MS-Challenger B760ITX D5

Manual

VER:A0

Edited on February 28, 2024
Editing Department: Technology Department

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

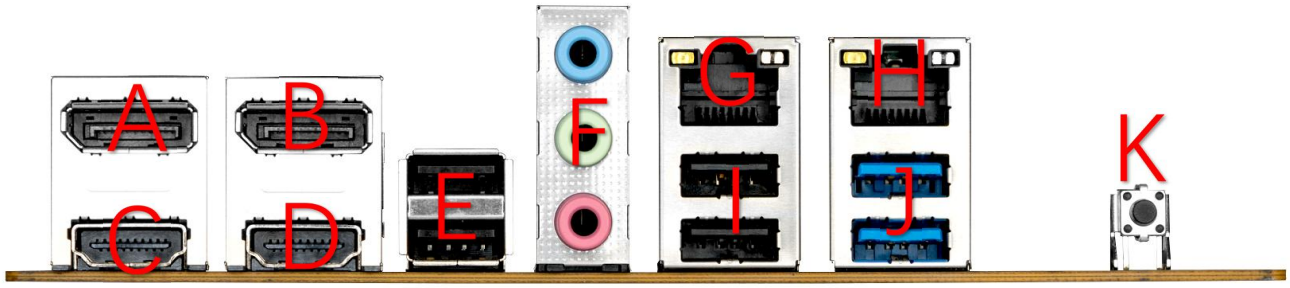
Specifications

1.1. Motherboard hardware specifications

Motherboard Size	Mini-ITX(170*170mm)
CPU	Supports LGA1700 slot Intel® 14th, 13th, 12th Processors 8+1 phase power supply; TDP: PL1 168W; PL2 241W
Chipset	Intel® B760 High Speed Chipset
RAM	2* DIMM DDR5 memory slots Maximum capacity 96GB Supports dual-channel memory technology Supports 4800Mhz/XMP/OC memory frequencies
Display	Shared display memory technology based on display capabilities with integrated graphics processor 2* DP1.4 display ports supporting up to 4096x2160@60Hz resolution 1* HDMI 2.0 display interface, support up to 4096x2160@60Hz resolution 1* HDMI 1.4 display interface, support up to 4096x2160@30Hz resolution
Extended Interface	1* PCIEX16 5.0 slot Supports AMD and NVidia discrete graphics cards
Audio	Integrated REALTEK ALC897 HD Audio Codec
Network	1* Realtek RTL8125BG 2.5G LAN 1* INTEL i219V 1Gb LAN 1* M.2_WIFI slot (KEY_E): supports PCIE×1/CNVio2/USB channel for installing wireless
SSD	1x M.2_SSD_A Front Socket M.2 slot with Gen4 x4 support 1x M.2_SSD_B backside slot M.2 slot with Gen4 x4 support 4x SATA 3.0 ports
USB	Onboard USB pins (5 ports total): 1* USB3.2 Gen2 Type-C (10G) front port 1* USB3.2 Gen1 (5G) connector pin, supports 2 additional USB3.2 Gen1 ports 1* USB 2.0 connector pin to support 2 additional USB 2.0 ports Rear USB ports (6 ports in total): 2* USB3.2 Gen1 Type-A (5G) ports 4* USB2.0 Type-A ports
In-board sockets	1* COM pin 3* sets of system fan pins, 1 set of CPU fan pins 1* set of chassis front control panel pins (F_PANEL) 1* set of front audio pins F_Audio 1* set of TPM_SPI pins, support external TPM2.0 module or SPI burn-in function (BIOS burn-in) 1* set of Debug pins 1* set of CASE_OPEN pins

	1* set of SPDIF pins 1* set of 5V_ARGB pins
Power	1* 24-PIN motherboard ATX power 1* 8-PIN motherboard ATX power
Hardware monitoring	Voltage monitoring Temperature monitoring Fan monitoring Intelligent fan speed control (supported by the motherboard, intelligent fan speed control also requires fan support)
Operating system	Support Windows 10 64bit, Windows 11 64bit Ubuntu 64bit support
ESD protection	Air discharge ± 8KV Class C ±6KV Class B Contact discharge ± 6KV Class C ± 3KV Class B *Tested with the whole machine well grounded
Package	Single piece packaging weight:736.2g Packing quantity: 20PCS Outer box size:505(L)mm*425(W)mm*337(H)mm Full box gross weight：16.8kg

1.2 Motherboard I/O interface function description



A: DP port

DP1.4 port, supports up to 4096x2160@60Hz resolution, for connecting to DP monitor port.

B: DP port

DP1.4 port, supports up to 4096x2160@60Hz resolution, for connecting to DP monitor port.

C: HDMI port

HDMI 2.0 port, supports up to 4096x2160 @60Hz resolution for connecting to HDMI monitor ports.

D: HDMI port

HDMI 1.4 port, supports up to 4096x2160 @30Hz resolution for connecting to HDMI monitor ports.

E: 2-layer USB 2.0 interface

Supports up to 480Mb theoretical transfer speed and is backward compatible with USB1.1 standard for connecting USB TYPE A devices.

F: Audio

Audio-in connector (blue) for receiving audio input devices, such as cell phone audio input.

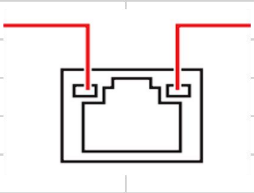
Audio-out connector (light green) for accessing audio output devices, such as headphones, speakers and other external amplification devices.

Audio-Microphone connector (pink) for accessing audio input devices such as microphones and other radio devices.

G: Intel 1Gb LAN

Network cable interface for accessing the network cable to connect the host system to the network.

Activity Link LED	
Status	Description
Off	No link
Yellow	Linked
Blinking	Data activity

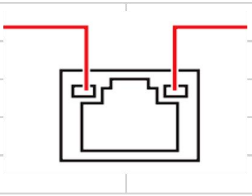


Speed LED	
Status	Description
Off	10Mbps connection
Green	100Mbps connection
Orange	1000Mbps connection

H: Realtek 2.5Gb LAN

Network cable interface for accessing the network cable to connect the host system to the network.

Activity Link LED	
Status	Description
Off	No link
Yellow	Linked
Blinking	Data activity



Speed LED	
Status	Description
Off	10Mbps connection
Green	100Mbps connection
Orange	1000Mbps/2.5Gbps connection

I: 2-layer USB 2.0 interface

Supports up to 480Mb theoretical transfer speed and is backward compatible with USB1.1 standard for connecting USB TYPE A devices.

J: Layer 2 USB3.2 GEN1 Type-A connector

Supports up to 5Gb theoretical transfer speed and is backward compatible with USB 1.1 standard for connecting USB TYPE A devices.

K: CLR_CMOS shortcut button.