



MS-iCraft B860M CROSS PRO

Specification

VER:A0

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Chapter 1



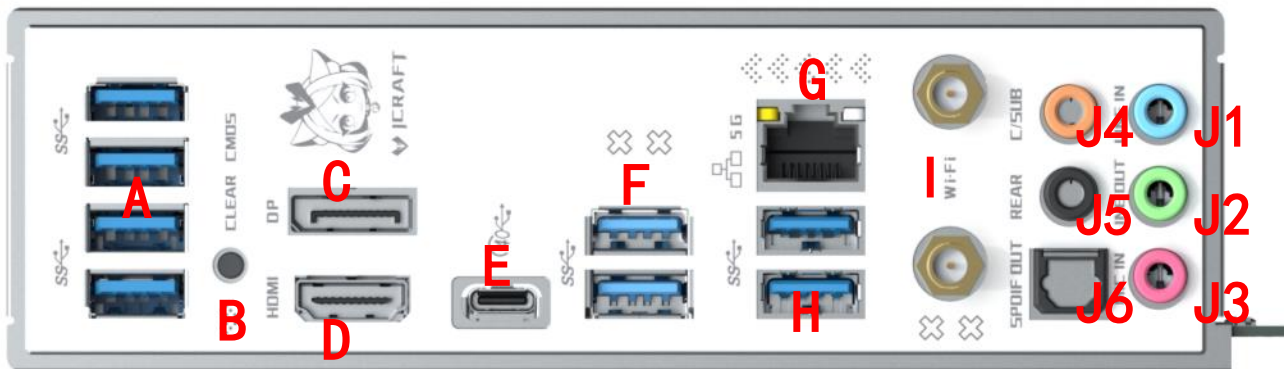
(This drawing is for reference only, some details will be adjusted according to the actual situation, please refer to the actual design, our company reserves the right to explain)

Chapter 2: Motherboard Specifications

Motherboard Size	Micro-ATX 245mm x 245mm
CPU	Intel® LGA1851 slot for Intel® Core™ Ultra processors Intel Default :PL1 125W PL2 250W(56s) Min Xuan recommended (BIOS default Settings):PL1 280W PL2 350W(8s) Ultimate Performance :PL1 350W PL2 420W(8s)
Chipset	Intel® B860
Memory (RAM)	4 x DIMM DDR5, maximum capacity 256GB Supports dual-channel memory architecture Intel® Extreme Memory Profile (XMP) Support 8800 (OC) / 8600 (OC) / 8400 (OC) / 8200 (OC) / 8000 (OC) / 7600/7400 (OC)/(OC) / 7200(OC)/7000(OC)/6800(OC)/6600(OC)/6400/5600/4800 Mhz Memory frequency
Display	1 x DisplayPort 1.4 Display port. The maximum value is 4K@120Hz 1 x HDMI™ 2.1 display interface, supported up to specified 4K@120Hz * Graphics specifications may vary for different types of cpus, see www.intel.com * for details
Extended Interface	From Intel® Core™ Ultra Processors: 1 x PCIe X16 slot (PCIe 5.0X16 mode supported) From Intel® B860 chipset: 1 x PCIe X4 slot (PCIe 4.0X4 mode supported)
Audio	Realtek ALC1220 HD audio codec Support simultaneous output of front and rear channels (need to be set in the HD audio controller) The REAR is equipped with six audio ports: one rear onboard LINE IN port, one rear onboard LINE OUT port, one rear onboard MIC_IN microphone port, one rear onboard C/SUB port, one rear onboard rear port, and one rear onboard SPDIF_OUT optical fiber port. F_AUDIO pins: 1 set of front microphone pins, 1 set of front audio output pins (These two pins are F_Aduio pins) 1 set of 4-pin horn Buzzer pins
Network	1 x Realtek RTL8126 5Gb Ethernet port 1 x Intel® BE200 Wireless card: Supports Wi-Fi 7 and Bluetooth® v5.4 Support network wake up Supports PXE diskless boot and UEFI diskless boot
stockpile	Supports a total of 3 x M.2 slots and 4 x SATA 6Gb/s ports From Intel® Core™ Ultra Processors: M.2_A slot (Key_M) : Supports PCIe 5.0X4 /X2 mode and supports 2242/2280 length From Intel® B860 chipset: M.2_B slot (Key_M) : Supports PCIe 4.0X4 /X2 mode and supports 2242/2280/22110 length M.2_C slot (Key_M) : Supports PCIe 4.0X4 /X2 mode and supports 2242/2280/22110 length 4 x SATA 6Gb/s port
USB	Onboard USB (total 6 ports) : 1 x USB 20G Type-C® front port

	1 x USB 5G 19Pin pin with support for 2 additional USB 5G ports 1 x USB 2.0 9Pin connector with support for 2 additional USB 2.0 ports 1 x USB 2.0 4Pin connector with support for an additional USB 2.0 port Rear USB (total 11 ports) : 1 x USB 40G Type-C® interface (supports up to 15W power output) 8 x USB 10G Type-A port
I/O Panel	1 x DisplayPort 1.4 1 x HDMI™ 2.0 1 x CLR_CMOS shortcut button 1 x USB 40G Type-C® port 8 x USB 10G Type-A port 1 x Realtek 5Gb Ethernet port 1 x Wi-Fi antenna interface 6 x audio jack
Hardware monitoring	Voltage monitoring Temperature monitoring Fan monitoring Intelligent fan speed control (motherboard has been supported, intelligent fan speed control also needs fan support)
Operating system	Supports Windows10 64bit and Windows11 64bit Support Ubuntu 64bit
ESD protection	Air discharge ± 8KV Class C ±6KV Class B Contact discharge ± 6KV Class C ± 3KV Class B * Test when the whole machine is well grounded
In-board I/O ports	Power correlation interface 1 x 24 Pin ATX power connector 2 x 8 Pin +12V power connector Fan related interface 1 x 4 Pin CPU fan connector 1 x 4 Pin PUMP Connector (Support DC speed regulation) 4 x 4 Pin chassis fan connector Storage-related interface 3 x M.2 slot (Key_M) 4 x SATA 6Gb/s port Onboard USB port 1 x USB 20G Type-C® front port 1 x USB 5G 19Pin pin with support for 2 additional USB 5G ports 1 x USB 2.0 9Pin connector with support for 2 additional USB 2.0 ports 1 x USB 2.0 4Pin connector with support for an additional USB 2.0 port Other interface 2 x 3 Pin ARGB interface 1 x 4 Pin NRGB interface 1 x COM port pin 1 x Front panel audio port 1 x 10-1 Pin System panel port 1 x CLR_CMOS reset pin

Features	Distributed Debug light Maxsun Sync lighting control CLR_CMOS shortcut button POWER_BIN Onboard power switch button RGB_BIN On-board light switch button Onboard LED sharp screen Resizable bar technology
Pakaging specification	Color box size: 362*305.3*129.8mm Net weight: 1.74kg Gross weight: 3.53kg Outer box size: 680*373*335mm FCL weight: 19.2kg



A: Layer 4 USB 10G Type-A port

Maximum support theoretical 10Gb speed transmission, backward compatible with USB1.1, USB2.0 standards, used to connect USB TYPE A devices.

B: CLR_CMOS button

To restore the default BIOS initialization Settings of the mainboard, clear the BIOS function Settings with one click.

C: indicates the DP interface

The maximum support supports the provisions of 4K@120Hz, can support audio and video output at the same time.

D: HDMI port

The maximum support supports the provisions of 4K@120Hz, can support audio and video output at the same time.

E: USB 40G Type-C® port

Maximum support theoretical 40Gb speed transmission, support PD protocol, support display audio output.

F: Double-layer USB 10G Type-A port

Maximum support theoretical 10Gb speed transmission, backward compatible with USB1.1, USB2.0 standards, used to connect USB TYPE A devices.

G: RJ45 cable port

It is used to connect the host system to the network with a maximum bandwidth of 5000Mbps.

H: Double-layer USB 10G Type-A port

Maximum support theoretical 10Gb speed transmission, backward compatible with USB1.1, USB2.0 standards, used to connect USB TYPE A devices.

I: WiFi antenna interface

The WIFI interface is integrated with an Intel ® BE200 wireless network card, which supports Wi-Fi 7 and Bluetooth® v5.4 only after proper drivers are installed.

J1: Audio-in interface (blue)

Used to receive audio input devices, such as mobile phone audio input.

J2: Audio-out interface (light green)

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

J3: Audio- Microphone interface (pink)

It is used to access audio input devices such as microphones.

J4: C/SUB- Heavy bass interface (yellow)

The onboard sound card supports heavy bass device access at 5.1 or 7.1 channels.

J5: REAR- Rear surround channel port (black)

When the onboard sound card supports 5.1 or 7.1 channels, insert the rear device connector that surrounds the left and right channels.

J6: SPDIF OUT- SONY Philips Digital Audio Output interface (fiber port)

It is used to access the digital audio playback output that supports fiber output.

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规格书

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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)

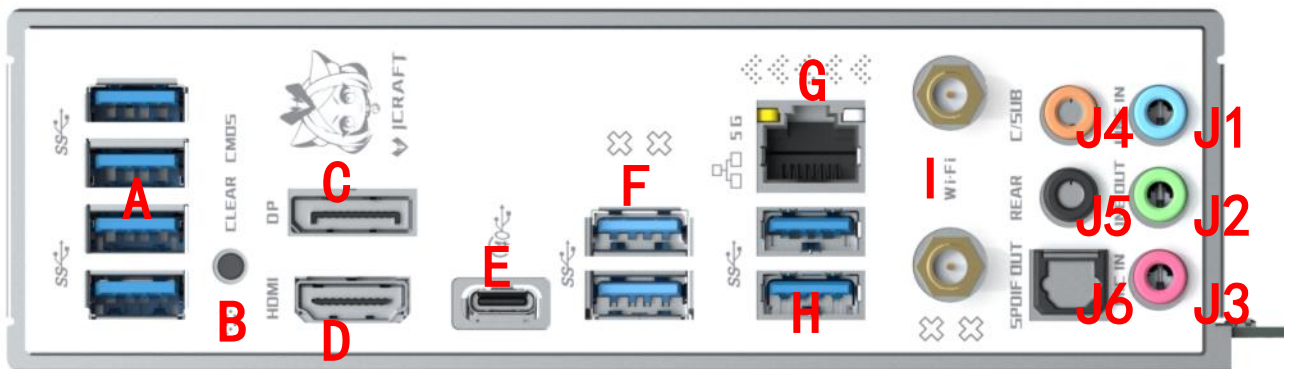
第二章 规格

2.1、主板硬件规格

主板尺寸	Micro-ATX 版型 245mm x 245mm
CPU	英特尔® LGA1851 插槽, 适用于英特尔® 酷睿™ Ultra 处理器 英特尔默认:PL1 125W PL2 250W(56s) 铭瑄推荐(BIOS 默认设置):PL1 280W PL2 350W(8s) 极致性能 :PL1 350W PL2 420W(8s)
芯片组	英特尔® B860 芯片组
内存	4 x DIMM DDR5, 最大容量 256GB 支持双通道内存架构 支持 Intel® Extreme Memory Profile (XMP) 支持 8800(OC)/8600(OC)/8400(OC)/8200(OC)/8000(OC)/7600(OC)/7400(OC)/ 7200(OC)/7000(OC)/6800(OC)/6600(OC)/6400/5600/4800 Mhz 内存频率
显示	1 x DisplayPort 1.4 显示接口, 支持规定的最高 4K@120Hz 1 x HDMI™ 2.1 显示接口, 支持规定的最高 4K@120Hz * 不同类型 CPU 的图形规格可能有所不同, 详情请参阅 www.intel.com *
扩展接口	来自英特尔® Core™ Ultra 处理器 : 1 x PCIe X16 插槽 (支持 PCIe 5.0 X16 模式) 来自英特尔® B860 芯片组 : 1 x PCIe X4 插槽 (支持 PCIe 4.0 X4 模式)
音频	Realtek ALC1220 高清音频编解码器 支持前后声道同时输出 (需要高清音频控制器中设置) 后置配备 6 个音频接口: 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, 1 个后置板载 C/SUB 接口, 1 个后置板载 REAR 接口, 1 个 后置板载 SPDIF_OUT 光纤接口。 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	1 x Realtek RTL8126 5Gb Ethernet 接口 1 x 英特尔® BE200 无线网卡: 支持 Wi-Fi 7 与 Bluetooth® v5.4 支持网络唤醒 支持 PXE 无盘、UEFI 无盘引导
存储	共支持 3 x M.2 插槽 和 4 x SATA 6Gb/s 接口 来自英特尔® Core™ Ultra 处理器 : M.2_A 插槽 (Key_M): 支持 PCIe 5.0 X4/X2 模式, 支持 2242 / 2280 长度 来自英特尔® B860 芯片组 : M.2_B 插槽 (Key_M): 支持 PCIe 4.0 X4/X2 模式, 支持 2242 / 2280 / 22110 长度 M.2_C 插槽 (Key_M): 支持 PCIe 4.0 X4/X2 模式, 支持 2242 / 2280 / 22110 长度 4 x SATA 6Gb/s 接口
USB	板载 USB (共 6 个接口) :

	1 x USB 20G Type-C® 前置接口 1 x USB 5G 19Pin 接针, 支持 2 个额外的 USB 5G 接口 1 x USB 2.0 9Pin 接针, 支持 2 个额外的 USB 2.0 接口 1 x USB 2.0 4Pin 接针, 支持 1 个额外的 USB 2.0 接口 后置 USB (共 11 个接口) : 1 x USB 40G Type-C® 接口(支持最高至 15W 供电输出) 8 x USB 10G Type-A 接口
后置面板 I/O 设备接口	1 x DisplayPort 1.4 1 x HDMI™ 2.0 1 x CLR_CMOS 快捷按钮 1 x USB 40G Type-C® 接口 8 x USB 10G Type-A 接口 1 x Realtek 5Gb Ethernet 接口 1 x Wi-Fi 天线接口 6 x 音频插孔
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
内置 I/O 设备接口	电源相关接口 1 x 24 Pin ATX 电源连接器 2 x 8 Pin +12V 电源连接器 风扇相关接口 1 x 4 Pin CPU 风扇接头 1 x 4 Pin PUMP 水泵接头 (支持 DC 调速) 4 x 4 Pin 机箱风扇接头 存储相关接口 3 x M.2 插槽 (Key_M) 4 x SATA 6Gb/s 接口 板载 USB 接口 1 x USB 20G Type-C® 前置接口 1 x USB 5G 19Pin 接针, 支持 2 个额外的 USB 5G 接口 1 x USB 2.0 9Pin 接针, 支持 2 个额外的 USB 2.0 接口 1 x USB 2.0 4Pin 接针, 支持 1 个额外的 USB 2.0 接口 其他接口 2 x 3 Pin ARGB 接口 1 x 4 Pin NRGB 接口 1 x COM 端口接针 1 x 前面板音频接口 1 x 10-1 Pin 系统面板接口 1 x CLR_CMOS 重置接针

特有功能	分布式 Debug 灯 Maxsun Sync 灯光控制 CLR_CMOS 快捷按钮 POWER_BIN 板载电源开关按钮 RGB_BIN 板载灯光切换按钮 板载 LED 锐影屏 Resizable bar 技术
包装尺寸及重量	彩盒尺寸：362*305.3*129.8mm 单板重量：1.74kg 单片彩包重量：3.53kg 外箱尺寸：680*373*335mm 整箱重量：19.2kg



- A: 四层 USB 10G Type-A 接口
最高支持理论 10Gb 速度传输，可向下兼容 USB1.1、USB2.0 标准,用于连接 USB TYPE A 设备。
- B: CLR_CMOS 按钮
一键清除主板 BIOS 功能设置，还原主板 BIOS 默认初始化设置。
- C: DP 接口
最高支持支持规定的 4K@120Hz，可支持声像同时输出。
- D: HDMI 接口
最高支持支持规定的 4K@120Hz，可支持声像同时输出。
- E: USB 40G Type-C® 接口
最高支持理论 40Gb 速度传输，支持 PD 协议，支持显示音频输出。
- F: 双层 USB 10G Type-A 接口
最高支持理论 10Gb 速度传输，可向下兼容 USB1.1、USB2.0 标准,用于连接 USB TYPE A 设备。
- G: RJ45 网线接口
用于接入网线将主机系统连接到网络，最高带宽 5000Mbps。
- H: 双层 USB 10G Type-A 接口
最高支持理论 10Gb 速度传输，可向下兼容 USB1.1、USB2.0 标准,用于连接 USB TYPE A 设备。

I: WiFi 天线接口

WiFi 接口内部集成了英特尔® BE200 无线网卡,支持 Wi-Fi 7 与 Bluetooth® v5.4 需要正确安装相应的驱动程序才能正常使用。

J1: Audio-in 接口(蓝色)

用于接收音频输入设备,如手机音频输入。

J2: 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。

J3: 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。

J4: C/SUB-重低音接口(黄色)

板载声卡支持 5.1 或 7.1 声道时的重低音设备接入口。

J5: REAR-后置环绕声道接口(黑色)

板载声卡支持 5.1 或 7.1 声道时,插入后置环绕左右声道的设备接入口。

J6: SPDIF OUT-索尼飞利浦数字音频输出接口(光纤口)

用于接入支持光纤输出的数字音频播放输出。