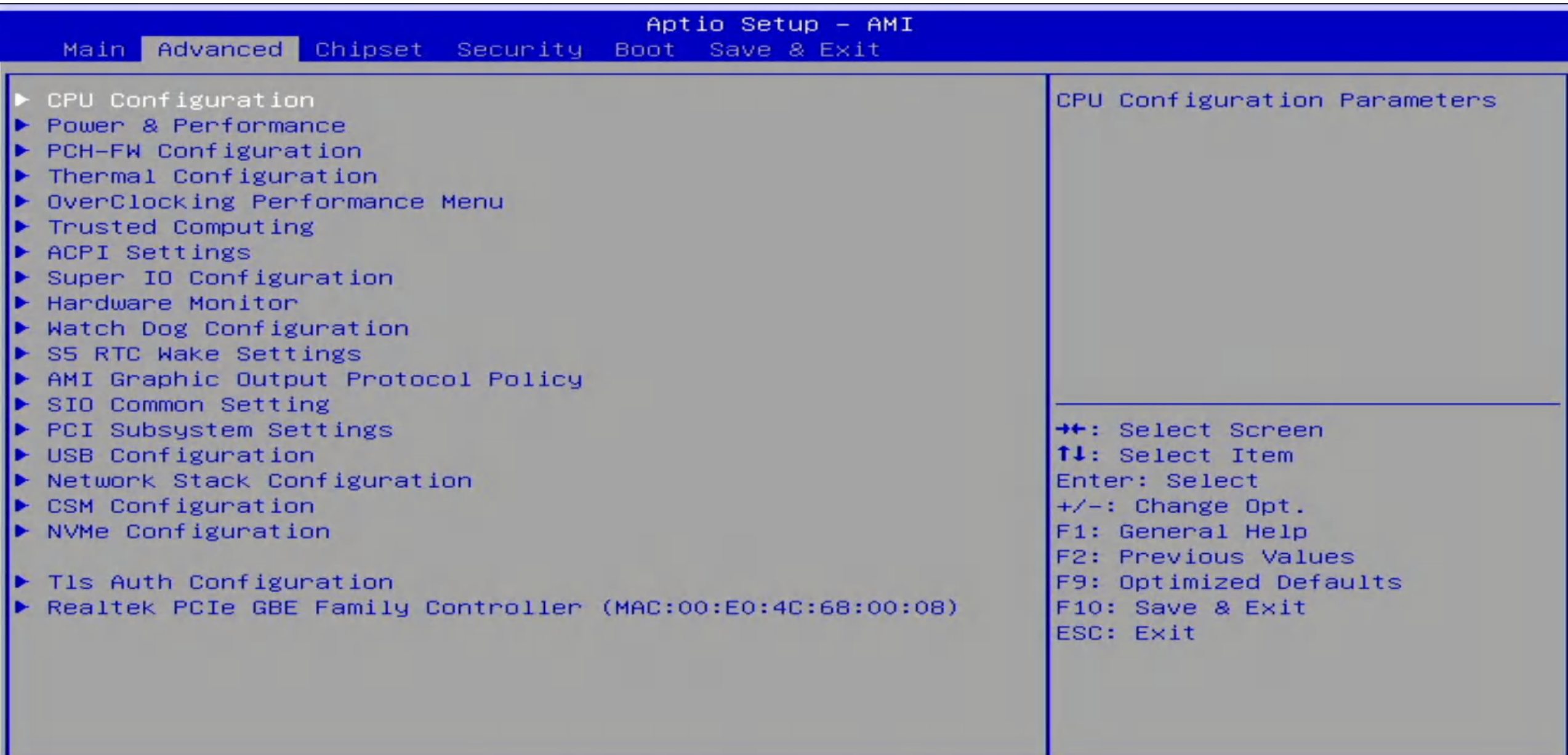


VT-X 开启核心数量 超线程



L1 Instruction Cache	32 KB x 6
L2 Cache	512 KB x 6
L3 Cache	12 MB
L4 Cache	N/A
VMX	Supported
SMX/TXT	Not Supported

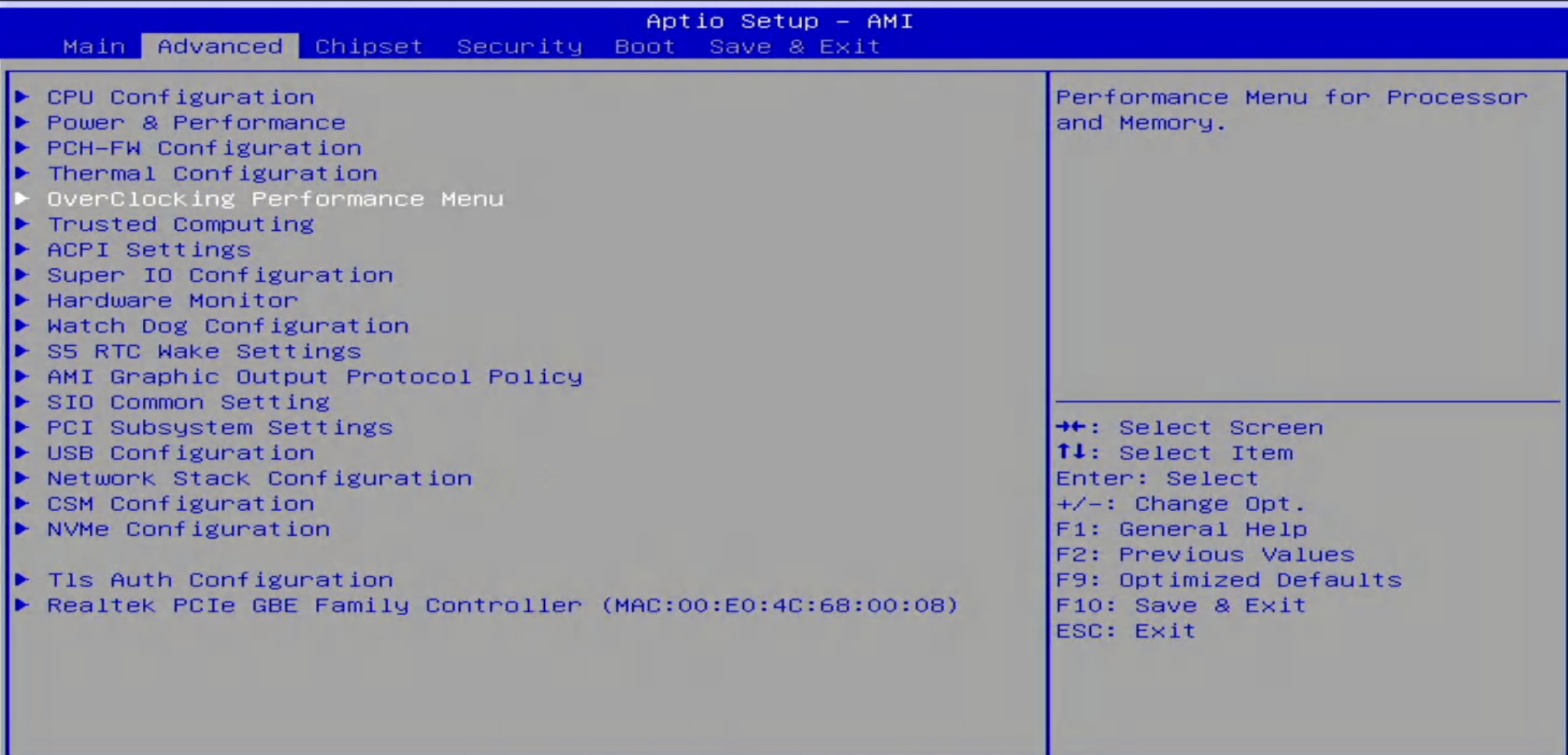
CPU Flex Ratio Override	[Disabled]
CPU Flex Ratio Settings	26
Hardware Prefetcher	[Enabled]
Adjacent Cache Line Prefetch	[Enabled]
Intel (VMX) Virtualization Technology	[Enabled]
VT-X	
PECI	[Enabled]
AVX	[Enabled]
AVX3	[Enabled]
Active Processor Cores	[All]
Hyper-Threading	[Enabled]
超线程	
BIST	[Disabled]
AP threads Idle Manner	[MWAIT Loop]
AES	[Enabled]
MachineCheck	[Enabled]
MonitorMWait	[Enabled]
CPU SMM Enhancement	
"RaceConditionResponse Policy	[Disabled]

Enable or Disable Race condition response discovered

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

内存XMP

注意：需要开启两个位置



OverClocking Performance Menu

OverClocking Feature 打开这个
WDT Enable

[Disabled]
[Enabled]

OverClocking Feature
Disabled
Enabled

Performance Menu for Processor
and Memory.

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

- ▶ System Agent (SA) Configuration
- ▶ PCH-IO Configuration

System Agent (SA) Parameters

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

System Agent (SA) Configuration

VT-d Supported

- ▶ Memory Configuration
- ▶ Graphics Configuration
- ▶ PCI Express Configuration

Stop Grant Configuration	[Auto]
VT-d	[Enabled]
X2APIC Opt Out	[Disabled]
DMA Control Guarantee	[Enabled]
IGD VTD Enable	[Enabled]
IOP VTD Enable	[Enabled]
Thermal Device (B0:D4:F0)	[Disabled]
Cpu CrashLog (Device 10)	[Enabled]
GNA Device (B0:D8:F0)	[Disabled]
CRID Support	[Disabled]
Above 4GB MMIO BIOS assignment	[Enabled]

Memory Configuration Parameters

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

- ▶ Memory Thermal Configuration
- ▶ Memory Training Algorithms
- ▶ Memory

Memory Configuration

Memory RC Version 0.4.97.123
Memory Frequency 2133 MHz
Memory Timings (tCL-tRCD-tRP-tRAS) 15-15-15-36

Channel 0 Slot 0 Not Populated / Disabled
Channel 0 Slot 1 Not Populated / Disabled
Channel 1 Slot 0 Populated & Enabled
 Size 8192 MB (DDR4)
 Number of Ranks 1
 Manufacturer Unknown
Channel 1 Slot 1 Not Populated / Disabled

MRC ULT Safe Config [Disabled]
Safe Mode Support [Disabled]
HOB Buffer Size [Auto]
Max TOLUD [Dynamic]
DDR Speed Control [Auto]
Retrain on Fast Fail [Enabled]
DDR4_1DPC [Enabled]
Enable RH Prevention [Disabled]

Memory Overclocking Menu

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

NMode	1	1	1
	0		
VDD [mV]	1200	1200	1350
	0		

Select DIMM timing profile.
The below values start with
the currently running values
and don't auto populate.

Realtime Memory Timing	[Disabled]
Memory profile	[Default profile]
Memory Reference Clock	[133]
Memory Ratio	16

QCLK Odd Ratio

Memory profile

Default profile

Custom profile

XMP profile 1

XMP profile 2

tCL

tRCD/tRP

tRAS

tCWL

tFAW

tREFI

tRFC

tRRD

tRTP

tWR

tWTR

NMode

Memory Voltage

D11BwEn Override

VDD

374

4

8

[16]

0

1

[1.20 Volts]

[Disabled]

1200

→←: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

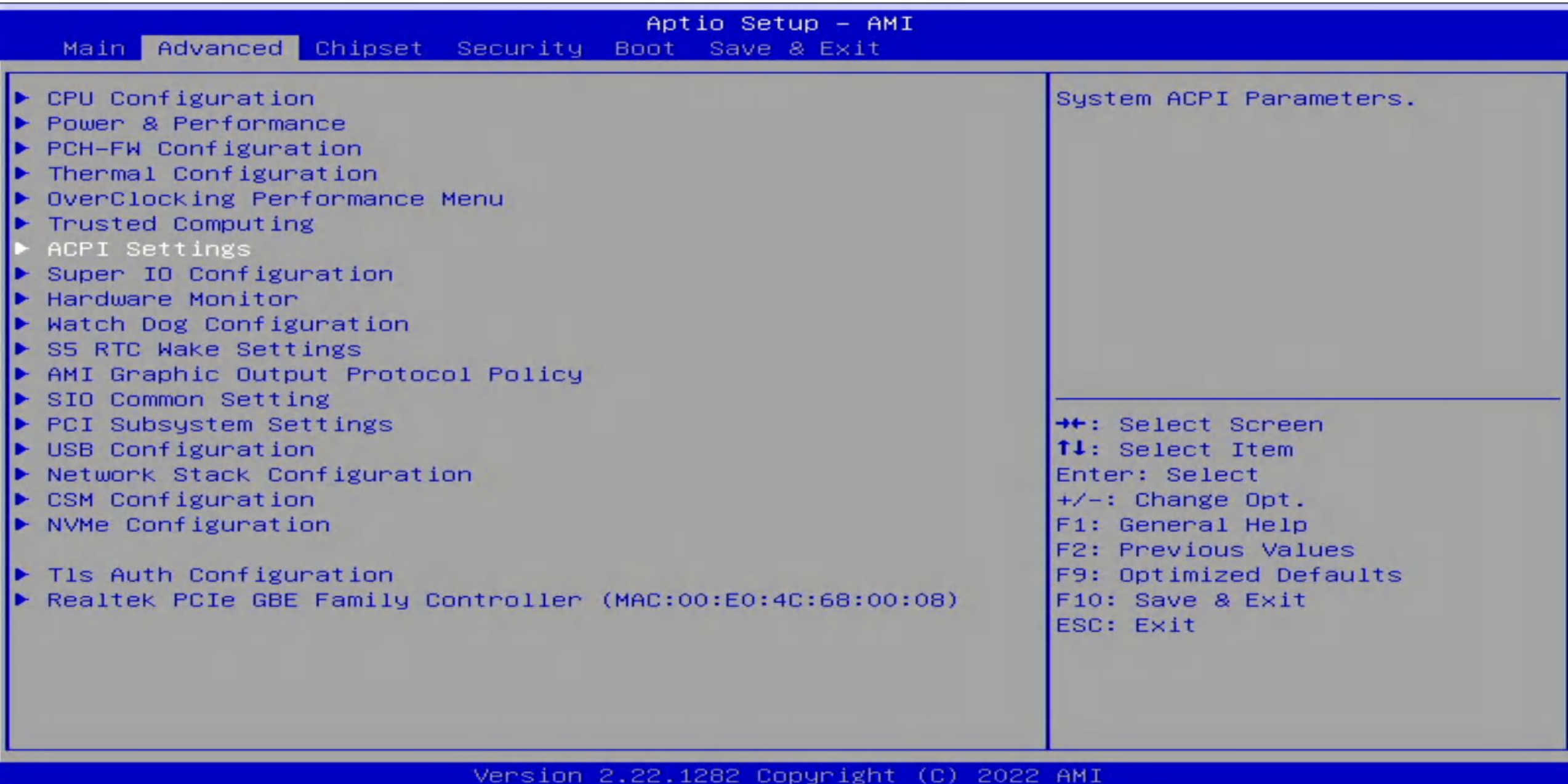
F2: Previous Values

F9: Optimized Defaults

F10: Save & Exit

ESC: Exit

S3 睡眠



ACPI Settings

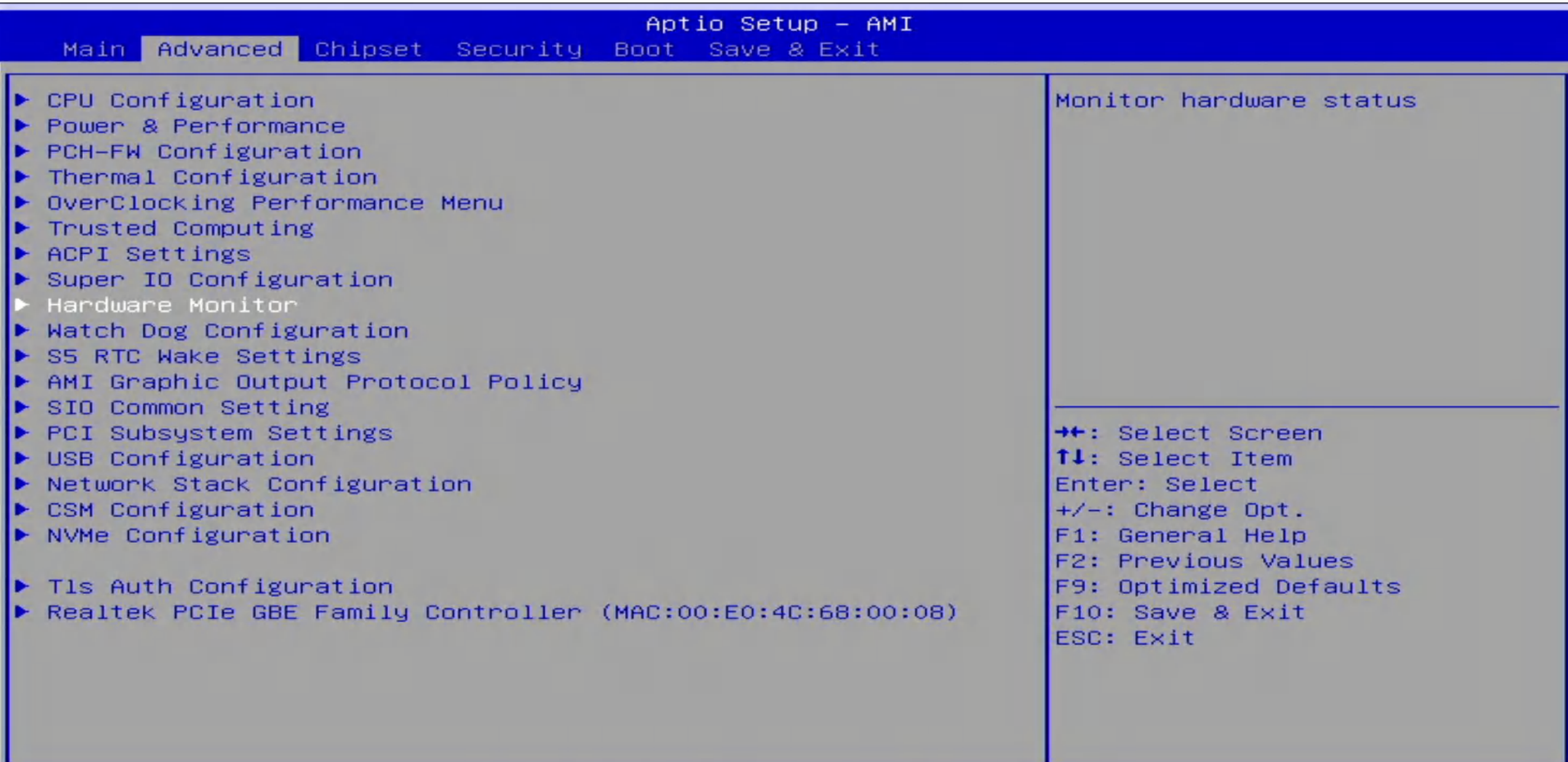
Enable ACPI Auto Configuration	[Disabled]
Enable Hibernation	[Enabled]
ACPI Sleep State	[S3 (Suspend to RAM)]
S3 Video Repost	[Disabled]

— ACPI Sleep State —
Suspend Disabled
S3 (Suspend to RAM)

Select the highest ACPI sleep state the system will enter when the SUSPEND button is pressed.

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

风扇温控



Pc Health Status

CPU temperature	:	+59 °C
System temperature	:	+37 °C
CPU Fan Speed	:	1144 RPM
System Fan Speed	:	N/A
VCore	:	+1.243 V
memory	:	+1.222 V
+12V	:	+12.144 V
+5V	:	+4.944 V

► Smart Fan Function

Smart Fan function setting

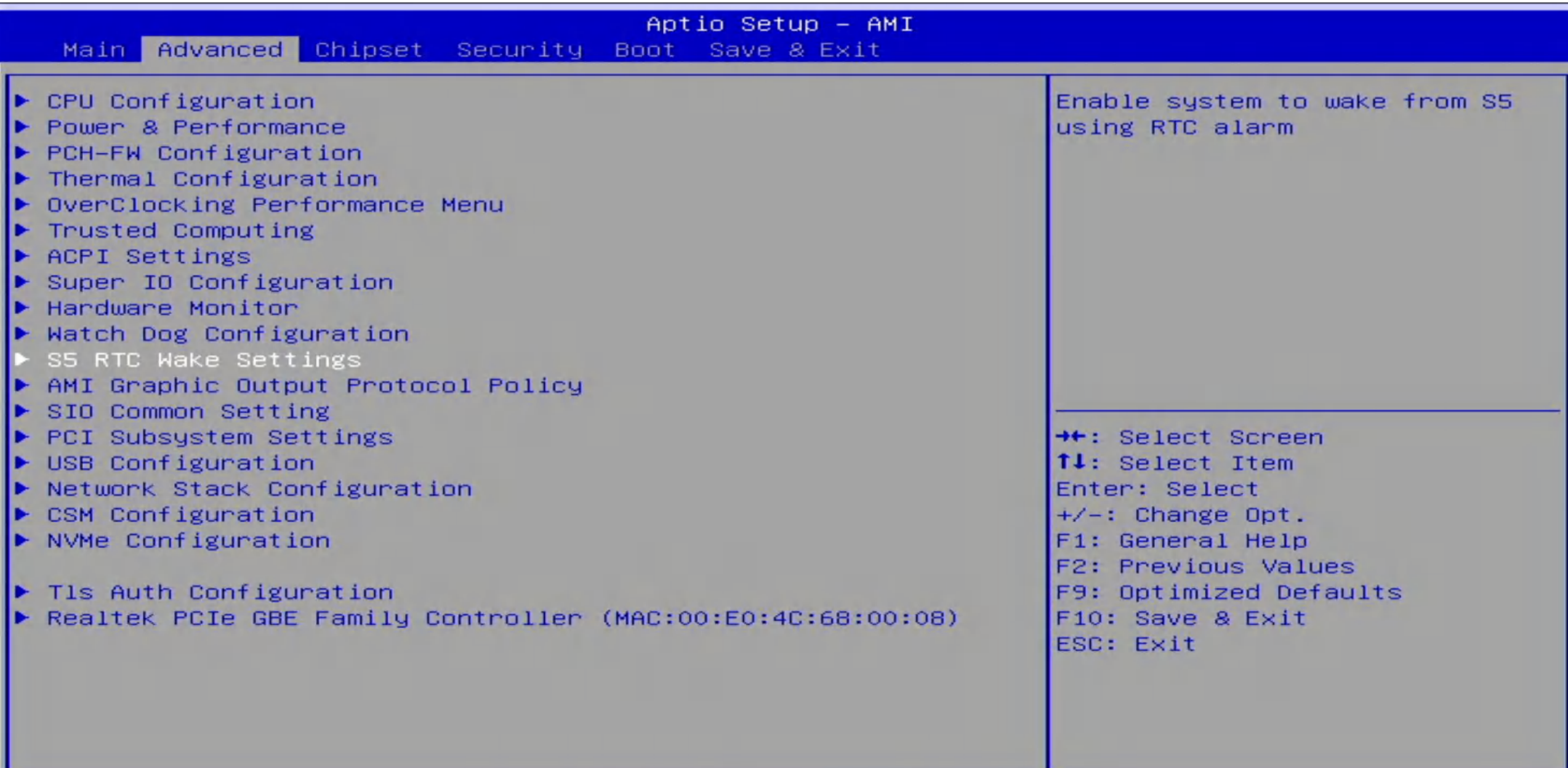
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

CPU Smart Fan Mode	[Automatic Mode]
Fan off temperature limit	35
Fan start temperature limit	40
Fan full speed temperature limit	70
Fan start PWM	48
PWM SLOPE SETTING	[4.5 PWM]

CPU Smart Fan Mode Select

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

定时开机



Wake system from S5

[Disabled]

Enable or disable System wake on alarm event. Select FixedTime, system will wake on the hr::min::sec specified. Select DynamicTime, System will wake on the current time + Increase minute(s)

Wake system from S5

Disabled

Fixed Time

Dynamic Time

→←: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

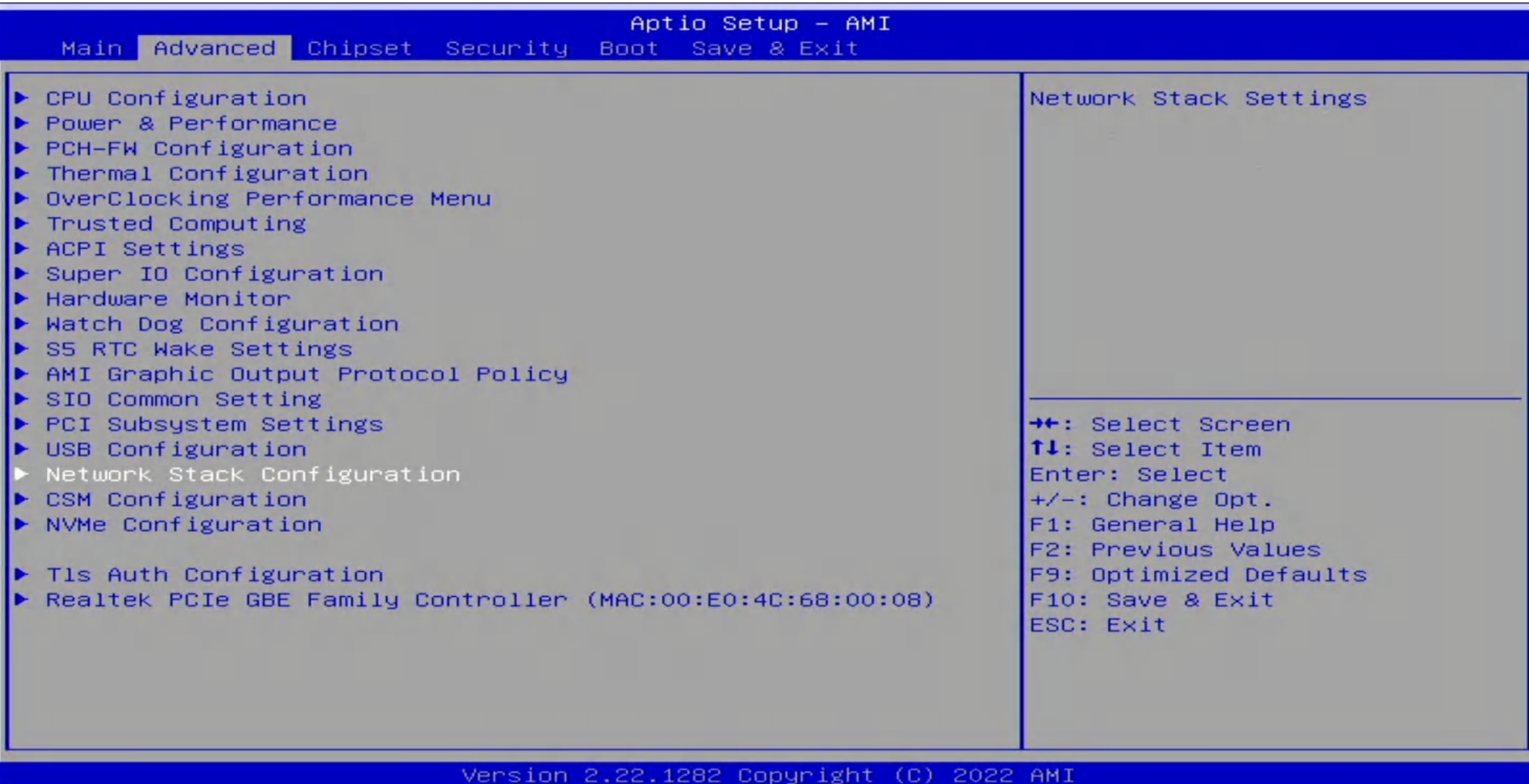
F2: Previous Values

F9: Optimized Defaults

F10: Save & Exit

ESC: Exit

UEFI网卡启动



Network Stack

打开这个

[Disabled]

Enable/Disable UEFI Network
Stack

Network Stack

Disabled

Enabled

←→: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

F2: Previous Values

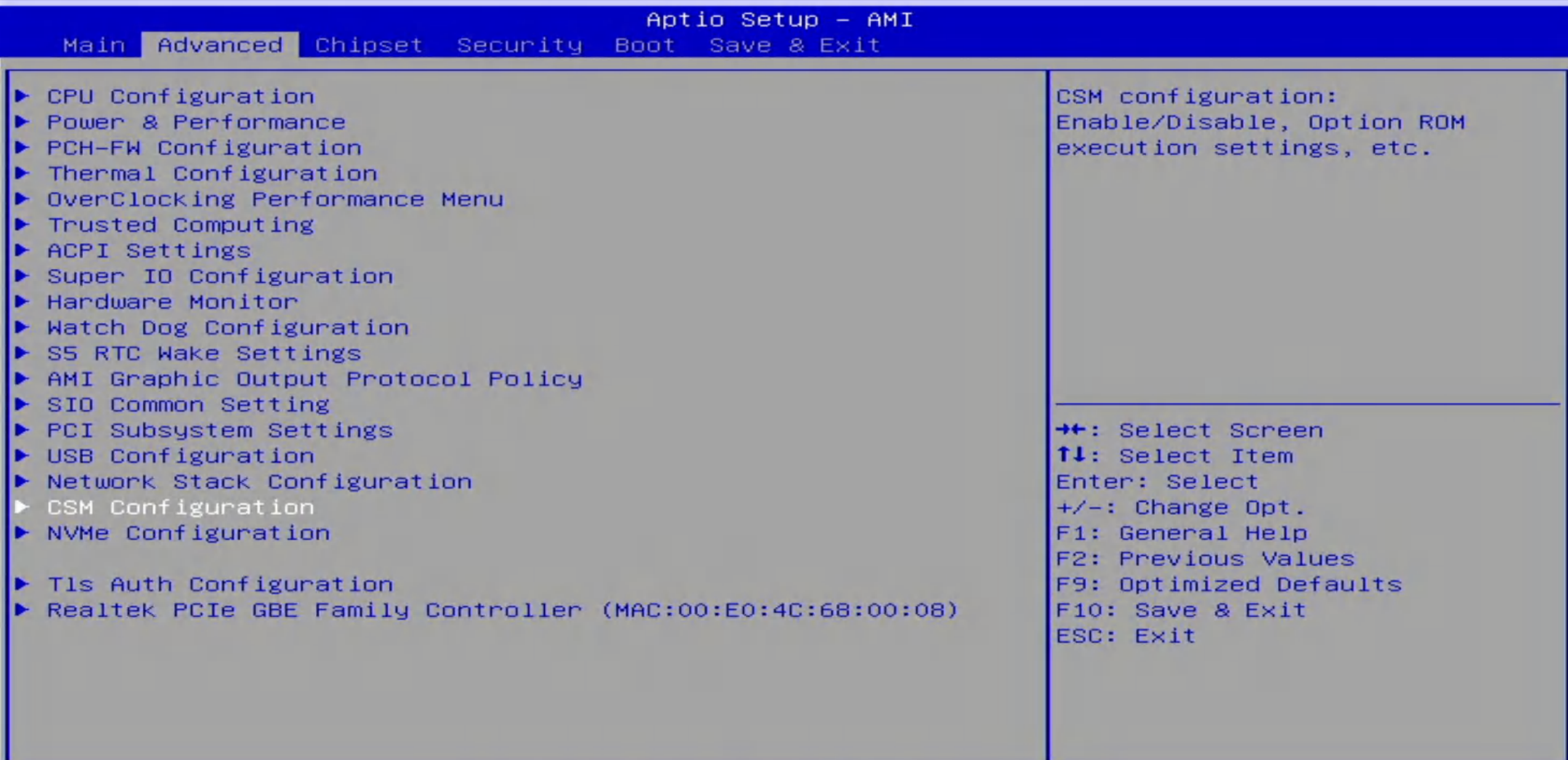
F9: Optimized Defaults

F10: Save & Exit

ESC: Exit

默认纯UEFI模式

部分低端显卡不支持UEFI



Compatibility Support Module Configuration

Enable/Disable CSM Support.

CSM Support	[Enabled]
CSM16 Module Version	07.84
GateA20 Active	[Upon Request]
INT19 Trap Response	[Immediate]
Boot option filter	[UEFI only]
Option ROM execution	
Network	[UEFI]
Storage	[UEFI]
Video	[UEFI]
Other PCI devices	[UEFI]

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

传统模式启动改两个地方

十代 十一代核显不支持传统模式需要搭配独显

Aptio Setup - AMI

Advanced

Compatibility Support Module Configuration

CSM Support [Enabled]

CSM16 Module Version 07.84

GateA20 Active [Upon Request]

Option ROM Messages [Force BIOS]

INT19 Trap Response [Immediate]

HDD Connection Order [Adjust]

Boot option filter [UEFI and Legacy]

Option ROM execution

Network [Do not launch]

Storage [Legacy]

Video [Legacy]

Other PCI devices [Legacy]

Determines OpROM execution policy for devices other than Network, Storage, or Video

→←: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

F2: Previous Values

F9: Optimized Defaults

F10: Save & Exit

ESC: Exit

Boot Configuration

Setup Prompt Timeout 1
 Bootup NumLock State [On]
 Show Full Logo [Enabled]

Boot mode select [UEFI]

FIXED BOOT ORDER Priorities

Boot Option #1 [NVME]
 Boot Option #2 [Hard Disk:Windows
 Boot Manager (P0: BR

Boot Option #3
 Boot Option #4
 Boot Option #5
 Boot Option #6
 Boot Option #7

— Boot mode select —

LEGACY
 UEFI

[UEFI AP:UEFI:
 Built-in EFI Shell]

Select boot mode LEGACY/UEFI

→←: Select Screen
 ↑↓: Select Item
 Enter: Select
 +/-: Change Opt.
 F1: General Help
 F2: Previous Values
 F9: Optimized Defaults
 F10: Save & Exit
 ESC: Exit

- ▶ UEFI Hard Disk Drive BBS Priorities
- ▶ UEFI Application Boot Priorities

核显 VT-D



System Agent (SA) Configuration

VT-d Supported

- ▶ Memory Configuration
- ▶ Graphics Configuration 核显
- ▶ PCI Express Configuration

Stop Grant Configuration	[Auto]
VT-d VT-D	[Enabled]
X2APIC Opt Out	[Disabled]
DMA Control Guarantee	[Enabled]
IGD VTD Enable	[Enabled]
IOP VTD Enable	[Enabled]
Thermal Device (B0:D4:F0)	[Disabled]
Cpu CrashLog (Device 10)	[Enabled]
GNA Device (B0:D8:F0)	[Disabled]
CRID Support	[Disabled]
Above 4GB MMIO BIOS assignment	[Enabled]

Graphics Configuration

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

Graphics Configuration

Graphics Turbo IMON Current

31

Skip Scanning of External Gfx Card

[Disabled]

Primary Display

[Auto]

▶ External Gfx Card Primary Display Configuration

Internal Graphics

[Auto]

GTT Size

[8MB]

Aperture Size

[256MB]

PSMI SUPPORT

[Disabled]

DVMT Pre-Allocated

[60M]

DVMT Total Gfx Mem

[256M]

DFD Restore

[Disabled]

Intel Graphics Pei Display Peim

[Disabled]

VDD Enable

[Enabled]

Configure GT for use

[Enabled]

RC1p Support

[Disabled]

PAVP Enable

[Enabled]

Cdynmax Clamping Enable

[Enabled]

Cd Clock Frequency

[Max CdClock freq
based on Reference Clk]

Skip Full CD Clock Init

[Disabled]

Graphics turbo IMON current
values supported (14-31)

←→: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

F2: Previous Values

F9: Optimized Defaults

F10: Save & Exit

ESC: Exit

板载声卡 网卡 网络唤醒 来电启动



PCH-IO Configuration

- ▶ PCI Express Configuration 板载网卡
- ▶ SATA And RST Configuration
- ▶ USB Configuration
- ▶ Security Configuration
- ▶ HD Audio Configuration 板载声卡

Wake on LAN 网络唤醒

[Enabled]

State After G3 来电启动

[S5 State]

PCI Express Configuration
settings

←→: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

F2: Previous Values

F9: Optimized Defaults

F10: Save & Exit

ESC: Exit

PCI Express Configuration

DMI Link ASPM Control [Disabled]
Port8xh Decode [Disabled]
Peer Memory Write Enable [Disabled]
Compliance Test Mode [Disabled]
PCIe function swap [Disabled]

► PCIe EQ settings

PCI Express Root Port 1 Not present in this SKU
PCI Express Root Port 2 Not present in this SKU
PCI Express Root Port 3 Not present in this SKU
PCI Express Root Port 4 Not present in this SKU

► PCI Express Root Port 5

PCI Express Root Port 6 Shadowed by x2/x4 port
PCI Express Root Port 7 Shadowed by x2/x4 port
PCI Express Root Port 8 Shadowed by x2/x4 port
PCI Express Root Port 9 Not present in this SKU
PCI Express Root Port 10 Not present in this SKU

► PCI Express Root Port 11

► LAN controller 网卡

PCI Express Root Port 13 Not present in this SKU
PCI Express Root Port 14 Not present in this SKU
PCI Express Root Port 15 Not present in this SKU
PCI Express Root Port 16 Not present in this SKU

PCI Express Root Port Settings.

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

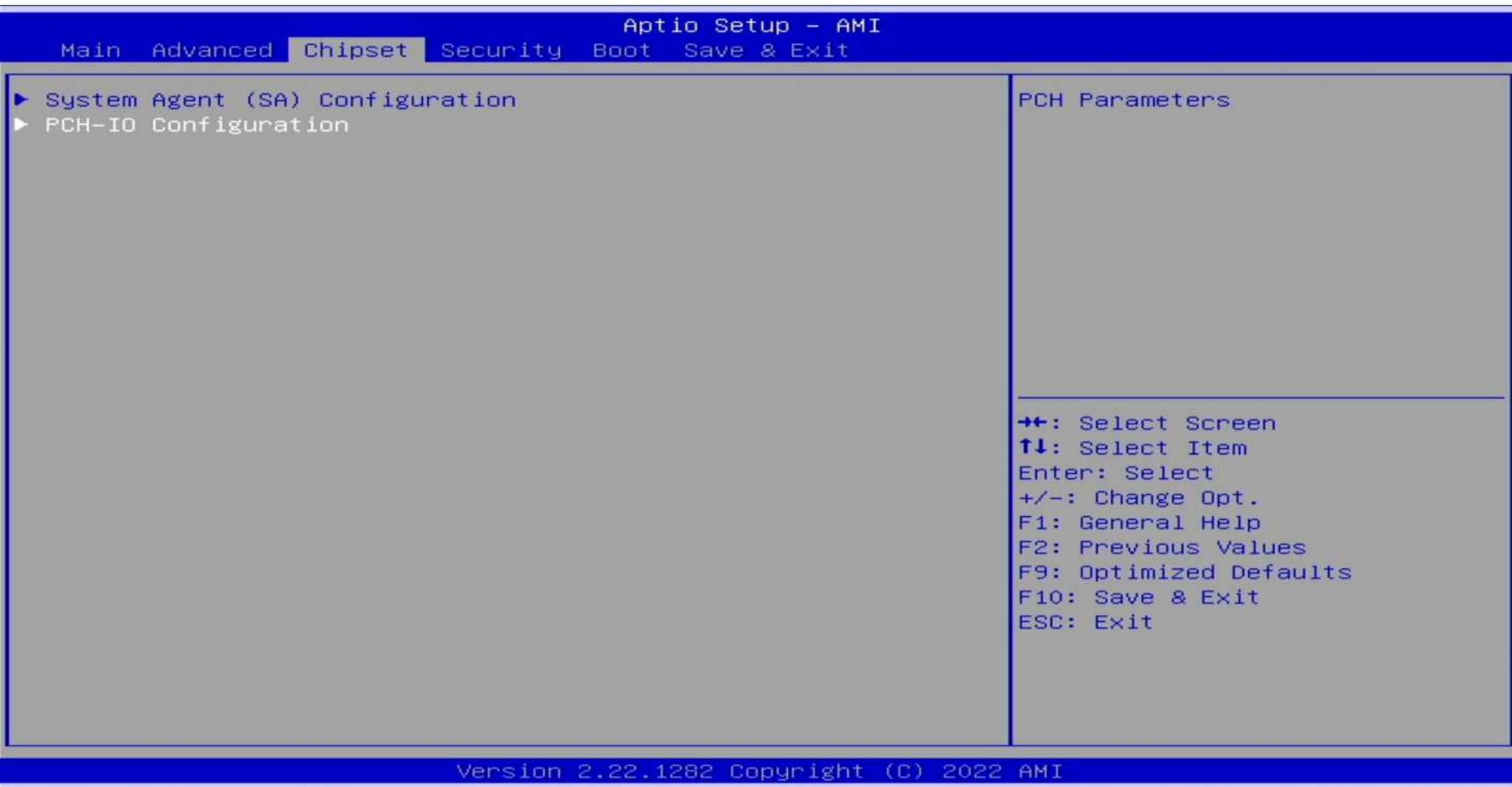
LAN controller	[Enabled]
Connection Type	[Slot]
ASPM	[Disabled]
L1 Substates	[Disabled]
ACS	[Enabled]
PTM	[Enabled]
DPC	[Enabled]
EDPC	[Enabled]
URR	[Disabled]
FER	[Disabled]
NFER	
CER	
SEFE	
SECE	
PME SCI	[Enabled]
Hot Plug	[Disabled]
Advanced Error Reporting	[Enabled]
PCIe Speed	[Auto]
Transmitter Half Swing	[Disabled]
Detect Timeout	0
Extra Bus Reserved	0
Reserved Memory	10
Reserved I/O	4

LAN controller
Disabled
Enabled

Control the PCI Express Root Port.

→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

SATA



PCH-IO Configuration

- ▶ PCI Express Configuration
- ▶ SATA And RST Configuration
- ▶ USB Configuration
- ▶ Security Configuration
- ▶ HD Audio Configuration

Wake on LAN

[Enabled]

State After G3

[S5 State]

SATA Device Options Settings

←→: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

F2: Previous Values

F9: Optimized Defaults

F10: Save & Exit

ESC: Exit

SATA And RST Configuration

SATA Controller(s) [Enabled]
SATA Mode Selection [AHCI]
SATA Test Mode [Disabled]
► Software Feature Mask Configuration
Aggressive LPM Support [Disabled]

Serial ATA Port 0 BR 256GB (256.0GB)
Software Preserve SUPPORTED
Port 0 [Enabled]
Hot Plug 热插拔 [Disabled]
Configured as eSATA Hot Plug supported
External [Disabled]
Spin Up Device [Disabled]
SATA Device Type [Hard Disk Drive]
Topology [Unknown]
SATA Port 0 DevSlp [Disabled]
DITO Configuration [Disabled]
DITO Value 625
DM Value 15

Serial ATA Port 1
Software Preserve Unknown
Port 1 [Enabled]
Hot Plug [Disabled]

▲ Enable/Disable SATA Device.

→←: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

F2: Previous Values

F9: Optimized Defaults

F10: Save & Exit

ESC: Exit

安全启动

Aptio Setup - AMI					
Main Advanced Chipset Security Boot Save & Exit					
<p>Password Description</p> <p>If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup.</p> <p>If ONLY the User's password is set, then this is a power on password and must be entered to boot or enter Setup. In Setup the User will have Administrator rights.</p> <p>The password length must be in the following range:</p> <table><tbody><tr><td>Minimum length</td><td>3</td></tr><tr><td>Maximum length</td><td>20</td></tr></tbody></table> <p>Administrator Password</p> <p>User Password</p> <p>► Secure Boot</p>	Minimum length	3	Maximum length	20	<p>Set Administrator Password</p> <hr/> <p>→←: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit</p>
Minimum length	3				
Maximum length	20				

Save Options

Save Changes and Exit

Discard Changes and Exit

Save Changes and Reset

Discard Changes and Reset

Save Changes

Discard Changes

Default Options

Restore Defaults

Save as User Defaults

Restore User Defaults

Boot Override

Windows Boot Manager (P0: BR 256GB)

UEFI: Built-in EFI Shell

Launch EFI Shell from filesystem device

Exit system setup after saving the changes.

→←: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

F2: Previous Values

F9: Optimized Defaults

F10: Save & Exit

ESC: Exit