



## FEATURES



### Quadruple M.2 Connectors

Onboard quadruple M.2 connectors for the maximum storage performance with three Lightning Gen 4 solution.



### M.2 Shield FROZR

M.2 thermal accessory. Keeps M.2 SSDs safe while preventing throttling, making them run faster.



### Lightning Gen 5

The latest PCIe 5.0 solution with up to 128GB/s bandwidth for maximum transfer speed.



### WIFI 6

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



### 2.5G Network Solution

Featuring premium 2.5G LAN to deliver better network experience.



### Lightning USB 20G

Built-in USB 3.2 Gen 2x2 port, offers 20Gbps transmission speed, 4X faster than USB 3.2 Gen 1.



### Memory Boost

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



### Core Boost

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



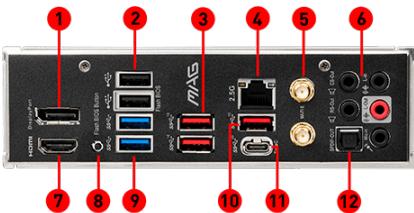
### Audio Boost 5

Isolated audio with a high quality audio processor for the most immersive gaming experience.

## SPECIFICATIONS

<b>Model Name</b>	MAG Z690 TOMAHAWK WIFI DDR4
<b>CPU Support</b>	Supports 12th/ 13th Gen Intel® Core™ Processors, Pentium® Gold and Celeron® Processors
<b>CPU Socket</b>	LGA 1700
<b>Chipset</b>	Intel® Z690 Chipset
<b>Graphics Interface</b>	1x PCIe 5.0 x16 slot, 1x PCIe 3.0 x16 slot Supports AMD® CrossFire™ Technology
<b>Display Interface</b>	Support 4K@60Hz as specified in HDMI™ 2.1, DisplayPort 1.4 - Requires Processor Graphics
<b>Memory Support</b>	4 DIMMs, Dual Channel DDR4-5200+(OC)
<b>Expansion Slots</b>	1x PCIe 3.0 x16 slot, 1x PCIe 3.0 x1 slot
<b>Storage</b>	3x M.2 Gen4 x4 64Gbps slots, 1x M.2 Gen3 x4 32Gbps slot, Support Intel® Optane™ Technology, 6x SATA 6Gb/s ports
<b>USB ports</b>	1x USB 3.2 Gen 2x2 20Gbps (Type-C), 4x USB 3.2 Gen 2 10Gbps (Type-A + Type-C), 4x USB 3.2 Gen 1 5Gbps (Type-A), 6x USB 2.0
<b>LAN</b>	1x Intel® I225-V 2.5G LAN
<b>Wireless / Bluetooth</b>	Intel® Wi-Fi 6 module, Bluetooth 5.2
<b>Audio</b>	8-Channel (7.1) HD Audio with Audio Boost 5

## CONNECTIONS



1. DisplayPort 1.4
2. USB 2.0 Port
3. USB 3.2 Gen 2 10Gbps Type-A
4. 2.5G LAN Port
5. Wi-Fi / Bluetooth Antenna
6. HD Audio Connectors
7. HDMI™ 2.1 Port
8. Flash BIOS Button
9. USB 3.2 Gen 1 5Gbps Type-A
10. USB 3.2 Gen 2 10Gbps Type-A
11. USB 3.2 Gen 2x2 20Gbps Type-C
12. Optical S/PDIF OUT