



MS-Terminator B660M Red

Manual

VER:A0

SHANGKE GROUP

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Editorial Department: Technical Department

Chapter I Configuration Diagram of Mainboard



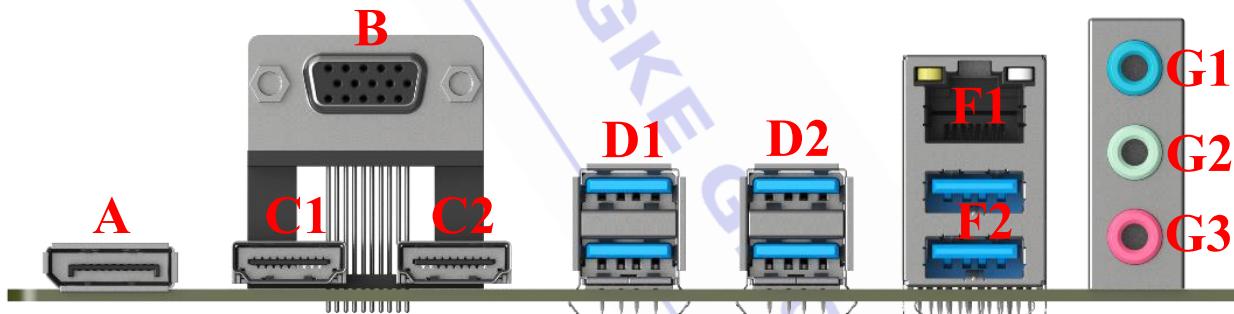
(This drawing is for reference only, and some details will be designed and adjusted according to the actual situation. Please refer to the material object, and our company reserves the right to interpret it.)

Chapter II Specifications

2.1 motherboard hardware specifications

Mainboard size	MicroATX(245*245mm)
CPU	Support LGA1700 slot 12th generation processor TDP: 241W
chipset	Intel®B660 high-speed chipset
memory	4 DIMM DDR4 memory slots (please give priority to the second and fourth slots for single-plug or dual-plug memory) The maximum support is 128GB. Support dual-channel memory technology Support 2133/2400/2666/3200/OC memory frequency.
display	Based on the display function with integrated graphics processor, the shared display memory technology is adopted. 1 DP interface, with the highest resolution of 7680*4320@30Hz. 2 HDMI interfaces, up to 4096x2160@30Hz resolution (supporting HDCP 2.2). 1 VGA interface, up to 1920*1200@60Hz resolution.
expansion interface	1 PCIE X16 4.0 slot 1 PCIE X4 3.0 slot 1 PCIE X1 3.0 slot Support AMD and NVIDIA discrete graphics cards and DG1 discrete graphics cards. Support PCIE resizable bar technology (synchronization between CPU and graphics card is required)
audio	Integrated REALTEK ALC897 sound card chip Support simultaneous output of front and rear channels (need to be set in HD audio controller) Rear audio interface: 1 rear onboard LINE IN interface, 1 rear onboard LINE OUT interface and 1 rear onboard MIC_IN microphone interface. F_AUDIO pin: 1 set of front microphone pin and 1 set of front audio output pin (these two pins are F_Audio pin groups). 1 set of 4pin SPEAKER pins
network	Integrated REALTEK 8125BG network card chip (10/100/1000/2500Mbit) 1 onboard RJ45 interface Support network wake-up Support PXE diskless and UEFI diskless boot.
storage	3 M.2 slots (only 2242/2280 PCIE X4/X2 channel SSD is supported) 1 M.2_WIFI slot (only CNVI protocol network card is supported) 4 SATA3.0 interfaces
USB	On-board rear interface: 2 USB3.1 GEN1 interfaces and 4 USB2.0 interfaces.

	On-board pins: 1 set (2) of USB2.0 pins and 1 set (2) of USB3.2 GEN1 pins. 1 type-c 10G front interface
In-board socket	1 24PIN motherboard ATX power supply interface 1 8PIN motherboard ATX 12V power supply interface, 12V input. 1 COM_A pin 3 sets of system fan pins and 1 set of CPU fan pins 1 set of chassis front control panel pins (F_PANEL) 2 sets of 5V ARGB pins and 1 set of 12V RGB pins. 1 set of front audio pins
Hardware monitoring	Voltage monitoring Temperature monitoring Fan monitoring Intelligent fan speed control (the motherboard has been supported, and the intelligent fan speed control also needs fan support)
operating system	Supports Windows10 64bit and Windows11 64bit. Support Ubuntu 64bit
ESD protection	Air discharge \pm 8KV Level C \pm 6KV Class B Contact discharge \pm 6KV Level C \pm 3KV Class B *Test with the complete machine grounded well



A: DP interface

It supports digital signal output with the resolution of 7680*4320@30Hz at most, and is used to connect the display.

B:VGA interface

Up to 1920x1080@60Hz resolution analog signal output is supported, which is used to connect the display.

C1: HDMI interface

HDMI 2.0 interface, which supports up to 4096x2160@30Hz resolution digital signal output (supports HDCP2.2), and is used to connect HDMI display interface.

C2: HDMI interface

HDMI 2.0 interface, which supports up to 4096x2160@30Hz resolution digital signal output (supports HDCP2.2), and is used to connect HDMI display interface.

D1: USB 3.2gen1 interface

The maximum support theory is 5Gb speed transmission, which can meet the backwards compatibility USB1.1 standard and be used to connect USB TYPE A devices.

D2: USB 3.2gen1 interface

The maximum support theory is 5Gb speed transmission, which can meet the backwards compatibility USB1.1 standard and be used to connect USB TYPE A devices.

F1: RJ45 interface

Network cable interface, which is used to access the network cable to connect the host system to the network, with a maximum bandwidth of 2500Mbps.

Connection bandwidth indicator lights	Running lights	Connection bandwidth indicator	Running indicator lamp
		bandwidth	Lamp state
		connectionless	put out
		10Mbps	Green is always bright.
		100Mbps	Green is always bright.
		1000Mbps	Orange is always bright
		2500Mbps	Orange is always bright

F2: USB 3.2gen1 interface

The maximum support theory is 5Gb speed transmission, which can meet the backwards compatibility USB1.1 standard and be used to connect USB TYPE A devices.

G1: Audio-in interface (blue)

Which is use for receiving audio input equipment, such as a mobile phone.

G2: audio-out interface (light green)

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

G3: audio-microphone connector (pink)

Used to access audio input devices, such as microphones and other radio equipment.



MS-终结者 B660M Red

使用手册

VER:A0

SHANGKE GROUP

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第一章 主板配置图



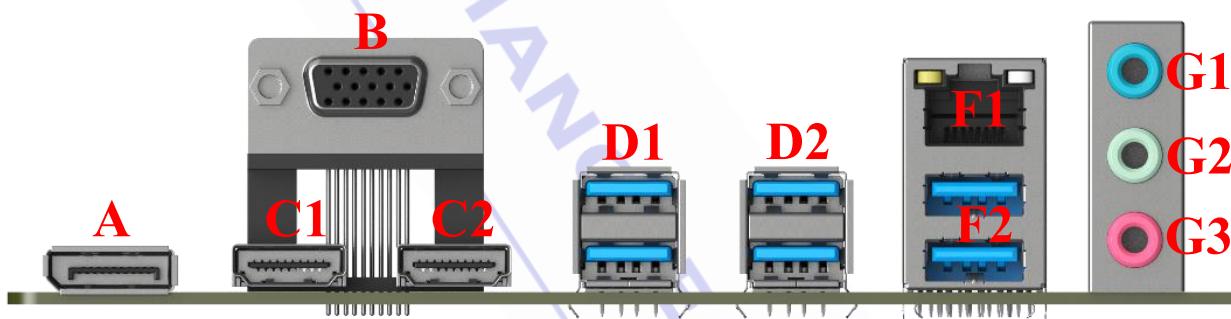
(此图仅供参考，部分细节会根据实际情况设计调整，请以实物为准，我司保留解释权)

第二章 规格

2.1、主板硬件规格

主板尺寸	MicroATX (245*245mm)
CPU	支持 LGA1700 插槽 第 12 代处理器 TDP: 241W
芯片组	Intel®B660 高速芯片组
内存	4 个 DIMM DDR4 内存槽 (单插或双插内存请优先使用第二、第四条插槽) 最高支持共 128GB 支持双通道内存技术 支持 2133/2400/2666/3200/OC 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 DP 接口，最高支持 7680*4320@30Hz 分辨率 2 个 HDMI 接口，最高支持 4096x2160@30Hz 分辨率（支持 HDCP2.2） 1 个 VGA 接口，最高支持 1920*1200@60Hz 分辨率
扩展接口	1 个 PCIE X16 4.0 插槽 1 个 PCIE X4 3.0 插槽 1 个 PCIE X1 3.0 插槽 支持 AMD 和 NVidia 独立显卡、DG1 独立显卡 支持 PCIE resizable bar 技术（需 CPU 和显卡同步支持）
音频	集成 REALTEK ALC897 声卡芯片 支持前后声道同时输出（需要高清音频控制器中设置） 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 SPEAKER 插针
网络	集成 REALTEK 8125BG 网卡芯片 (10/100/1000/2500Mbit) 1 个板载 RJ45 接口 支持网络唤醒 支持 PXE 无盘、UEFI 无盘引导
存储	3 个 M.2 插槽（仅支持 2242/2280 PCIE X4/X2 通道 SSD） 1 个 M.2_WIFI 插槽（仅支持 CNVI 协议网卡） 4 个 SATA3.0 接口
USB	板载后置接口：2 个 USB3.1 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 1 个 type-c 10G 前置接口
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 3 组系统风扇插针、1 组 CPU 风扇插针 1 组机箱前置控制面板插针 (F_PANEL) 2 组 5V ARGB 插针, 1 组 12V RGB 插针 1 组前置音频插针
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 ± 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: DP 接口

最高支持 7680*4320@30Hz 分辨率的数字信号输出, 用于连接显示器。

B: VGA 接口

最高支持 1920x1080@60Hz 分辨率模拟信号输出, 用于连接显示器。

C1, HDMI 接口

HDMI2.0 接口, 最高支持 4096x2160@30Hz 分辨率数字信号输出 (支持 HDCP2.2), 用于连接 HDMI 显示器接口。

C2:HDMI 接口

HDMI2.0 接口, 最高支持 4096x2160@30Hz 分辨率数字信号输出 (支持 HDCP2.2), 用于连接 HDMI 显示器接口。

D1：USB3.2 GEN1 接口

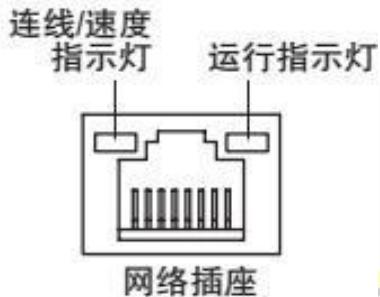
最高支持理论 5Gb 速度传输, 可向下兼容 USB1.1 标准, 用于连接 USB TYPE A 设备。

D2: 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。

F1: RJ45 接口

网线接口，用于接入网线将主机系统连接到网络，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	橙色常亮
2500Mbps	橙色常亮

运行指示灯	
无数据传输	灭
数据传输中	闪烁

F2: 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。

G1: Audio-in 接口(蓝色)

用于接收音频输入设备，如手机音频输入。

G2: 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。

G3: 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。