



## SPECIFICATIONS

<b>Model Name</b>	MAG Z690 TOMAHAWK WIFI
<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 DDR5-6400+ (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 (3 Type-A + 1 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 6E module, Bluetooth 5.2
<b>Audio</b>	8-Channel (7.1) HD Audio with Audio Boost 5

## FEATURES

- Lightning Gen 5**  
 The latest PCIe 5.0 solution with up to 128GB/s bandwidth for maximum transfer speed.
- Quadruple M.2 Connectors**  
 Onboard quadruple M.2 connectors for the maximum storage performance with three Lightning Gen 4 solution.
- Latest DDR5 Memory**  
 A huge step of DDR performance enhancement with the latest DDR5 memory and MSI Memory Boost technology.
- Memory Boost**  
 Advanced technology to deliver pure data signals for the best performance, stability and compatibility.
- M.2 Shield FROZR**  
 M.2 thermal accessory. Keeps M.2 SSDs safe while preventing throttling, making them run faster.
- Wi-Fi 6E**  
 The latest wireless solution supports 6GHz spectrum, 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.
- Audio Boost 5**  
 Isolated audio with a high quality audio processor for the most immersive gaming experience

## CONNECTIONS

1. DisplayPort 1.4
3. USB 3.2 Gen 2 10Gbps Type-A
5. Wi-Fi / Bluetooth Antenna
7. HDMI™ 2.1 Port
9. USB 3.2 Gen 1 5Gbps Type-A
11. USB 3.2 Gen 2x2 20Gbps Type-C

2. USB 2.0 Port
4. 2.5G LAN Port
6. HD Audio Connectors
8. Flash BIOS Button
10. USB 3.2 Gen 2 10Gbps Type-A
12. Optical S/PDIF OUT