

MS-iCraft Z690ITX WIFI

Manual

VER:A0

SHANGKE GROUP

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Chapter I Motherboard configuration diagram



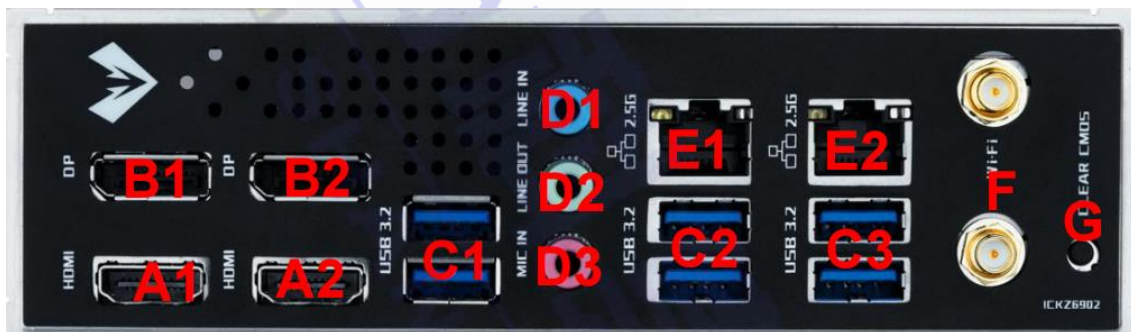
(This drawing is for reference only, and some details will be designed and adjusted according to the actual situation. Please take the physical object, and our company reserves the right of interpretation)

Chapter II Specifications

2.1. Motherboard hardware specifications

motherboard size	MicroITX(170*170mm)
CPU	Support for LGA 1700 slots The 12 th /13 th generation processor (CPU overclocking technology is not supported) TDP: 241W
chipset	Intel ® Z690 Chipset
memory	2 DIMM DDR5 memory slots The maximum support total is 64GB Support for dual-channel memory technology Support for 4800 / OC memory frequency
display	Based on the display function of the integrated graphics card processor, the shared display memory technology is adopted 2x HDMI interfaces with up to 4096x2160 @60Hz resolution (HDMI version 2.0 and HDCP 2.2) 2x DP 1.4 interfaces, up to 7680x4320 @30Hz resolution
extended interface	1x PCIE X16 5.0 slot Support for AMD and NVIDIA, independent graphics card 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 on-board LINE IN interface, 1 rear on-board LINE OUT interface, and 1 rear on-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_Audio pins)
network	Integrated Realtek 8125B Network Card Chip (10 / 100 / 1000 / 2500Mbit) 2x on-board RJ45 ports 1x AX211 wireless network card Supports the wired network wake-up Support PXE no disk, UEFI no disk guide
storage	M.2_A slot supports 2280 size PCIE X4 4.0 devices only (3.0/2.0 compatible) M.2_B slot can support 2280 size PCIE X4 4.0 and SATA protocol SSD 4x SATA3.0 ports
USB	On-board rear interface: 6x USB3.2 GEN1 ports Plate pins: 3x USB2.0 pins, 1 group (2) USB 3.2 GEN1 pins, 1 USB3.2 Gen2 front Type-C interface
inside board	1x 24-PIN motherboard ATX power supply interface

socket	1x 8-PIN motherboard ATX 12V power supply interface, 12V input 3x system fan pins and 1x CPU fan pins 1x CLR_CMOS button 2x 3-PIN 5V ARGB pins 1x 4-PIN 12V NRGB needle insert 1x SPDIF OUT pin 1x 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 U EIF 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



A1: HDMI interface

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

A2: HDMI interface

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

B1: DP interface

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

B2: DP interface

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

C1: Rear 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.

C2: Rear 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.

C3: Rear 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.

D1: LINE IN interface (blue)

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

D2: LINE OUT interface (light green)

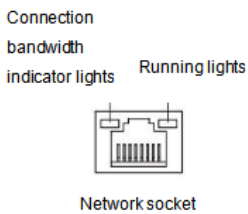
Used to access audio output devices, such as headphones, speakers and other external playback devices.

D3: Audio-Microphone interface (pink)

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

E1: 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.

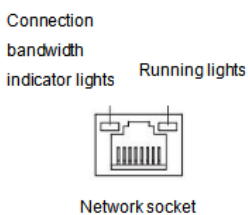


Connect the bandwidth indicator light	
tape width	The lamp state
connectionless	go out
10M bps	go out
100/1000M bps	Green is always bright
2500M bps	Orange is always bright

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

E2: 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	go out
100/1000M bps	Green is always bright
2500M bps	Orange is always bright

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

F: wireless network adapter

AX211 Wireless network card, used for access to the WIFI antenna.

G: The CLS_ MOS push button

Used to restore the Bios default value.



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使用手册

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第一章 主板配置图



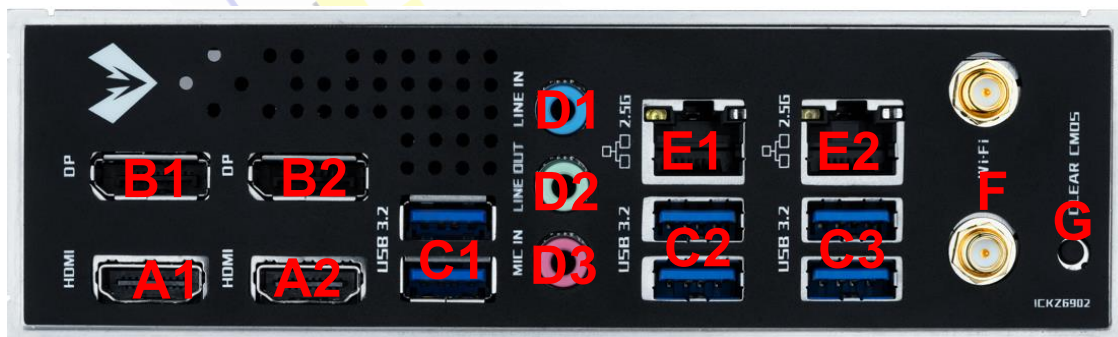
(此图仅供参考，部分细节会根据实际情况设计调整，请以实物为准，我司保留解释权)

第二章 规格

2.1、主板硬件规格

主板尺寸	MicroITX (170*170mm)
CPU	支持 LGA1700 插槽 第 12 代处理器 (不支持 CPU 超频技术) TDP: 241W
芯片组	Intel®Z690 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 4800/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 2 个 HDMI 接口, 最高支持 4096x2160 @60Hz 分辨率 (HDMI2.0 版本及 HDCP2.2) 2 个 DP1.4 接口, 最高支持 7680x4320 @30Hz 分辨率
扩展接口	1 个 PCIEX16 5.0 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 Realtek8125B 网卡芯片 (10/100/1000/2500Mbit) 2 个板载 RJ45 接口 1 个 AX211 无线网卡 支持有线网络唤醒 支持 PXE 无盘、UEFI 无盘引导
存储	M.2A 插槽仅支持 2280 尺寸 PCIEX4 4.0 设备 (可兼容 3.0/2.0) M.2B 插槽可支持 2280 尺寸的 PCIEX4 4.0 和 SATA 设备 4 个 SATA3.0 接口
USB	板载后置接口: 6 个 USB3.2 GEN1 接口 板内插针: 3 个 USB2.0 插针, 1 组 (2 个) USB3.2 GEN1 插针, 一个 USB3.2 Gen2 前置 Type-C 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 3 个系统风扇插针、1 个 CPU 风扇插针 1 个 CLR_CMOS 按钮 2 个 3PIN 5V 的 ARGB 插针 1 个 4PIN 12V 的 NRGB 插针 1 个 SPDIF OUT 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



A1: HDMI 接口

最高支持 4096x2160@30Hz 分辨率 (HDMI 2.0 版本及 HDCP2.2), 用于连接显示器。

A2: HDMI 接口

最高支持 4096x2160@30Hz 分辨率 (HDMI 2.0 版本及 HDCP2.2), 用于连接显示器。

B1: DP 接口

DP1.4 接口, 最高支持 7680x4320 @30Hz 分辨率, 用于连接 DP 显示器接口。

B2: DP 接口

DP1.4 接口, 最高支持 7680x4320 @30Hz 分辨率, 用于连接 DP 显示器接口。

C1: 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。

C2: 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。

C3: 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。

D1: LINE IN 接口 (蓝色)

用于接收音频输入设备, 如手机音频输入。

D2: LINE OUT 接口 (浅绿色)

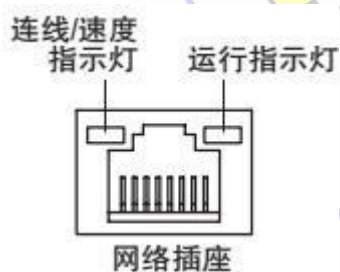
用于接入音频输出设备, 如耳机、音箱等外放设备。

D3: 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。

E1: 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	灭
100/1000Mbps	绿色常亮
2500Mbps	橙色常亮

运行指示灯	
无数据传输	灭
数据传输中	闪烁

F: 无线网卡

AX211 无线网卡, 用于接入 WIFI 天线。

G: CLS_MOS 按钮

用于还原 Bios 默认值。