::

Configure VLAN support

Dedicate

VLAN Support [Unspecified]
Current Disabled

Configuration Address source

VLAN ID 0

VLAN Priority 0

▲ Enable VLAN Support to specify the 802.1q VLAN ID

↔: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Option
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
F7: Search Setup Items
▼ ESC: Exit

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For a description of the parameters on the **BMC network configuration** screen, refer to [Table 3-122](#).

Table 3-122 Parameter Descriptions for the BMC Network Configuration Screen

Parameter	Description	Default Value
Sharelink Network	Sets whether to enable the shared network port function. Options: ● Auto. ● Enable: enables the shared network port function. ● Disabled: disables the shared network port function. ● Fixed: fixed mode. If the number of shared network ports is 3, this option is displayed.	Auto
Configuration Address source	Sets the IP address type of the dedicated network interface of the IPv4 network. Options: ● Unspecified ● Static	Unspecified

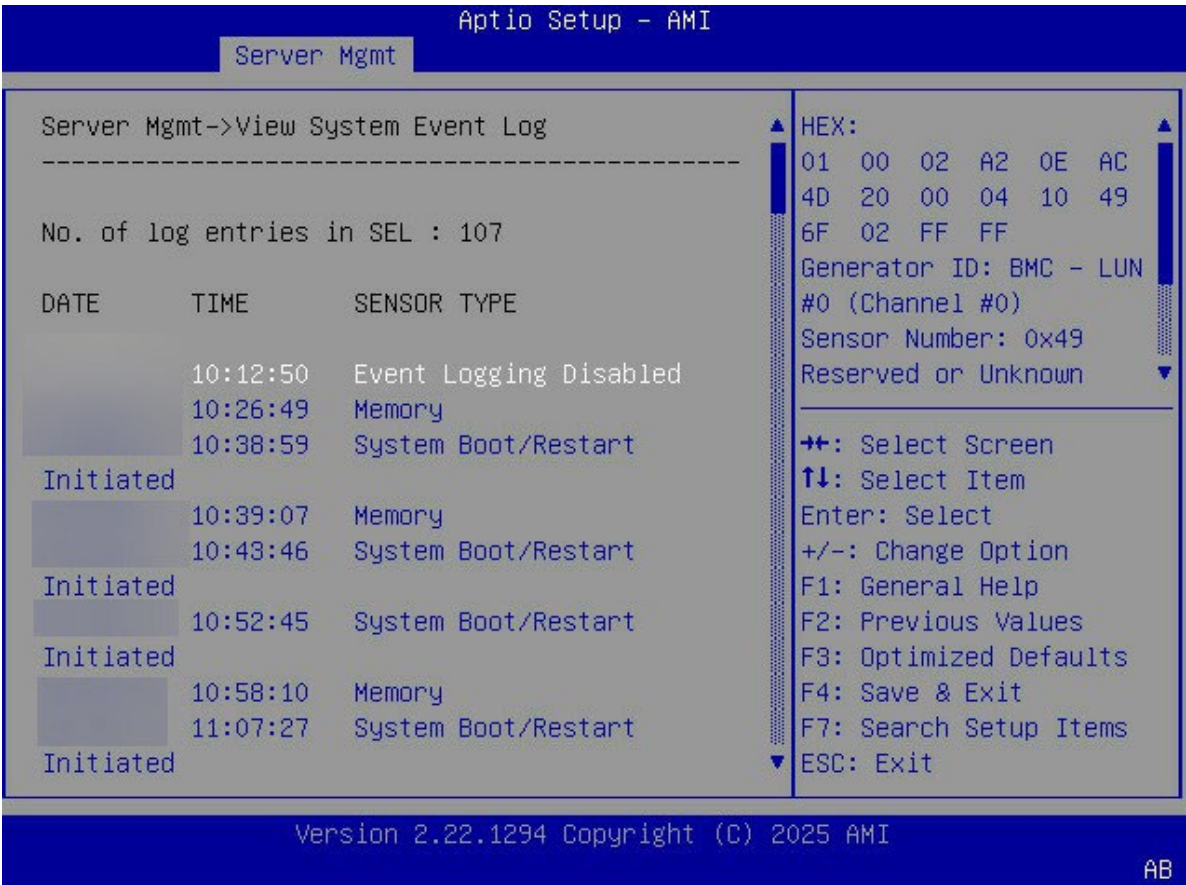
Parameter	Description	Default Value
	- DynamicBmcDhcp - DynamicBmcNonDhcp	
Current Configuration Address source	Displays the IP address configuration type of the dedicated network interface of the IPv4 network.	-
Station IP address	Displays the IP address of the dedicated network interface of the IPv4 network.	-
Subnet mask	Displays the subnet mask of the dedicated network interface of the IPv4 network.	-
Station MAC address	Displays the MAC address of the dedicated network interface of the IPv4 network.	-
Router IP address	Displays the gateway IP address of the dedicated network interface of the IPv4 network.	-
Router MAC address	Displays the gateway MAC address of the dedicated network interface of the IPv4 network.	-
IPv6 Support	Sets whether to enable the IPv6 support for the dedicated network interface. Options: - Enabled: enables the IPv6 support for the dedicated network interface. - Disabled: disables the IPv6 support for the dedicated network interface.	Enabled
Configuration Address source	Sets the IP address type of the dedicated network interface of the IPv6 network. Options: - Unspecified - Static - DynamicBmcDhcp	Unspecified
Current Configuration Address source	Displays the IP address configuration type of the dedicated network interface of the IPv6 network.	-
Station IPv6 address	Displays the IPv6 address of the interface.	-
Prefix Length	Displays the prefix length of the dedicated network interface of the IPv6 network.	-
IPv6 address status	Displays the IPv6 address status.	-
IPv6 DHCP Algorithm	Displays the IPv6 DHCP algorithm information.	-
Configuration Router Lan1 Address source	Sets the address configuration type for LAN1. Options:	Unspecified

Parameter	Description	Default Value
	• Unspecified • Static • DynamicBmcDhcp	
Current Router Configuration Address source	Displays the IP address type of the current gateway.	-
IPv6 Router IP Address	Displays the IP address of the IPv6 gateway.	-
IPv6 Router Prefix Length	Displays the IPv6 gateway prefix length.	255
IPv6 Router Prefix Value	Displays the IPv6 gateway prefix value.	-
VLAN Support	Sets whether to enable the VLAN support function. Options: • Enabled: enables the VLAN support function. After the function is enabled, the parameters under this parameter are configurable. • Disabled: disables the VLAN support function. After the function is disabled, the parameters under this parameter are hidden. • Unspecified: undefined. If Unspecified is selected, the parameters under this parameter cannot be configured.	Unspecified
Current Configuration Address source	Displays the currently configured address source.	Disabled
VLAN ID	Sets the VLAN ID.	0
VLAN Priority	Sets the VLAN priority.	0

3.9.4 View System Event Log

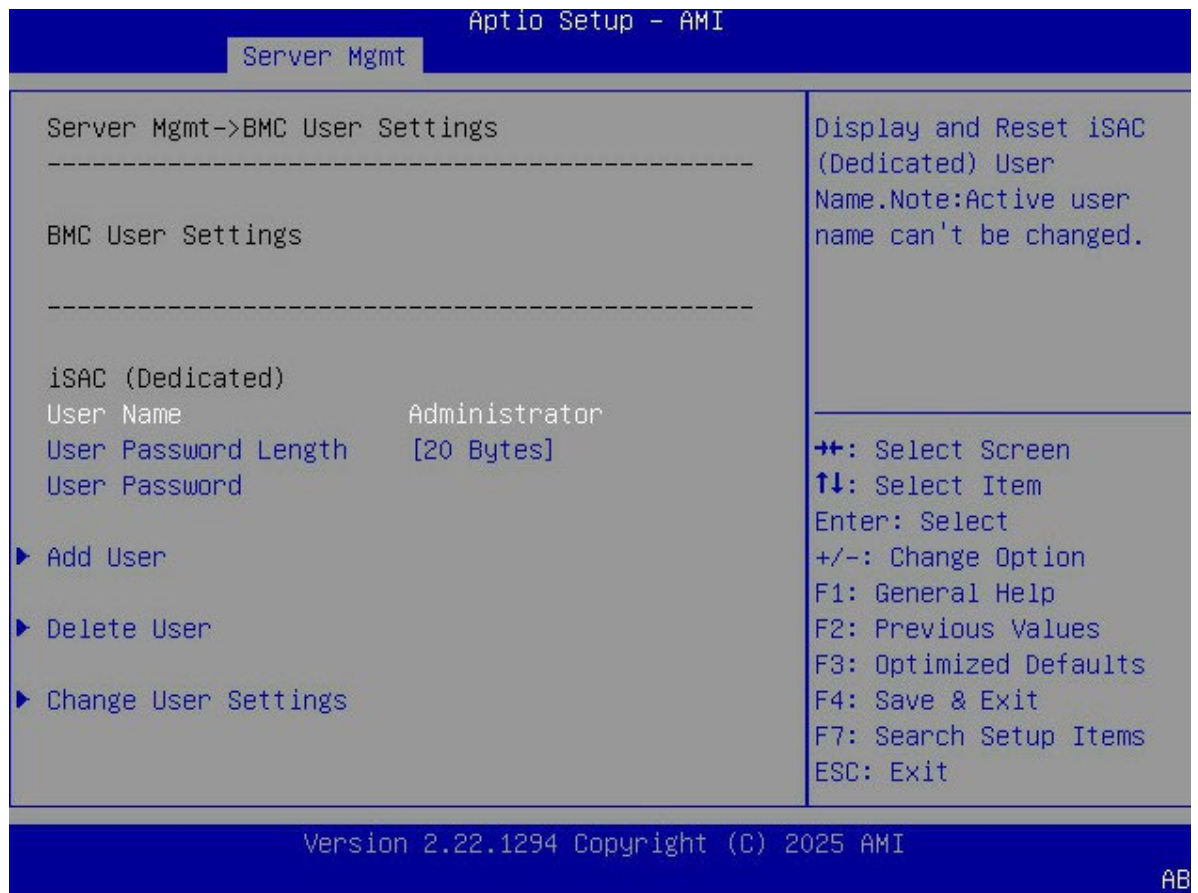
Figure 3-164 shows system event log information on the **View System Event Log** screen.

Figure 3-164 View System Event Log Screen



3.9.5 BMC User Settings

Figure 3-165 shows the **BMC User Settings** screen.

Figure 3-165 BMC User Settings Screen

For a description of the parameters on the **BMC User Settings** screen, refer to [Table 3-123](#).

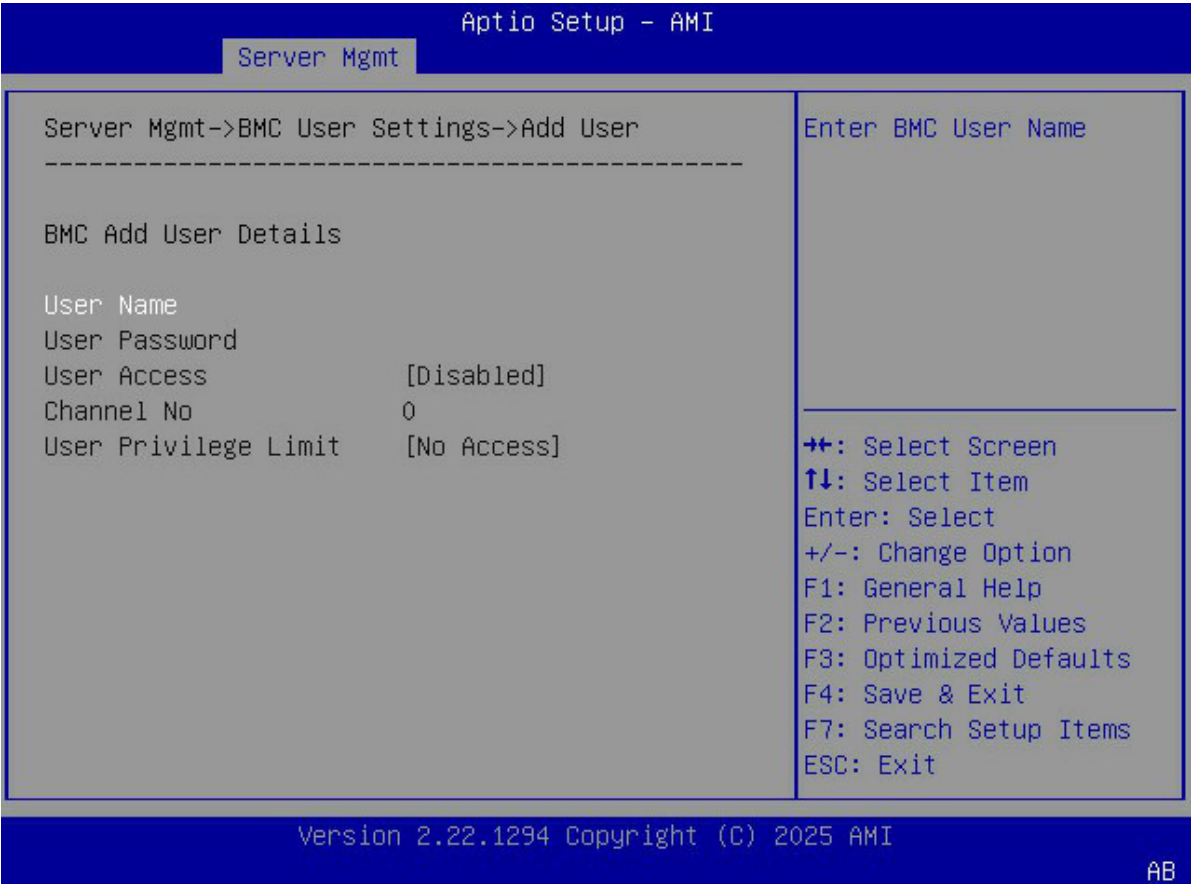
Table 3-123 Parameter Descriptions for the BMC User Settings Screen

Parameter	Description	Default Value
User Name	Sets the username. The username consists of four to sixteen digits and letters, and must start with a letter and be case-sensitive.	Administrator
User Password Length	Sets the password length.	20 Bytes
User Password	Creates a new user password.	-
Add User	Adds a user. For details, refer to 3.9.5.1 Add User .	-
Delete User	Deletes a user. For details, refer to 3.9.5.2 Delete User .	-
Change User Settings	Modifies user settings. For details, refer to 3.9.5.3 Change User Settings .	-

3.9.5.1 Add User

Figure 3-166 shows the **Add User** screen.

Figure 3-166 Add User Screen



For a description of the parameters on the **Add User** screen, refer to [Table 3-124](#).

Table 3-124 Parameter Descriptions for the Add User Screen

Parameter	Description	Default Value
User Name	Sets the BMC username.	-
User Password	Sets the password of the BMC user. The following parameters can be set only after you enter the username and password.	-
User Access	Sets whether to enable user access. Options: ● Enabled: enables user access. ● Disabled: disables user access.	Disabled
Channel No	Sets the channel number.	0
User Privilege Limit	Sets the user privilege restrictions.	No Access

3.9.5.2 Delete User

Figure 3-167 shows the **Delete User** screen.

Figure 3-167 Delete User Screen

Aptio Setup - AMI

Server Mgmt

Server Mgmt->BMC User Settings->Delete User

BMC Delete User Details

User Name

User Password

Enter BMC User Name

+/-: Select Screen
 ↑↓: Select Item
 Enter: Select
 +/-: Change Option
 F1: General Help
 F2: Previous Values
 F3: Optomized Defaults
 F4: Save & Exit
 F7: Search Setup Items
 ESC: Exit

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For a description of the parameters on the **Delete User** screen, refer to [Table 3-125](#).

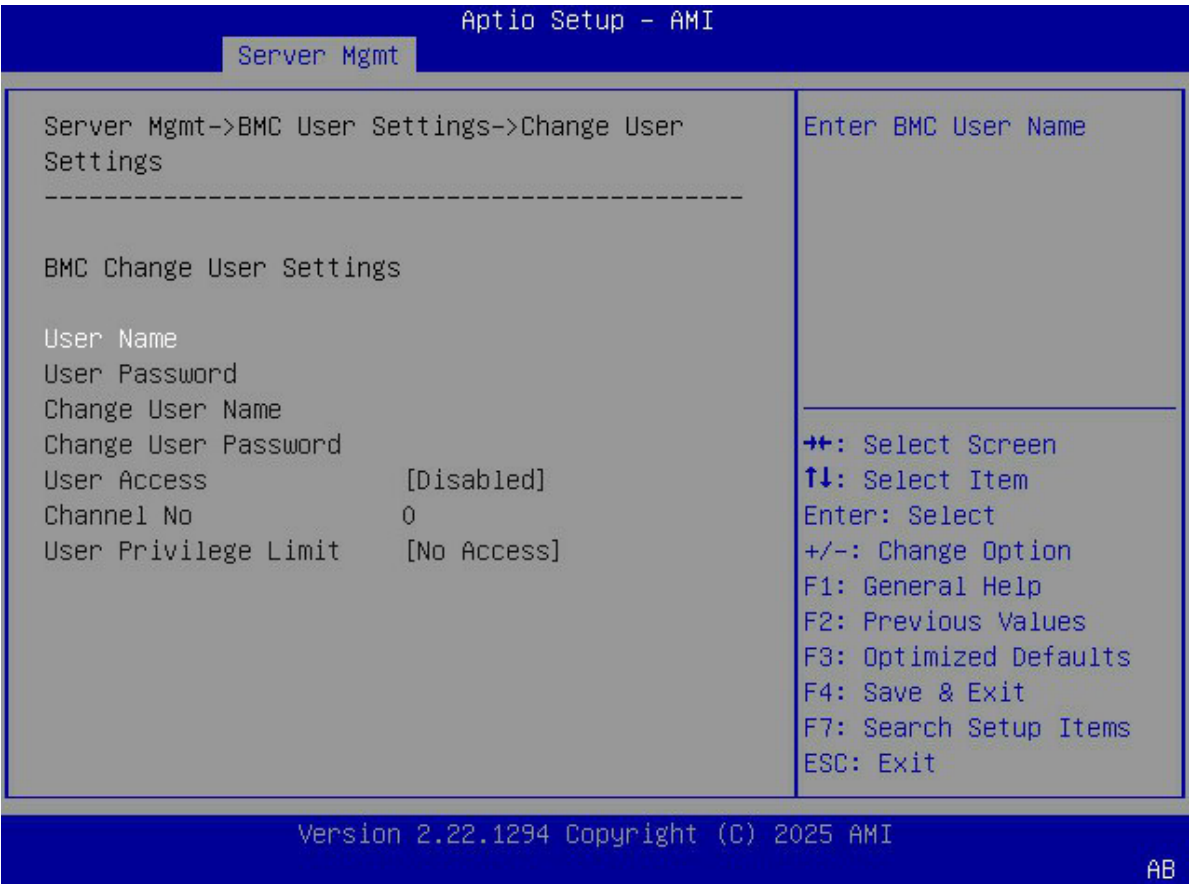
Table 3-125 Parameter Descriptions for the Delete User Screen

Parameter	Description
User Name	Enter the username of the BMC user to be deleted.
User Password	Enter the password of the BMC user to be deleted.

3.9.5.3 Change User Settings

Figure 3-168 shows the **Change User Settings** screen.

Figure 3-168 Change User Settings Screen



For a description of the parameters on the **Change User Settings** screen, refer to [Table 3-126](#).

Table 3-126 Parameter Descriptions for the Change User Settings Screen

Parameter	Description	Default Value
User Name	Sets the BMC username to be modified.	-
User Password	Sets the BMC user password to be modified.	-
Changing a User Password	Sets the new password of the BMC user.	-
User Access	Sets whether to enable user access. Options: ● Enabled: enables user access. ● Disabled: disables user access.	Disabled
Channel No	Sets the channel number.	0
User Privilege Limit	Sets the user privilege restrictions.	No Access

3.9.6 View FRU Information

Figure 3-169 and Figure 3-170 show the **View FRU Information** screen.

Figure 3-169 View FRU Information Screen 1

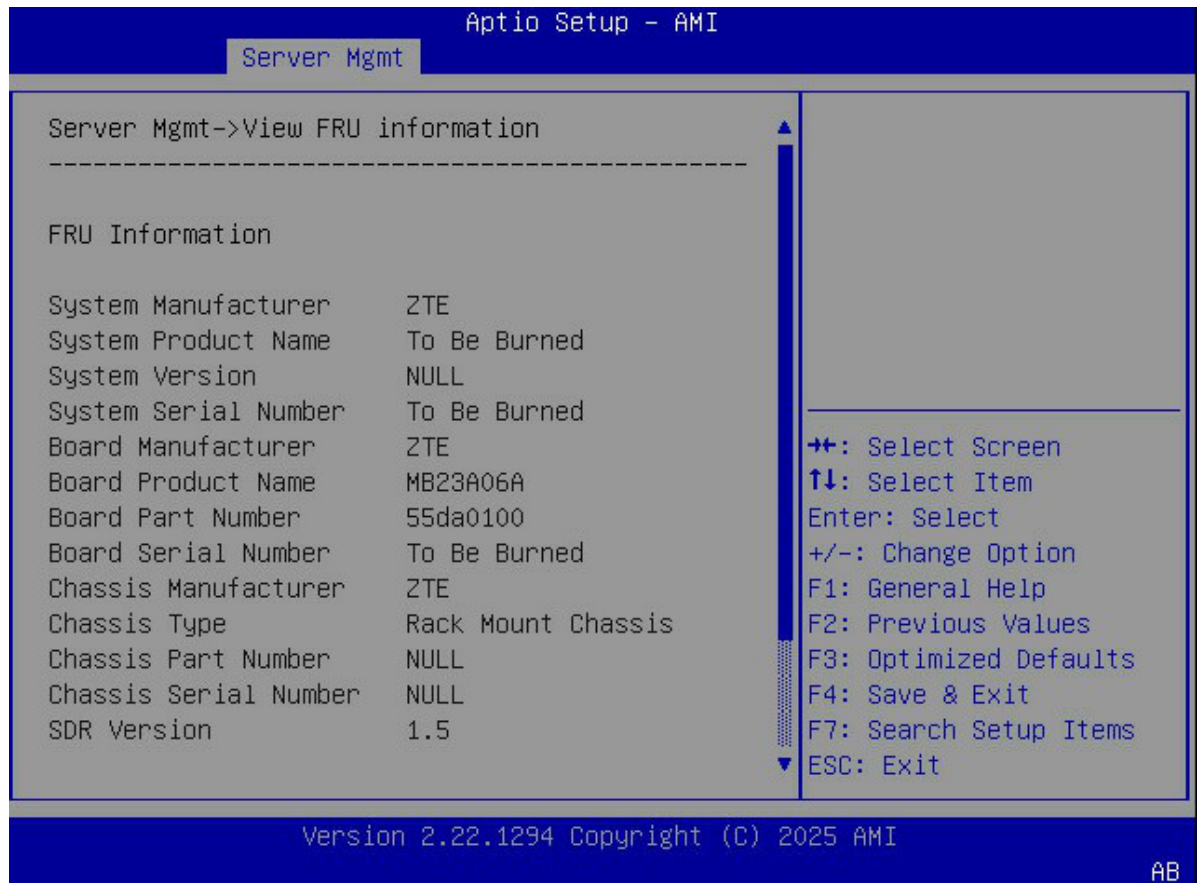
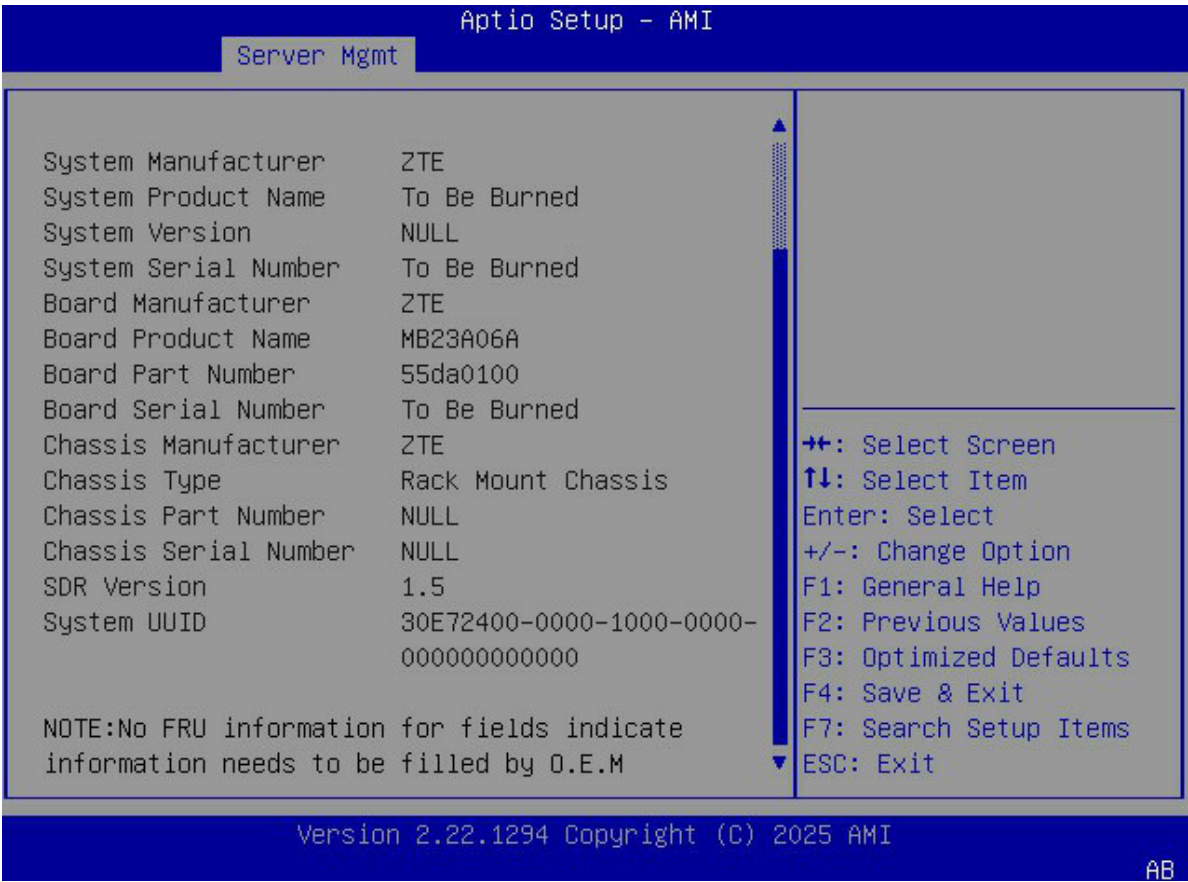


Figure 3-170 View FRU Information Screen 2



For a description of the parameters on the **View FRU Information** screen, refer to [Table 3-127](#).

Table 3-127 Parameter Descriptions for the View FRU Information Screen

Parameter	Description
System Manufacturer	Displays the system manufacturer.
System Product Name	Displays the product name.
System Version	Displays the system version.
System Serial Number	Displays the system serial number.
Board Manufacturer	Displays the board manufacturer.
Board Product Name	Displays the board product name.
Board Part Number	Displays the mainboard part number.
Board Serial Number	Displays the mainboard serial number.
Chassis Manufacturer	Displays the chassis manufacturer.
Chassis Type	Displays the chassis type.
Chassis Part Number	Displays the chassis part number.

Parameter	Description
Chassis Serial Number	Displays the chassis serial number.
SDR Version	Displays the SDR version.
System UUID	Displays the system UUID .

 Note

If **To be filled by O.E.M** is displayed in the field, it indicates that there is no [FRU](#) information. In this case, this parameter needs to be set by O.E.M.

Chapter 4

Reference: Control Keys for BIOS Setup

For a description of the available control keys in the BIOS of the **Genoa** platform, refer to [Table 4-1](#).

Table 4-1 Descriptions of Control Keys

Shortcut Key	Description
→ ←	Moves the cursor left or right.
↑ ↓	Moves the cursor up or down.
Enter	Selects an item or enters a submenu.
+/-	Changes the value of an item.
F1	Displays the information about shortcut keys, helping you operate on the BIOS Setup screen.
F2	Loads the last settings.
F3	Loads the default settings.
F4	Saves the settings and exits the BIOS.
F7	Querys options.
ESC	Exits the current screen.

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Glossary

ABL

- AGESA Boot Loader

ACPI

- Advanced Configuration and Power Interface

AMD

- Advanced Micro Devices

ANSI

- American National Standards Institute

APIC

- Advanced Programmable Interrupt Controller

ARI

- Assist Request Instruction

ASCII

- American Standard Code for Information Interchange

ASPM

- Active State Power Management

BIOS

- Basic Input/Output System

BMC

- Baseboard Management Controller

CA

- Certificate Authentication

CCD

- Charge Coupled Device

CD

- Compact Disk

CE

- Correctable Error

COM

- Component Object Model

CPPC

- Collaborative Processor Performance Control

CPU

- Central Processing Unit

CXL

- Compute Express Link

DAC

- Digital Analog Converter

DF

- Data Fabric

DHCP

- Dynamic Host Configuration Protocol

DID

- Dialogue Identification

DRAM

- Dynamic Random Access Memory

DVD

- Digital Versatile Disc

ECC

- Error Check and Correction

EFI

- Extensible Firmware Interface

FCH

- Frame Control Header

FRU

- Field Replaceable Unit

FW

- Firewall

GMI

- Global Memory Interconnect

HSMP

- Host System Management Port

I/O

- Input/Output

ID

- Identification

IO

- Input & Output

IOMMU

- Input/Output Memory Management Unit

IP

- Internet Protocol

IPMI

- Intelligent Platform Management Interface

IPv4

- Internet Protocol Version 4

IPv6

- Internet Protocol Version 6

KVM

- Keyboard, Video and Mouse

MAC

- Media Access Control

MBIST

- Memory Built-In Self Test

MCA

- Machine Check Architecture

MPIO

- Multiple-Path IO

NBIO

- North Bridge IO

NMI

- Non-Maskable Interrupt

NUMA

- Non-Uniform Memory Access Architecture

NVMe

- Non-Volatile Memory Express

OC

- Overload Control

OS

- Operating System

PBS

- Peak Burst Size

PC

- Personal Computer

PCI

- Peripheral Component Interconnect

PCIe

- Peripheral Component Interconnect Express

PHY

- Physical layer

PM

- Power Module

PMU

- Power Module Unit

POST

- Power-On Self-Test

PPIN

- Protected Processor Identification Number

PSP

- Programmable Signal Processor

PXE

- Preboot eXecution Environment

RAM

- Random Access Memory

RAM

- Random Access Memory

RAS

- Reliability, Availability and Serviceability

RIB

- Routing Information Base

ROM

- Read-Only Memory

RTP

- Real-time Transport Protocol

SATA

- Serial ATA

SB

- South Bridge

SCI

- Serial Communications Interface

SEL

- System Event Log

SEV

- Secure Encrypted Virtualization

SLIT

- System Locality Information Table

SMI

- System Management Interruption

SMT

- Simultaneous Multi-Threading

SMU

- Service Manager Unit

SOL

- Serial Over LAN

SR-IOV

- Single-Root I/O Virtualization

TDP

- Thermal Design Power

UEFI

- Unified Extensible Firmware Interface

UMC

- Unified Memory Controller

USB

- Universal Serial Bus

UUID

- Universal Unique Identifier

VGA

- Video Graphic Adapter

VID

- VLAN Identifier

VLAN

- Virtual Local Area Network