

XPC BIOS User Guide

For the : XH310R/XH310RV Series

Shuttle[®] XPC Installation Guide

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This device complies to Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.
- 2. This device must withstand any background interference including those that may cause undesired operation.

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Safety Information

Read the following precautions before setting up a Shuttle XPC.

CAUTION

Incorrectly replacing the battery may damage this computer. Replace only with the same or equivalent as recommended by Shuttle. Disposal of used batteries according to the manufacturer's instructions.

Laser compliance statement The optical disc drive in this server is a laser product. The drive's classification label is lacated on the drive.

CLASS 1 LASER PRODUCT CAUTION : NVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.

Installation Notices

Do not place this device underneath heavy loads or in an unstable position.

Do not expose this device to high levels of direct sunlight, high-humidity or wet conditions.

Do not use or expose this device around magnetic fields as magnetic interference may affect the performance of the device.

Do not block the air vents to this device or impede the airflow in any way.

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Motherboard Driver DVD

The DVD contents attached in XH310R/XH310RV Series motherboard are subject to change without notice.

The Motherboard Driver DVD contains all the motherboard drivers necessary to optimize the performance of this Shuttle Xvision in a Windows[®] OS. Install these drivers after installing Microsoft[®] Windows[®].

Insert the attached DVD into your DVD-ROM drive. The DVD AutoRun screen should appear. If the AutoRun screen does not appear, double click on Autorun icon in My Computer to bring up Shuttle Mainboard Software Setup screen.

Navigation Bar Description :

- Auto Install Driver/Utility.
- Tinstall Intel Rapid Storage Tech. Driver.
- @ User Manuals Motherboard Manual, Quick Guide.
- Chief Link To Shuttle Website Link to shuttle website homepage.
- This DVD Allows you to see contents of this DVD.



User Manuals

- Install Adobe Reader 9.5
- MotherBoard Manual
- Quick Guide



Starting BIOS

AMIBIOS has been integrated into many motherboards for over a decade. In the past, people often referred to the AMIBIOS setup menu as BIOS, BIOS setup, or CMOS setup.

American Megatrends refers to this setup as BIOS. Specifically, it is the name of the AMIBIOS8 BIOS setup utility. This chapter describes the basic navigation of the BIOS setup screens.

Enter the BIOS

To enter the BIOS setup screens, follow the steps below:

- Step1. Power on the motherboard.
- Step2. Press the <Delete> key on your keyboard when you see the following text prompt: Press DEL to run Setup.
- Step3. After you press the <Delete> key, the main BIOS setup menu displays. You can access the other setup screens from the main BIOS setup menu, such as the Chipset and Power menus.
 - This manual describes the standard look of the BIOS setup screen. The motherboard manufacturer has the ability to change any and all of the settings described in this manual. This means that some of the options described in this manual do not exist in your motherboard's AMIBIOS.
 - In most cases, the <Delete> key is used to invoke the BIOS setup screen. There are a few cases that other keys are used, such as <F1>,<F2>, and so on.

BIOS Setup Menu

The main BIOS setup menu is the first screen that you can navigate. Each main BIOS setup menu option is described in this user's guide.

The Main BIOS setup menu screen has two main frames. The left frame displays all the options that can be configured. "Grayed-out" options cannot be configured. Options is blue can be.

The right frame displays the key legend. Above the key legend is an area reserved for a text message. When an option is selected in the left frame, it is highlighted in white.

Often a text message will accompany it.

AMIBIOS8 has default text messages built into it. The motherboard manufacture retains the option to include, leave out, or change any of these text messages. They can also add their own text messages. Because of this, many screen shots in this manual are different from your BIOS setup screen.

The BIOS setup/utility uses a key-based navigation system called hot keys. Most of the BIOS setup utility hot keys can be used at any time during the setup navigation process. These keys include <F1>, <F4>, <Enter>, <ESC>, <Arrow> keys, and so on.

There is a hot key legend located in the right frame on most BIOS setup screens.

| Hot Key | Description |
|-------------------|--|
| → Left ← Right | The Left and Right <arrow> keys allow you to select a BIOS setup screen. For example: Main screen, Advanced screen, Chipset screen, and so on.</arrow> |
| ↑ Up ↓ Down | The Up and Down <arrow> keys allow you to select an BIOS setup item or sub- screen.</arrow> |
| +- Plus/Minus | The Plus and Minus <arrow> keys allow you to change the field value of a particular setup item. For example: Date and Time.</arrow> |
| Tab | The <tab> key allows you to select BIOS setup fields.</tab> |
| F1 | The <f1> key allows you to display the General Help screen. Press the <f1> key to open the General Help screen.</f1></f1> |
| F4 | The <f4> key allows you to save any changes you have made and exit BIOS Setup. Press the <f4> key to save your changes. Press the <enter> key to save the configuration and exit. You can also use the <arrow> key to select Cancel and then press the <enter> key to abort this function and return to the previous screen.</enter></arrow></enter></f4></f4> |
| ESC | The <esc> key allows you to discard any changes you have made and exit the BIOS Setup. Press the <esc> key to exit the BIOS setup without saving your changes. Press the <enter> key to discard changes and exit. You can also use the <arrow> key to select Cancel and then press the <enter> key to abort this function and return to the previous screen.</enter></arrow></enter></esc></esc> |
| Enter | The <enter> key allows you to display or change the setup option listed for a particular setup item. The <enter> key can also allow you to display the setup sub-screens.</enter></enter> |

The <F8> key on your keyboard is the Fail-Safe key. It is not displayed on the BIOS key legend by default. To set the Fail-Safe settings of the BIOS, press the <F8> key on your keyboard. It is located on the upper row of a standard 101 keyboard. The Fail-Safe settings allow the motherboard to boot up with the least amount of options set. This can lessen the probability of conflicting settings.

🖎 Main Setup

When you first enter the BIOS Setup Utility, you will enter the Main setup screen.

You can always return to the Main setup screen by selecting the Main tab. There are two Main Setup options. They are described in this section. The Main BIOS Setup screen is shown below.

| Aptio Setup Ut Main Advanced Security B | ility – Copyright (C) 2018 American oot Exit | Megatrends, Inc. |
|--|---|--|
| System Overview | | Set the Date. Use Tab to switch between Date elements. |
| AMIBIOS | | Sarten Setacon Date Cremento. |
| Version: | 1.00 | |
| Build Date: | 09/19/2018 | |
| Intel ME version | | |
| Version: | 11.8.55.3510 | |
| BIOS Firmware GUID | 863D7F4D-1CCE-4C7E-AEC2-722BD60 EAEB7 | |
| Processor Intel(R) Pentium(R) Gold G56 | 00 CPU @ 3.90GHz | |
| | | ++: Select Screen |
| System Memory | | ↑↓: Select Item |
| Total Memory: | 16384 MB (DDR4) | Enter: Select |
| | | +/-: Change Opt. |
| System Date | [Wed 09/19/2018] | F1: General Help F2: Previous Values |
| System Time | [13:25:31] | F3: Optimized Defaults |
| ogotem rine | [10.23.01] | F4: Save & Exit |
| | | ESC: Exit |
| | | |
| | | |
| | | |
| | | |
| Version 2.20. | 1271. Copyright (C) 2018 American M | egatrends, Inc. |

System Time/System Date

Use this option to change the system time and date. Highlight System Time or System Date using the <Arrow> keys. Enter new values through the keyboard. Press the <Tab> key or the <Arrow> keys to move between fields. The date must be entered in MM/DD/YY format. The time is entered in HH:MM:SS format.

The time is in 24-hour format. For example, 5:30 A.M. appears as 05:30:00, and 5:30 P.M. as 17:30:00.

🖎 Advanced

Select the Advanced tab from the BIOS setup screen to enter the Advanced BIOS Setup screen. You can select any of the items in the left frame of the screen, such as CPU Configuration, to go to the sub menu for that item.

You can display an Advanced BIOS Setup option by highlighting it using the <Arrow> keys. All Advanced BIOS Setup options are described in this section.

The Advanced BIOS Setup screen is shown below. The sub menus are described on the following pages.

| Aptio Setup Utility – Copyright (C) 2018 American Main Advanced Security Boot Exit | Megatrends, Inc. |
|---|---|
| Advanced Settings WARNING:Setting wrong values in below sections may cause system malfunction. TPM Configuration Hardware Health Configuration CPU Configuration SATA Configuration USB Configuration USB Configuration Power Management Configuration | |
| | <pre>++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre> |
| Version 2.20.1271. Copyright (C) 2018 American M | egatrends, Inc. |

> TPM Configuration

| Aptio Setup L Advanced | Htility – Copyright (C) 2018 f | American Megatrends, Inc. |
|---------------------------|--------------------------------|---|
| Security Device Support | [Disabled] | Enables or Disables BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available. |
| | | <pre>++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre> |
| Version 2.20 |).1271. Copyright (C) 2018 Ame | erican Megatrends, Inc. |

Security Device Support

Enables or Disables BIOS support for security device.

 \succ The choice: Enabled , Disabled.

> Hardware Health Configuration

| Aptio Setu Advanced | o Utility – Copyright (C) 2018 A | merican Megatrends, Inc. |
|---|--|---|
| FAN1 Speed Control FAN2 Speed Control | [Smart Fan Mode] [Smart Fan Mode] | FAN Speed control select |
| System Temperature CPU Temperature Fan1 Speed Fan2 Speed CPU Core DRAM | : +30 % : +48 % : N/A : 835 RPM : +1.032 V : +1.224 V | |
| | | <pre>++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre> |
| Version 2 | .20.1271. Copyright (C) 2018 Ame | rican Megatrends, Inc. |

Fan1 Speed Control

Fan Speed Control function.

The choice: Smart Fan Mode, Ultra-Low Speed, Low Speed, Mid Speed, Full Speed.

Fan2 Speed Control

Fan Speed Control function.

The choice: Smart Fan Mode, Ultra-Low Speed, Low Speed, Mid Speed, Full Speed.

CPU Configuration

You can use this screen to select options for the CPU Configuration Settings. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option. A description of the selected item appears on the right side of the screen. The settings are described on the following pages. An example of the CPU Configuration screen is shown below.

| CPU Configuration | | Enable/Disable Software Guard Extensions (SGX) |
|---|---|---|
| Type ID L1 Data Cache L1 Instruction Cache L2 Cache L3 Cache L4 Cache VMX SMX/TXT | Intel(R) Pentium(R) Gold G5600 CPU @ 3.90GHz 0x906EB 32 KB x 2 32 KB x 2 256 KB x 2 256 KB x 2 4 MB N/A Supported Not Supported | |
| SW Guard Extensions (SGX) Intel(R) V.T. Active Processor Cores Intel® HT Technology Intel(R) Speed Shift Technology C State Support EIST | (Enabled) [All] [Enabled] | <pre>++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre> |

SW Guard Extensions (SGX)

This item allows you to enable or disable Software Guard Extensions. > The choice: Enabled , Disabled, Software Controlled.

Intel (R) V. T.

When enable, a VMM can utilize the additional hardware capabilities provided by vanderpool Technology.

> The choice: Enabled , Disabled.

Intel® HT Technology

This item allows you to enable or disable Intel(R) HT Technology. ➤ The choice: Enabled , Disabled.

Intel (R) Speed Shift Technology

This item allows you to enable or disable Intel (R) Speed Shift Technology(ISST). ➤ The choice: Enabled , Disabled.

C State Support

This item allows you to enable or disable CPU C State. > The choice: Enabled , Disabled.

<u>EIST</u>

This item allows you to enable or disable Enhanced Intel SpeedStep[®] Technology.

> The choice: Enabled , Disabled.

SATA Configuration

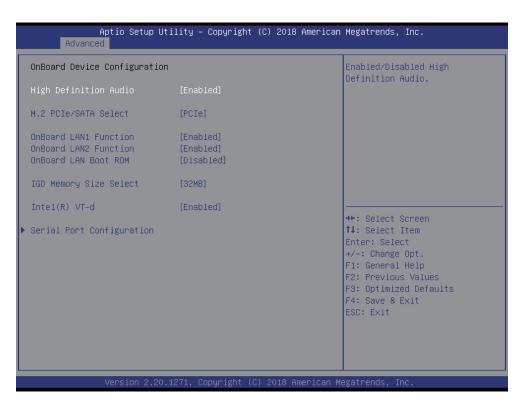
| Aptio Advanced | Setup Utility – Copyright ၊ | (C) 2018 American Megatrends, Inc. |
|--|--|---|
| SATA Configuration | | SATA Port Hot Plug Support |
| M.2 SATA1 Hot Plug SATA2 Hot Plug SATA3 Hot Plug | [Not Detected] [Not Detected] [Disabled] [Not Detected] [Disabled] [Not Detected] [Disabled] | <pre>+*: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre> |
| Versi | ion 2.20.1271. Copyright (C) |) 2018 American Megatrends, Inc. |

USB Configuration

| Aptio Setup Utility – Copyright (C) 2018 American Advanced | Megatrends, Inc. |
|---|--|
| USB Devices Enabled: 1 Drive, 1 Keyboard, 1 Mouse, 2 Hubs | ++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit |
| Version 2.20.1271. Copyright (C) 2018 American Ma | egatrends, Inc. |

English

> OnBoard Device Configuration



High Definition Audio

This item allows you to enable or disable system High Definition Audio.

> The choice: Enabled , Disabled.

M.2 PCIe/SATA Select

This item allows user to select SATA or PCIe port.

> The choice: SATA, PCIe.

OnBoard LAN1 Function

This item allows you to enable or disable LAN1 Function.

> The choice: Enabled , Disabled.

OnBoard LAN2 Function

This item allows you to enable or disable LAN2 Function.

> The choice: Enabled , Disabled.

Onboard LAN Boot ROM

This item allows you to enable or disable Onboard LAN BOOT ROM.

> The choice: Enabled , Disabled.

IGD Memory Size Select

Allows you to select the size of system memory used by the internal graphics device.

> The choice: 32MB, 64MB, 128MB, 256MB, 512MB.

Intel (R) VT-d

This item allows you to enable or disable Intel (R) VT-d.

> The choice: Enabled , Disabled.

Serial Port Configuration

Option are in its sub-menu.

Press<Enter>to enter the sub-menu of detailed options.

Serial Port 1/2/3/4/5

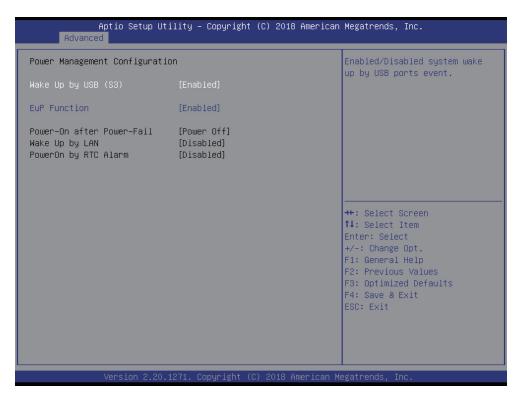
This item allows you to enable or disable Serial Port.

➤ The choice: Enabled , Disabled.

| Aptio Advanced | Setup Utility – Copyright (C) 2018 | American Megatrends, Inc. |
|---|--|---|
| Serial Port 1 Change Mode Change Settings Serial Port 2 Change Settings Serial Port 3 Change Settings Serial Port 4 Change Settings Serial Port 5 Change Settings | [Enabled] [RS232] [3F8h] [Enabled] [2F0h] [Enabled] [2E8h] [Enabled] [3E8h] [Enabled] [2F8h] | Enable or Disable Serial Port (COM) |
| | | <pre>++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre> |
| Versi | on 2.20.1271. Copyright (C) 2018 Ar | merican Megatrends. Inc. |

English

Power Management Configuration



Wake Up By USB (S3)

This item allows you to enable or disable system wake up by USB (S3).

> The choice: Enabled , Disabled.

EuP Function

This item allows you to enable or disable system EuP function in S4/S5.

> The choice: Enabled , Disabled.

PowerOn after Power-Fail

This item allows you to set system power on automatically after AC power restored. > The choice: Power On, Former-Sts, Power Off, Power On by LAN, Power On by RTC.

Wake Up by LAN

This item allows you to enable or disable system wake on by onboard LAN chip(WoL).

> The choice: Enabled , Disabled.

PowerOn by RTC Alarm

When enabled, System will wake on the hr::min::sec specified.

> The choice: Enabled , Disabled.

🖎 Boot

Select the Boot tab from the BIOS setup screen to enter the Boot BIOS Setup screen. You can select any of the items in the left frame of the screen, such as Boot Settings Configuration, to go to the sub menu for that item.

You can display an Boot BIOS Setup option by highlighting it using the <Arrow> keys. All Boot BIOS Setup options are described in this section.

The Boot BIOS Setup screen is shown below. The sub menus are described on the following pages.

| Boot Configuration Bootup Num–Lock Boot from USB device | (Enabled) [Enabled] | Select the keyboard NumLock state |
|---|---------------------------------------|--------------------------------------|
| | | |
| Boot Mode Select | [UEFI] | |
| Fast Boot Function | [Enabled] | |
| Boot Device Priority | | |
| Boot Option #1 | [Hard Disk] | |
| Boot Option #2 | [CD/DVD] | |
| Boot Option #3 | [USB Hard Disk] | |
| Boot Option #4 | [USB CD/DVD] | ++: Select Screen |
| Boot Option #5 | [USB Key:UEFI: ADATA, Partition 1] | ↑↓: Select Item |
| Boot Option #6 | [USB Floppy] | Enter: Select +/-: Change Opt. |
| Boot Option #7 | [USB FIODD9] [USB Lan] | F1: General Help |
| Boot Option #8 | [Network] | F2: Previous Values |
| boot option no | [10:000114] | F3: Optimized Defaults |
| UEFI USB Key Drive BBS P | riorities | F4: Save & Exit |
| | | ESC: Exit |
| | | |
| | | |
| | | |

Bootup Num-Lock

Select NumLock state after system bootup.

> The choice: Enabled , Disabled.

Boot from USB device

This item allows you to enable or disable boot from USB device.

> The choice: Enabled , Disabled.

Boot Mode select

Choice Boot to UEFI or Legacy.

> The choice: UEFI, Legacy.

Fast Boot Function

This item allows you to enable or disable Fast Boot Function. ➤ The choice: Enabled , Disabled.

Boot Device Priority (Boot Option #1/2/3/....)

Specifies the boot sequence from the available devices. A device enclosed in parenthesis has been disabled in the corresponding type menu.

🖎 Security

Select the Security tab from the BIOS setup screen to enter the Security BIOS Setup screen. You can display an Security BIOS Setup option by highlighting it using the <Arrow> keys. All Security BIOS Setup options are described in this section.

The Security Setup screen is shown below. The sub menus are documented on the following pages.

| Aptio Setup Ut: Main Advanced Security Bo | <mark>ility – Copyright (C) 2018 American</mark> oot Exit | Megatrends, Inc. |
|--|--|---|
| Supervisor Password: User Password: | Not Installed Not Installed | Set Supervisor Password |
| Change Supervisor Password Change User Password Password Login control | [Setup] | |
| Flash Write Protection | [Disabled] | |
| Secure Boot Control | [Disabled] | |
| | | <pre>++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</pre> |
| Version 2.20.1 | l271. Copyright (C) 2018 American M | egatrends, Inc. |

Supervisor Password

Indicates whether a supervisor password has been set. If the password has been installed, Installed displays. If not, Not Installed displays.

User Password

Indicates whether a user password has been set. If the password has been installed, Installed displays. If not, Not Installed displays.

Change Supervisor Password

Select Change Supervisor Password from the Security Setup menu and press <Enter>.

Enter New Password:

Type the password and press <Enter>. The screen does not display the characters entered. Retype the password as prompted and press <Enter>. If the password confirmation is incorrect, an error message appears. The password is stored in NVRAM after BIOS completes.

Change User Password

Select Change User Password from the Security Setup menu and press <Enter>.

Enter New Password:

Type the password and press <Enter>. The screen does not display the characters entered. Retype the password as prompted and press <Enter>. If the password confirmation is incorrect, an error message appears. The password is stored in NVRAM after BIOS completes.

Password Login control

This item allows user to adjust Password Login control.

≻ The choice: Setup, Boot, Both.

Flash Write Protection

Choose [Enabled] to avoid virus destroy BIOS. If you want to flash BIOS, you must set it [Disabled].

> The choice: Enabled or Disabled.

Secure Boot control

This item allows you to enable or disable Secure Boot.

> The choice: Enabled or Disabled.

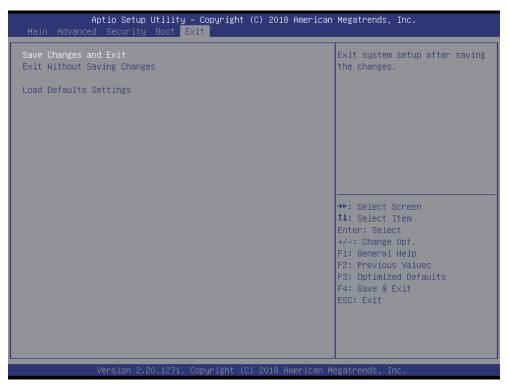
English

🖎 Save & Exit

Select the Exit tab from the BIOS setup screen to enter the Exit BIOS Setup screen.

You can display an Exit BIOS Setup option by highlighting it using the <Arrow> keys. All Exit BIOS Setup options are described in this section.

The Exit BIOS Setup screen is shown below.



Save Changes and Exit

When you have completed the system configuration changes, select this option to leave BIOS Setup and reboot the computer so the new system configuration parameters can take effect.

Select "Save Changes and Exit" from the Exit menu and press < Enter>.

Save Configuration Changes and Exit Now?

[Ok] [Cancel]

appears in the window. Select Ok to save changes and exit.

Exit Without Saving Changes

Exit system setup without saving any changes.

Load Defaults Settings

Load Optimal Default values for all the setup questions.

| 产品中有害物质的名称及含量 | | | | | | |
|--|-------|-------|-------|-----------------|---------------|-----------------|
| 部件名称 | 有害物质 | | | | | |
| | 铅(Pb) | 汞(Hg) | 镉(Cd) | 六价铬 (Cr(VI)) | 多溴联苯 (PBB) | 多溴二苯醚 (PBDE) |
| 主板 | 0 | 0 | 0 | 0 | 0 | 0 |
| 机构外壳 | 0 | 0 | 0 | 0 | 0 | 0 |
| 散热模组 | 0 | 0 | 0 | 0 | 0 | 0 |
| 电源供应器 | 0 | 0 | 0 | 0 | 0 | 0 |
| 硬盘 | 0 | 0 | 0 | 0 | 0 | 0 |
| 铭牌 | 0 | 0 | 0 | 0 | 0 | 0 |
| 包材 | 0 | 0 | 0 | 0 | 0 | 0 |
| 线材 | 0 | 0 | 0 | 0 | 0 | 0 |
| 本表格依据SJ/T 11364 的规定编制。 | | | | | | |
| "O":表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572 | | | | | | |
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