
EFC-D202

J1900 无风扇整机

用户手册

User Manual

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安全须知

警告：

1. 产品使用前，务必仔细阅读产品说明书。
2. 对未准备安装的板卡，应将其保存在防静电保护袋中。
3. 在从包装袋中拿板卡前，应将手先置于接地金属物体上一会儿，以释放身体及手中的静电。
4. 在拿板卡时，需佩带静电保护手套，并且应该养成只触及边缘部份的习惯。
5. 主板与电源连接时，请确认电源电压。
6. 为避免人本被电击或产品被损坏，在每次对主板、板卡进行拔插或生新配置时，须先关闭交流电源或将交流电源线从电源插座中拔掉。
7. 在对板卡进行搬动前，先将交流电源线从电源插座中拔掉。
8. 当您需连接或拔除任何设备前，须确定所有的电源线事先已被拔掉。
9. 为避免频繁开关机对产品造成不必要的损伤，关机后，应至少等待 30 秒后再开机。
10. 设备在使用过程时出现异常情况，请找专业人员处理。

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第一章 产品介绍

产品简介

- 本产品是一款低功耗无风扇计算机，支持国内外通用组态软件，灵活安装，提供嵌入式，壁挂，桌面安装方式，环境适应能力强。应该工业平板/控制、驾考指引、环境监测、设备仪器、电弓监测、人机协作、安防识别、智能工厂、产线MES、广告显示、广告机、自助设备、无人售卖机等。

1.1 产品规格

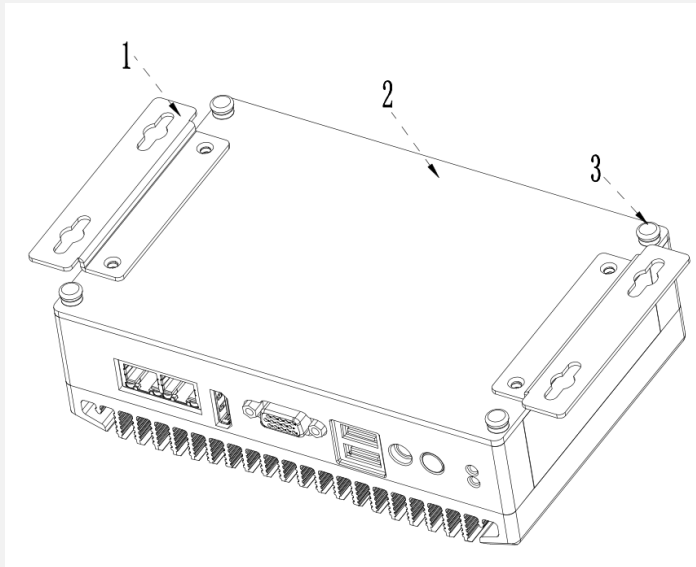
EFC-D202

处理器	■ Intel J1900 平台处理器
显示	■ 支持 1 个 DB15 的 VGA 接口 ■ 支持 1 个 HDMI 接口
系统内存	■ 支持 1 个 SO-DIMM，最大支持内存容量 8G，DDR3L
存储	■ 支持 1 个 MSATA 接口（SATA 信号）用来扩展 SSD ■ 支持 1 个 MINI-PCIE 接口（全卡），用来扩展 3G/4G 模块
LAN 功能	■ 支持 2 个 intel 千兆网口
USB 接口	■ 支持 1 个 USB 2.0，1 个 USB 3.0
指示灯	■ 支持 1 x 电源指示灯，1 x 硬盘指示灯
开关	■ 支持 1 x 电源开关 ■ 支持 1 x RV 按键（一键还原）
电源支持	■ 支持 DC IN 接口（ $\phi 5.5 \phi 2.5$ ）； 电源适配器 60W
物理参数	
尺寸	■ 支持 203mm (L)* 112mm (W) *58mm (H)
装方式	■ 桌面式/壁挂式（可选）
重量	■ 1.1Kg
工作环境	■ 支持工作温度：-10°C ~ 60°C

第二章 安装说明

2.1 安装说明

装配箱体支架（配件）、脚垫、MSATA 盘、内存、MINI-PCIE、SIM 卡



1) 名称: 1. 箱体支架（配件） 2. 底盖 3. 脚垫

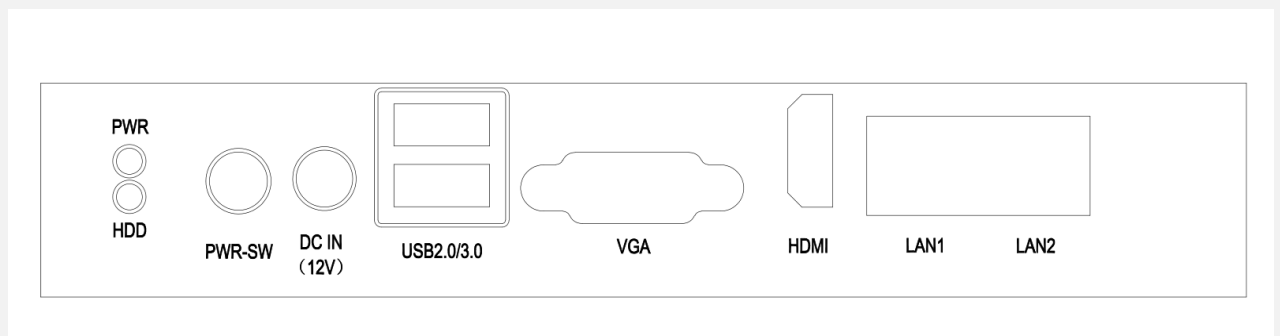
2) 拆下 4PCS 脚垫，用一字螺丝刀拆下 4PCS 螺柱，取下底盖后，可装配盘 MINI-PCIE，

要装配内存和 MSATA 盘时，把主板拆下，在主板的前面

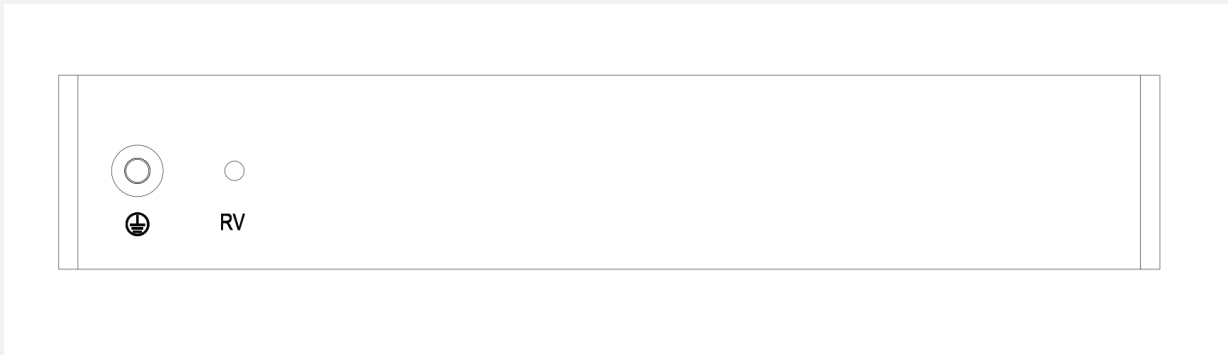
2.2 机箱接口和尺寸图

下图为 EFC-D202 的尺寸图。安装设备时，请对照此示意图并详细阅读下面的说明，安装组件过程中必须小心，对于有些部件，如果安装不正确，设备将不能正常工作。

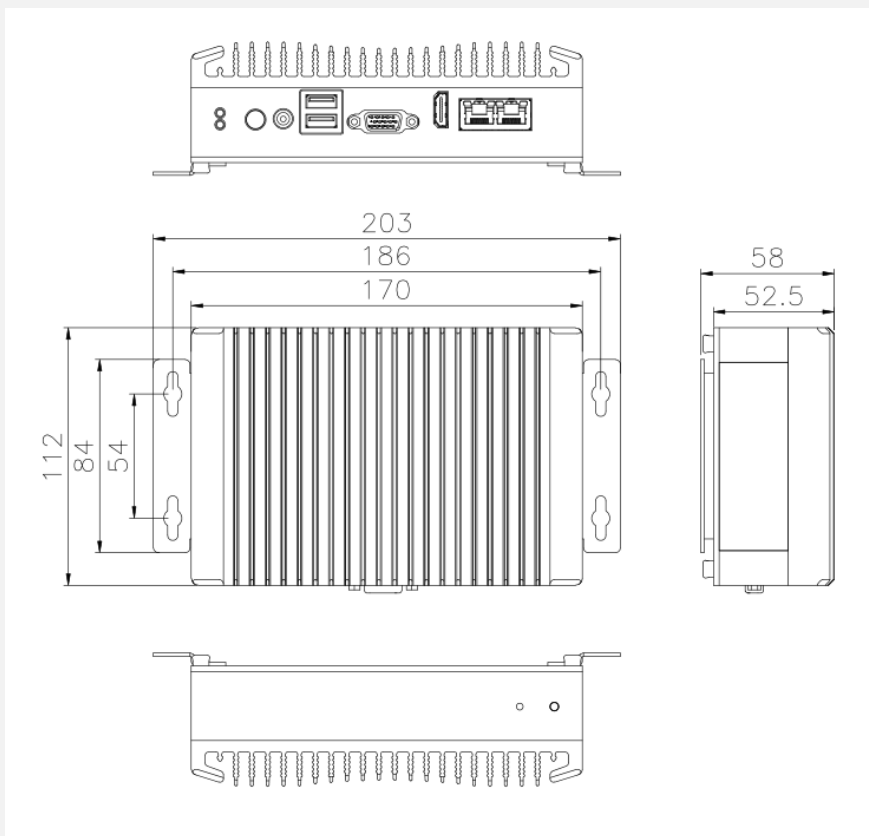
前面板接口图



后面板接口图



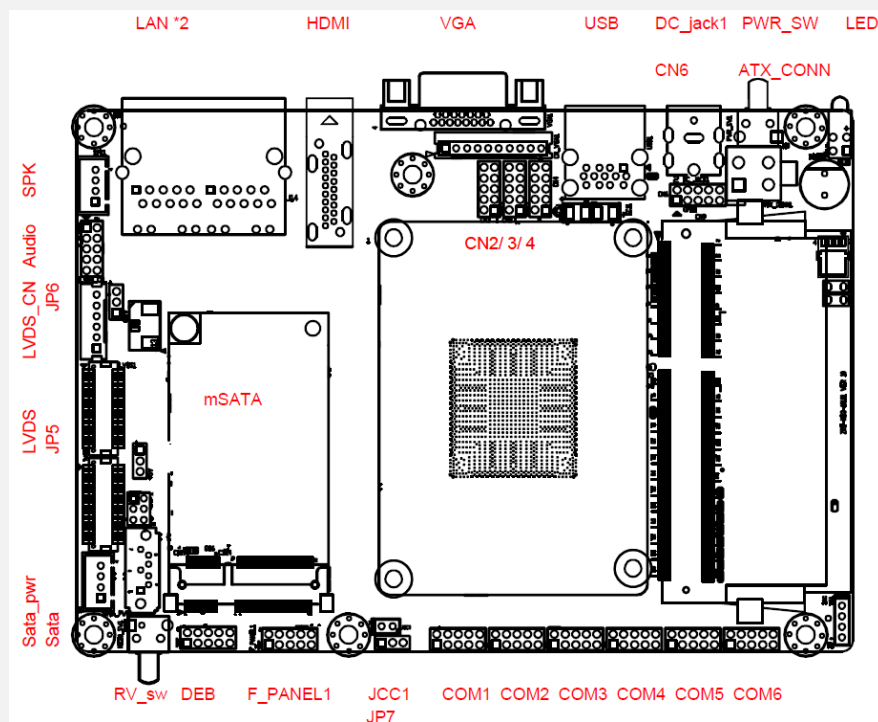
产品尺寸图



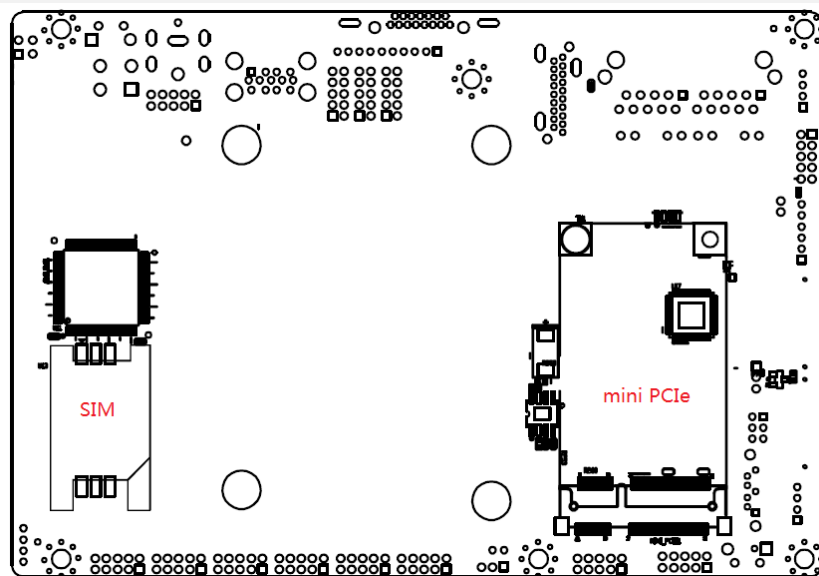
MIN-EC06

主板接口图

下图为主板的接口图。安装设备时，请对照此示意图并详细阅读下面的说明，安装组件过程中必须小心，对于有些部件，如果安装不正确，设备将不能正常工作。



正面接口



反面接口

MIN-EC06

2.2 硬件安装

▲ 本主板关键元器件都是集成电路，而这些元件很容易因为遭受静电的影响而损坏。因此，请在正式安装主板之前，请先做好以下的准备：

1. 拿主板时手握板边，尽可能不触及元器件和插头插座的引脚。
2. 接触集成路元件（如 CPU、RAM 等）时，最好戴上防静电手环/手套。
3. 在集成电路元件未按装前，需将元件放在防静电垫或防静电袋内。
4. 在确认电源的开关处于断开位置后，再插上电源插头。

2.3 跳线功能设置

在进行硬件设备安装之前请按照您的需要对相应的跳线进行设置。

提示：如何识别跳线、接口的第 1 针脚，观察插头插座旁边的文字标记，会用“1”、加粗的线条、圆点或三角符号表示；若为插针，第 1 脚背面一般为方型焊盘。

JCC1，清除 cmos 设置，2.0mm 间距 1*2pin 插针



设置	功能
1-2 开路	正常工作状态(Default)
1-2 短路	清除 CMOS 内容，所有 BIOS 设置恢复成出厂值。

JP5，屏工作电压选择，2.0mm 间距 1*3 插针



设置	功能
1-2 短路	+3.3V
2-3 短路	+5V

JP6，屏背光电压选择，2.0mm 间距 1*3 插针



设置	功能
1-2 短路	+12V

2-3 短路	+5V
--------	-----

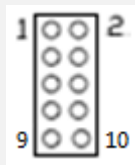
JP7, 自动上电选择, 2.0mm 间距 1*3 插针



设置	功能
1-2 短路	按键开机
2-3 短路	自动上电

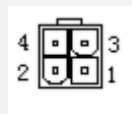
2.4 插针接口定义

CN2/ CN3/ CN4, USB 插针, 2.0mm 间距 2*5 插针



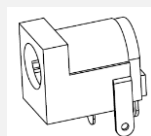
管脚	信号名称	管脚	信号名称
1	+5V	2	+5V
3	USB1_Data-	4	USB2_Data-
5	USB1_Data+	6	USB2_Data+
7	GND	8	GND
9	GND	10	GND

ATX_CONN, 系统供电, ATX2*2 插针



管脚	信号名称
1	GND
2	GND
3	+12V
4	+12V

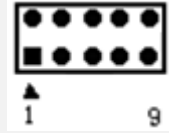
DC_jack1, 系统供电, 外径 5.5mm 内径*2.5mm 圆头



管脚	信号名称
外径	GND
内径	+12V

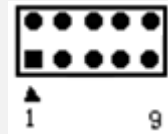
MIN-EC06

COM1~COM6, RS232串口, 2.0mm间距2*5插针



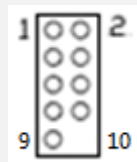
管脚	信号名称
1	DCD#
2	RXD
3	TXD
4	DTR#
5	GND
6	DSR#
7	RTS#
8	CTS#
9	RI#

COM1~COM2, RS422/485串口, 2.0mm间距2*5插针



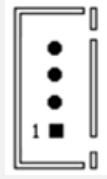
管脚	RS-422	RS-485
1	TXD-	Data-
2	TXD+	Data+
3	RXD+	NC
4	RXD-	NC
5	GND	GND
6	NC	NC
7	NC	NC
8	NC	NC
9	NC	NC
10	NA	NA

F_PANEL, 前面板状态接口, 2.0mm 间距 2*5 插针



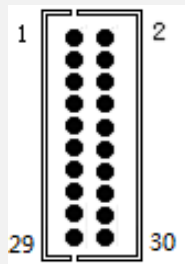
管脚	信号名称	管脚	信号名称
1	HDD LED+	2	PW LED+
3	HDD LED-	4	PW LED-
5	GND	6	PW Button
7	RESET	8	GND
9	--	10	--

SATA 电源接口, 2.0mm 间距 1*4 带框插针



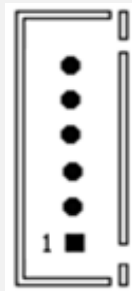
管脚	信号名称
1	12V
2	GND
3	GND
4	5V

LVDS 接口，1.0mm 间距 2*15 带框插针



管脚	信号名称	管脚	信号名称
1	VDD	2	VDD
3	VDD	4	NC
5	GND	6	GND
7	LVDS0_D0-	8	LVDS0_D0+
9	LVDS0_D1-	10	LVDS0_D1+
11	LVDS0_D2-	12	LVDS0_D2+
13	GND	14	GND
15	LVDS0_CLK-	16	LVDS0_CLK+
17	LVDS0_D3-	18	LVDS0_D3+
19	LVDS1_D0-	20	LVDS1_D0+
21	LVDS1_D1-	22	LVDS1_D1+
23	LVDS1_D2-	24	LVDS1_D2+
25	GND	26	GND
27	LVDS1_D3-	28	LVDS1_D3+
29	LVDS1_CLK-	30	LVDS1_CLK+

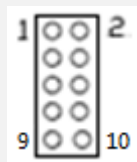
LVDS_CN1，背光控制，2.0mm 间距 1*6 带框插针



管脚	信号名称
1	VCC
2	VCC
3	BK EN (背光使能)
4	BK PWM
5	GND
6	GND

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AUDIO, 音频接口, 2.0mm间距2*5插针



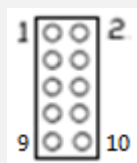
管脚	信号名称	管脚	信号名称
1	MIC L	2	GND
3	MIC R	4	PRESENCE
5	Line out R	6	MIC-JD
7	NC	8	NC
9	Line out L	10	LINE-JD

SPK, 音频功放接口, 2.0mm 间距 1x4pin 插针



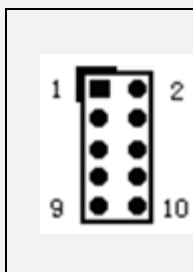
管脚	信号名称
1	AMP L+
2	AMP L-
3	AMP R-
4	AMP R+

AUDIO, 音频接口, 2.0mm间距2*5插针



管脚	信号名称	管脚	信号名称
1	MIC L	2	GND
3	MIC R	4	PRESENCE
5	Line out R	6	MIC-JD
7	NC	8	NC
9	Line out L	10	LINE-JD

CN6, GPIO 接口, 2.0mm 间距 2*5 插针



管脚	信号名称	管脚	信号名称
1	GPIO 0	2	5v
3	GPIO 1	4	GPIO 5
5	GPIO 2	6	GPIO 6
7	GPIO 3	8	GPIO 7
9	GPIO 4	10	GND

第三章BIOS程序设置

AMI BIOS 刷新

BIOS 提供对硬件资源的底层驱动，是联系硬件和操作系统的桥梁。现在硬件和各种应用软件不断更新，当您的系统遇到问题时，例如系统不支持最新公布的 CPU 时，就需要升级您的 BIOS 了。

AFUDOS.EXE 是主板上装载 BIOS 资料的 FLASHIC 的读写程序，须要在 DOS 环境下操作。

请用一张系统启动盘启动系统进入纯 DOS 环境，然后使用 AFUDOS.EXE 程序把您用来升级的 BIOS 资为（例如是 XXXX.ROM）写入到 FLASHIC 里。

具体操作指令为：

A:\Afudos XXXX.rom

如果您需要在指令后面加其他参数，请在上述指令后加：空格/?

例如：Afudos 6872T0000.rom/P/B/C/N/X

注意：

- 1、升级 BIOS 只在遇到问题，必要的时候进行。
- 2、升级 BIOS 请使用我们驱动光盘内所附的 BIOS 读写程序，或者在相关网站下载更新版本的程序。
- 3、在升级过程中不要关闭电源或重新启动系统，这亲您的 BIOS 资料将被损坏，系统也可能不能启动。
- 4、为防止意外发生，请您先备份当前的 BIOS 资料。

AMI BIOS 描述

开机时，BIOS 会对主板上的硬件进行自我诊断，设定硬件时序参数等工作，最后才将系统控制权交给操作系统。BIOS 是硬件和软件的沟通桥梁，如何正确的设定 BIOS 参数对系统是否稳定的工作及系统是否工作在最佳状态至关重要。

进入 BIOS 参数设置：

电脑开机，在完成自我诊断后，屏幕上会显示出如下信息：Del->SETUP，此时您点击一下 Del 键，则 BIOS 在完成 IDE 等设备的侦测后会自动转入 SETUP 设置画面。

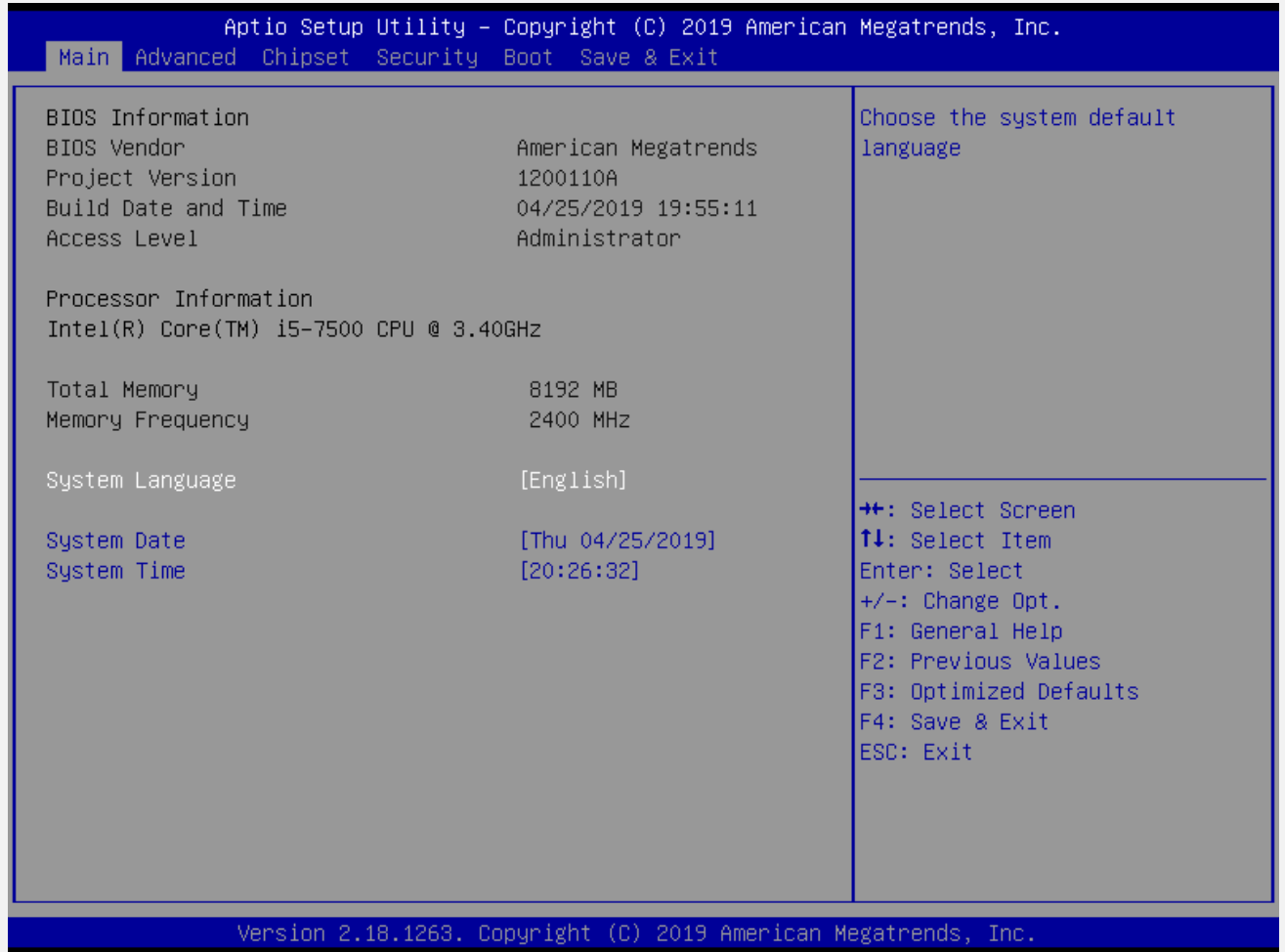
1. 打开系统电源或重新启动系统，显示器屏幕将出现自我测试的信息；
2. 当屏幕中间出现“Pressto enter setup”提示时，按下键，就可以进入 BIOS 设定程序；
3. 以方向键移动至您要修改的选项，按下<Enter>键即可进入该选项的子画面；
4. 使用方向键及<Enter>键即可修改所选项目的值，按回车键选择 BIOS 选项并修改；
5. 任何时候按下<Esc>键即可回到上一画面。

一、Setup Utility User Interface

This document describes BIOS Setup Utility user interface.

1.1 Main Screen

The Main screen is the first screen that is displayed when the BIOS Setup is entered.

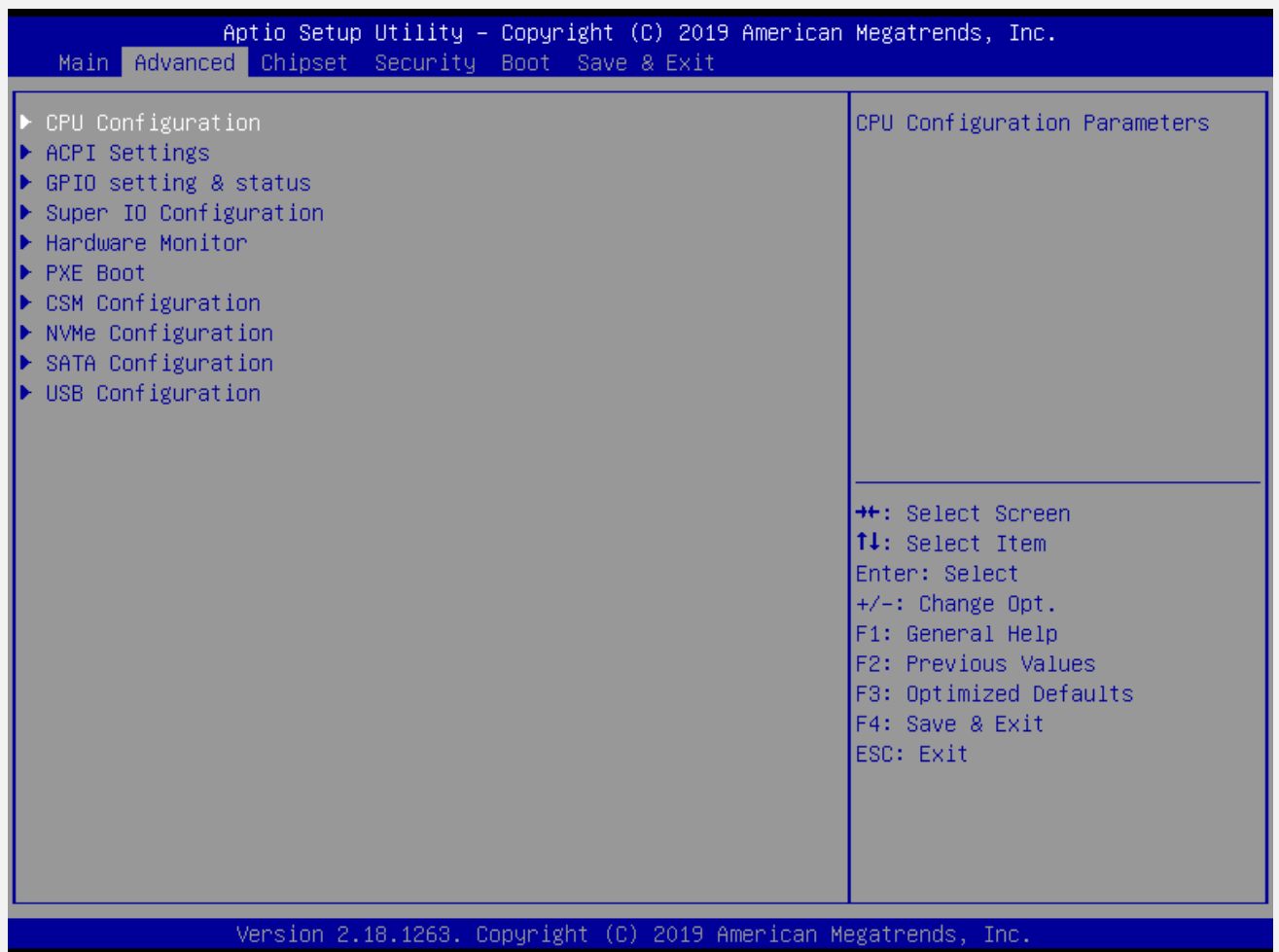


Setup Item	Options	Help Text	Comments
BIOS Information			
BIOS Vendor			Displays BIOS vendor
Project Version			Displays the current BIOS version: Format: AAAABBC AAAAA = Project name BB = BIOS revision C = Customer number
Build Date and Time			Displays the current BIOS build date.
Access Level			Displays password level that setup is running in: Administrator or User. With no passwords set, Administrator is the default mode.
Process Information			
CPU XXXXX			Displays the CPU BrandString installed in the system

Setup Item	Options	Help Text	Comments
Memory Information			
Total Memory			Displays the total physical memory installed in the system, MB Unit
Memory Frequency			Displays Memory Frequency
System Language	English	Choose the system default language	
System Date	[Day of week MM/DD/YYYY]	Set and display the Date..	
System Time	[HH:MM:SS]	Set and display the Time.	

1.2 Advanced Screen

The Advanced screen provides an access point to configure several options. On this screen, the user selects the option that is to be configured.



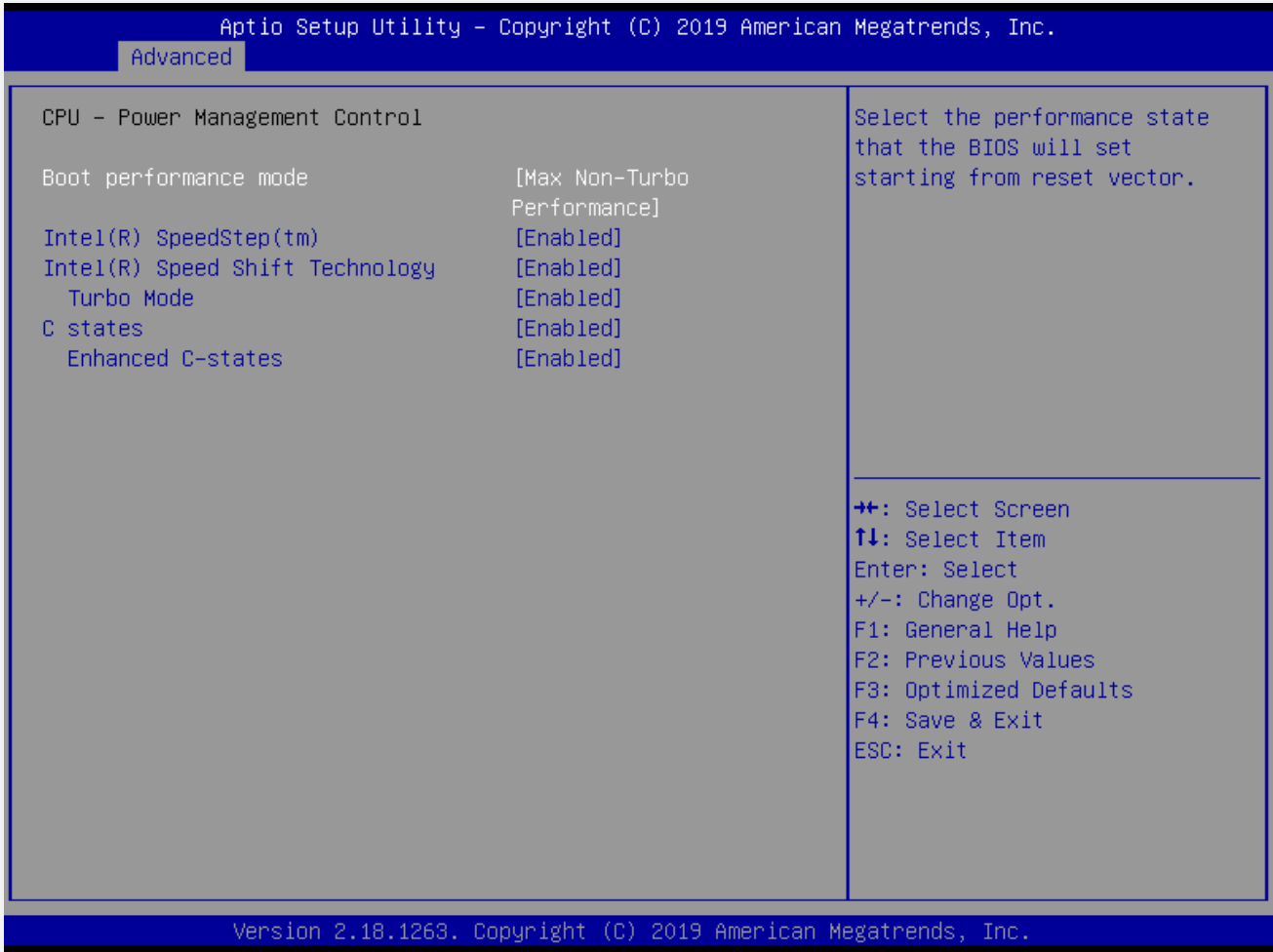
Setup Item	Options	Help Text	Comments
CPU Configuration		CPU Configuration Parameters	
ACPI Settings		System ACPI Parameters	
GPIO Setting &Status		GPIO Setting & Status	
Super IO Configuration		System Super IO chip Parameters	
Hardware Monitor		Monitor hardware stats	
PXE Boot		On board LAN PXE boot setting	
CSM Configuration		CSM configuration: Enable/Disable, Option ROM execution settings, etc.	
NVMe Configuratioin		NVMe Device Options Settings	
SATA Configuration		SATA Devices Configuration	
USB Configuration		USB Configuration Parameters.	

1.2.1 CPU Configuration Screen

The CPU Configuration screen allows the user to view the processor information, and to enable or disable processor options. To access this screen from the Main screen, choose **Advanced > CPU Configuration**.

CPU Configuration		To turn on/off the MLC streamer prefetcher.
Type	Intel(R) Core(TM) i5-7500 CPU @ 3.40GHz	
ID	0x906E9	
Speed	3400 MHz	
VMX	Supported	
SMX/TXT	Supported	
Hardware Prefetcher	[Enabled]	
Adjacent Cache Line Prefetch	[Enabled]	
Intel (VMX) Virtualization Technology	[Enabled]	
Active Processor Cores	[All]	
▶ CPU - Power Management Control		

⇧⇧: Select Screen
 ↑↓: Select Item
 Enter: Select
 +/-: Change Opt.
 F1: General Help
 F2: Previous Values
 F3: Optimized Defaults
 F4: Save & Exit
 ESC: Exit



Setup Item	Options	Help Text	Comments
CPU Configuration			
CPU Speed			
VMX			
SMX/TXT			
Hardware Prefetcher	Enabled Disabled	To turn on/off the MLC streamer prefetcher	
Adjacent Cache line Prefetch	Enabled Disabled	To turn on/off prefetching of adjacent cache lines	
Intel(VMX) Technology	Enabled Disabled	When enabled,a VMM can utilize the additional hardware capabilities provided by vanderpool technology	
Active Processor Cores	All 1 2 3	Number of cores to enable in each processor package	

Setup Item	Options	Help Text	Comments
CPU Power Management control			
Boot performance mode	Max Non-Turbo Max battery Turbo Performance	Select the performace state that the BIOS will set starting from reset vector	
Intel® speedStep™	Enabled Disabled	Allows more than two frequency ranges to be supported	
Intel® speed shift technology	Enabled Disabled	Enable/Disable Intel® speed shift technology support	
C states	Enabled Disabled	Enable/Disable CPU Power Management. Allows CPU to go to Cstates when it's not 100% utilized.	

1.2.2 ACPI Settings Screen

The ACPI Settings screen allows the user to set the system ACPI parameters.

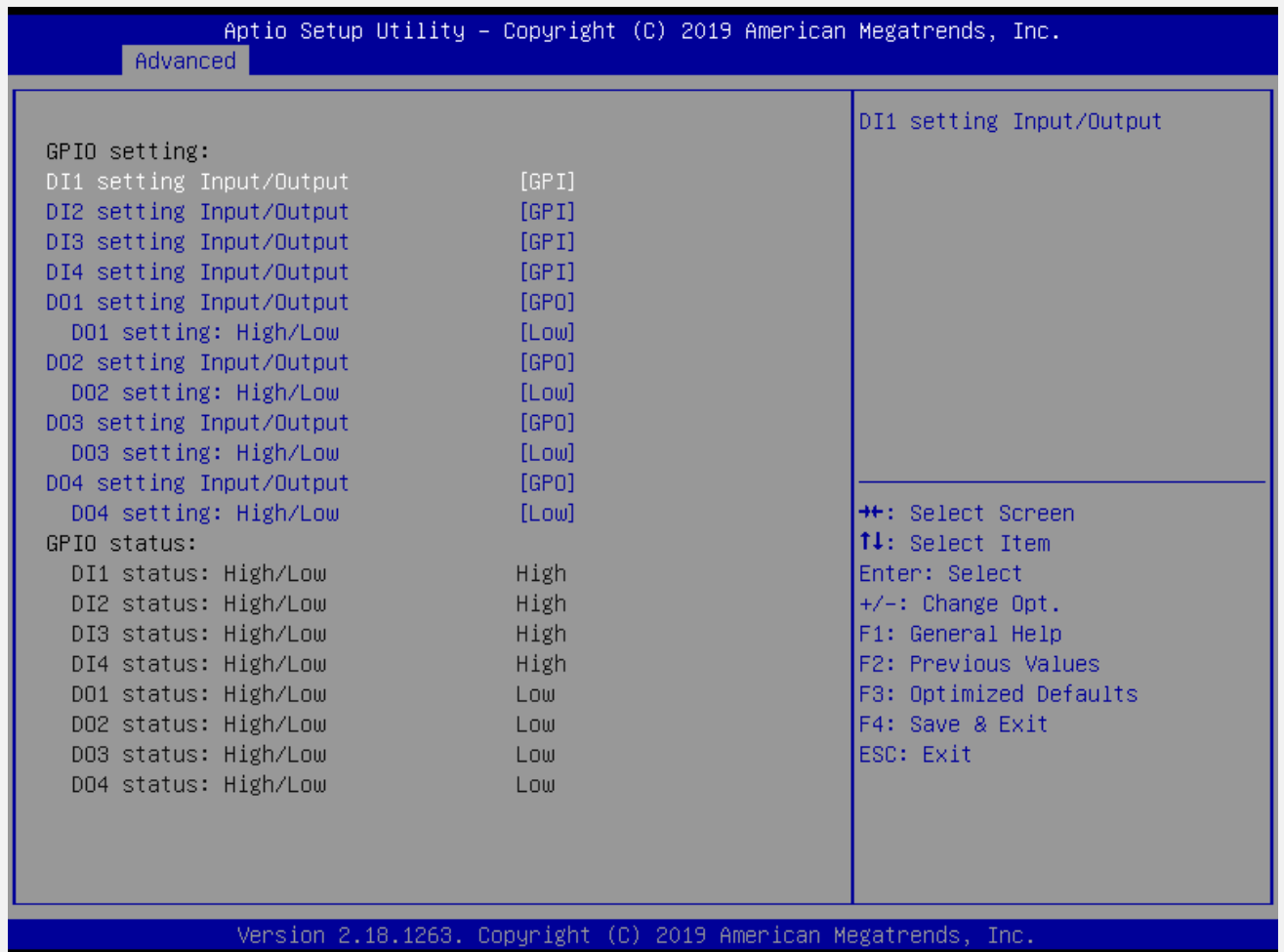
To access this screen from the Main screen, choose **Advanced > ACPI Settings**.



Setup Item	Options	Help Text	Comments
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.	Sleep supported optionally.

1.2.3 GPIO Setting &Status

The GPIO Setting &Status screen allows the user to setting GPIO and view GPIO status. To access this screen from the Advanced screen, choose **Advanced > GPIO Setting &Status**.

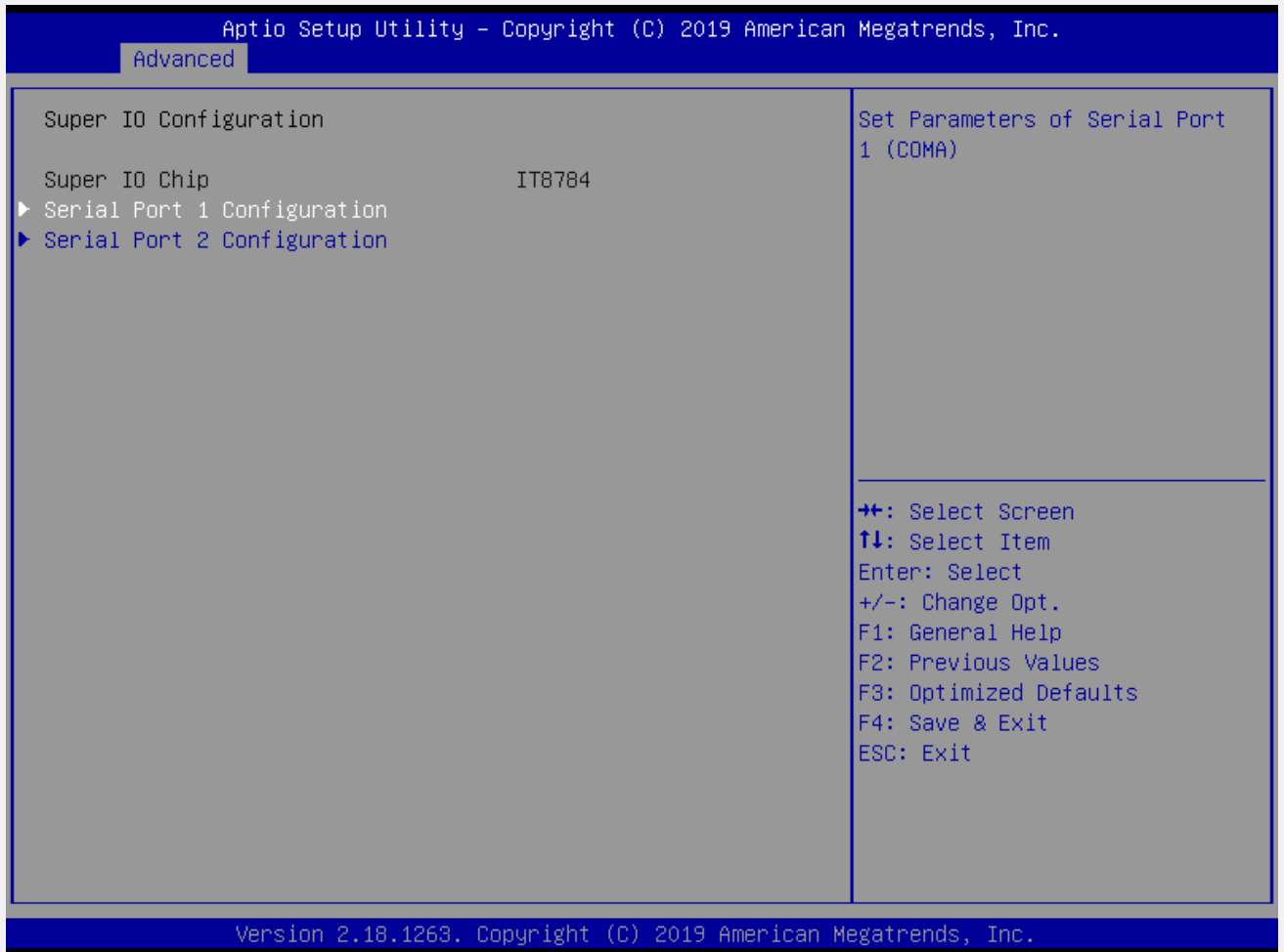


Setup Item	Options	Help Text	Comments
GPIO setting:			

Setup Item	Options	Help Text	Comments
DIx Setting Input/Output	GPI GPO	Setting GPIO input or output	Default setting GPI
DOx Setting Input/Output	GPI GPO	Setting GPIO input or output	Default setting GPO
DOx Setting High/Low	HIGH LOW	Setting GPIO output high or low	
GPIO status:			
DIx status:High/Low	HIGH LOW		Display GPIO status
DOx status:High/Low	HIGH LOW		

1.2.4 Super IO Configuration

The Super IO Configuration screen allows the user to view the super IO information, and to enable or disable super IO options. To access this screen from the Advanced screen, choose **Advanced > Super IO Configuration**.



Setup Item	Options	Help Text	Comments
Serial Port 1 Configuration			Set Parameters of Serial Port 1 (COM1)
Serial Port 2 Configuration			Set Parameters of Serial Port 2 (COM2)

1.2.4.1 Serial PortX Configuration

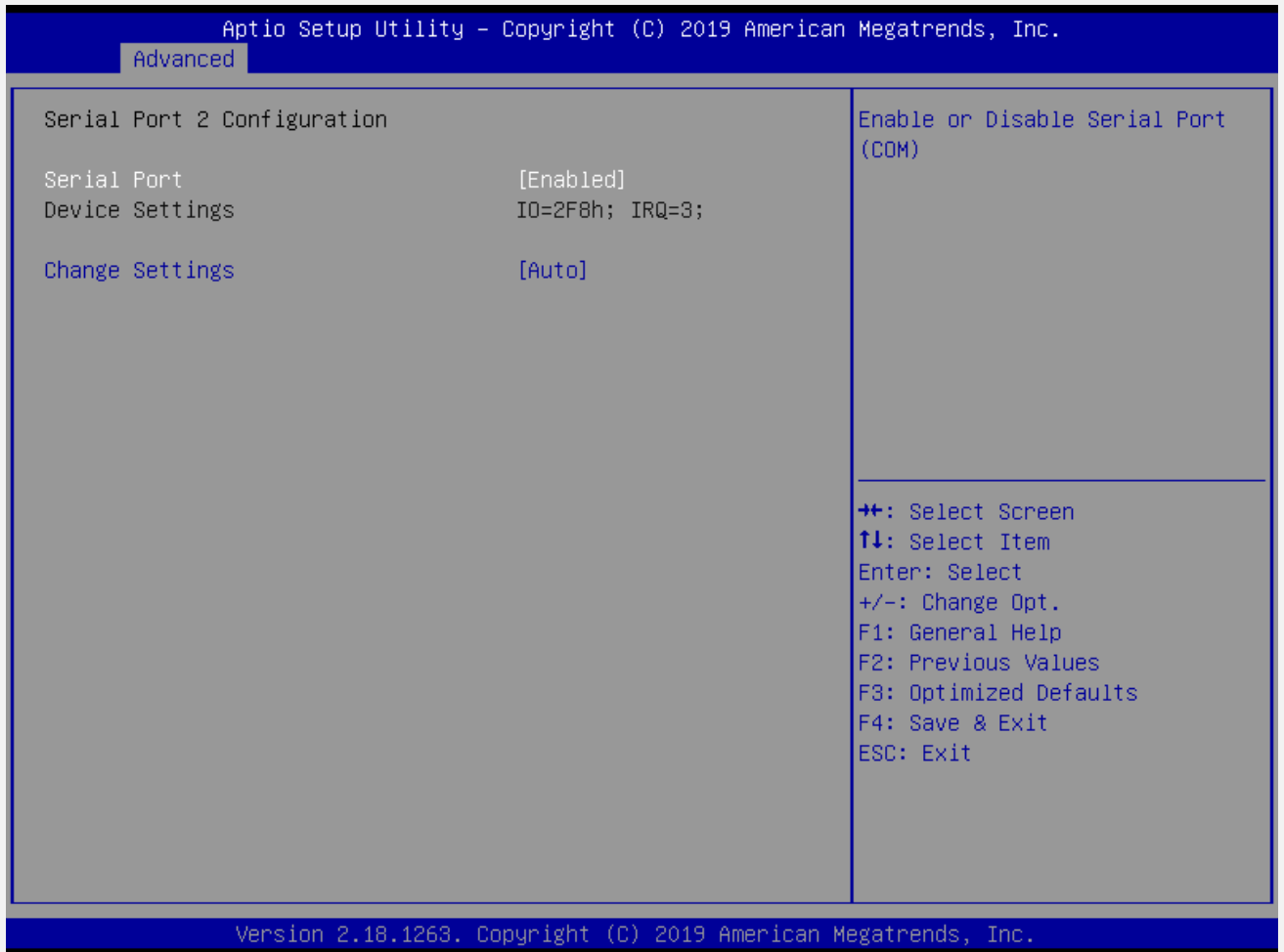
The Super IO Configuration screen allows the user to view the super IO information, and to enable or disable serial port options. To access this screen from the Advanced screen, choose **Advanced-> Super IO Configuration->Serial PortX Configuration**

Serial Port 1 Configuration

Serial Port [Enabled]
Device Settings ID=3F8h; IRQ=4;
Change Settings [Auto]

Enable or Disable Serial Port (COM)

←→: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit



Setup Item	Options	Help Text	Comments
Serial Port	Enabled/Disabled	Enable or Disable Serial Port (COM)	
Change Settings	Auto IO=3F8h; IRQ=4 IO=3F8h; IRQ=3,4,5,6,7,9,10,11,12 IO=2F8h; IRQ=3,4,5,6,7,9,10,11,12 IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12 IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12	Select an optimal settings for Super IO Device	

1.2.5 Hardware Monitor

The hardware monitor screen allows the user to view the hardware information. To access this screen from the Advanced screen, choose **Advanced-> Hardware Monitor**

Advanced

SMART FAN Control CPU FAN Mode Setting [Automatic mode] CPU Temperature Limit of OFF 30 CPU Temperature Limit of Start 40 CPU Fan Start PWM 110 CPU Fan Slope PWM [4] SYS FAN Mode Setting [PWM Manually mode] SYS Fan PWM Control 110 Pc Health Status CPU temperature : +50 ℃ SYS temperature : +26 ℃ CPU Fan Speed : 1713 RPM GPU Fan Speed : 1800 RPM VCORE : +1.034 V 1P2V_DDR : +1.221 V +12VS : +12.144 V +5VS : +4.983 V +3VS : +3.308 V VSB3V : +3.344 V VBAT : +3.102 V	CPU FAN Configuration ++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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Setup Item	Options	Help Text	Comments
PC Health Status			
CPU Fan Mode Setting	Automatic mode Manual mode	CPU Fan control mode select.	When Manual mode selected, Manual PWM Setting shows to set FAN PWM Duty.
SYS Fan Mode Setting	Automatic mode Manual mode	SYS Fan control mode select.	When Manual mode selected, Manual PWM Setting shows to set FAN PWM Duty.
CPU temperature		Shows Current CPU temperature.	NOTE1: Sometimes not the actual temperature value, just indicates temperature tolerance limitation.
System temperature		Shows current system temperature.	
CPU Fan Speed			HW Information.
GPU Fan Speed			
VCORE			
1P2V_DDR			

Setup Item	Options	Help Text	Comments
+12VS			
+5VS			
+3VS			
VSB3V			
VBAT			

1.2.6 PXE Boot

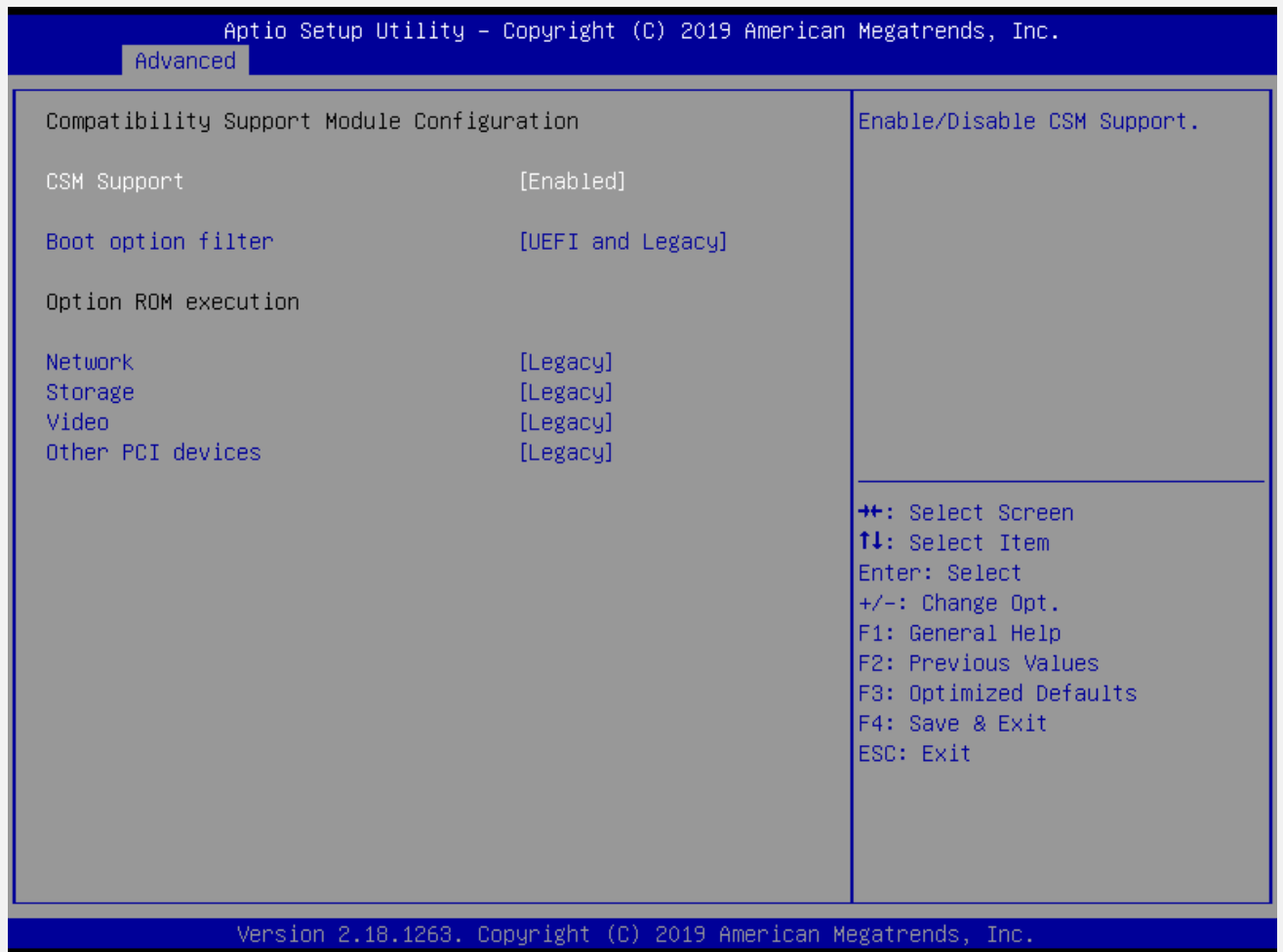
The PXE Boot screen allows the user to set boot from on board LAN or not. To access this screen from the Advanced screen, choose **Advanced-> PXE Boot**



Setup Item	Options	Help Text	Comments
LAN PXE Function Support	Disabled LAN1 PXE LAN2 PXE	Legacy PXE support Control	

1.2.7 CSM Configuration

The CSM Configuration screen allows the user to view the CSM information, and to enable or disable CSM options. To access this screen from the Main screen, choose **Advanced > CSM Configuration**.

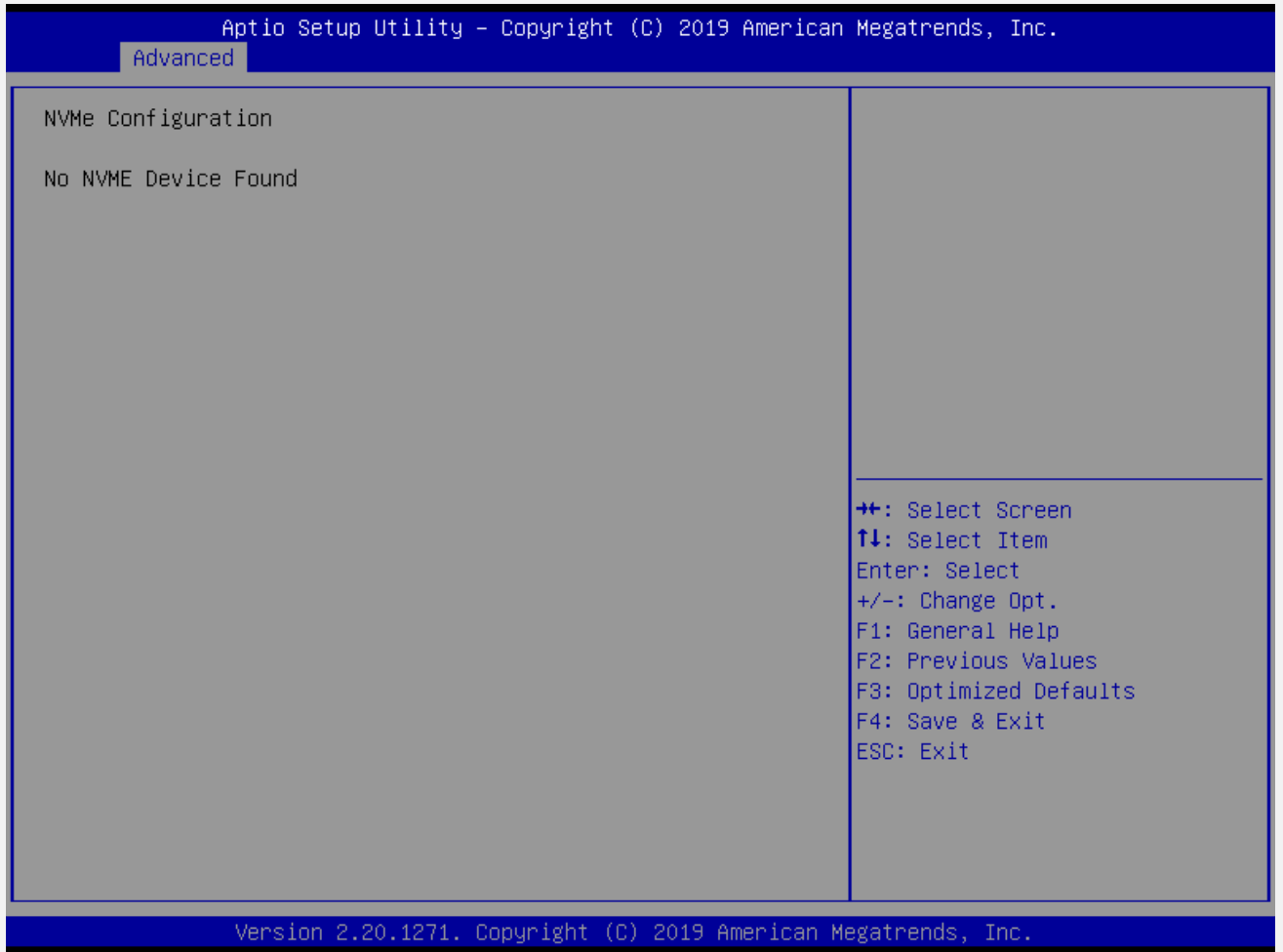


Setup Item	Options	Help Text	Comments
CSM Configuration			

Setup Item	Options	Help Text	Comments
CSM Support	Enabled Disabled	Enable / Disable CSM support	
Boot option filter	UEFI and Legacy Legacy only UEFI only	This option control Legacy/UEFI ROMs priority	
Network	Legacy UEFI Do not lunch	Control the execution of UEFI and Legacy PXE OpROM	
Storage	Legacy UEFI Do not lunch	Control the execution of UEFI and Legacy Storage OpROM	
Video	Legacy UEFI Do not lunch	Control the execution of UEFI and Legacy video OpROM	
Other PCI devices	Legacy UEFI Do not lunch	Determines OpROM execution policy for devices other than Network,Storage or video	

1.2.8 NVMe Configuration

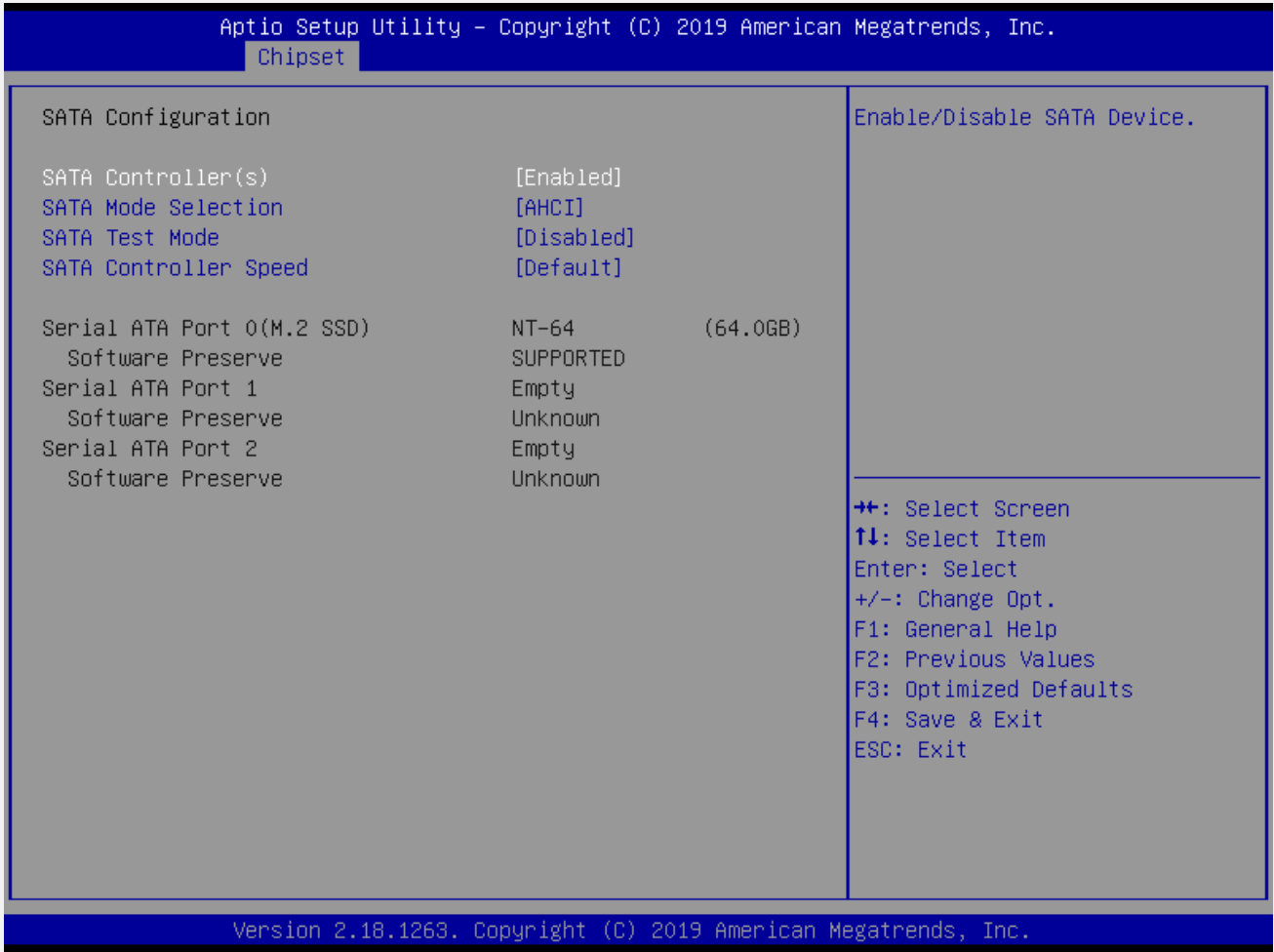
The NVMe Configuration screen allows the user to view the NVMe device information. To access this screen from the Main screen, choose **Advanced > NVMe Configuration**.



Setup Item	Options	Help Text	Comments
Controller 0			Show NVMe device information connected.

1.2.9 SATA Configuration

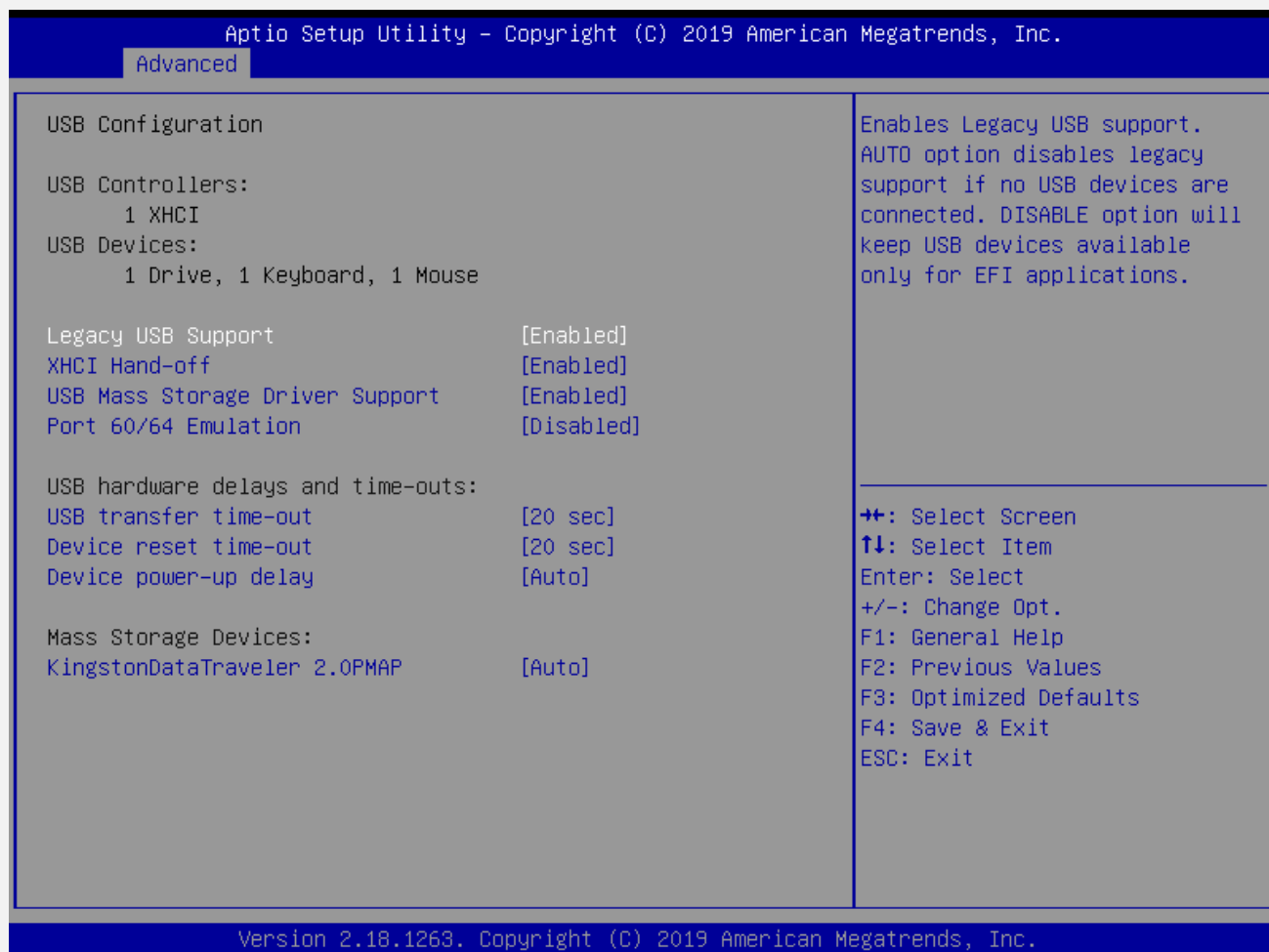
The SATA Configuration screen allows the user to view the SATA Controller information, and to enable or disable SATA Controller options. To access this screen from the Main screen, choose **Advanced > SATA Configuration**.



Setup Item	Options	Help Text	Comments
SATA Configuration			
SATA Controller(s)	Enabled Disabled	Enable / Disable SATA Device.	
SATA Mode	AHCI Mode	Select AHCI	
SATA Controller Speed	Default Gen1 Gen2 Gen3	SATA port speed settings.	
Serial ATA Port 0			Show HDD information connected.
Serial ATA Port 1			
Serial ATA Port 2			

1.2.10 USB Configuration

The USB Configuration screen allows the user to view the USB Configuration information, and to enable or disable options. To access this screen from the Main screen, choose **Advanced > USB Configuration**.

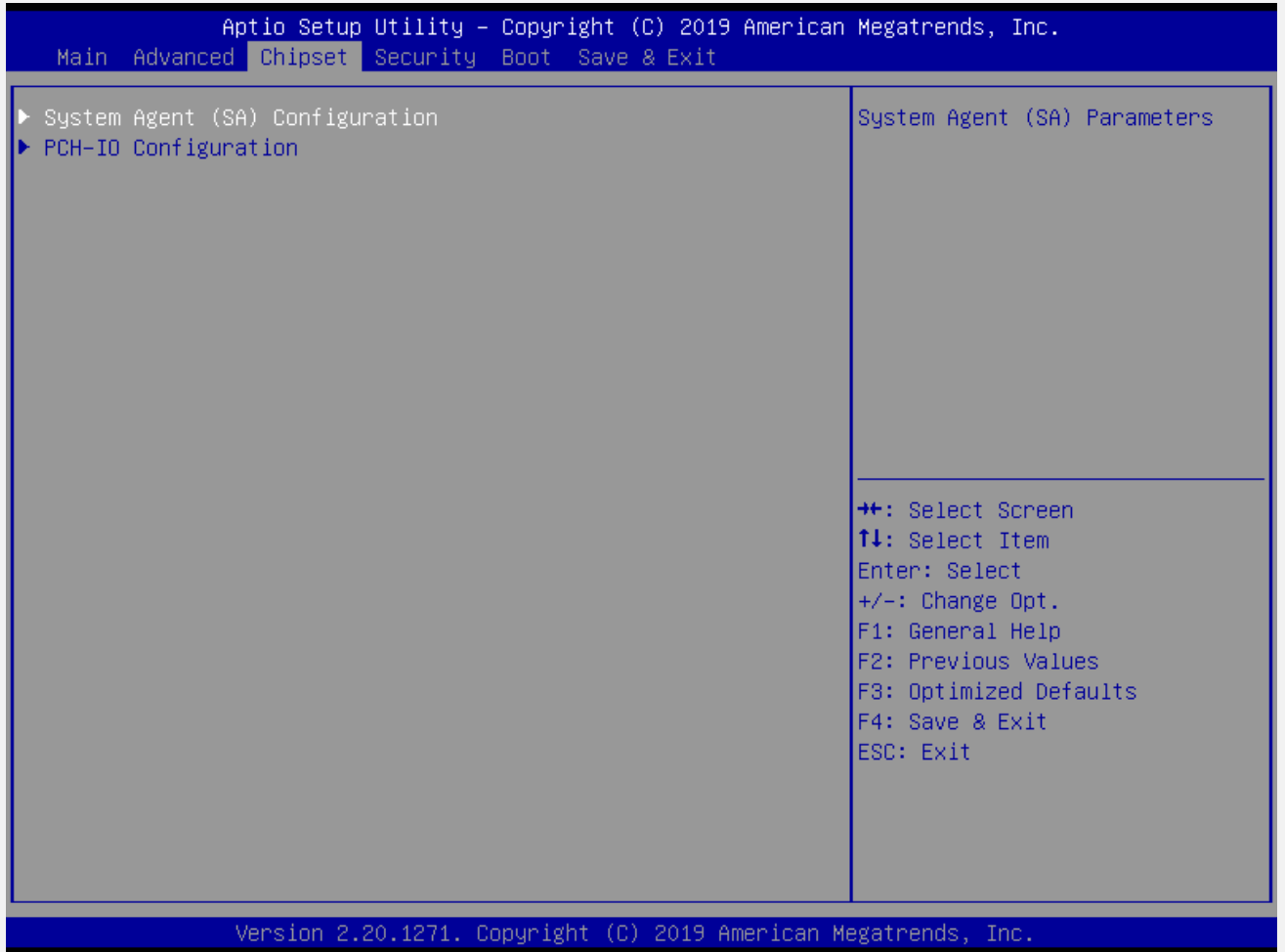


Setup Item	Options	Help Text	Comments
Legacy USB Support	Enabled Disabled	Enables Legacy USB support. AUTO option disables legacy support if no USB devices are connected. DISABLE option will keep USB devices available only for EFI applications.	
XHCI Hand-off	Enabled Disabled	This is a workaround for OSeS without XHCI hand-off support. The XHCI ownership change should be claimed by XHCI driver.	

Setup Item	Options	Help Text	Comments
USB MASS Storage Driver	Enabled Disabled	Enable/Disable USB Mass Storage Driver Support.	
USB hardware delays and time-outs:			
USB transfer time-out	1 sec 5 sec 10 sec 20 sec	The time-out value for Control, Bulk, and Interrupt transfers.	
Device reset time-out	1 sec 5 sec 10 sec 20 sec	USB mass storage device Start Unit command time-out.	
Device power-up delay	Auto Manual	Maximum time the device will take before it properly reports itself to the Host Controller. 'auto' uses default value: for a Root port it is 100ms, for a Hub port the delay is taken from Hub descriptor.	

1.3 Chipset Screen

The Chipset screen provides an access point to configure North Bridge and South Bridge. To access this screen from the Main screen, press the right arrow until the **Chipset** screen is chosen.

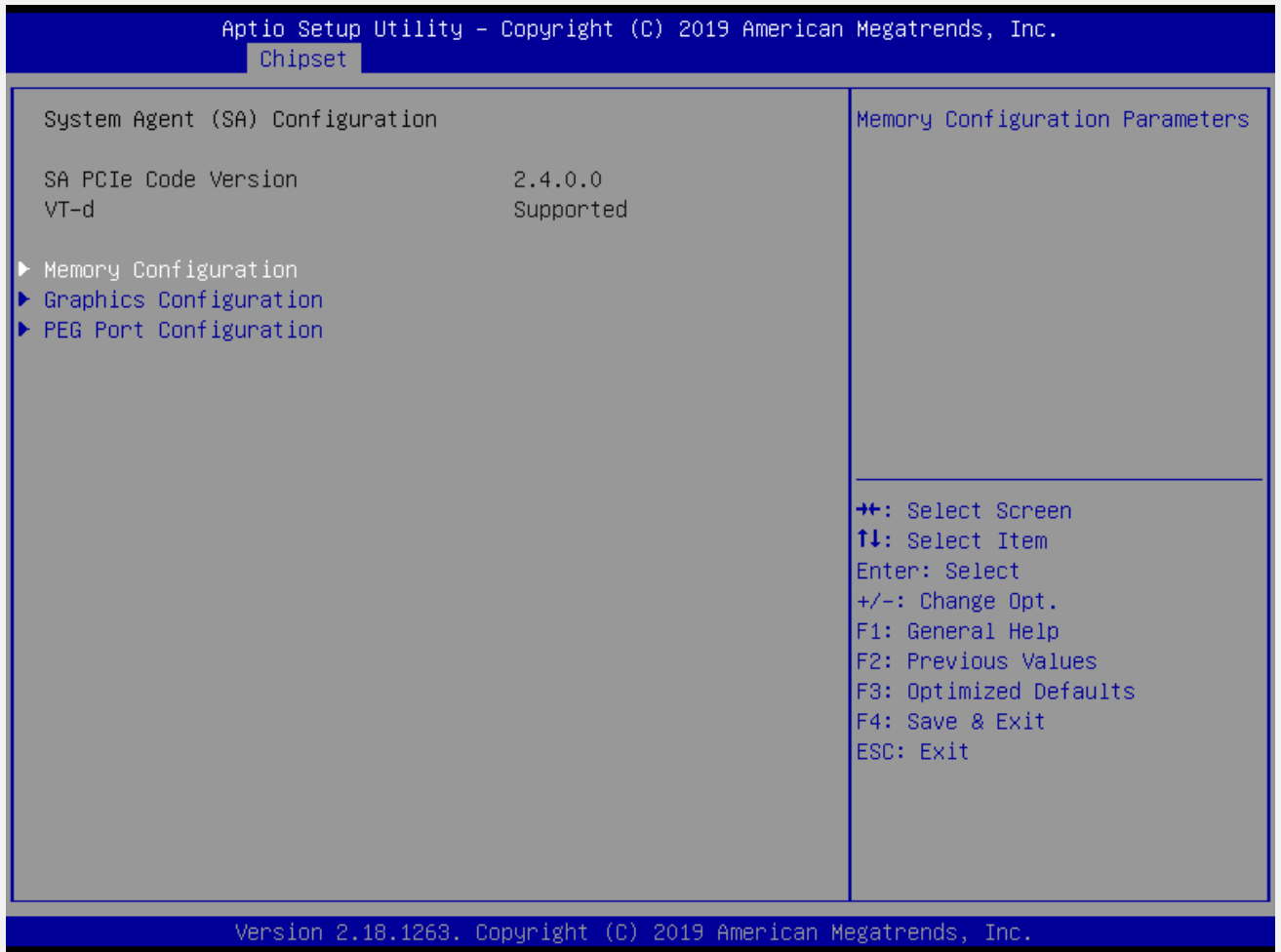


Setup Item	Options	Help Text	Comments
System Agent (SA) Configuration		System Agent (SA) Parameters	
PCH-IO Configuration		PCH Parameters	

1.3.1 System Agent (SA) Configuration

The North Bridge Screen allows user to set NB chipset configuration.

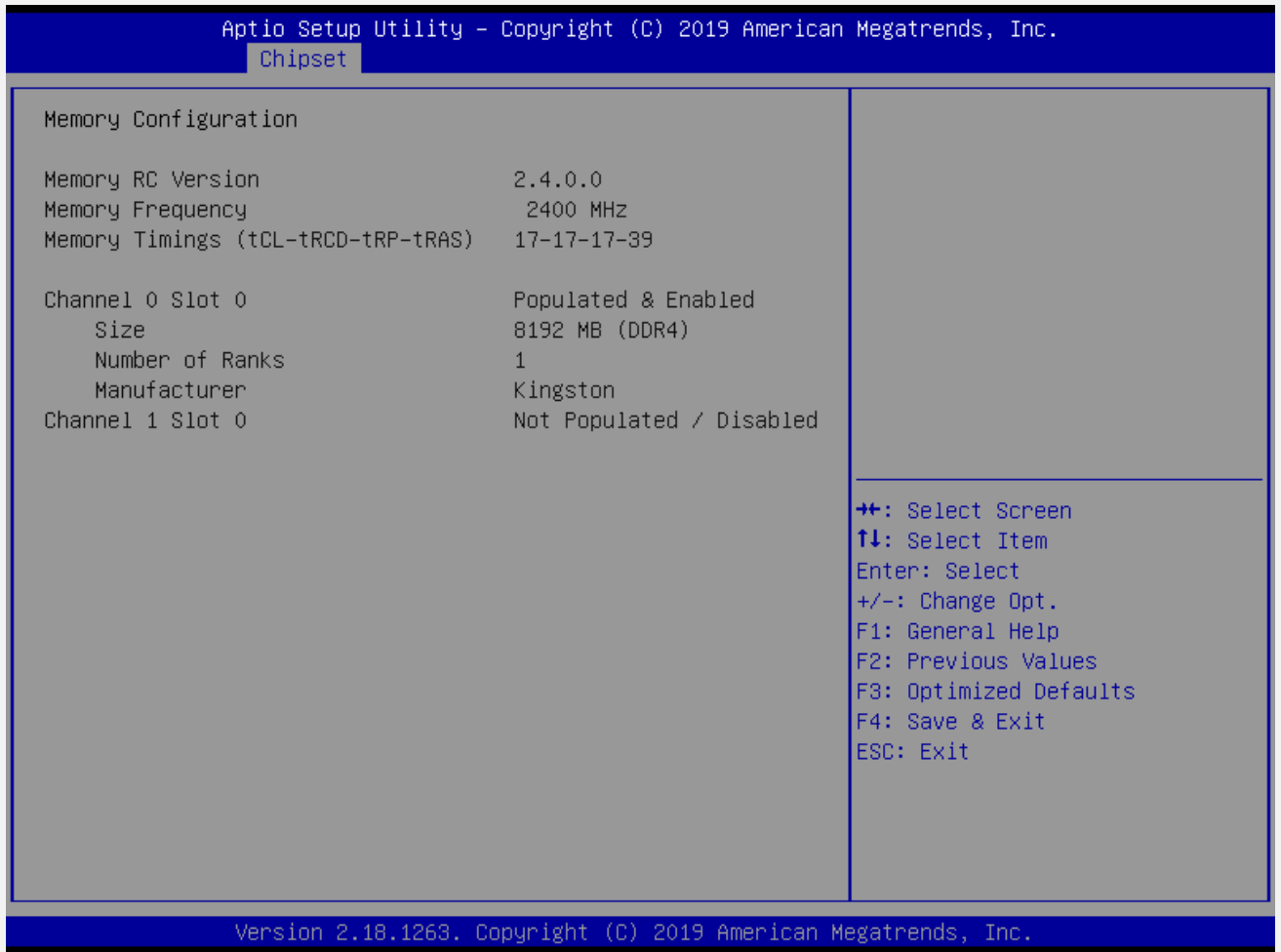
To access this screen, form the Main screen, choose **Chipset> System Agent (SA) Configuration**



Setup Item	Options	Help Text	Comments
SA PCIe Code Version			Show SA PCIe Code Version
VT-d			VT-d supported or not
Memory Configuration		Memory Configuration Parameters	
Graphics Configuration		Graphics Configuration Parameters	
PEG Port Configuration		PEG Port Configuration Parameters	

1.3.1.1 Memory Configuration

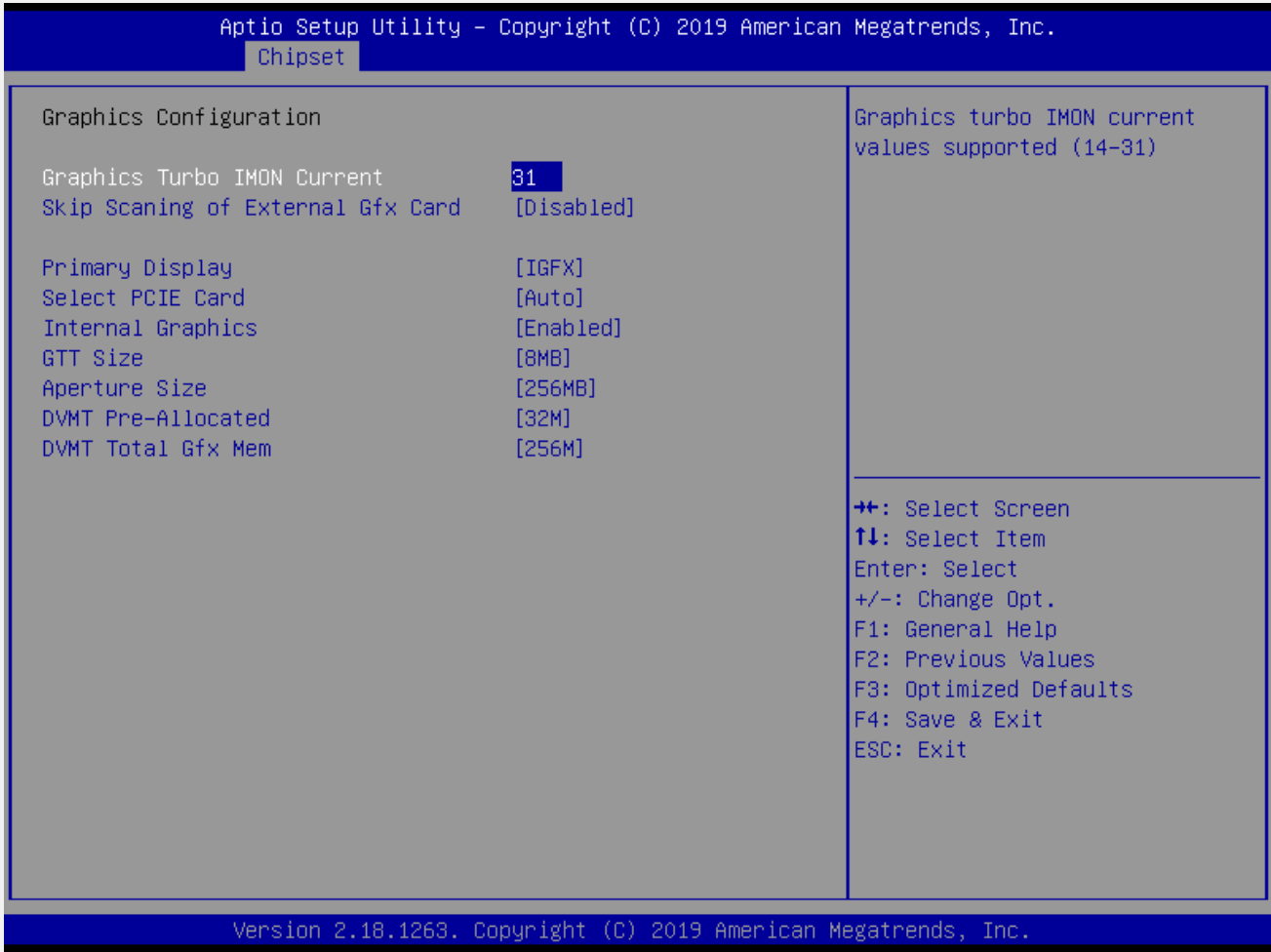
The Memory Configuration screen allows the user to view the Memory Configuration information. To access this screen, from the Main screen, choose **Chipset> System Agent (SA) Configuration>Memory Configuration**.



1.3.1.2 Graphics Configuration

The Graphics Configuration Screen allows user to set Graphics Configuration.

To access this screen, form the Main screen, choose **Chipset> System Agent (SA) Configuration>Graphics Configuration**

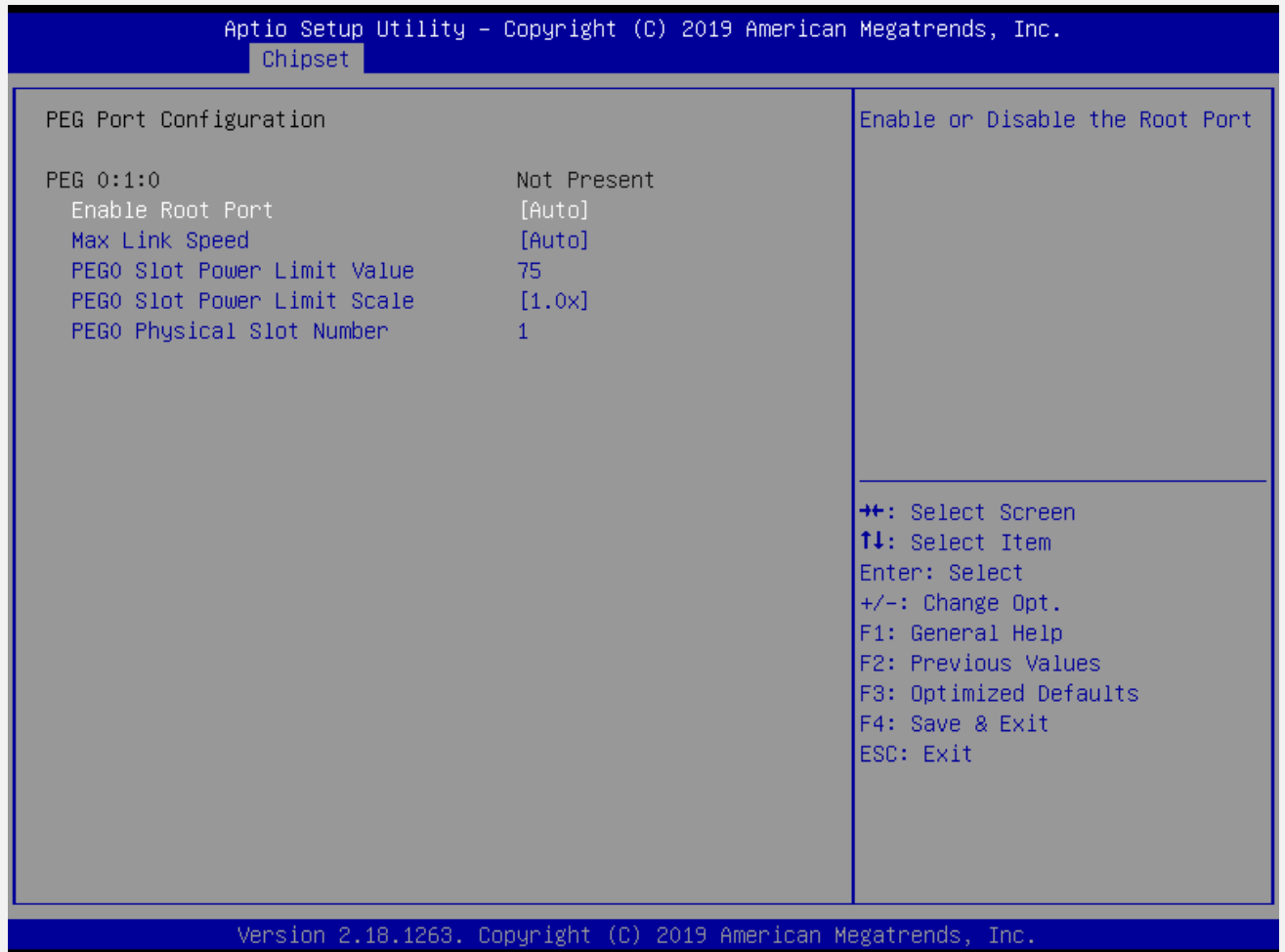


Setup Item	Options	Help Text	Comments
Internal Graphics	Auto Disabled Enabled	Keep IGFX enabled based on the setup options.	
GTT Size	2MB 4MB 8MB	Select the GTT Size	
Aperture Size	128MB 256MB 512MB 1024MB 2048MB	Select the Aperture Size. Note: Above 4GB MMIO BIOS assignment is automatically enabled when selecting 2048MB aperture. To use this feature, please disable CSM Support.	
DVMT Total Gfx Mem	128M 256M MAX	Select DVMT5.0 Total Graphic Memory size used by the Internal Graphics Device.	

1.3.1.3 PEG Port Configuration

The PEG Port Configuration Screen allows user to set PEG Port Configuration.

To access this screen, form the Main screen, choose **Chipset> System Agent (SA) Configuration>PEG Port Configuration**



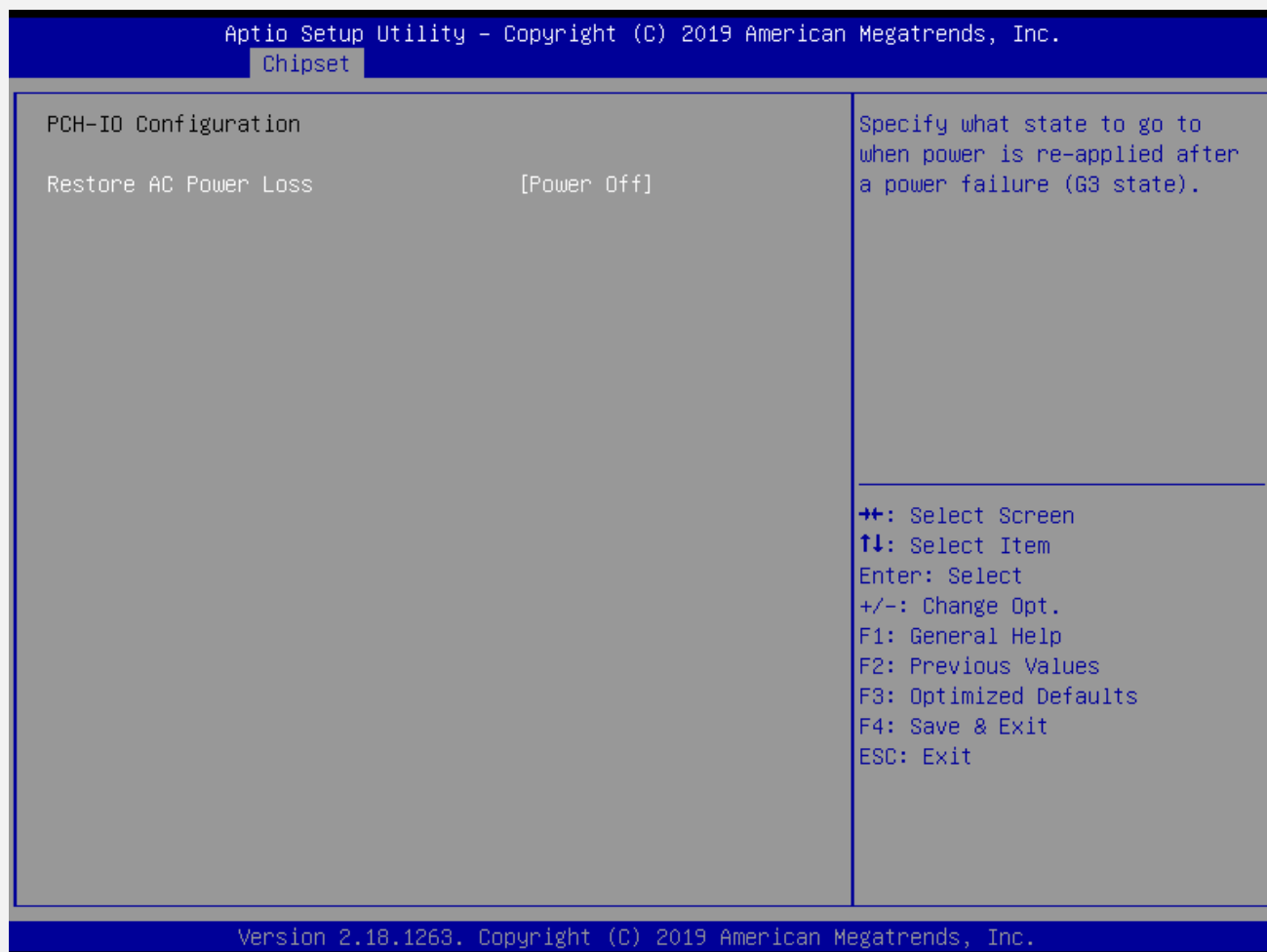
Setup Item	Options	Help Text	Comments
PEG 0:1:0		PEG 0:1:0 Link and Speed Information	
Enable Root Port	Disabled/Enabled/ Auto	Enable or Disable the Root Port	
Max Link Speed	Auto/Gen1/Gen2/Gen3	Configure PEG 0:1:1 Max Speed	

Setup Item	Options	Help Text	Comments
PEG0 Slot Power Limit Value	0-255	Sets the upper limit on power supplied by slot. Power limit (in Watts) is calculated by multiplying this value by the Slot Power Limit Scale. Values 0-255	
PEG0 Slot Power Limit Scale	1.0x/0.1x/0.01x/0.001x	Select the scale used for the Slot Power Limit Value.	
PEG0 Physical Slot Number	0-8191	Set the physical slot number attached to this Port. The number has to be globally unique within the chassis. Values 0-8191	

1.3.2 PCH-IO Configuration

The South Bridge Screen allows user to set SB chipset configuration.

To access this screen form the Main screen, choose **Chipset> PCH-IO Configuration**

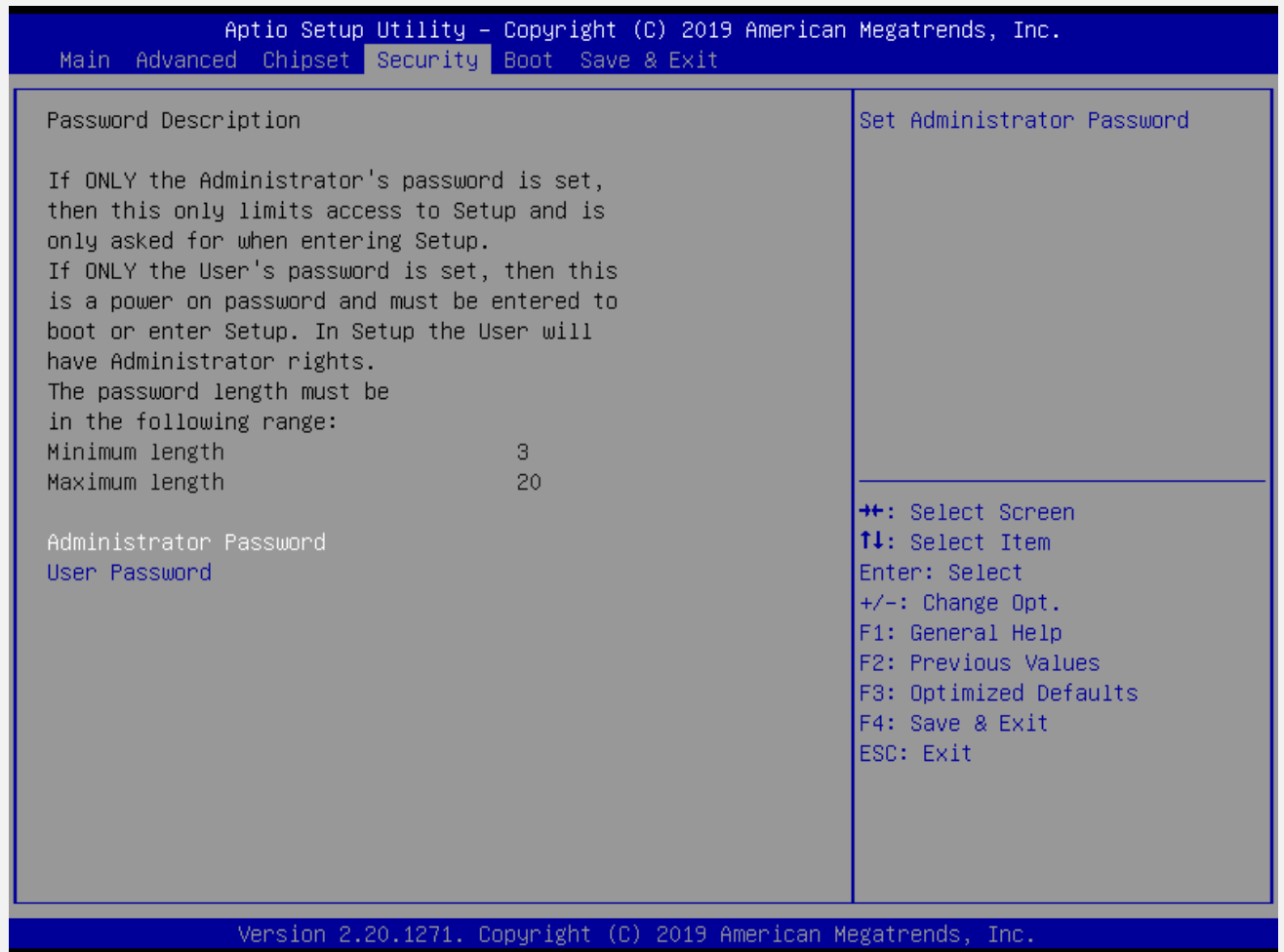


Setup Item	Options	Help Text	Comments
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AC Power Loss	Power off Power on	Select AC power state when power is re-applied after a power failure	
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1.4 Security

To access this screen from the Main screen, choose **Security**

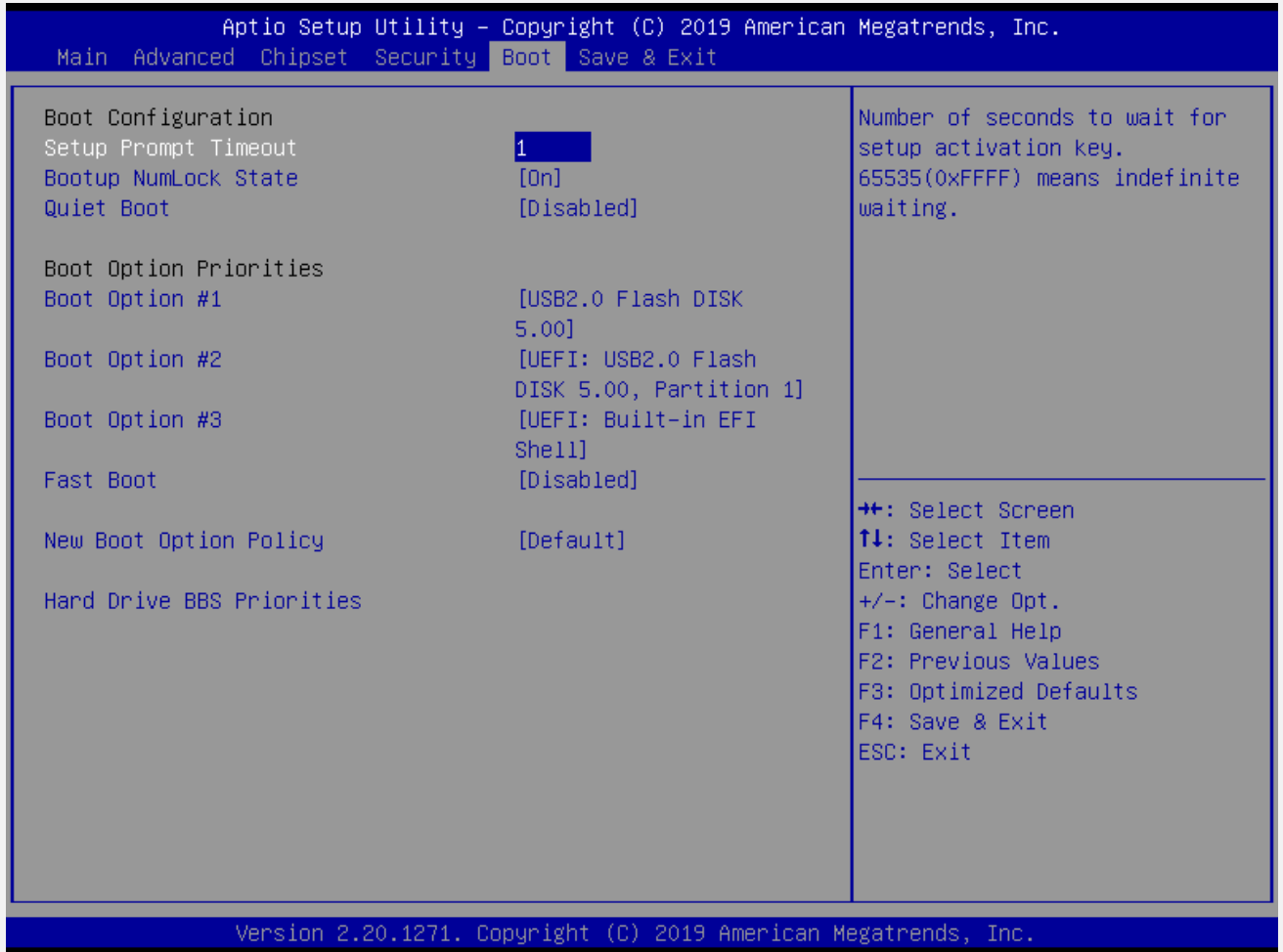


Setup Item	Options	Help Text	Comments
Administrator Password		Set Administrator Password	
User Password		Set User Password	

1.5 Boot Screen

The Boot screen displays any bootable media encountered during POST, and allows the user to configure desired boot device.

To access this screen from the Main screen, choose **Boot**.

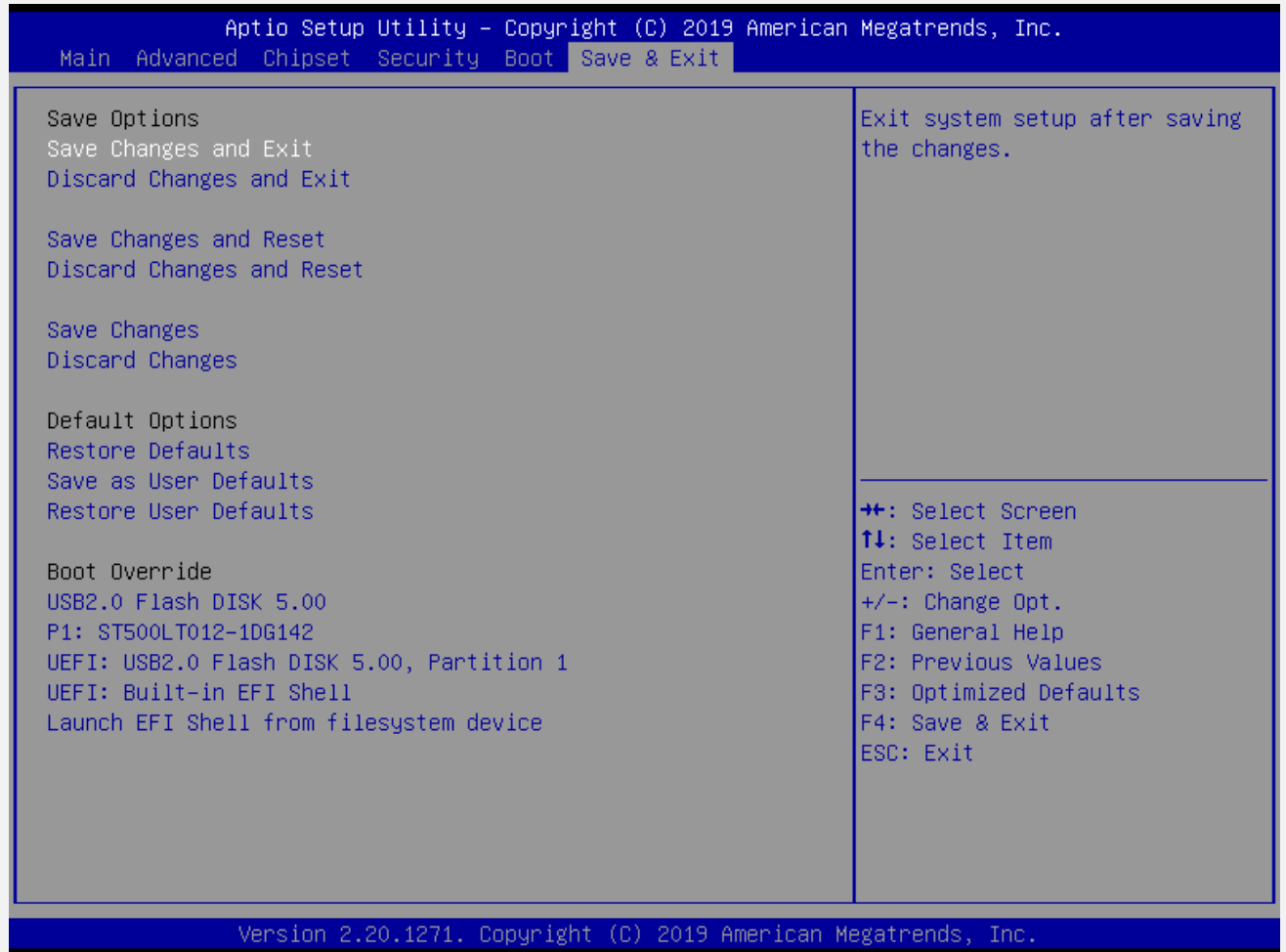


Setup Item	Options	Help Text	Comments
Boot Configuration			
Setup Prompt Timeout	1~65535	Number of seconds to wait for setup activation key.65535(0xFFFF) means indefinite waiting.	
Bootup NumLock State	On off	Select the keyboard Number state.	
Quiet Boot	Disabled Enabled	Enables or disables Quiet Boot option	
Boot Option Priorities			
Boot Option #1		Sets the system boot order	Note: Showed When boot devices existed.
Boot Option #2		Sets the system boot order	
Boot Option #3		Sets the system boot order	

Setup Item	Options	Help Text	Comments
Hard Drive BBS Priorities		Set the order of the legacy devices in this group	Set boot order in each group of the same kind, such as HDD, network.

1.6 Save & Exit Screen

The Save & Exit screen allows the user to choose whether to save or discard the configuration changes made on the other screens. It also allows the user to restore the server to the factory defaults or to save or restore them to set of user-defined default values.



Setup Item	Options	Help Text	Comments
Save Changes and Exit		Exit system setup after saving the changes.	User is prompted for confirmation only if any of the setup fields were modified.
Discard Changes and Exit		Exit system setup without saving any changes.	
Save Changes and Reset		Reset the system after saving the changes..	

Setup Item	Options	Help Text	Comments
Discard Changes and Reset		Reset system setup without saving and changes.	
Save Changes		Save Changes done so far to any of the setup options.	
Discard Changes		Discard Changes done so far to any or the setup options.	
Default Options			
Restore Defaults		Restore/Load Default values for all the setup options.	
Save as User Defaults		Save the changes done so far as User Defaults.	
Restore User Defaults		Restore the User Defaults to all the setup options.	
Boot Override			
Shows the Device can boot.			Note: Showed When boot devices existed.

附录

附一：术语表

ACPI

高级配置和电源管理。ACPI 规范允许操作系统控制计算机及其附加设备的大部份电能。

BIOS

基本输入/输出系统。是在 PC 中包含所有的输入/输出控制代码界面的软件。它在系统启动时进行硬件检测，开始操作系统的运作，在操作系统和硬件之间提供一个界面。BIOS 是存储在一个只读存储器芯片内。

BUS

总线。在计算机系统中，不同部件之间交换数据的通道，是一组硬件线路。我们所指的 BUS 通常是 CPU 和主内存元件内部的局部线路。

Chipset

芯片组。是为执行一个或多个相关功能而设计的集成芯片。我们指的是由南桥和北桥组成的系统级芯片组，他决定了主板的架构和主要功能。

CMOS

互补金属-氧化物半导体。是一种被广泛应用的半导体类型。它具有高速、低功耗的特点。我们指的 CMOS 是在主板上的 CMOS RAM 中预留的一部份空间，用来保存日期、时间、系统信息和系统参数设定信息等。

COM

串口。一种通用的串行通信接口，一般采用标准 DB9 公头接口连接方式。

DIMM

双列直插式内存模块。是一个带有内存芯片组的小电路板。提供 64bit 的内存总线宽度。

DRAM

动态随机存取存储器。是一个普通计算机的通用内存类型。通常用一个晶体管和一个电容来存储一个位。随着技术的发展，DRAM 的类型和规格已经在计算机应用中变得越来越多样化。

例如现在常用的就有 SDRAM、DDR SDRAM 和 RDRAM。

L2c

Inter-Integrated Circuit 总线是一种由 PHILIPS 公司开发的两线式串行总线，用于连接微控制器及其外围设备。

LAN

局域网络接口。一个小区域内相互关联的计算机组成的一个计算机网络，一般是在一个企事业单位或一栋建筑物。局域网一般由服务器、工作站、一些通信链接组成，一个终端可以通过电线访问数据和设备的任何地方，许多用户可以共享昂贵的设备和资源。

LED

发光二极管，一种半导体设备，当电流流过时它会被点亮，通常用来把信息非常直观地表示出来，例如表示电源已经导通或硬盘驱动器正在工作等。

PnP

即插即用。允许 PC 对外接设备进行自动配置，不用用户手动操作系统就可以自己工作的一种规格。为实现这个特点，BIOS 支持 PnP 和一个 PnP 扩展卡都是必需的。

POST

上电自检。在启动系统期间，BIOS 会对系统执行一个连续的检测操作，包括检测 RAM，键盘，硬盘驱动器等，看它们是否正确连接和是否正常工作。

PS/2

由 IBM 发展的一种键盘和鼠标连接的接口规范。PS/2 是一个仅有 6PIN 的 DIN 接口，也可以用以连接其他的设备，比如调制解调器。

USB

通用串行总线。一种适合低速外围设备的硬件接口，一般用来连接键盘、鼠标等。一台 PC 最多可以连接 127 个 USB 设备，提供一个 12Mbit/s 的传输带宽；USB 支持热插拔和多数数据流功能即在系统工作时可以插入 USB 设备，系统可以自动识别并让插入的设备正常。