



HUANANZHI®

SZ HUANAN SANXIAN TECHNOLOGY CO.,LTD.

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HUANANZHI®

# Q170工业大板



User Manual

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## 安全信息

- 此包装中包含的组件有可能静电放电 (ESD) 损坏。请遵守以下注意事项, 以确保成功组装计算机
- 确保所有组件连接牢固。若连接不紧可能会导致计算机无法识别组件或无法开启
- 拿取主板时为防止静电损坏其配置, 请在拿取主板前通过接触其它金属物体释放自身的静电
- 拿起主板时请手持主板边缘, 避免触及主板的敏感组件
- 在不安装主板时, 请将主板放在静电屏蔽容器或防静电垫上
- 在打开计算机前, 确保计算机机箱内的主板或任何位置上没有松动的螺丝或金属组件
- 在安装完成之前不要启动计算机。否则可能会导致组件永久性损坏以及伤害使用者
- 在任何安装步骤中, 如果您需要帮助, 请咨询专业的售后客服人员
- 安装或拆卸计算机任何组件之前, 请先关闭电源, 并将电源线由插座上拔除
- 本主板须远离湿气
- 保留本用户指南以供将来参考

- 在电源供应器连接到电源插座之前,请确保您的插座提供了电源供应器上额定相同的指示电压
- 将电源线摆放在不会被人踩到的地方,不要在电源线上放置任何物品
- 发生下列任一状况时,请将本主板交由维修人员检查:
  - 有液体渗透至计算机内
  - 主板暴露于水气当中
  - 主板不工作,或您依照使用指南后仍无法让本主板工作
  - 主板曾掉落且损坏
  - 主板有明显的破损痕迹

## 包装说明

- 请确认您所购买的主板包装是否完整,如果有包装损坏或是任何配件损坏、短缺的情况,请尽快联系我们
  - 1.华南金牌Q170工业大板一片
  - 2.SATA数据线 1根
  - 3.保修卡一张

## 简介

### 特点介绍

CPU: 英特尔® LGA1151 6/7/8/9代处理器 英特尔®酷睿™  
英特尔® LGA1151 6/7/8/9代处理器 英特尔® 奔腾™

RAM: 4\*DIMM 最大支持64GB DDR4  
2666/2400/2133MHZ 非ECC内存  
双通道存储器体系结构  
实际内存数据速率取决于CPU类型和DRAM模块

I/O特效: 4 x SATA3.0(最大传输速度高达6GB/s)  
6 x USB3.0接口  
1 x 兼容HDMI接口输出  
1 x DVI-I+VGA接口  
1 x PS/2 键鼠端口  
1 x RJ45 网卡接口

音 频: Realtek 音讯转码器  
Realtek 5.1声道高保真音频  
音 源输出: 前置输出/前置喇叭输出  
音源输入: 麦克风输入, 音频输入

以 太 网: 1 x 英特尔 I219-LM 1000MB/S  
1 x 英特尔 I211-AT 1000MB/S1

扩展插槽: 2 x PCIe 3.0 x16(x8)  
2 x PCIe 2.0 x4  
1 x PCI 2.0 x4(x1)  
2 x PCI  
6 x 串口接口 COM1为板载, 其余为插针转接(COM1-  
COM2支持RS232/422/485), (COM3-COM6支持RS232)  
1XLPC接口支持安全加密模块  
1 x M.2 NVME PCIe 3.0 X4(key M)/M.2 NGFF(SATA 3.0)  
2242/2260/2280

## 主板图解

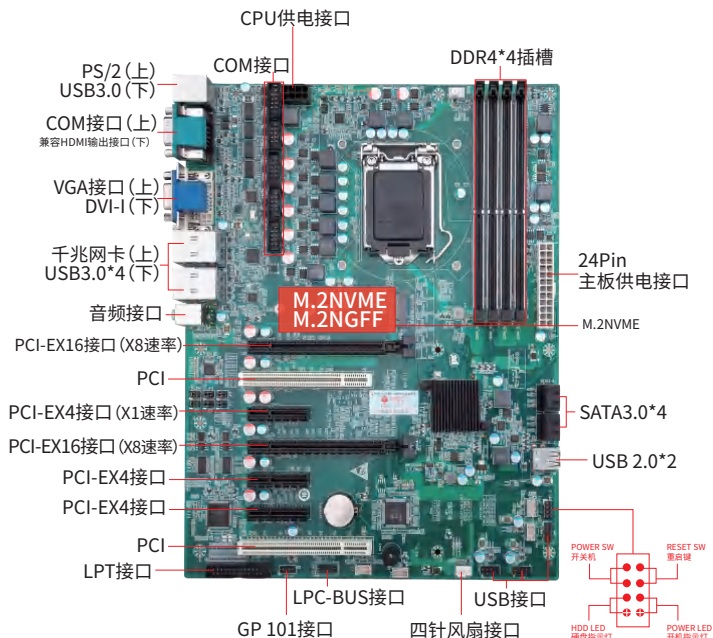


图1-1 Q170主板图解

## 后置I/O面板

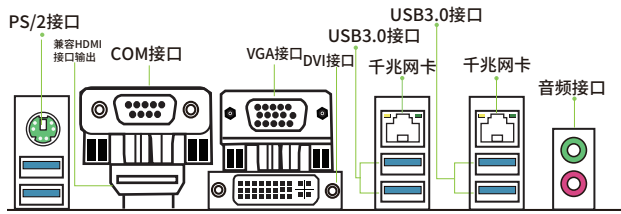


图1-2 整体后置I/O面板展示

连线/工作灯号		速度灯号	
状态	描述	状态	描述
关	网络未连接	关	传输速率 10 Mbps
黄色	网络已连接	绿色	传输速率 100 Mbps
闪烁	网络数据在使用中	橙色	传输速率 1 Gbps

图1-3 LAN端口状态表

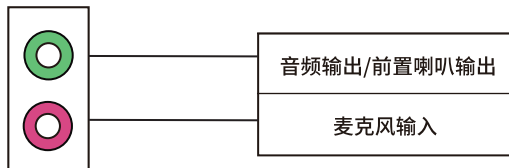


图1-4 音频端口配置

# 安装与设置

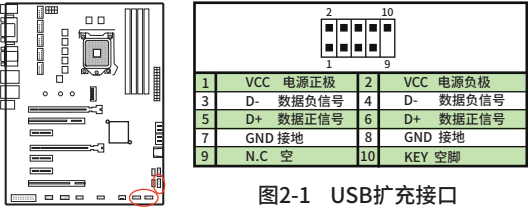


图2-1 USB扩充接口

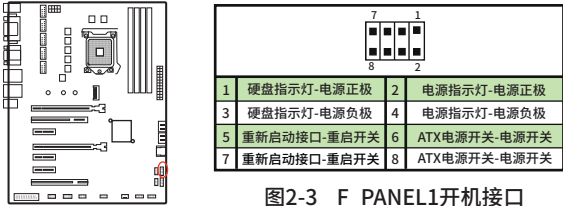


图2-3 F\_PANEL1开机接口

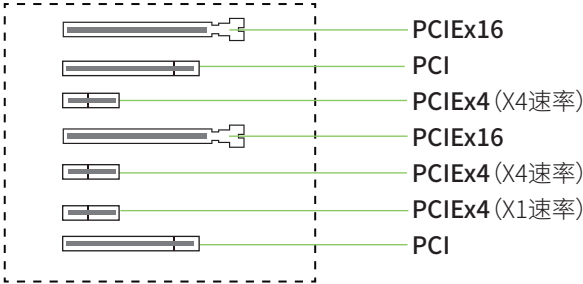


图2-2 PCI扩展插槽

**▲ 注意**  
请仔细查看主板, 凡有表明“1”或是白色粗线标记的接口均为1脚位置。

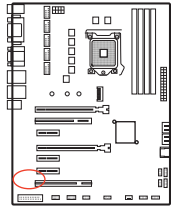
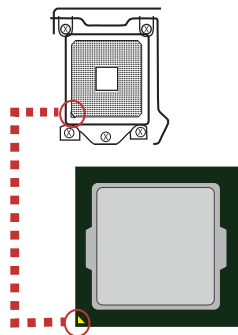
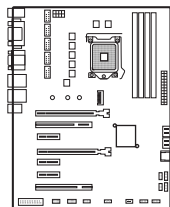


图2-4 LPT接口  
用来连接打印机或扫描仪



- 为了正确的将 CPU 放置在主板中, LGA1151CPU 的表面有两个对起点和一个金色三角指示。金色三角指示为 Pin1

图2-7 CPU安装

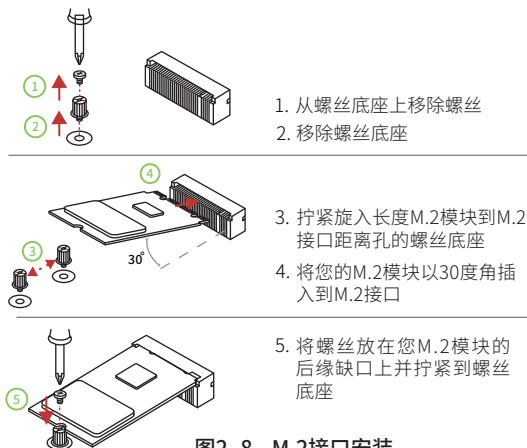
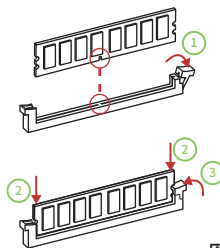
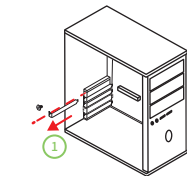


图2-8 M.2接口安装

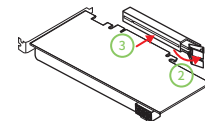


1. 将内存插槽两端的卡扣往外扳开, 内存条与插槽的凸出位置做对应, 确定安装的方向
2. 将内存条对准插槽, 按下去
3. 让插槽两端的卡扣自动弹起来

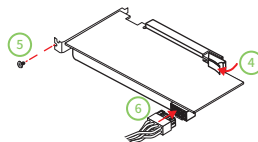
图2-9 内存安装



- 1.用螺丝刀拆除主机箱上的挡板和螺丝



- 2.安装显卡时需掰一下卡槽的卡头
- 3.把显卡插到显卡的卡槽中



- 4.安装到位以后, 卡头会自动归位
- 5.用螺丝把显卡固定在机箱上
- 6.装好电源线即可

图2-10 显卡安装

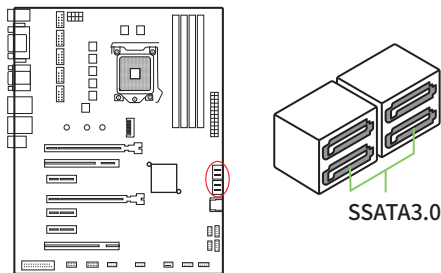


图2 -11 SATA接口

## 驱动程序的安装

### 1.驱动程序目录一览：

驱动程序目录	驱动程序说明	适用操作系统
Q170 Chipset Driver	Intel 芯片信息安装	win7/win10
Q170 Suond Card Driver	Realtek系列声卡驱动安装	win7/win10
Q170 LAN Driver	Intel 芯片网卡安装	win7/win10

### 2.Intel 芯片信息安装

运行:控制面板—系统—硬件—设备管理器

“右击”改动驱动程序的硬件设备,继续下面安装

选择:属性—更新驱动程序—不连接到Internet—手动安装—找到对应的目录  
选择“下一步”

### 3.声卡驱动程序安装

在进行此部分驱动程序安装之前,请您先找到您主板上的声卡芯片(可参考本手册主位标有声卡芯片位置)看看是何种型号,然后根据芯片型号选择对应的驱动程序进行安装

#### 3.1 安装声卡驱动程序(以 HD Audio系列安装为例)

运行《驱动程序》:/Q170 SUOND CARD DRIVER/VISTA-WIN7-R267,XP

选择WDW-267

选择“下一步”继续

选择“完成”,系统将自动重启并完成安装

#### 3.2 卸载声卡驱动程序(以HD Audio为例)

启动到 WINDOWS 桌面,选择“设置”/“控制,再选择“添加 / 删除程序”;在“添加 / 删除程序”菜单中选择“Realte High Definition Audio Driver”点击“添加 / 删除”,驱动程序将自动移出。

4.外置显卡驱动程序安装

运行外置显卡《驱动程序》:目录下的 Setup.exe  
点击“下一步”,继续  
点击“是”,继续  
点击“下一步”,继续  
点击“下一步”,继续  
点击“完成”,系统将会自动查找设备完成安装

5.网卡驱动程序的安装

运行《驱动程序》:Q170 LAN DRIVER /WIN7 XP  
点击“下一步”,继续  
选择“安装”进行下面的安装  
选择“完成”,重新启动计算机,系统将自动查找设备完成安装

BIOS设置

以便电脑正常工作或执行特定的功能。CMOS SETUP 会将各项数据储存在主板上内见的CMOS SRAM中。当电源关闭时,由主板上的电池继续为CMOS SRAM供电。电源开启后,当BIOS开始进行POST(Power On Self Test开机自检)时,按下“Delete”键便可--AMI BIOS的CMOS SETUP主画面中。主板热启动键“F11”。

菜单说明: 请注意设置菜单中各项内容,如果菜单项左边有一个三角形的指示符号,表示选择了该项子菜单,将会有一个子菜单弹出来。

1.主菜单功能

Main	Advanced	Chipset	Boot	Security	Save	Exit
------	----------	---------	------	----------	------	------

- ☆ Main
- ☆ System Overview(系统信息)  
设定日前 时间 软硬盘规格及显示器种类
- ☆ Advanced  
Advanced Settings(高级BIOS功能设置)  
设置BIOS提供的特殊功能,例如病毒警告、开机引导磁盘优先等
- ☆ Chipset  
Advanced Chipset Settings(高级芯片组功能设置)
- ☆ Boot  
Boot Settings(启动设定)
- ☆ Security  
Security Settings(BIOS密码设置)
- ☆ Save  
Save Setting(保存设置)
- ☆ Exit  
Exit Options(退出设置)  
退出设置包括载入优化缺省值/载入故障安全缺省值/放弃更改/不保存  
退出



## DIRECTORY

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## SAFETY PRECAUTIONS

- Products could probably be damaged due to electrostatic discharge(ESD). Please follow these steps below for a successful computer assembly.
- Make sure all parts are firmly connected; otherwise, it might lead to the failure of recognizing components or starting the computer.
- In order to prevent products from being damaged by ESD, please make sure to discharge your body static by touching other metal objects before taking the motherboard out of box.
- Hold the border of motherboard when taking it out. Do not touch the sensitive parts of motherboard.
- Please put the motherboard in an anti-static container or on anti-static pad if not needed.
- Before turning on the computer, make sure all parts inside the case are firmly connected without any loose screws or metal components.
- Do not start the computer before installation finished, otherwise it might result in permanent damage to the computer parts or even injury to the user.
- If you need any assistance in the process of installation, please contact our after-sales customer service or contact us on Huananzhi official mail:huananzhi@yeah.net or Huananzhi official Wechat:nick515 for professional technical support.
- Prior to installation or disassembly, please switch off the power and pull the power cable from the socket.

- Keep the motherboard away from moisture.
- Keep the user manual for future reference.
- Before plugging the power supply, please make sure the socket provides the corresponding voltage.
- In any of the following situations, please keep the motherboard and power cable in a safe place. Do not put anything onto the power cable.
- In the event of any of the following conditions, have the board checked by a service technician:
  - Liquid penetrated into the computer.
  - Motherboard is exposed to moisture.
  - Motherboard does not work even if you follow the instructions on user manual.
  - Motherboard fell off to the ground and got damaged.
  - Motherboard has clear signs of damage.

## PACKING

- **Please confirm that the motherboard is properly packaged upon purchase of the product. If there is any damage to packaging or lack of accessories, contact us as soon as possible.**

- 1.1\*HUANANZHI Q170 Motherboard
- 2.2\*SATA data cable
- 3.1\*Warranty card

## BRIEF INTRODUCTION

### Features

CPU: Intel® LGA1151 6/7/8/9 Generation Processor Intel® Core™  
Intel® LGA1151 6/7/8/9 Generation Processor Intel® Pentium™

RAM: 4\*DIMM supports up to 64GB DDR4  
2666/2400/2133MHZ Non-ECCmemory  
Two-Channel Memory Architecture  
Actual memory data rate depends on CPU type and DRAM module

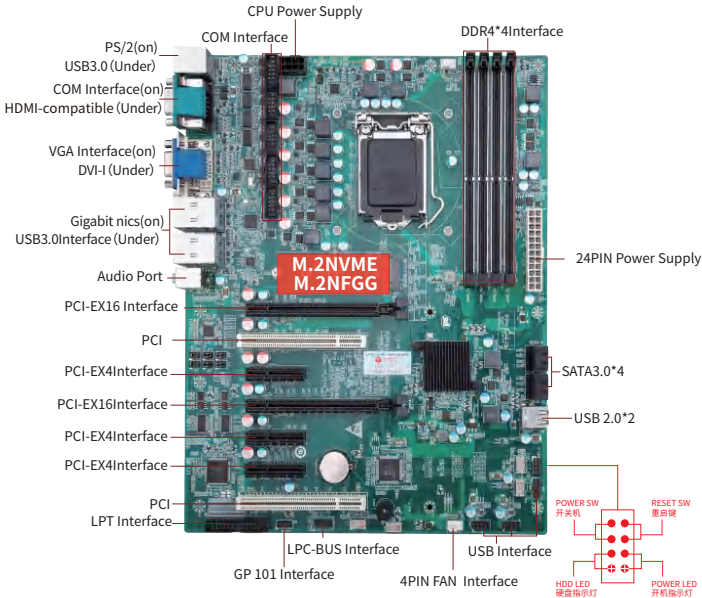
I/O effects: 4x SATA3.0 (maximum transfer speed up to 6GB/s)  
6 x USB2.0 interface  
1 x HDMI-compatible  
1 x DVI-I+VGA port  
1 x PS/2 Mouse and Keyboard port  
1 x RJ45 Network card interface

Audio: Realtek Audio Transcoder  
Realtek 5.1 Channel High Fidelity Audio  
Audio output:Front Out/Front Speaker Out  
Audio input:Microphone input, Audio input

Ethernet:1 x Intel I219-LM 1000MB/S  
1 x Intel I211-AT 1000MB/S1

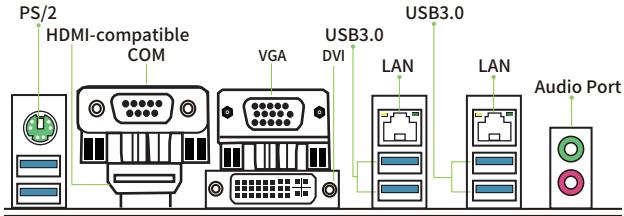
Expansion slot: 2 x PCIe 3.0 x16(x8)  
2 x PCIe 2.0 x4  
1 x PCIe 2.0x4(x1)  
2 x PCI  
6 x Serial port COM1 is onboard, and other ports are pin conversion (COM1-COM2 supports RS232/422/485), (COM3-COM6 supports RS232)  
1 x LPC interface supports security encryption module  
1 x M.2 NVME PCIe 3.0 X4(key M)/M.2 NGFF(SATA 3.0) 2242/2260/2280

# MOTHER BOARD IMAGE



1-1 Q170 Motherboard Illustration

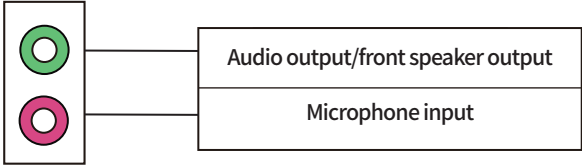
# Rear I/O Panel



1-2 Overall Rear I/O Panel Display

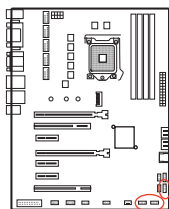
Connection/Work Light		Speed Signal	
Status	Description	Status	Description
Turn Off	Network Not Connected	Turn Off	Transmission rate 10 Mbps
Yellow	Network Connected	Green	Transmission rate 100 Mbps
Flicker	Network In Use	Orange	Transmission rate 1 Gbps

1-3 LAN Port Status Table



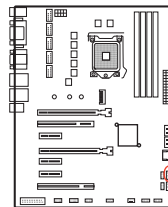
1-4 Audio Port Configuration

## Installation And Settings



		2		10
		1		9
1	VCC	2	VCC	
3	D-	4	D-	
5	D+	6	D+	
7	GND	8	GND	
9	N.C	10	KEY	

图2-1 USB Expansion port

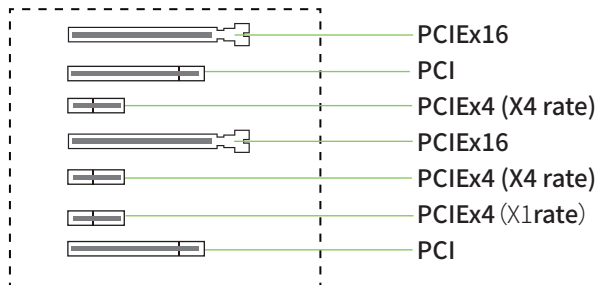


		7		1
		8		2
1	HDD_LED+	2	PWR_LED+	
3	HDD_LED-	4	PWR_LED-	
5	RESET	6	PWR_SW	
7	RESET	8	PWR_SW	

图2-3 F\_PANEL1 Boot port

### ⚠ NOTICE

please check the motherboard where all pins marked with number "1" or white bold line are position "1".



2-2 PCI Expansion Slot

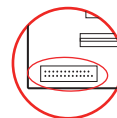
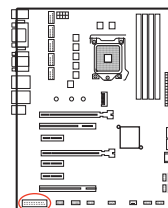
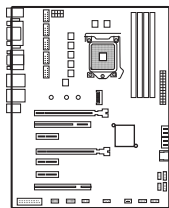
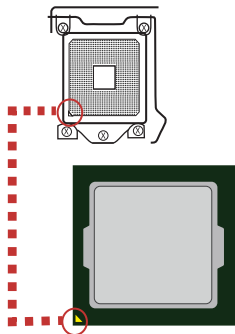


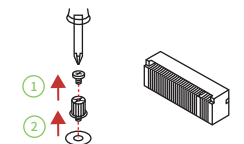
Figure 2-4 LPT ports  
Used to connect printers or scanners



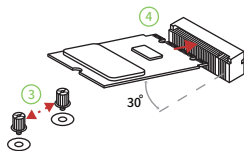
- In order to properly place the CPU in the motherboard, the surface of the LGA1151 CPU has two pairs of starting points and a golden triangle. Golden triangle indicates Pin1



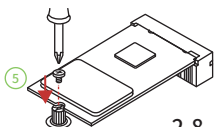
## 2-7 CPU Installation



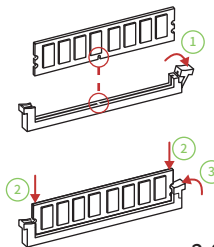
- Remove the screw from the screw base
- Remove the screw base



- Tighten the screw base screwed into the length M.2 module to the M.2 interface distance hole
- Insert your M.2 module into the M.2 interface at a 30 degree angle

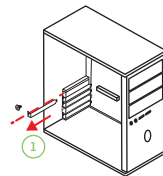


## 2-8 M.2 Interface Installation

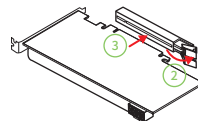


- Pull the clips on both ends of the memory slot outward, and the memory strip corresponds to the protruding position of the slot to determine the direction of installation.
- Align the memory module into the slot and press
- Let the snaps on both ends of the slot automatically bounce

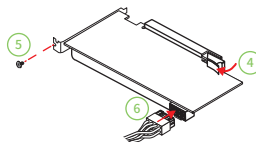
## 2-9 Memory Installation



- Use a screwdriver to remove the bezel and screws on the main unit

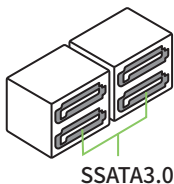
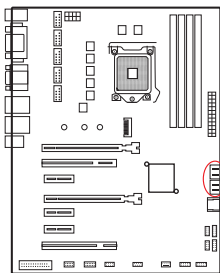


- Need to pick up the card slot when installing the graphics card
- Insert the graphics card into the card slot of the graphics card



- After the installation is in place, the chuck will automatically return to its position.
- Secure the graphics card to the chassis with screws
- Install the power cord

## 2-10 Graphics Card Installation



## 2 -11 SATA Interface

# Drivers installation

## 1.Drivers listing:

Driver Directory	Driver Description	Operating System
Q170 Chipset Driver	Intel chip information installation	win7/win10
Q170 Suond Card Driver	Realtek series sound card driver installation	win7/win10
Q170 LAN Driver	Intel chip NIC installation	win7/win10

## 2.Intel Chip Information Installation

Run "Control Panel - System - Hardware - Device Manager"  
Click the right mouse button to change the driver's hardware device and proceed with the installation below:

Option: Property -> Update driver -> Not connect to Internet -> Manually installation  
Find the corresponding directory  
Select "Next step"

## 3.Audio driver installation

Before this installation, please check the model of the audio chip on the motherboard first(you may refer to this manual), Select the proper driver accordingly for installation.

### 3.1Audio driver installation (take HD Audio series for example)

Run "driver installer": /Q170 SOUND CARD DRIVER/VISTA-WIN7-R267, take WDW-267 if OS is XP

Click on "next"to continue,and then"finished"

The system will automatically restart itself to finish the installation

### 3.2 Uninstallation of audio driver(take HD Audio series for example)

etting into Windows desktop, choose "setting"/ "control",and then "add/remove programs". Later, choose "Realtek High Definition Audio Driver" in the menu and click on "add/remove"so thatthe driver will be automatically removed.

4.Driver installation of external video card

Run "driver installer", take Setup.exe,  
Click on "next"- "yes"  
-"next"  
-"next"and"finished"h  
The system will automatically search for devices  
to complete the installation

5.Driver installation of network

Run "driver installer": Q170 LAN DRIVER/WIN7 XP  
click on "next"-  
"installation"- "finished"and restart the computer,  
and restart the computer, The system will automatically  
search for devices to complete the installation.

BIOS Settings

In order to enable the computer to work well or execute specific functions, CMOS SETUP normally stores all kinds of data in CMOS SRAM of the motherboard. When the computer is shut down, motherboard's battery will supply power to CMOS SRAM. When the computer is turned on and starts POST(Power On Self Test), press "Delete/Del" key to enter into AMI BIOS CMOS SETUP main page. Motherboard warm boot key is "F11".

Menu: please pay attention to every option in the settings menu. When there is a triangle shaped symbol on the left side of menu, it means that you choose this sub-menu,so a pop-up sub-menu will be available.

1.Main Menu Function

Main	Advanced	Chipset	Boot	Security	Save	Exit
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- ☆ Main
- ☆ System Overview  
Date/Time settings, HDD specs/Monitor type settings.
- ☆ Advanced  
Advanced Settings  
BIOS special function settings, such as virus alert, booting disk priority etc.
- ☆ Chipset  
Advanced Chipset Settings
- ☆ Boot  
Boot Settings
- ☆ Security  
Security Settings
- ☆ Save  
Save Setting
- ☆ Exit  
Exit Options  
Exit settings include loading of optimized defaults value/ loading of fail-safe defaults / discarding changes/ exiting without saving.Exit settings include loading of optimized defaults value/ loading of fail-safe defaults / discarding changes/ exiting without saving.