



## SPECIFICATIONS

### CPU

Supports 10<sup>th</sup> Gen Intel® Core™ and Pentium® Gold / Celeron® processors for LGA1200 socket <sup>1 2</sup>

1. Please go to [intel.com](https://intel.com) for compatibility information
2. Onboard graphics output are disabled when using the F SKU processors.

[See supported processors](#)

### Chipset

Intel® B460 Chipset

### Memory

- 4x DDR4 memory slots, support up to 128GB <sup>1</sup>
- Intel® Core™ i7/i9
  - Support DDR4-2933 Memory (Max.)
- Intel® Core™ i5 (Below)
  - Supports DDR4-2666 Memory (Max.)
- Supports Dual-Channel mode
- Supports non-ECC, un-buffered memory

## FEATURES



### M.2 SHIELD FROZR

Onboard M.2 thermal solution to keep M.2 SSDs safe while preventing throttling, making them run cooler & faster.



### WiFi 6

The latest wireless solution supports MU-MIMO and BSS color technology, delivering speeds up to 2400Mbps.



### Core Boost

With premium layout and fully digital power design to support more cores and provide better performance.



### Extended Heatsink Design

MSI extended PWM heatsink and enhanced circuit design ensures even high-end processors to run in full speed.



### 2.5G LAN

Onboard 2.5G LAN with LAN manager, delivering the best online gaming experience.



### Audio Boost

Reward your ears with studio grade sound quality for the most immersive audio experience.



### DDR4 Boost

Advanced technology to deliver pure data signals for the best gaming performance and stability.

- Supports Intel<sup>®</sup> Extreme Memory Profile (XMP)

1. Please refer [www.msi.com](http://www.msi.com) for more information on compatible memory.

[See supported memory](#)

## Expansion Slot

- 1x PCIe 3.0 x16 slot (from CPU)
- 1x PCIe 3.0 x16 slot (from PCH□ supports x4 mode)
- 1x PCIe 3.0 x1 slot (from PCH)

## Onboard Graphics

- 1x HDMI™ port, supports a maximum resolution of 4096x2160 @ 30Hz
- 1x DisplayPort port supports a maximum resolution of 4096 x 2304 @ 60Hz

## Storage

### Intel<sup>®</sup> B460 Chipset

- 6x SATA 6Gb/s ports <sup>1</sup>
- 2x M.2 slots (Key M)
  - M2\_1 supports up to PCIe 3.0 x4 and SATA 6Gb/s, 2242/ 2260/ 2280 storage devices<sup>1</sup>
  - M2\_2 supports up to PCIe 3.0 x4, 2242/ 2260/ 2280 storage devices
  - Intel<sup>®</sup> Optane™ Memory Ready<sup>2</sup>
  - Supports Intel<sup>®</sup> Smart Response Technology for Intel Core™ processors

1. SATA1 will be unavailable when installing M.2 SATA SSD in the M2\_1 slot.
2. Before using Intel<sup>®</sup> Optane™ memory modules, please ensure that you have updated the drivers and BIOS to the latest

version from MSI website.

## RAID

### Intel<sup>®</sup> B460 Chipset

- Supports RAID 0, RAID 1, RAID 5 and RAID 10 for SATA storage devices

## USB

### Intel<sup>®</sup> B460 Chipset

- 2x USB 3.2 Gen 1 5Gbps Type-C ports (1 port on the back panel, 1 port through the internal USB connector)
- 5x USB 3.2 Gen 1 5Gbps Type-A ports (3 ports on the back panel, 2 ports through the internal USB connector)
- 6x USB 2.0 ports (2 Type-A ports on the back panel, 4 ports through the internal USB 2.0 connectors)

## Audio

### Realtek<sup>®</sup> ALC1200 Codec

- 7.1-Channel High Definition Audio
- Supports S/PDIF output

## LAN

- 1x Realtek<sup>®</sup> RTL8125B 2.5G LAN Controller

## WiFi & Bluetooth

## Intel<sup>®</sup> AX201

- Supports 802.11 a/b/g/n/ac/ax, MU-MIMO Rx, 2.4GHz-5GHz (160MHz) up to 2.4Gbps
- WiFi 6 Pre-Certified
- Supports Bluetooth<sup>®</sup> 5.1 , FIPS, FISMA
- The Wireless module is pre-install in the M2 (Key-E) slot

1. Only support windows 10 64-bit

## Internal connectors

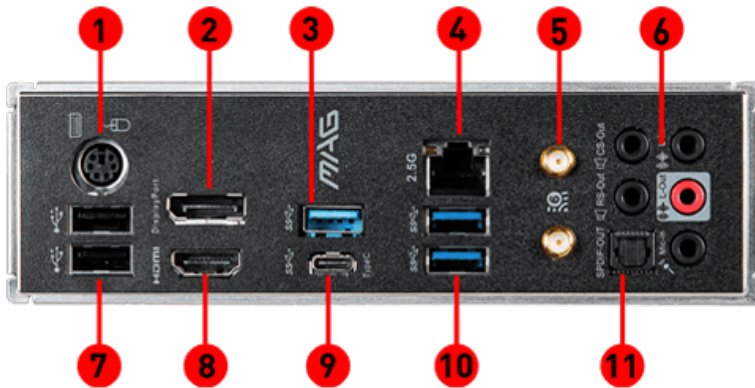
- 1x 24-pin ATX main power connector
- 1x 8-pin ATX 12V power connector
- 6x SATA 6Gb/s connectors
- 1x USB 3.2 Gen 1 5Gbps connector (support additional 2 USB 3.2 Gen 1 5Gbps ports)
- 1x USB 3.2 Gen 1 5Gbps Type-C connector
- 2x USB 2.0 connectors (support additional 4 USB 2.0 ports)
- 1x 4-pin CPU fan connector
- 1x 4-pin water pump connector
- 2x 4-pin system fan connectors
- 1x front panel audio connector
- 2x system panel connectors
- 1x TPM module connector
- 1x Chassis Intrusion connector
- 1x Clear CMOS jumper
- 1x 4-pin RGB LED connector
- 1x 3-pin RAINBOW LED connector
- 1x TBT connector<sup>1</sup>
- 1x RTD3 connector<sup>1</sup>

1. Thunderbolt card need support RTD3

## Back panel ports

1. 1x PS/2 keyboard/ mouse combo port
2. 2x USB 2.0 ports
3. 3x USB 3.2 Gen 1 5Gbps Type-A ports
4. 1x USB 3.2 Gen 1 5Gbps Type-C port
5. 1x LAN(RJ45) port

6. 1x DisplayPort 1.2
7. 1x HDMI™ port
8. 5x audio jacks
9. 1x Optical S/PDIF OUT connector
10. 2x Wi-Fi antenna connectors (MAG B460M MORTAR WIFI)



## I/O Controller

NUVOTON NCT6687 Controller Chip

## Hardware Monitor

- CPU/System temperature detection
- CPU/System fan speed detection
- CPU/System fan speed control

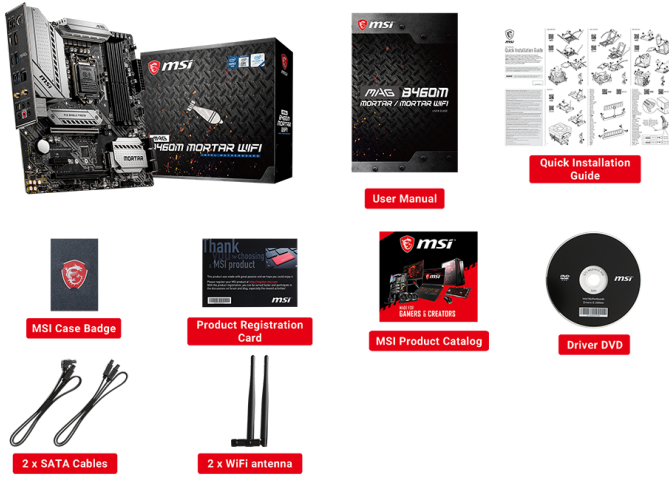
## Form Factor

- mATX Form Factor
- 9.6 in. x 9.6 in. (24.3 cm x 24.3 cm)

## BIOS Features

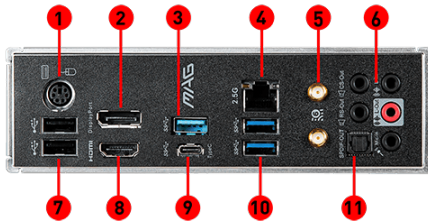
- 1x 128 Mb flash
- UEFI AMI BIOS
- ACPI 6.2, SM BIOS 3.2 •Multi-language

## Box content



1. MSI® does not guarantee the risks or damages caused by changing the cover.
2. These pictures are for reference only and may vary without notice.

## CONNECTIONS



- |                                 |                                  |
|---------------------------------|----------------------------------|
| 1. PS/2 Combo Port              | 2. DisplayPort                   |
| 3. USB 3.2 Gen 1 5Gbps (Type-A) | 4. 2.5G LAN Port                 |
| 5. WiFi6                        | 6. HD Audio Connectors           |
| 7. USB 2.0 Ports                | 8. HDMI™ Port                    |
| 9. USB 3.2 Gen 1 5Gbps (Type-C) | 10. USB 3.2 Gen 1 5Gbps (Type-A) |
| 11. Optical S/PDIF OUT          |                                  |