




# USER'S MANUAL

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291-MB384-02ZTF

EMBEDDED  
**SOLUTIONS**

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# **ZP-QK5P1000**

## **User's Manual**



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Every effort has been made to ensure that the contents of this manual are correct and up to date. However, the manufacturer makes no guarantee regarding the accuracy of its contents, and reserves the right to make changes without prior notice.

### **CAUTION:**

Risk of explosion if the battery is replaced with an incorrect type. Batteries should be recycled where possible. Disposal of used batteries must be in accordance with local environmental regulations.

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## Table of Contents

|   |           |
|---|-----------|
| <b>Specifications</b>                           | <b>3</b>  |
| <b>Safety instructions</b>                      | <b>5</b>  |
| <b>Package contents</b>                         | <b>6</b>  |
| <b>Getting to know your ZP-QK5P1000</b>         | <b>7</b>  |
| Front view                                      | 7         |
| Rear view                                       | 8         |
| <b>Installing hardware inside ZP-QK5P1000</b>   | <b>9</b>  |
| Installing an M.2 SSD module                    | 13        |
| Installing a memory module                      | 16        |
| Installing a hard disk drive                    | 17        |
| <b>Installing the L-shaped mountings</b>        | <b>20</b> |
| <b>Installing your ZP-QK5P1000 to a monitor</b> | <b>21</b> |
| <b>Setting up your ZP-QK5P1000</b>              | <b>22</b> |
| <b>Installing drivers and software</b>          | <b>24</b> |
| Installing an operating system                  | 24        |
| Installing system drivers                       | 24        |
| <b>Using your ZP-QK5P1000</b>                   | <b>25</b> |
| Configuring wireless connection                 | 25        |
| Configuring audio output                        | 26        |

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## Specifications

### Microprocessor Support

- 7th gen Intel Core i5-7300U Dual-core 2.6 GHz/3.5 GHz, 3 MB cache, 15 W TDP

### Operating Systems

- Supports Windows 10 64-bit

### Onboard Graphics Support

- NVIDIA Quadro P1000 for Embedded GPU w/4GB GDDR5
- 4x HDMI2.0 (max resolution: 3840x2160 @60Hz)

### System Memory Support

- Two DDR4L 2133 SO-DIMM slots
- Up to 32 GB of memory

### USB Ports

- Three USB 3.0 port

### Onboard Serial ATA

- SATA 6.0 Gb/s transfer rates
- Supports one 2.5-inch SATA III HDD/SSD bay (support the device with max 9.5mm height)

### Expansion Slot

- One M.2 2242 key-M socket for SSD

### Card Reader

- SD/SDHC/SDXC

### Onboard Dual Gigabit LAN

- Supports 10/100/1000 Mbps operation
- Supports IEEE 802.3

### WiFi Support (optional)

- 802.11ac Wi-Fi (dual-band)
- Bluetooth 4.2

### H/W watchdog timer

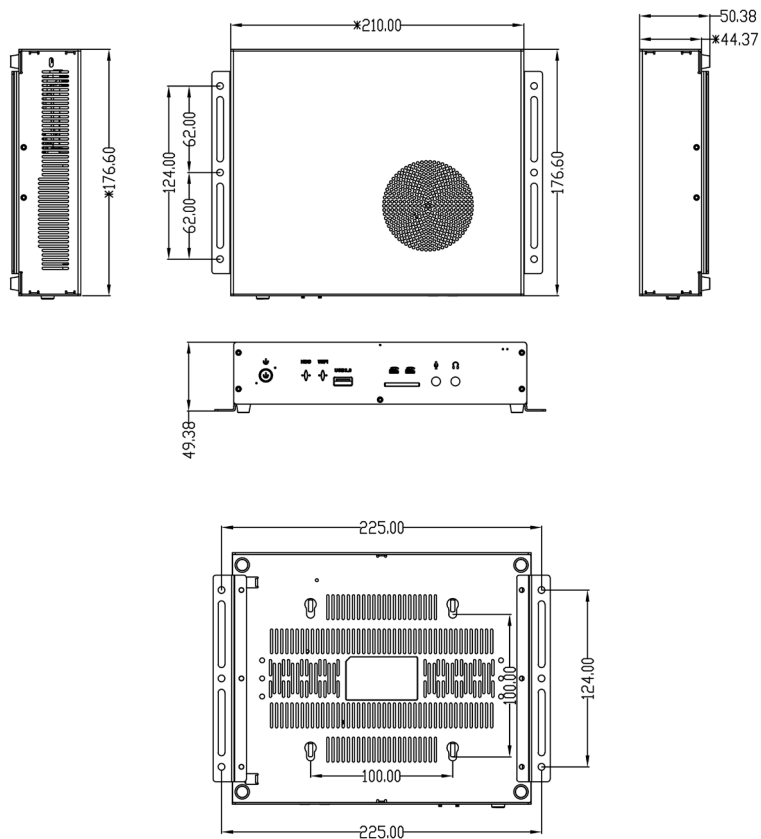
- Timeout value = 1 ~ 255, Unit = minute/second

### Legacy I/O

- RS232 serial port

### Case Dimension

- 210.0mm x 176.6mm x 44.4mm



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## Safety instructions

ZP-QK5P1000 is designed and tested to meet the latest standards of safety for information technology equipment. However, to ensure your safety, it is important that you read the following safety instructions.

- ❖ Read and follow all instructions in the documentation before you operate your system.
- ❖ Do not use this product near water or a heat source such as a radiator.
- ❖ Set up the system on a stable surface with the provided stand. Never use the system alone without the stand.
- ❖ Openings on the chassis are for ventilation. Do not block or cover these openings.
- ❖ Make sure you leave plenty of space around the system for ventilation. Never insert objects of any kind into the ventilation openings.
- ❖ Use this product in environments with ambient temperature on below conditions:  
Main unit: -20°C - +40°C  
AC adapter: +5°C ~ +35°C
- ❖ Do not walk on the power cord or allow anything to rest on it.
- ❖ Do not spill water or any other liquids on your system.
- ❖ When the system is turned off, a small amount of electrical current still flows. Always unplug all power, modem, and network cables from the power outlets before cleaning the system.
- ❖ If you encounter the following technical problems with the product, unplug the power cord and contact a qualified service technician or your retailer.
  - The power cord or plug is damaged.
  - Liquid has been spilled into the system.
  - The system does not function properly even if you follow the operating instructions.
  - The system was dropped or the cabinet is damaged.
  - The system performance changes.

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## Package contents

Thank you for choosing our ZP-QK5P1000. The following illustration displays the package contents of your new ZP-QK5P1000. If any of the below items is damaged or missed, contact your retailer.

- 1 x ZP-QK5P1000
- 1 x L-shaped mounting kit
- 1 x AC Adapter
- 1 x Power Cord
- 2 x WiFi Antenna
- 1 x USB flash drive
- 1 x User's manual (soft copy)

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## Getting to know your ZP-QK5P1000

### Front view



#### 1. Power button

The power button turns the system ON and OFF.

#### 2. Hard disk LED

The hard disk LED blinks when data is being written onto or read from the hard disk drive.

#### 3. WiFi LED

The WiFi LED blinks when data is being transferred over WiFi.

#### 4. USB 3.0 port

The USB 3.0 port supports the SuperSpeed USB 3.0 devices. Use this port for USB 3.0 devices for maximum performance with USB 3.0 compatible devices.

#### 5. Memory card slot

The Memory card slot is compatible with SD/SDHC/SDXC cards used in devices like digital cameras, MP3 players, mobile phones and PDAs.

#### 6. Microphone jack

The microphone jack is designed to connect a microphone for video conferencing, voice narrations or simple audio recordings.

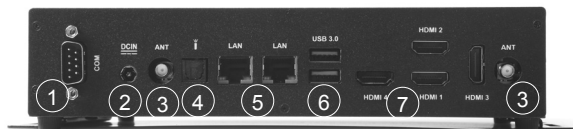
#### 7. Headphone/Audio Out jack

The stereo headphone jack (3.5mm) is used to connect the system's audio output signal to amplified speakers or headphones.



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## Rear view



### 1. COM port

Use the COM port to connect serial devices such as mouse or fax/modems.

### 2. Power input (DC19.5V)

The supplied power adapter converts AC power to DC power for use with this power port. To prevent damage to the mini-PC, always use the supplied power adapter.

### 3. WiFi antenna connectors

The WiFi antenna connector supports the included WiFi antenna.

### 4. Optical (SPDIF OUT) jack

The optical S/PDIF output enables connectivity with digital audio receivers and speakers for crystal clear digital audio and surround sound from compatible soundtracks.

### 5. Ethernet ports

The eight-pin RJ-45 LAN port supports standard Ethernet cable for connections to local area networks (LAN) with speeds of 10/100/1000Mbps.

### 6. USB 3.0 ports

The USB 3.0 port supports the SuperSpeed USB 3.0 devices. Use this port for USB 3.0 devices for maximum performance with USB 3.0 compatible devices.

### 7. HDMI ports

The HDMI (High Definition Multimedia Interface) port supports a UHD device such as an LCD TV or monitor to allow viewing on a larger external display.

⚠ The power adapter may become warm to hot when in use. Do not cover the adapter and keep it away from your body.

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## Installing hardware inside ZP-QK5P1000

Before installing hardware, please follow the instructions below to remove the cover of your ZP-QK5P1000.

1. Remove the five screws of front cover.



2. Remove the front cover.



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3. Remove the screw of rear cover as shown below.

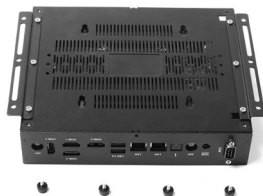
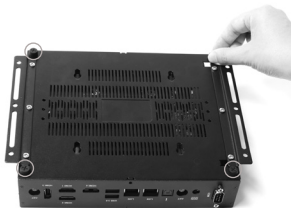


4. Remove the four screws of the side covers.

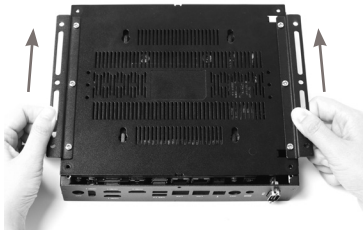


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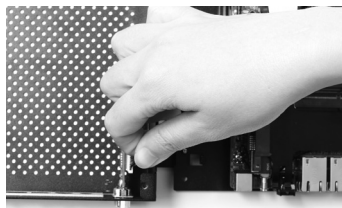
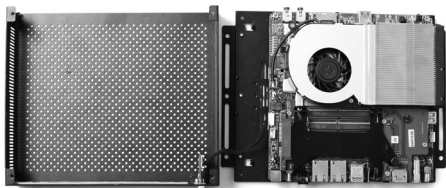
5. Remove the four thumb screws of bottom cover.



6. Hold the L-shaped mounting kit with two hands, push and lift up the bottom cover as shown below.

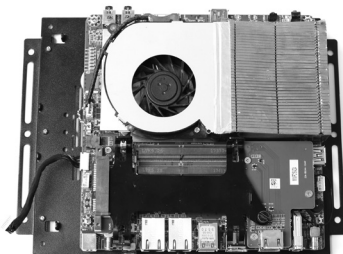


7. Turn over the bottom cover, and pull out the COM cable.

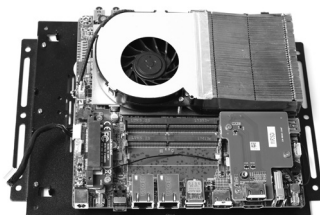
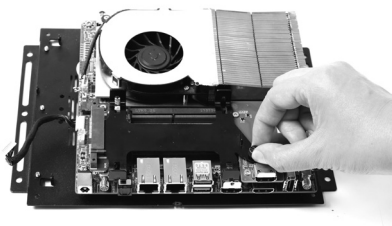


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8. Remove the bottom cover.



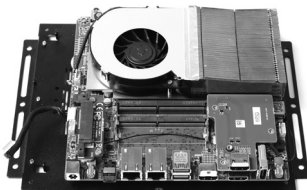
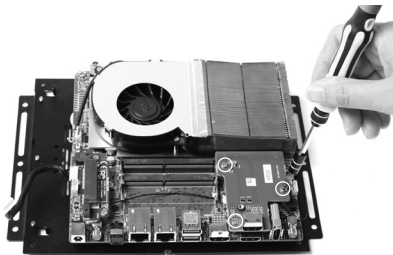
9. Remove the thumb screw on the hard disk drive bracket, and remove the hard disk drive bracket.



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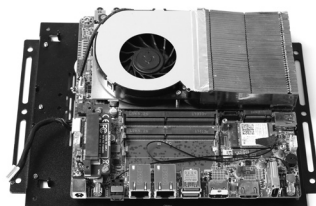
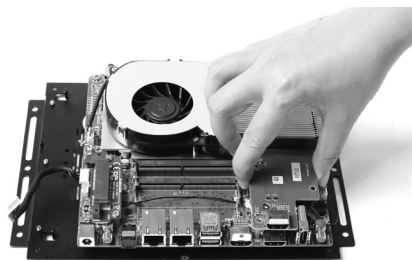
## Installing an M.2 SSD module

1. Locate the daughter board and remove the three screws as shown below.



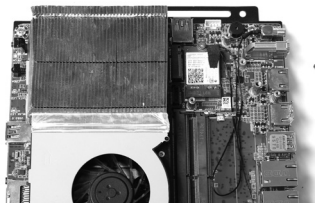
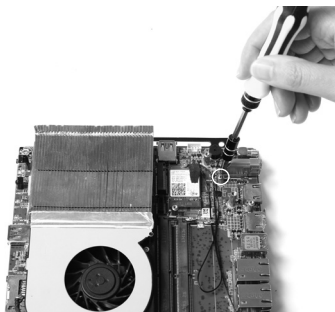
9 9 9

2. Remove the daughter board.

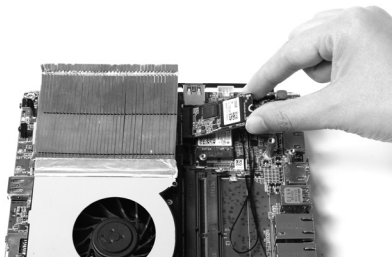


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3. Remove the screw as shown below.



4. Locate the M.2 SSD slot and insert an M.2 SSD module into the slot at a 45 degree angle.

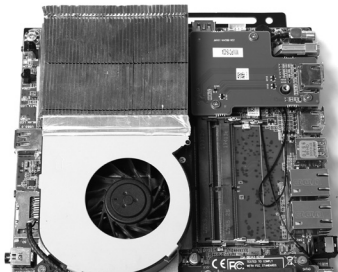


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5. Gently press down on the M.2 SSD module, and install the screw.



6. Reinstall the daughter board with the screws.

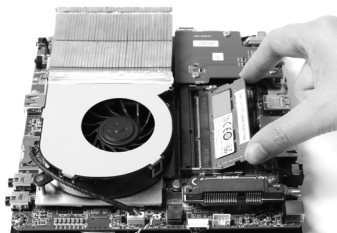




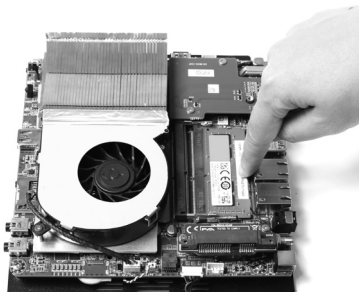
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## Installing a memory module

1. Insert the memory module into the socket.



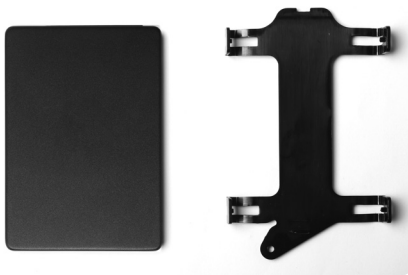
2. Gently press down on the memory module until it is locked by the arms of the socket.



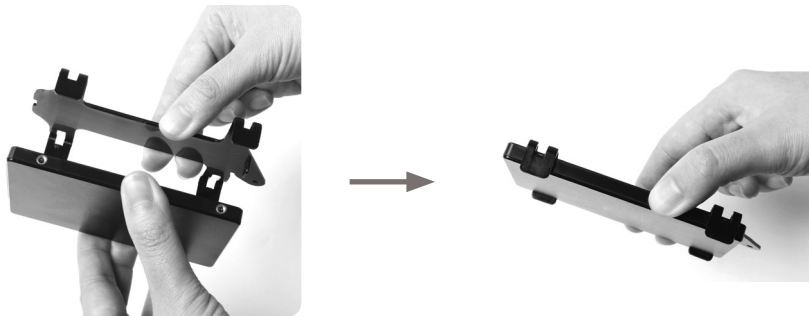
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## Installing a hard disk drive

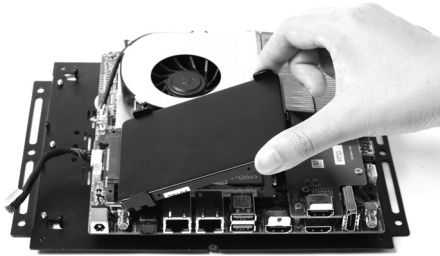
1. Locate the 2.5-inch SATA hard disk drive and the hard disk drive bracket.



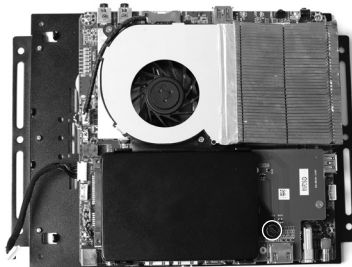
2. Install the hard disk drive/ SSD to the hard disk drive bracket.



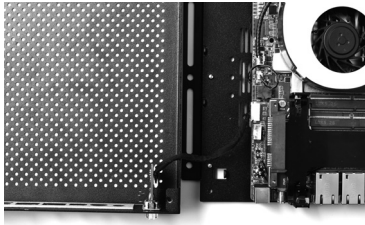
- 
3. Insert the hard disk drive /SSD into the socket and gently slide into the connector.



4. Reinstall the screw for the hard disk drive bracket.



- 
5. Insert the COM cable.



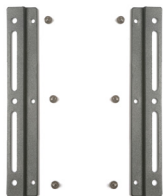
6. Reinstall the covers for ZP-QK5P1000.



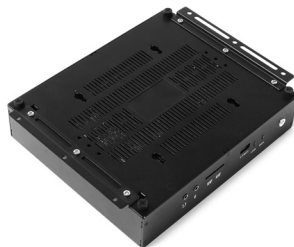
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## Installing the L-shaped mountings

1. Locate the bottom cover upwards, and take out the L-shaped mounting kit and shipped screws.



2. Install the L-shaped mountings to the bottom cover with screws.



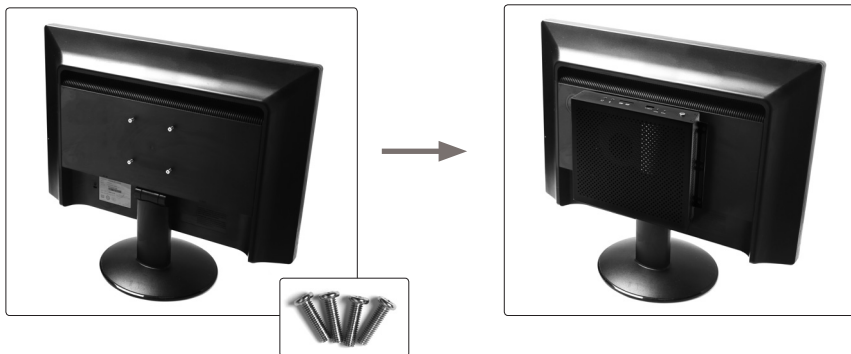
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## Installing your ZP-QK5P1000 to a monitor

You can also install your ZP-QK5P1000 to the back of a monitor. To do so:

1. Secure four screws (M4XH15.0MM) to your monitor (VESA100 standard).
2. Place your ZP-QK5P1000 to the monitor noting the correct alignment.

☞ **Mechanical Loading Stability** - Mounting of the equipment on the backside of the monitor should be lay this equipment on a reliable surface when install. A drop or fall could cause injury.



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## Setting up your ZP-QK5P1000

Please connect your peripherals before using your ZP-QK5P1000.



### 1. Connecting a COM device

Connect serial devices such as mouse or fax/modems.

### 2. Connecting the WiFi antennas

Connect the WiFi antenna to the WiFi antenna connector.

### 3. Connecting an optical S/PDIF output

Connect a digital audio device via optical S/PDIF output.

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#### **4. Connecting to networks**

Connect one end of a network cable to the LAN port on the system rear panel and the other end to a network router, hub or switch.

#### **5. Connecting to USB 3.0 devices**

Connect USB 3.0 devices such as external hard disk drives, SSDs and flash drives to the USB 3.0 port on the system rear panel.

#### **6. Connecting to HDMI displays**

Connect one end of an HDMI cable to an HDTV or monitor, and the other end to the HDMI port on the system rear panel.

#### **7. Connecting the power adapter and turning on the ZP-QK5P1000**

Connect the supplied AC adapter to the DC IN jack on the system rear panel and then press the power switch on the front panel to turn on the system.

- ☞ When your ZP-QK5P1000 is not in use, unplug the power adapter or switch off the AC outlet to conserve power.



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## Installing drivers and software

### Installing an operating system

The ZP-QK5P1000 does not ship with an operating system preinstalled. The user must install the operating system before the ZP-QK5P1000 can be used. The following operating systems are supported:

- Windows 10 64-bit

Follow the instructions below to install an operating system:

1. Attach external DVD drive via USB 3.0 or 2.0 ports.
2. Insert disk for operating system (Windows or Linux).
3. Wait for the ZP-QK5P1000 to boot from the disk.
4. Follow the onscreen directions to install the operating system.
5. Install system drivers to gain full functionality of the ZP-QK5P1000 hardware and features.

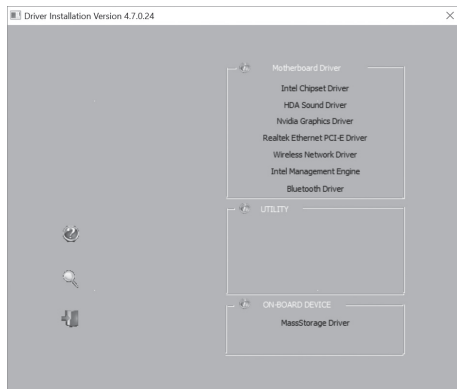
### Installing system drivers

Before you can use the full features of the ZP-QK5P1000, the system drivers must be installed. The following types of operating systems are supported by the ZP-QK5P1000 USB flash drive:

- Windows 10 64-bit

Follow the instructions below to install the system drivers:

1. Insert the ZP-QK5P1000 USB flash drive. If autorun is enabled, the driver installation main menu will show up automatically. If autorun is disabled, you may click the file *Launch.EXE* to bring up the driver installation main menu.
2. The following drivers are available on the USB flash drive:
  - Intel Chipset Driver
  - HDA Sound Driver
  - Nvidia Graphics Driver



- Realtek Ethernet PCI-E Driver
- Wireless Network Driver
- Intel Management Engine
- Bluetooth Driver
- MassStorage Driver
- USB Charger (optional)

**Note: If you want to use high-amperage USB charging for smartphones and tablets, please install the driver USB Charger driver.**

- ☞ Each driver must be installed individually to ensure proper operation of the ZP-QK5P1000.
3. Select the driver you want to install. The driver installer should launch.
  4. Follow the onscreen instructions to install the drivers.
  5. Restart the system.

## Using your ZP-QK5P1000

### Configuring a wireless connection

Please follow the instructions below to connect to a wireless network:

1. Double-click the wireless network icon (pic) in the notification area.
2. Select the wireless network you want to connect to from the list and click Connect.
3. After connection is established, you will see "Connected."

Note 1: For security concerns, Do NOT connect to an unsecured network, otherwise, the transmitted information without encryption might be visible to others.

Note 2: Enter the network security key if necessary.



## Configuring audio output

Follow the steps below to enable audio output when connecting the ZP-QK5P1000 to a TV or receiver via HDMI adapter.

1. Access the Sound settings via the system Control Panel.
2. Under Playback devices, click the display device that corresponds with your audio compatible display.
3. Click the “Set Default” button in the lower right hand corner.
4. Click “OK” to exit the setup.

