



## SPECIFICATIONS

<b>Model Name</b>	MAG Z690 TORPEDO EK X
<b>CPU Support</b>	Supports 12 <sup>th</sup> 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 6Gbps 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>Audio</b>	8-Channel (7.1) HD Audio with Audio Boost 5

## FEATURES



### CPU + VRM cooling

A custom-designed EK monoblock that offers cooling for both the CPU and VRM power delivery section.



### 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.



### Audio Boost 5

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



### 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.



### 2.5G Network Solution

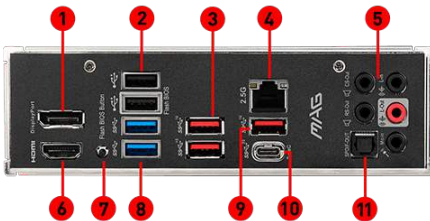
Featuring premium 2.5G LAN with LAN manager to deliver better network experience.



### Lightning USB 20G

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

## CONNECTIONS



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