



MS-WS W680 D4

Manual

VER:A 0

SHANGKE GROUP

Edit: May 28,2022

Editorial Department: Technology Department

Chapter I Mainboard configuration diagram



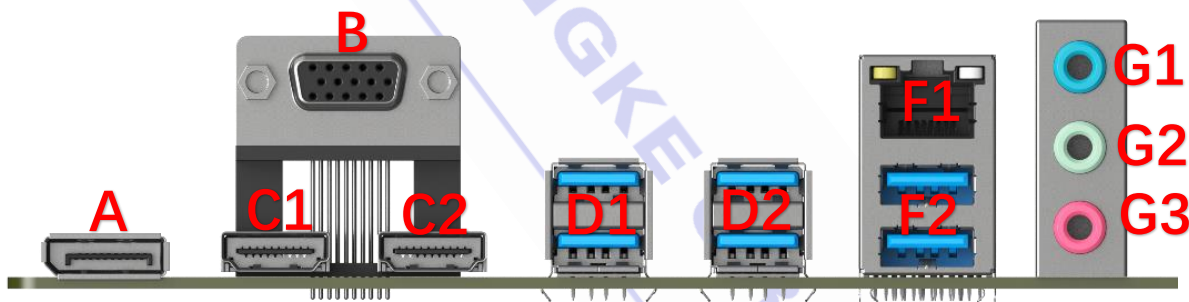
(This drawing is for reference only, and some details will be designed and adjusted according to the actual situation. Please take the physical object, and our company reserves the right of interpretation)

Chapter II Specifications

2.1 motherboard hardware specifications

Main board size	MicroATX (305*245mm)
CPU	Support for LGA 1700 slots The 12th-generation processor TDP: 241W
chipset	Intel ® W680 High-speed chipset
memory	4 DIMM DDR4 memory slots (single or double memory please use the second and fourth slots) The maximum support in total is 128GB Support for dual-channel memory technology Support 2133 / 2400 / 2666 / 3200 / OC memory frequency
display	Based on the display function with integrated graphics card processor, using shared display memory technology 1 DP1.4 interface, supporting up to 7680* 4320@60Hz resolving power 2 HDMI 2.0 interfaces, up to support 4096x2160@60Hz Resolution (HDCP2.2 supported) 1 VGA interface, up to 1920* 1200@60Hz resolving power
extended interface	1 PCIE X16 4.0 slot 2 PCIE X4 3.0 slots 2 PCIE X1 3.0 slots Support AMD and NVIDIA independent graphics card and DG1 independent graphics card Support for PCIE resizable bar technology (CPU and graphics card synchronization support is required)
audio	Integrated REALTEK ALC 897 sound card chip Supports simultaneous output of front and rear channels (required settings in HD audio controller) 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_A duo pins) Group 1 with 4pin horn SPEAKER pins
network	Integrated REALTEK 8125B card chip (10 / 100 / 1000 / 2500 Mbit) 1 onboard RJ 45 interface Support network arousal Support PXE no disk, UEFI no disk guide
storage	4 M.2 slots (2242/2280 PCIE X4/X2 channel SSD supported only) One M.2 WIFI slot (CNVI card only) The 4 SATA 3.0 interfaces
USB	On-board rear ports: 6 USB 3.2 GEN 1 ports,

	Plate insert: 1 (2) USB2.0 pins, 1 (1) USB2.0 pins, and 1 (2) USB 3.2 GEN 1 pins 1 type-c 5G front interface
Inside board socket	1 24PIN motherboard ATX power supply interface 1 8+ 4PIN motherboard A TX 12V power supply interface, 12V input 1 COM_A pin 3 groups of system fan pins and 1 group of CPU fan pins 1 group chassis front control panel pin (F_PANEL) 1 set of front-audio pins
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:DP interface

Up to 7680* 4320@60Hz Resolution digital signal output for connecting displays.

B:VGA interface

Up to 1920x 1080@60Hz resolution analog signal output is used to connect the display.

C1:HDMI interface

HDMI 2.0 interface, up to 4096x2160@60Hz resolution digital signal output (support HDCP 2.2), used to connect the HDMI display interface.

C2: HDMI interface

HDMI 2.0 interface, up to 4096x2160@60Hz resolution digital signal output (support HDCP 2.2), used to connect the HDMI display interface.

D 1: USB 3.2 GEN 1 interface

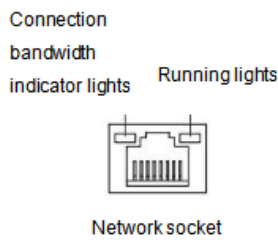
Up to support theoretical 5Gb speed transmission, downward compatible with USB1.1 standard, for connecting USB TYPE A devices.

D2: USB 3.2 GEN 1 interface

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

F1: the RJ45 interface

Network cable interface, used to access the network cable to connect 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	Green is always bright
100M bps	Green is always bright
1000M bps	Orange is always bright
2500M bps	Orange is always bright

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

F2: 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.

G1: Audio-in interface (blue)

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

G2: Audio-out interface (light green)

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

G3: Audio-Microphone interface (pink)

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



MS-WS W680 D4

使用手册

VER: A0



SHANGKE GROUP

编辑时间：2022 年 05 月 28 日
编辑部门：商科集团技术部

第一章 主板配置图



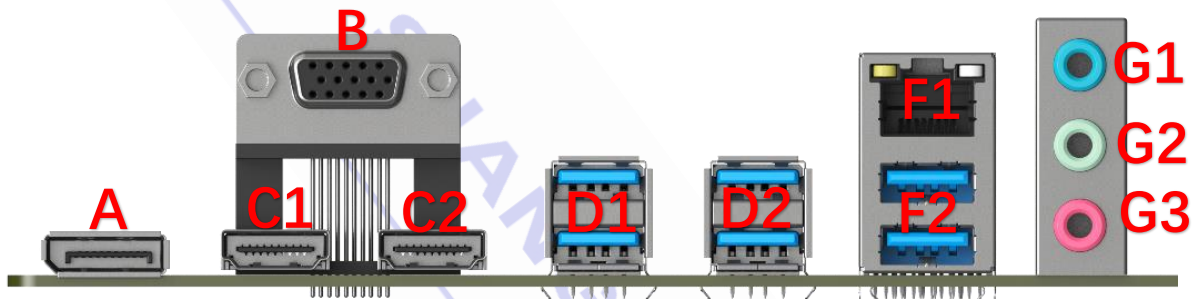
(此图仅供参考，部分细节会根据实际情况设计调整，请以实物为准，我司保留解释权)

第二章 规格

2.1、主板硬件规格

主板尺寸	MicroATX (305*245mm)
CPU	支持 LGA1700 插槽 第 12 代处理器 TDP: 241W
芯片组	Intel®W680 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 DP1.4 接口, 最高支持 7680*4320@60Hz 分辨率 2 个 HDMI2.0 接口, 最高支持 4096x2160@60Hz 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 PCIEX16 4.0 插槽 2 个 PCIEX4 3.0 插槽 2 个 PCIEX1 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 8125B 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	4 个 M.2 插槽 (仅支持 2242/2280 PCIe X4/X2 通道 SSD) 1 个 M.2WIFI 插槽 (仅支持 CNVI 网卡) 4 个 SATA3.0 接口
USB	板载后置接口: 6 个 USB3.2 GEN1 接口, 板内插针: 1 组 (2 个) USB2.0 插针, 1 组 (1 个) USB2.0 插针, 1 组 (2 个) USB3.2 GEN1 插针 1 个 type-c 5G 前置接口
板内插座	1 个 24PIN 主板 ATX 供电接口 1 个 8+4PIN 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) 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 $\pm 8KV$ 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: DP 接口

最高支持 7680*4320@60Hz 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@60Hz 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@60Hz 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

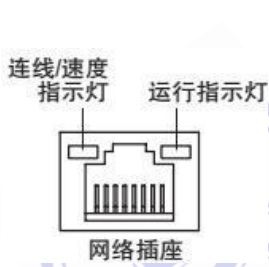
最高支持理论 5Gb 速度传输, 可向下兼容 USB1.1 标准, 用于连接 USB TYPE A 设备。

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。