



MS-PC Farm B660I

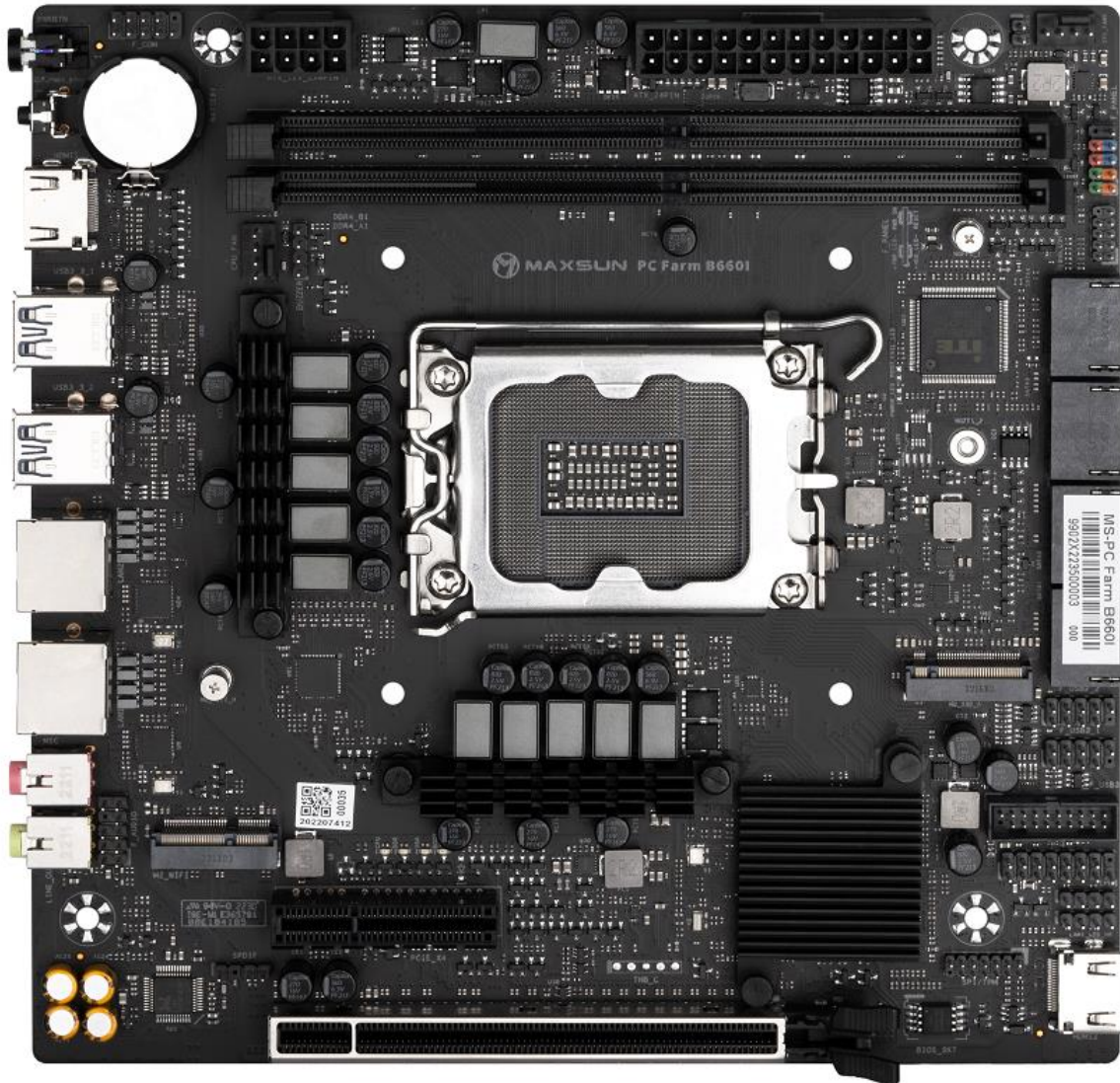
Manual

VER:A 0

SHANGKE GROUP

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Editorial Department: Technology Department

Chapter 1 Mainboard configuration diagram



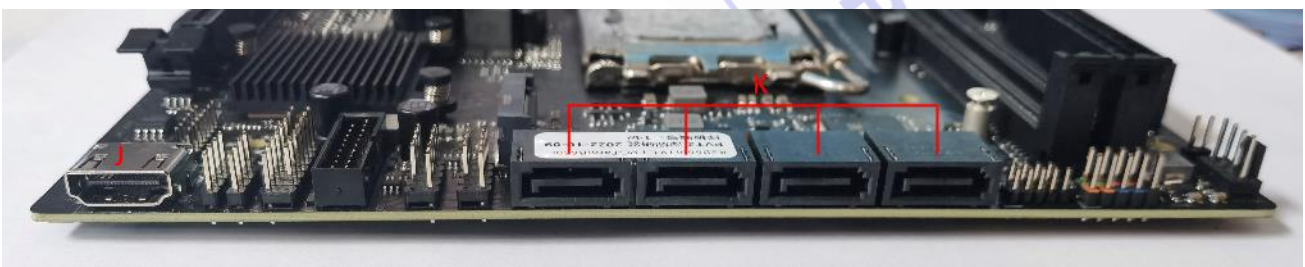
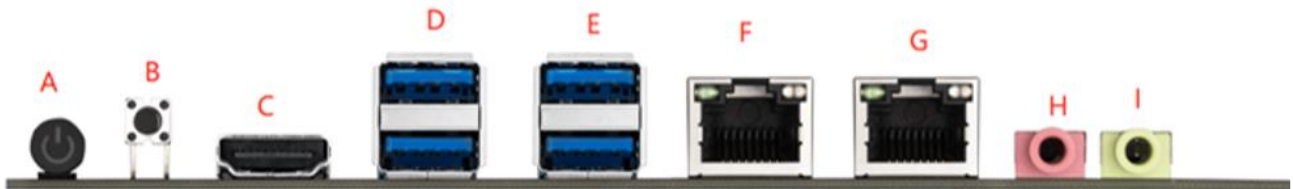
(This drawing is for reference only, and some details will be designed and adjusted according to the actual situation. Please take the physical object, and our company reserves the right of interpretation)

Chapter 2 Specifications

2.1. Motherboard hardware specifications

| | |
|---------------------|--|
| Mainboard size | MicroATX (190*190mm) |
| CPU | Support for LGA 1700 slots 12 / 13 generation processor (CPU overclocking technology not supported) TDP: 168W |
| chipset | Intel ® H610 High-speed chipset |
| memory | 2 DIMM DDR4 memory slots The maximum support in total is 64GB Support for dual-channel memory technology Support 3200 / 2933 / 2666 / 2400 / OC MEMORY MHz |
| display | Based on the display function of the integrated graphics card processor, the shared display memory technology is adopted 2 HDMI interfaces with up to 4096x2160@30Hz resolution (HDMI version 1.4) 1 VGA interface with 1920 * 1080@60Hz resolution |
| extended interface | 1 PCIE X16 4.0 slot 1 PCIE X4 3.0 slot Support for AMD and NVIDIA independent graphics cards Support for PCIE resizable bar technology (CPU and graphics card synchronization support are required) |
| audio | Integrated ALC897 sound card chip Support the simultaneous output of the front and rear sound channels Rear audio interface: 1 rear board LINE OUT interface, one rear board MIC_ IN microphone interface F_A UDIO pin: 1 set of front microphone pins and 1 set of front audio output pins (the 2 pins are F_A audio pins) Group 1 of 4pin horn SPEAKER pins 1 set of prefacing onboard SPDIF pins |
| network | Integrated Realtek 8125 card chip (10 / 100 / 1000 Mbit / / 2500 Mbit) 2 on-board RJ45 ports Support network arousal Support PXE no disk, UEFI no disk guide |
| storage | Two M.2 X4 4.0 slots (only supports 2242/2280 PCIE X4/X2 channel SSDs) Four SATA3.0 interfaces |
| USB | On-board rear interface: 4 USB 3.2 GEN 1 ports Intranboard pins: 2 (2) USB2.0 pins, 1 (2) USB 3.2 GEN 1 pins |
| Inside board socket | 1 24PIN motherboard ATX power supply interface 1 8PIN motherboard ATX 12V power supply interface, 12V input 1 PWRBTN push button 1 COM_A pin |

| | |
|---------------------|---|
| | <p>1 system fan pins and 1 CPU fan pins (all except PUMP pins support intelligent fan adjustment)</p> <p>1 CLR_CMOS button</p> <p>Group 1 of CLR_CMOS pins</p> <p>Group 1 of the DEBUG_ CON pins</p> <p>SPI/TPM pins in group 1</p> <p>1 set of IPMI pins</p> <p>2 sets of LAN_LED_HR pins</p> <p>1 group chassis front control panel pin (F_PANEL)</p> |
| Hardware monitoring | <p>Voltage monitoring</p> <p>temperature monitoring</p> <p>Fan monitoring</p> <p>Intelligent fan speed control (the main board has been supported, the intelligent fan speed control also needs fan support)</p> |
| operating system | <p>Support for UEFI Windows 10 64bit, UEFI Windows 11 64bit</p> <p>Support for Ubuntu 64bit</p> |
| ESD protect | <p>Air discharge ± 8 KV Class C ± 6 KV for grade B</p> <p>Contact discharge is ± 6 KV Class C ± 3 KV Grade B</p> <p>* Test of the whole machine under good grounding</p> |



A: PWRBTN push-button
For the mainboard switch machine.

B:CLR_CMOS
Used to restore the BIOS default settings.

C: The HDMI interface
Up to 4096x2160@30Hz resolution (HDMI version 2.0 and HDCP 2.2), for connecting the display.

D: Double-layer USB3.2 GEN1 TYPE A interface

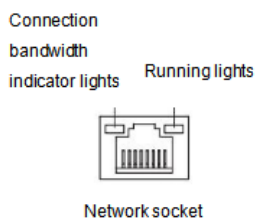
Up to support theoretical 5 Gb speed transmission, downward compatible with USB1.1 standard, for connecting USB TYPE A devices.

E: Double-layer USB3.2 GEN1 TYPE A interface

Up to support theoretical 5 Gb speed transmission, downward compatible with USB1.1 standard, for connecting USB TYPE A devices.

F: The RJ45 interface

Network cable interface, used to access the network cable to link the host system to the network, with a maximum bandwidth of 2500M bps.

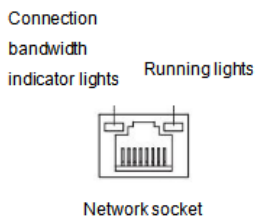


| Connect the bandwidth indicator light | |
|---------------------------------------|------------------------|
| tape width | The lamp state |
| connectionless | go out |
| 10M bps | Green is always bright |
| 100M bps | Green is always bright |
| 1000M bps | Green is always bright |
| 2500M bps | Green is always bright |

| Run the indicator light | |
|-------------------------|---------|
| No data transmission | go out |
| In data transmission | twinkle |

G: The RJ45 interface

Network cable interface, used to access the network cable to link the host system to the network, with a maximum bandwidth of 2500M bps.



| Connect the bandwidth indicator light | |
|---------------------------------------|------------------------|
| tape width | The lamp state |
| connectionless | go out |
| 10M bps | Green is always bright |
| 100M bps | Green is always bright |
| 1000M bps | Green is always bright |
| 2500M bps | Green is always bright |

| Run the indicator light | |
|-------------------------|---------|
| No data transmission | go out |
| In data transmission | twinkle |

H: Audio-Microphone interface (pink)

For accessing audio input devices, such as microphone and other radio devices.

I: LINE OUT interface (light green)

Used to access audio output devices, such as headphones, speakers and other external playback devices.

J: The HDMI interface

Up to 4096x2160@30Hz resolution (HDMI version 2.0 and HDCP 2.2), for connecting the display.

K:SATA joggle

For access to a 2.5 / 3.5-inch hard disk.



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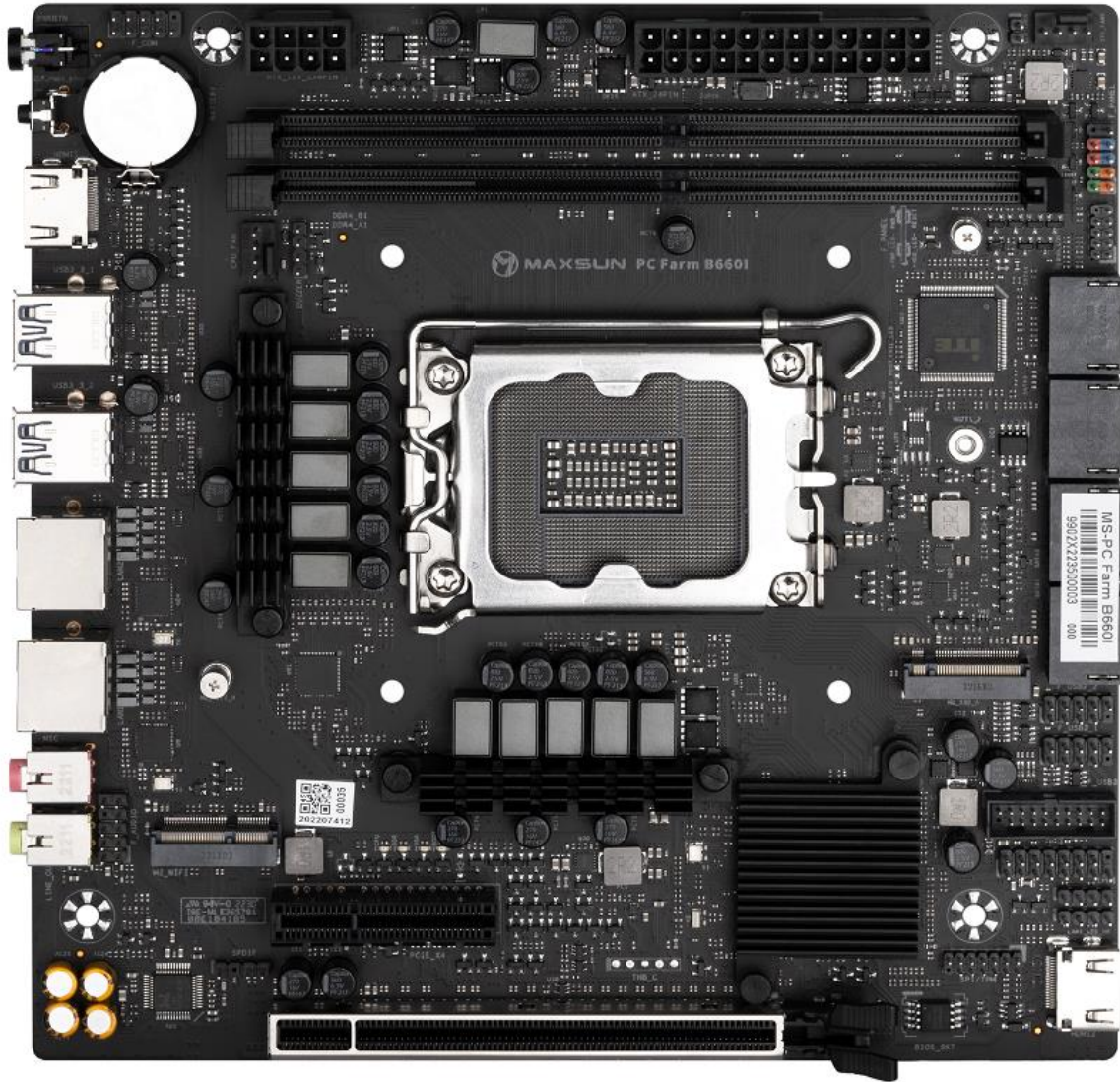
使用手册

VER:A0

SHANGKE GROUP

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第一章 主板配置图



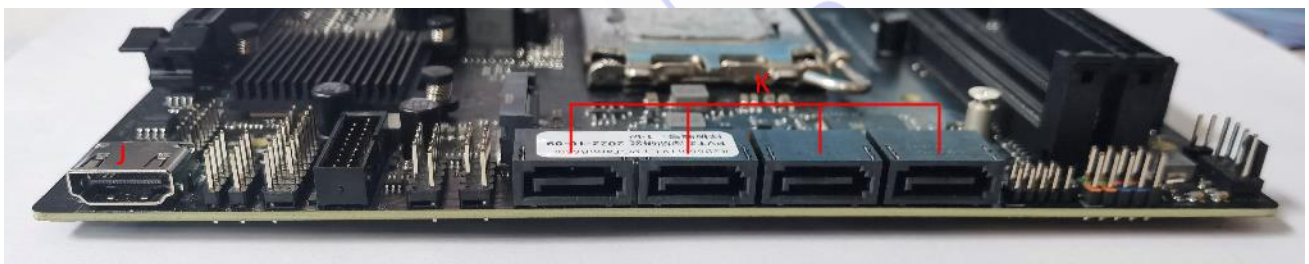
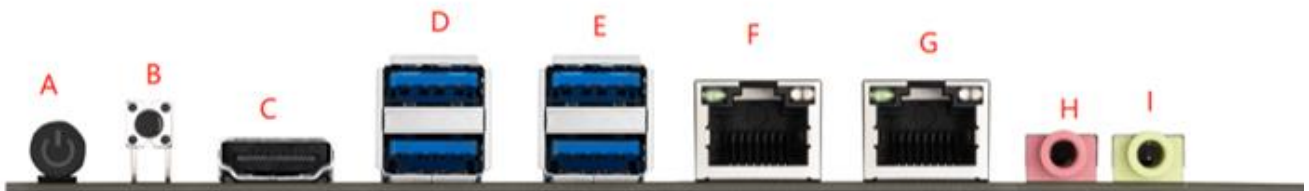
(此图仅供参考，部分细节会根据实际情况设计调整，请以实物为准，我司保留解释权)

第二章 规格

2.1、主板硬件规格

| | |
|------|---|
| 主板尺寸 | MicroATX(190*190mm) |
| CPU | 支持 LGA1700 插槽 第 12/13 代处理器（不支持 CPU 超频技术） TDP: 168W |
| 芯片组 | Intel®H610 高速芯片组 |
| 内存 | 2 个 DIMM DDR4 内存槽 最高支持共 64GB 支持双通道内存技术 支持 3200/2933/2666/2400/OC MEMORY MHz |
| 显示 | 基于具备集成显卡处理器的显示功能，采用共享显示内存技术 2 个 HDMI 接口，最高支持 4096x2160@30Hz 分辨率（HDMI1.4） 1 个 VGA 接口，最高支持 1920*1080@60Hz 分辨率 |
| 扩展接口 | 1 个 PCIEX16 4.0 插槽 1 个 PCIEX4 3.0 插槽 支持 AMD 和 NVidia 独立显卡 支持 PCIe resizable bar 技术（需 CPU 和显卡同步支持） |
| 音频 | 集成 ALC897 声卡芯片 支持前后声道同时输出 后置音频接口：1 个后置板载 LINE OUT 接口，一个后置板载 MIC_IN 麦克风接口 F_AUDIO 插针：1 组前置麦克风插针，1 组前置音频输出插针（此 2 个插针为 F_Audio 插针组） 1 组 4pin 喇叭 SPEAKER 插针 1 组前置板载 SPDIF 插针 |
| 网络 | 集成 Realtek8125 网卡芯片(10/100/1000Mbit//2500Mbit) 2 个板载 RJ45 接口 支持网络唤醒 支持 PXE 无盘、UEFI 无盘引导 |
| 存储 | 2 个 M.2 X4 4.0 插槽（紧支持 2242/2280 PCIE X4/X2 通道 SSD） 4 个 SATA3.0 接口 |
| USB | 板载后置接口：4 个 USB3.2 GEN1 接口 板内插针：2 组（2 个）USB2.0 插针，1 组（2 个）USB3.2 GEN1 插针 |
| 板内插座 | 1 个 24PIN 主板 ATX 供电接口 1 个 8PIN 主板 ATX 12V 供电接口，12V 输入 1 个 PWRBTN 按钮 1 个 COM_A 插针 1 组系统风扇插针、1 组 CPU 风扇插针（除 PUMP 插针外都支持智能风扇调节） 1 个 CLR_CMOS 按钮 1 组 CLR_CMOS 插针 |

| | |
|--------|---|
| | 1 组 DEBUG_CON 插针 1 组 SPI/TPM 插针 1 组 IPMI 插针 2 组 LAN_LED_HR 插针 1 组机箱前置控制面板插针 (F_PANEL) |
| 硬件监控 | 电压监测 温度监测 风扇监测 智能风扇控速 (主板已作支持, 智能风扇控速也需风扇支持) |
| 操作系统 | 支持 UEFI Windows10 64bit, UEFI Windows11 64bit 支持 Ubuntu 64bit |
| ESD 防护 | 空气放电 ± 8KV C 级 ± 6KV B 级 接触放电 ± 6KV C 级 ± 3KV B 级 *整机接地良好的情况下测试 |



A: PWRBTN 按钮
用于主板开关机。

B: CLR_COMS
用于恢复 BIOS 默认设置。

C: HDMI 接口
最高支持 4096x2160@30Hz 分辨率 (HDMI2.0 版本及 HDCP2.2), 用于连接显示器。

D: 双层 USB3.2 GEN1 TYPE A 接口

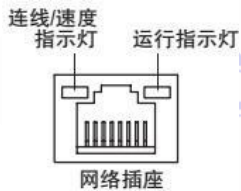
最高支持理论 5Gb 速度传输，可向下兼容 USB1.1 标准，用于连接 USB TYPE A 设备。

E: 双层 USB3.2 GEN1 TYPE A 接口

最高支持理论 5Gb 速度传输，可向下兼容 USB1.1 标准，用于连接 USB TYPE A 设备。

F: RJ45 接口

网线接口，用于接入网线将主机系统链接到网络，最高带宽 2500Mbps。

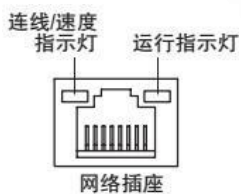


| 连接带宽指示灯 | |
|----------|------|
| 带宽 | 灯状态 |
| 无连接 | 灭 |
| 10Mbps | 绿色常亮 |
| 100Mbps | 绿色常亮 |
| 1000Mbps | 绿色常亮 |
| 2500Mbps | 绿色常亮 |

| 运行指示灯 | |
|-------|----|
| 无数据传输 | 灭 |
| 数据传输中 | 闪烁 |

G: RJ45 接口

网线接口，用于接入网线将主机系统链接到网络，最高带宽 2500Mbps。



| 连接带宽指示灯 | |
|----------|------|
| 带宽 | 灯状态 |
| 无连接 | 灭 |
| 10Mbps | 绿色常亮 |
| 100Mbps | 绿色常亮 |
| 1000Mbps | 绿色常亮 |
| 2500Mbps | 绿色常亮 |

| 运行指示灯 | |
|-------|----|
| 无数据传输 | 灭 |
| 数据传输中 | 闪烁 |

H: Audio-麦克风接口（粉红色）

用于接入音频输入设备，如麦克风等收音设备。

I: LINE OUT 接口（浅绿色）

用于接入音频输出设备，如耳机、音箱等外放设备。

J: HDMI 接口

最高支持 4096x2160@30Hz 分辨率（HDMI2.0 版本及 HDCP2.2），用于连接显示器。

K: SATA 接口

用于接入 2.5/3.5 寸硬盘。