

MS-Challenger B760M-N D5

Manual

VER:A 0

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Chapter I Motherboard configuration diagram



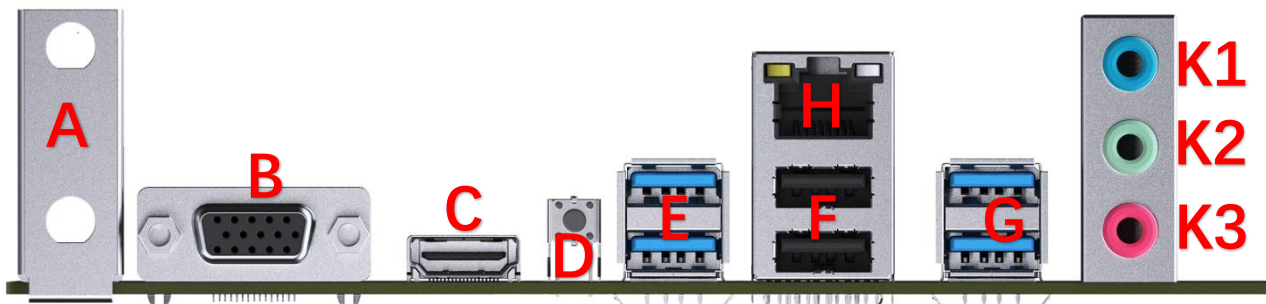
(This drawing is for reference only, and some details will be designed and adjusted according to the actual situation.
Please take the physical object, and our company reserves the right of interpretation)

Chapter II Specifications

2.1 Motherboard hardware specifications

Motherboard size	Micro ATX (245*190mm)
CPU	Support for LGA1700 slots 12th generation processor, 13th generation processor (no CPU overclocking technology) TDP: 95W (4 + 1 phase powered)
Chipset	Intel ® B760 High-speed chipset
Memory	2x DIMM DDR5 memory slots Maximum support total is 64GB Support for dual-channel memory technology Support for 4800 MHz / OC memory frequency
Display	Based on the display function of the integrated graphics card processor, the shared display memory technology is adopted 1x HDMI port with up to 4096x2160@30Hz resolution (HDMI version 2.0 and HDCP 2.2) 1x VGA port with 1920 * 1080@60Hz resolution
Extended port	1x PCIE X16 4.0 slot, 1x PCIE X4 3.0 slot Support for AMD and NVIDIA independent graphics cards Support for the PCIE resizable bar technology
Audio	Integrated ALC897 sound card chip Support the simultaneous output of the front and rear sound channels 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 F_AUDIO pin: 1x set of front microphone pin and 1 set of front audio output pin 1x 4-pin horn Buzzer pins
Network	Integrated REALTEK 8111H Network Card Chip (10 / 100 / 1000Mbit) 1x onboard RJ45 port Support network arousal Support PXE no disk, UEFI no disk guide 1x M.2 _ WIFI slot (support for extended WIFI module use)
Storage	2x M.2 4.0 slots (only supports 2242/2280 PCIE X4/X2 channel SSD) 3x SATA3.0 ports
USB	On-board rear port: 4x USB3.2 GEN 1 ports and 2 USB2.0 ports Plate insert: 1x group 9 PIN USB2.0 pins, 1x group 4-PIN USB2.0 pins and 1x group (2) USB3.2 GEN 1 pins
Inside board socket	1x 24-PIN motherboard ATX power supply port 1x 8-PIN motherboard ATX 12V power supply port, 12V input 1x COM_A pin 1x 4-PIN CPU _ FAN fan pin and 24 PIN SYS _ FAN fan pins CLR _ CMOS pin for 12 PIN 1x button for the CLR_CMOS

	1x Debug pin 1x TPM pin (BIOS common) 1x SPDIF pin 1x group chassis front control panel pin (F_ PANEL) 1x NRGB (12V) needle for a 4 PIN
Hardware monitoring	Voltage monitoring temperature monitoring Fan monitoring Intelligent fan speed control (the main board has been supported, the intelligent fan speed control also needs fan support)
Operating system	Support for Windows 10 64bit, Windows 11 64bit Support for Ubuntu 64bit
ESD protect	Air discharge ± 8 KV Class C ± 6 KV of grade B Contact discharge is ± 6 KV Class C ± 3 KV Grade B * Test of the whole machine under good grounding



A: WIFI antenna bracket

Support for WIFI extension head for easy installation of WIFI antenna.

B: The VGA port

Up to 1920x1080@60Hz resolution support for connecting the display.

C: The HDMI port

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

D: CLR_CMOS push button

In the case of shutdown AC, press the button for 8 seconds to restore the factory setting of motherboard BIOS.

E: 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.

F: Double-layer USB2.0 TYPE A port

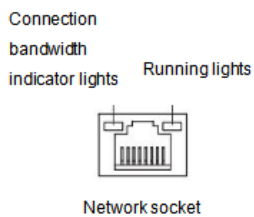
Up to support USB2.0 standard, downward compatible with USB1.1 standard. For connecting to the USB TYPE A devices.

G: 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.

H: 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.



Connect the bandwidth indicator light	
tape width	The lamp state
Connection-less	go out
10M bps	Green is always bright
100M bps	Green is always bright
1000M bps	Orange is always bright

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

K 1: LINE IN port (blue)

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

K 2: Audio-out port (light green)

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

K 3: Audio-Microphone port (pink)

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

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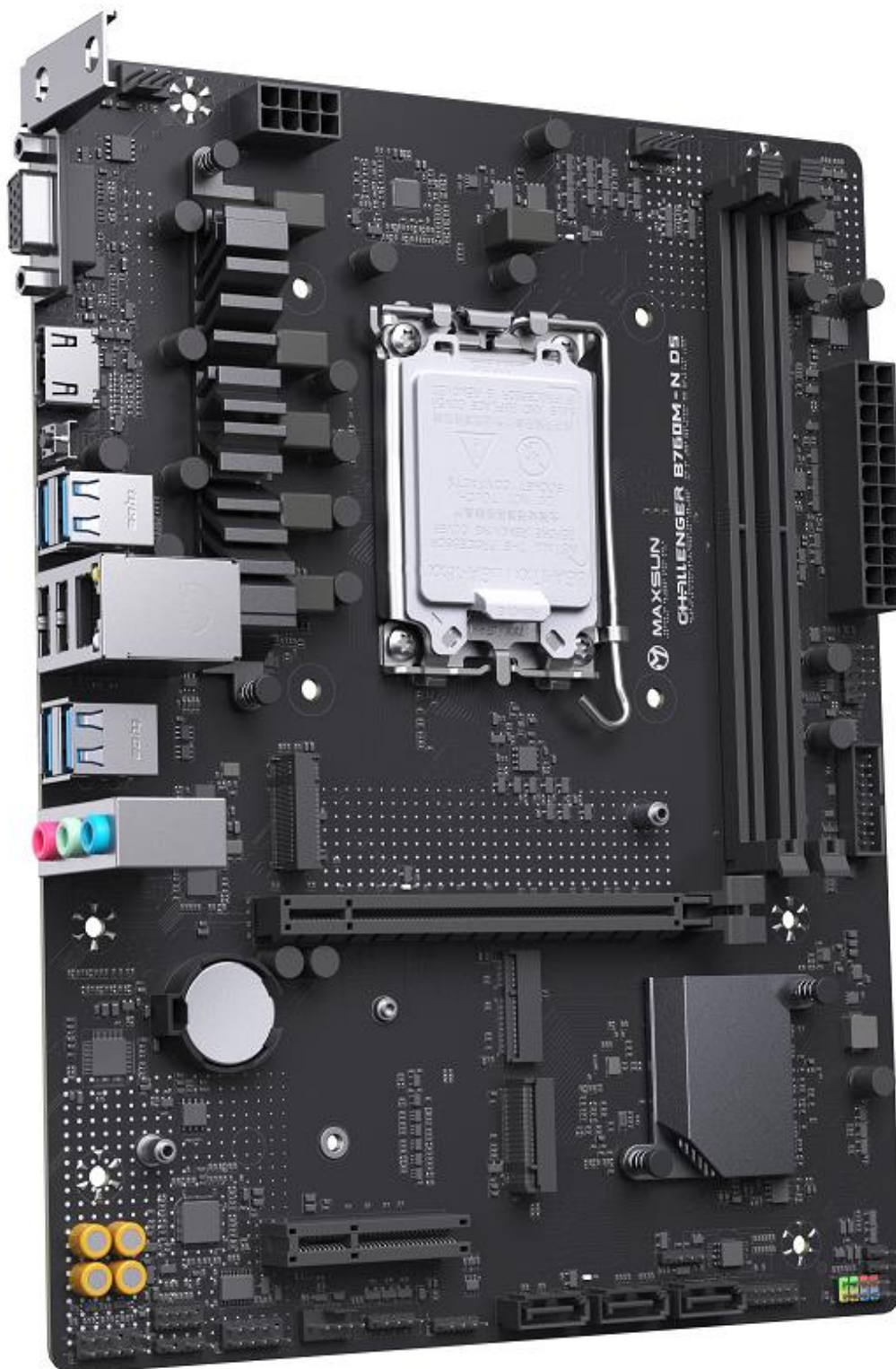
使用手册

VER:A0

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第一章 主板配置图



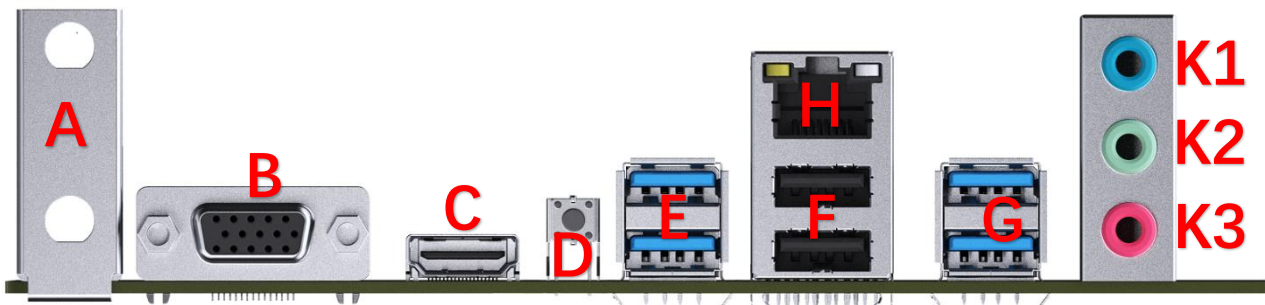
（此图仅供参考，部分细节会根据实际情况设计调整，请以实物为准，我司保留解释权）

第二章 规格

2.1、主板硬件规格

主板尺寸	MicroATX(245*190mm)
CPU	支持 LGA1700 插槽 第 12 代处理器、第 13 代处理器 (不支持 CPU 超频技术) TDP: 95W (4+1 相供电)
芯片组	Intel®B760 高速芯片组
内存	2 个 DIMM DDR5 内存槽 最高支持共 64GB 支持双通道内存技术 支持 4800MHz/OC Memory 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 1 个 HDMI 接口, 最高支持 4096x2160@30Hz 分辨率 (HDMI2.0 版本及 HDCP2.2) 1 个 VGA 接口, 最高支持 1920*1080@60Hz 分辨率
扩展接口	1 个 PCIe x16 4.0 插槽, 1 个 PCIe x4 3.0 插槽 支持 AMD 和 NVidia 独立显卡 支持 PCIe resizable bar 技术
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 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 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 Buzzer 插针
网络	集成 REALTEK8111H 网卡芯片(10/100/1000Mbit) 1 个板载 RJ45 接口 支持网络唤醒 支持 PXE 无盘、UEFI 无盘引导 1 个 M.2_WIFI 插槽 (支持扩展 WIFI 模块使用)
存储	2 个 M.2 4.0 插槽 (紧支持 2242/2280 PCIe x4/x2 通道 SSD) 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 板内插针: 1 组 9PIN (2 个) USB2.0 插针, 1 组 4PIN (1 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 COM_A 插针 1 个 4PIN CPU_FAN 风扇插针、2 个 4PIN SYS_FAN 风扇插针 1 个 2PIN 的 CLR_CMOS 插针 1 个 CLR_CMOS 的按钮

	1 个 Debug 插针 1 个 TPM 插针(BIOS 烧录插针共用) 1 个 SPDIF 插针 1 组机箱前置控制面板插针 (F_PANEL) 1 个 4PIN 的 NRGB(12V)插针
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 Windows10 64bit, Windows11 64bit 支持 Ubuntu 64bit
ESD 防护	空气放电 $\pm 8KV$ C 级 $\pm 6KV$ B 级 接触放电 $\pm 6KV$ C 级 $\pm 3KV$ B 级 *整机接地良好的情况下测试



A: WIFI 天线支架

用于 WIFI 延长线头的支撑, 便于安装 WIFI 天线使用。

B: VGA 接口

最高支持 1920x1080@60Hz 分辨率, 用于连接显示器。

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: CLR_CMOS 按钮

在关机断 AC 情况下, 长按该按钮 8 秒钟, 恢复主板 BIOS 出厂化设置。

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: 双层 USB2.0 TYPE A 接口

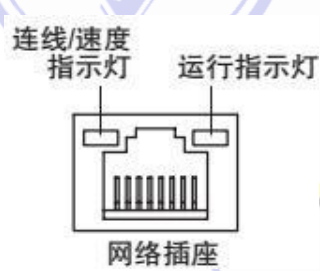
最高支持 USB2.0 标准, 可向下兼容 USB1.1 标准。用于连接 USB TYPE A 设备。

G: 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。

H: 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。



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	橙色常亮

运行指示灯	
无数据传输	灭
数据传输中	闪烁

K1: LINE IN 接口(蓝色)

用于接收音频输入设备, 如手机音频输入。

K2: 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。

K3: 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。