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# MS-Challenger B760M D4 WIFI

**Manual**

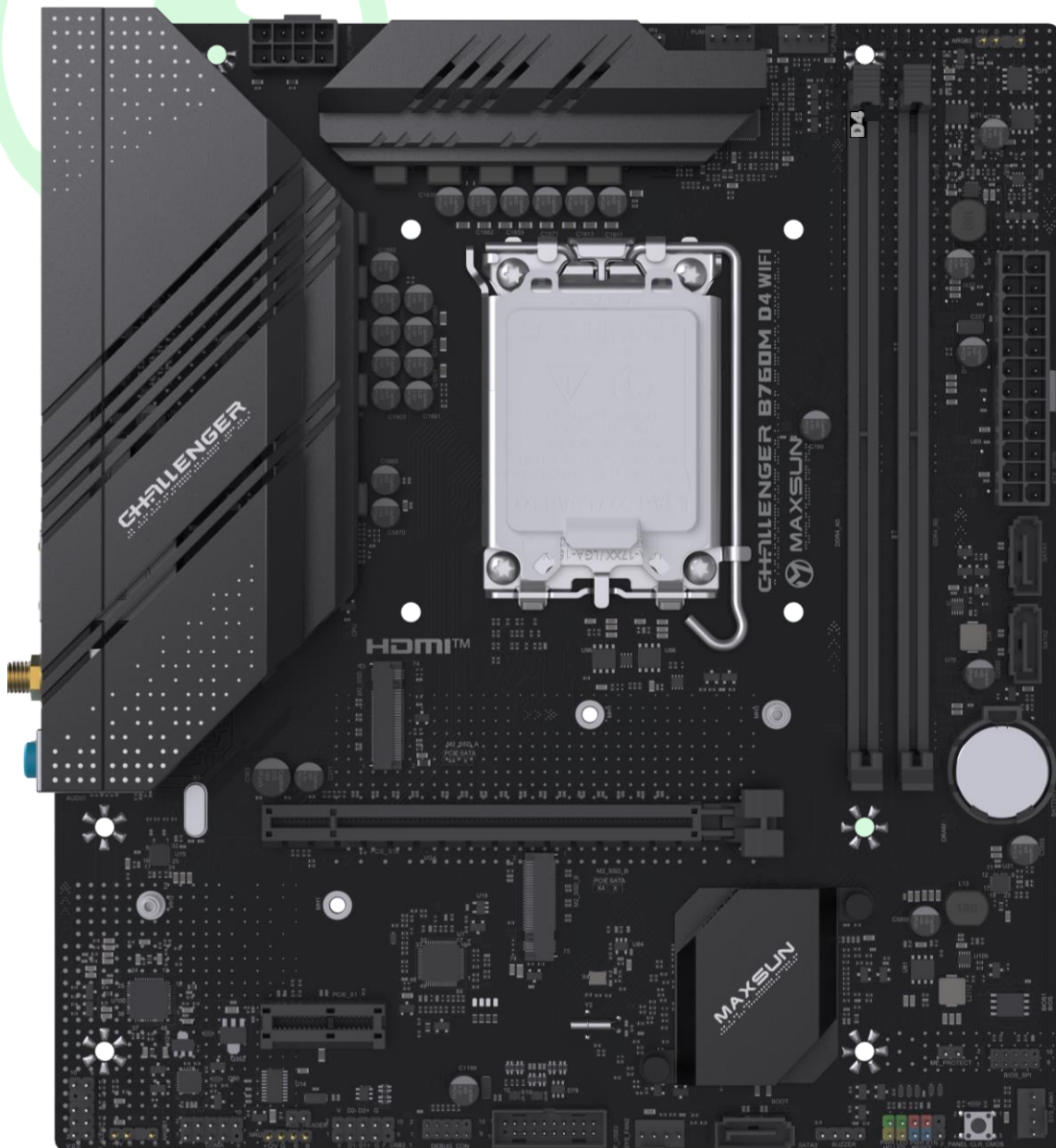
**VER :A0**

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## Chapter 1 Motherboard configuration diagram



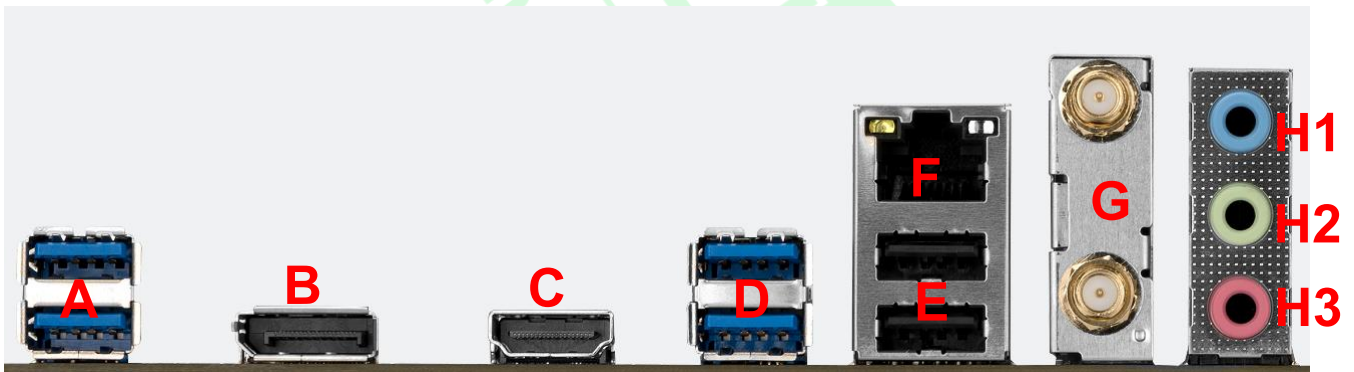
(This drawing is for reference only, and some details will be designed and adjusted according to the actual situation.  
Please take the physical object, and our company reserves the right of interpretation)

## Chapter 2 Specifications

### 2.1. Motherboard hardware specifications

|                     |   |
|---------------------|---|
| Motherboard size    | Micro ATX (230*205mm)   |
| CPU                 | Support for LGA1700 slots<br>12th Gen processor, 13th Gen processor, 14th Gen processor (no CPU overclocking technology)<br>TDP: 150W (8 + 1 + 1)   |
| Chipset             | Intel ® B760 High-speed chipset   |
| Memory              | 2x DIMM DDR4 memory slots<br>Maximum support total is 64GB<br>Support for dual-channel memory technology<br>Supports 3200 MHz / OC Memory frequency   |
| Display             | Shared display memory technology based on display capabilities with integrated graphics processor<br>1x HDMI port, with support of up to 2560 * 1440@60Hz resolution (HDMI 1.4 version)<br>1x DP port with maximum support of 7680x4320@30Hz resolution   |
| Extended slot       | 1x PCIE X16 4.0 slot, 1x PCIE X1 slot<br>AMD and NVIDIA and INTEL graphics cards are supported<br>Support for PCIE resizable bar technology   |
| Audio               | Integrated ALC897 sound chip<br>Supports the simultaneous output of the front and rear sound channels<br>Rear audio port: 1x rear on-board LINE IN port, 1x rear on-board LINE OUT port, and 1x rear on-board MIC_IN microphone port<br>F_AUDIO pin: 1x set of front microphone pin and 1x set of front audio output pin<br>1x set of 4-pin speaker BUZZER pins |
| Network             | Integrated REALTEK 8111 Network Card chip (10 / 100 / 1000Mbit)<br>1x onboard RJ45 port, 1x AX101 wireless network<br>Support network wakeup<br>Support PXE no disk, UEFI no disk guide   |
| Storage             | 2x M.2 4.0 Slot (only support 2242 / 2280 PCIE X4 / X2 channel SSD)<br>3x SATA 3.0 port   |
| USB                 | Onboard rear ports: 4x USB3.2 GEN1 ports, 2x USB2.0 ports<br>On-board pins: 1x set (2) USB2.0 pins, 1x set (2) USB3.2 GEN1 pins   |
| Inside board socket | 1x 24-PIN motherboard ATX power supply<br>1x 8-PIN motherboard ATX 12V power supply, 12V input<br>1x COM_A pin<br>2x groups of system fan pins, 1x group of CPU fan pins, 1x group of PUMP fan pins (Supports Smart Fan Adjustment except PUMP pins)  |

|                     |  |
|---------------------|--|
|                     | 1x set of CLR_CMOS button<br>1x Debug pin<br>1x BIOS Burn-in pins<br>1x ME protection pin<br>1x 12V NRGB pin and 2x 5V ARGB pins<br>1x group chassis front control panel pin (F_PANEL)     |
| Hardware monitoring | Voltage monitoring<br>Temperature monitoring<br>Fan monitoring<br>Intelligent fan speed control (motherboard has been supported, the intelligent fan speed control also needs fan support) |
| Operating system    | Support for Windows 10 64bit, Windows 11 64bit<br>Support for Ubuntu 64bit   |
| ESD protect         | Air discharge $\pm 8$ KV Class C<br>$\pm 6$ KV of grade B<br>Contact discharge is $\pm 6$ KV Class C<br>$\pm 3$ KV Grade B<br>* Test of the whole machine under good grounding             |
| Packaging size      | Net weight: 594.6 g<br>Gross weight: 904.9g<br>Box size: 265 * 246 * 55mm<br>Size of the outer box: 510 * 280 * 300mm<br>FCL weight: 6.8kg   |



A: Dual-layer USB3.2GEN1 TYPEA interface

Supports up to theoretical 5Gb speed transfers and is backward compatible with the USB1.1 standard for connecting USBTYPEA devices.

B: DP port

DP1.4 interface, support up to 7680x4320@30Hz resolution, used to connect to the DP display interface.

C: HDMI port

Up to 2560 \* 1440@60Hz resolution (HDMI 1.4 version) is support for connecting the display.

**D: Double-layer USB3.2 GEN1 TYPE A port**

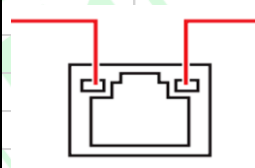
Up to support theoretical 5Gb speed transmission, downward compatible with USB1.1 standard, for connecting USB TYPE A devices.

**E: Double-layer USB2.0 TYPE A port**

Up to the USB2.0 standard support, downward compatible with the USB1.1 standard. For connecting to the USB TYPE A devices.

**F: RJ45 port**

Network cable port, used to access the network cable to link the host system to the network, with a maximum bandwidth of 1000M bps.

| Activity Link LED |               |  | Speed LED |                     |
|-------------------|---------------|--|-----------|---------------------|
| Status            | Description   |  | Status    | Description         |
| Off               | No link       |  | Off       | 10Mbps connection   |
| Yellow            | Linked        |  | Green     | 100Mbps connection  |
| Blinking          | Data activity |  | Orange    | 1000Mbps connection |

**G: WI-FI antenna port (external screw and internal needle)**

WI-FI wireless network antenna connector, onboard AX101 WI-FI6 wireless network, can be sent along with the WIFI antenna installed here.

**H1: LINE IN port (blue)**

For receiving audio input devices, such as mobile phone audio input.

**H2: Audio-out port (light green)**

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

**H3: Audio-Microphone port (pink)**

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



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# MS-Challenger B760M D4 WIFI

使用手册

VER:A0

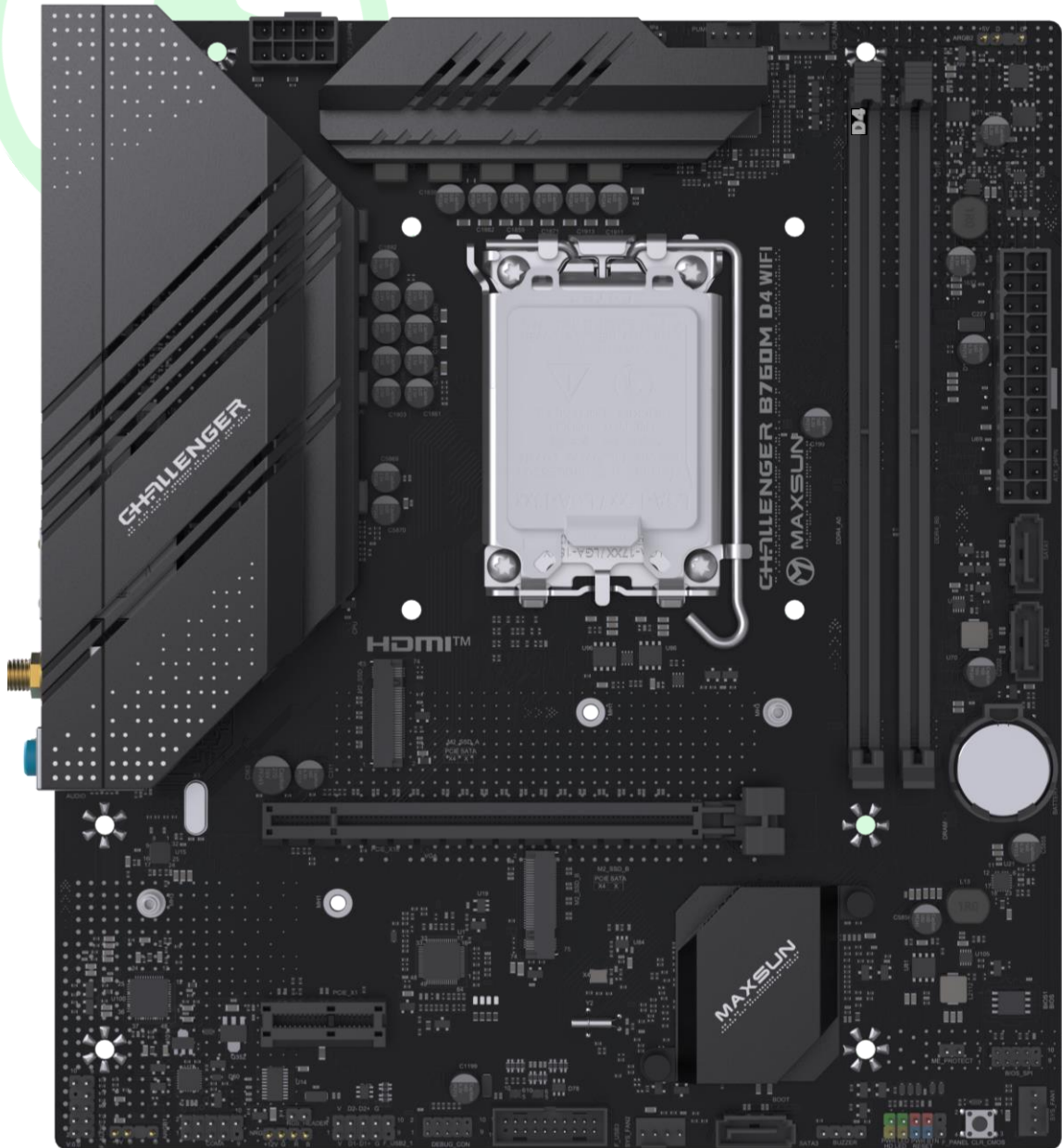
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## 第一章 主板配置图



(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

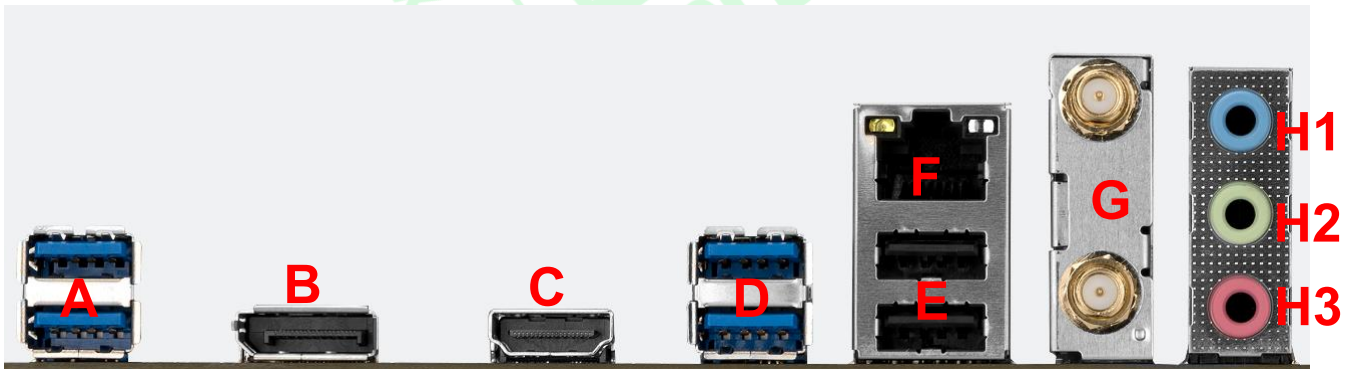
### 2.1、主板硬件规格

|      |   |
|------|---|
| 主板尺寸 | MicroATX (230*205mm)  |
| CPU  | 支持 LGA1700 插槽<br>第 12 代处理器、第 13 代处理器，第 14 代处理器（不支持 CPU 超频技术）<br>TDP: 150W (8+1+1 项)   |
| 芯片组  | Intel®B760 高速芯片组  |
| 内存   | 2 个 DIMM DDR4 内存槽<br>最高支持共 64GB<br>支持双通道内存技术<br>支持 3200MHZ/OC Memeroy 内存频率  |
| 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<br>1 个 HDMI 接口，最高支持 2560*1440@60Hz 分辨率（HDMI1.4 版本）<br>1 个 DP 接口，最高支持 7680x4320 @30Hz 分辨率  |
| 扩展接口 | 1 个 PCIEX16 4.0 插槽，1 个 PCIEX1 插槽<br>支持 AMD 和 NVidia 和 INTEL 独立显卡<br>支持 PCIE resizable bar 技术  |
| 音频   | 集成 ALC897 声卡芯片<br>支持前后声道同时输出<br>后置音频接口：1 个后置板载 LINE IN 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<br>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）<br>1 组 4pin 喇叭 BUZZER 插针 |
| 网络   | 集成 REALTEK8111 网卡芯片(10/100/1000Mbit)<br>1 个板载 RJ45 接口，1 个 AX 101 无线网卡<br>支持网络唤醒<br>支持 PXE 无盘、UEFI 无盘引导  |
| 存储   | 2 个 M.2 4.0 插槽（紧支持 2242/2280 PCIE X4/X2 通道 SSD）<br>3 个 SATA3.0 接口   |
| USB  | 板载后置接口：4 个 USB3.2 GEN1 接口，2 个 USB2.0 接口<br>板内插针：1 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<br>1 个 8PIN 主板 ATX 12V 供电接口，12V 输入<br>1 个 COM_A 插针<br>2 组系统风扇插针、1 组 CPU 风扇插针、1 组 PUMP 风扇插针（除 PUMP 插针外都支持智能风扇调节）<br>1 组 CLR_CMOS 按钮<br>1 个 Debug 插针              |





|        |  |
|--------|--|
|        | 1 个 Bios 烧录插针<br>1 个 ME 保护插针<br>1 个 12V NRGB 插针, 2 个 5V ARGB 插针<br>1 组机箱前置控制面板插针 (F_PANEL) |
| 硬件监控   | 电压监测<br>温度监测<br>风扇监测<br>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 Windows10 64bit, Windows11 64bit<br>支持 Ubuntu 64bit                                     |
| ESD 防护 | 空气放电 ± 8KV C 级<br>± 6KV B 级<br>接触放电 ± 6KV C 级<br>± 3KV B 级<br>*整机接地良好的情况下测试                |
| 包装尺寸   | 单板重量: 594.6g<br>单片彩包重量: 904.9g<br>彩盒尺寸: 265*246*55mm<br>外箱尺寸: 510*280*300mm<br>整箱重量: 6.8KG |



A: 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。

B: DP 接口

DP1.2 接口, 最高支持 7680x4320 @30Hz 分辨率, 用于连接 DP 显示器接口。

C: HDMI 接口

最高支持 2560\*1440@60Hz 分辨率, 用于连接显示器。

D: 双层 USB3.2 GEN1 TYPE A 接口

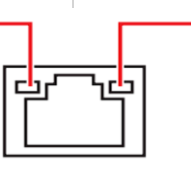
最高支持理论 5Gb 速度传输, 可向下兼容 USB1.1 标准, 用于连接 USB TYPE A 设备。

**E: 双层 USB2.0 TYPE A 接口**

最高支持 USB2.0 标准，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 1000Mbps。

| 运行指示灯 |      |  | 速度指示灯 |             |
|-------|------|---|-------|-------------|
| 状态    | 描述   |   | 状态    | 描述          |
| 关闭    | 无链接  |   | 关闭    | 10Mbps 连接   |
| 黄色    | 已链接  |   | 绿色    | 100Mbps 连接  |
| 闪烁    | 数据传输 |   | 橙色    | 1000Mbps 连接 |

**G: WI-FI 天线接口（外螺内针）**

WI-FI 无线网卡天线公头接口，板载 AX101 WI-FI6 无线网卡，可将随赠 WIFI 天线安装至此处。

**H1: LINE IN 接口(蓝色)**

用于接收音频输入设备，如手机音频输入。

**H2: Audio-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。

**H3: 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。