



MS-Milestone H610M 2.5G V2

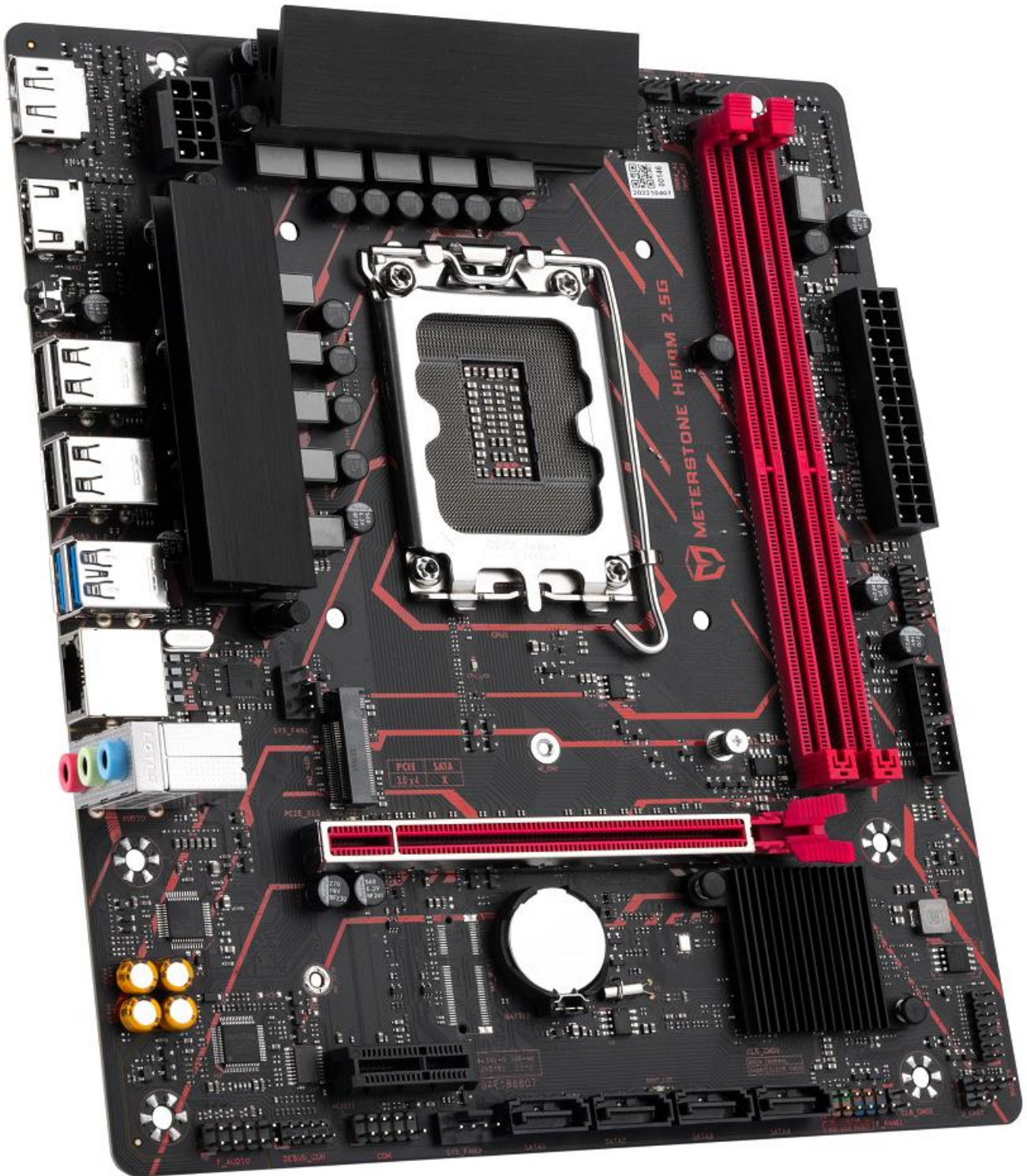
Manual

VER:A 0

Edit: November 04,2023

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	MicroITX (220*185mm)
CPU	Support for L GA 1700 slots The 12th generation processor (CPU overclocking technology is not supported) TDP : 95W
chipset	Intel ® H610, a high-speed chipset
memory	2 DIMM DDR4 memory slots The maximum support in total is 64GB Support for dual-channel memory technology Supports up to 3,200 Memory of memory frequency
display	Based on the display function of the integrated graphics card processor, the shared display memory technology is adopted 1 HDMI 1.4 interface, up to 4096x2160 @30Hz resolution 1 DP 1.2 interface, up to 4096x2160 @60Hz resolution
extended interface	1 PCIE X16 4.0 slot 1 PCIE X1 3.0 slot Support for AMD and NVIDIA independent graphics cards Support for PCIE resizable bar technology (CPU and graphics card synchronization support is required)
audio	Integrated ALC897 sound card chip Supports the simultaneous output of the front and rear sound channels Rear audio interface: 1 rear on-board LINE IN interface, 1 rear on-board LINE OUT interface, and 1 rear on-board MIC_IN microphone interface F_AUDIO pin: 1 set of front microphone pins and 1 set of front audio output pins (the 2 pins are F_AUDIO pins)
network	Integrated Realtek 8125BG card chip (10 / 100 / 1000 / 2500 Mbit) 1 onboard RJ45 interface Supports the wired network wake-up Support PXE no disk, UEFI no disk guide
storage	M.2_SSD slot only supports 2280/2240 size PCIE X4 3.0 devices (compatible with 2.0) Four SATA3.0 interfaces
USB	On-board rear interface: 2 USB 3.2 GEN 1 ports and 4 USB2.0 ports Plate insert: 1 (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 3 system fan pins and 1 CPU fan pins 1 CLR_CMOS button, 1 CLR_CMOS pin 1 group chassis front control panel pin (F_PANEL)

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 UEFI Windows 10 64bit, UEFI 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



2.2 Description of motherboard IO interface

A:DP interface

Up to 4096x2160@60Hz resolution support for connecting the display.

B: The HDMI interface

Up to 4096x2160@30Hz resolution support for connecting to the DP display interface.

C: The CLS _ CMOS push button

Clear the motherboard C MOS information to use, please confirm that the AC power supply is disconnected before operation, long press the button for 8 seconds to clear the motherboard C MOS information.

D: USB 2.0 interface

Up to support theoretical 60 MB/s speed transmission, downward compatible with USB1.1 standard, for connecting USB TYPE A devices.

E: USB 2.0 interface

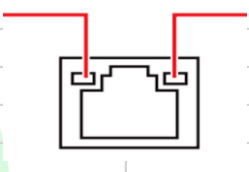
Up to support theoretical 60 MB/s speed transmission, downward compatible with USB1.1 standard, for connecting USB TYPE A devices.

F: USB 3.2 GEN 1 interface

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

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.

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/2.5Gbps connection	

The rear R_AUDIO interface can support stereo and 5-channel use, the specific jack is as follows:

H1: LINE IN interface (blue)

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

H2: LINE OUT interface (light green)

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

H3: Audio-Microphone interface (pink)

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

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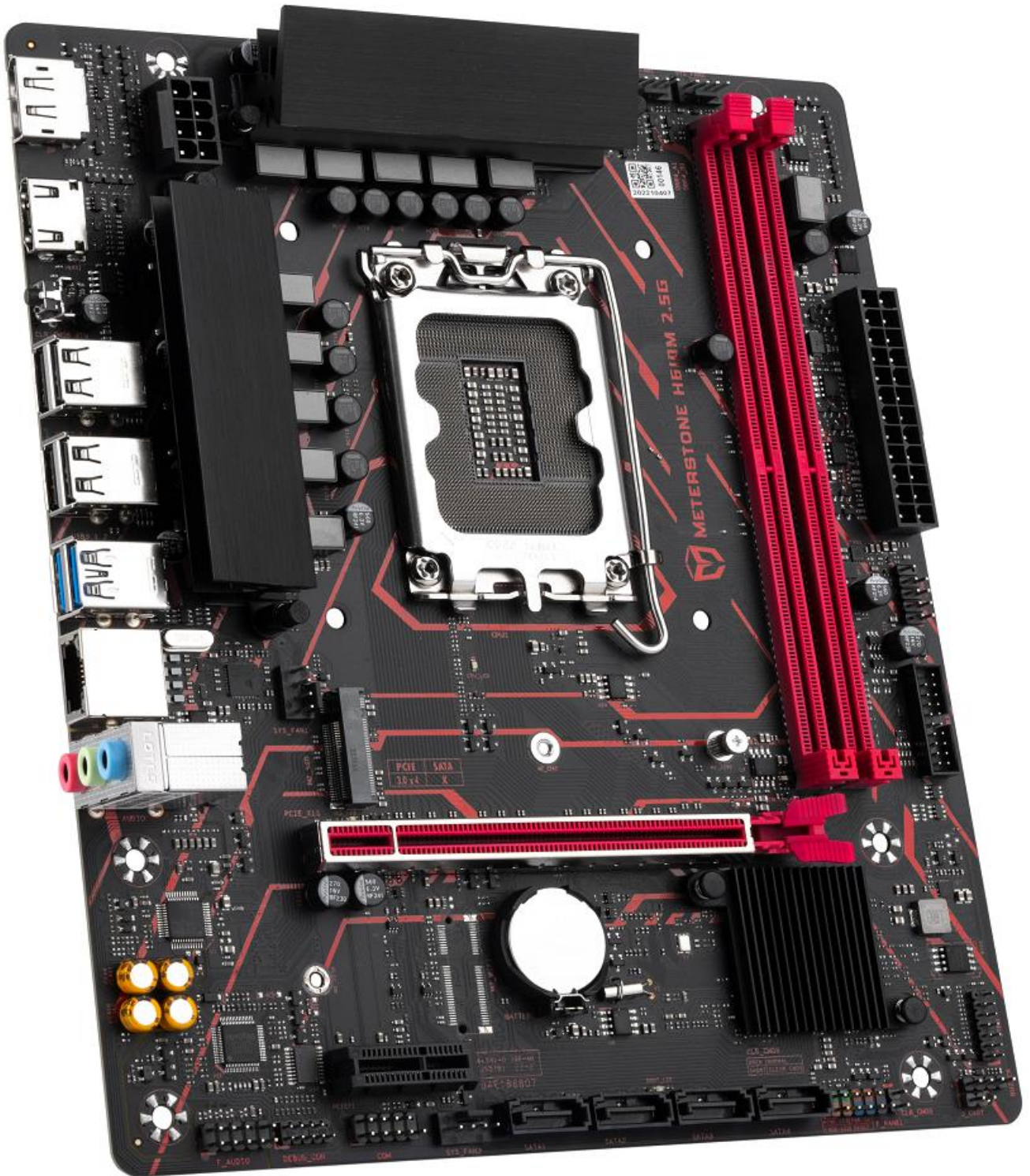
使用手册

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第一章 主板配



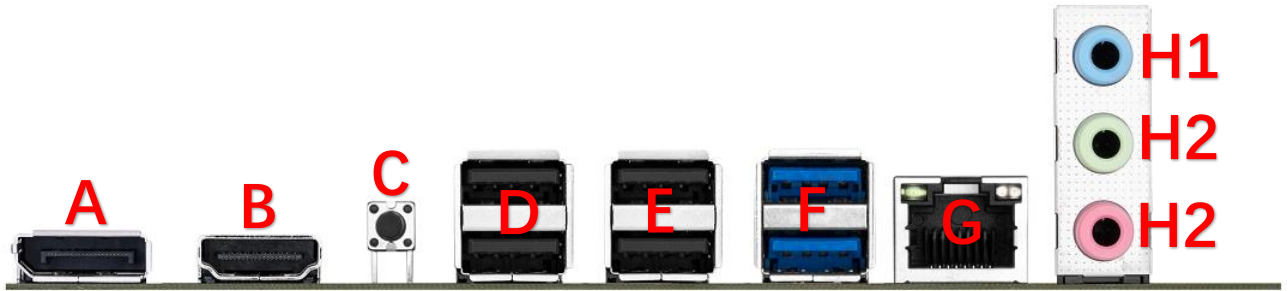
(此图仅供参考，部分细节会根据实际情况设计调整，请以实物为准，我司保留解释权)

第二章 规格

2.1、主板硬件规格

主板尺寸	MicroITX(220*185mm)
CPU	支持 LGA1700 插槽 第 12 代处理器 (不支持 CPU 超频技术) TDP: 95W
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 支持最高 3200 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 1 个 HDMI1.4 接口, 最高支持 4096x2160 @30Hz 分辨率 1 个 DP1.2 接口, 最高支持 4096x2160 @60Hz 分辨率
扩展接口	1 个 PCIEX16 4.0 插槽 1 个 PCIEX1 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 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)
网络	集成 Realtek8125BG 网卡芯片(10/100/1000/2500Mbit) 1 个板载 RJ45 接口 支持有线网络唤醒 支持 PXE 无盘、UEFI 无盘引导
存储	M.2_SSD 插槽仅支持 2280,2240 尺寸 PCIEX4 3.0 设备 (可兼容 2.0) 4 个 SATA3.0 接口
USB	板载后置接口: 2 个 USB3.2 GEN1 接口, 4 个 USB2.0 接口 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 1 个 8PIN 主板 ATX 12V 供电接口, 12V 输入 3 个系统风扇插针、1 个 CPU 风扇插针 1 个 CLR_CMOS 按钮, 1 个 CLR_CMOS 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



2.2、主板 IO 接口功能说明

A: DP 接口

最高支持 4096x2160@60Hz 分辨率, 用于连接显示器。

B: HDMI 接口

最高支持 4096x2160@30Hz 分辨率, 用于连接 DP 显示器接口。

C: CLS_CMOS 按钮

清除主板 CMOS 信息使用, 操作前请确认已断开 AC 电源, 长按该按钮 8 秒钟完成清除主板 CMOS 信息。

D: USB2.0 接口

最高支持理论 60MB/s 速度传输, 可向下兼容 USB1.1 标准,用于连接 USB TYPE A 设备。

E: USB2.0 接口

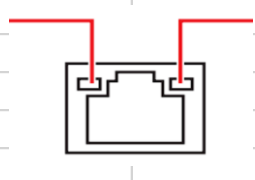
最高支持理论 60MB/s 速度传输, 可向下兼容 USB1.1 标准,用于连接 USB TYPE A 设备。

F: USB3.2 GEN1 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。

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。

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/2.5Gbps connection	

后置 R_AUDIO 接口，可支持立体声、5.1 声道使用，具体插孔如下所示：

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: 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。

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