



## FEATURES



### Dual Thunderbolt™ 4 ports

Thunderbolt™ 4 brings Thunderbolt to USB-C at true 40 Gb/s speeds, 8K display support, Daisy-Chaining and Multi-Port Accessory Architecture.



### Direct 19+1+2 Phases Power Design

Extreme direct power solution with 19+1+2 phases and 105A Smart Power Stage unleash the maximum CPU performance.



### Latest DDR5 Memory

A huge step of DDR performance enhancement with the latest DDR5 memory and MSI Memory Boost technology.



### Lightning Gen 5

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



### Quintuple M.2 Connectors

Onboard 5x M.2 connectors with quad PCIe 4.0 solution, strengthened by double-sided M.2 Shield Frozr.



### Outstanding Cooling Solution

Aluminum Cover, VRM Heat-pipe, 7W/mK thermal pads, Double-sided M.2 Shield Frozr and Aluminum Backplate ensure the extreme performance with low temp.



### Dual Front Lightning USB 20G

USB 3.2 Gen 2x2 port offers 20Gbps transmission speed, 4x faster than USB 3.2 Gen 1, available when connecting the front USB Type-C.



### Dual 2.5G LAN

Onboard dual 2.5Gbps LAN with LAN manager provides incredible data transfer speed faster than general Gigabit LAN, delivering the best online gaming experience.



### Wi-Fi 6E

The latest wireless solution supports 6GHz spectrum, MU-MIMO and BSS color technology, delivering speeds up to 2400Mbps.



### SMT PCIE and Memory Slot

The advanced SMT(Surface Mount Technology) welding process reduces the defect rate of slot solder joints, deliver the clean and pure signal.



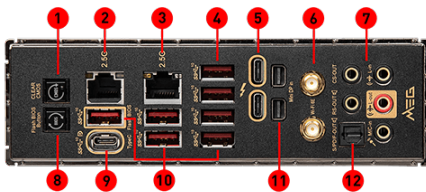
### 8 Layer PCB with 2oz Thickened Copper

An Enhanced PCB design provides higher performance and long-lasting system stability without any compromise.

## SPECIFICATIONS

<b>Model Name</b>	MEG Z690 ACE
<b>CPU Support</b>	Supports 12th 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>	2x PCIe 5.0 x16 slots 1x PCIe 4.0 x16 slot AMD® CrossFire™ Technology
<b>Display Interface</b>	1x Type-C Display port - Requires Processor Graphics 2x Thunderbolt™ 4 (Type-C) - Input from mini DisplayPort
<b>Memory Support</b>	4 DIMMs, Dual Channel DDR5-6666+MHz (OC)
<b>Storage</b>	4x M.2 Gen4 x4 64Gbps slots, 1x M.2 Gen3 x4 32Gbps slot, 6x SATA 6Gb/s ports
<b>Thunderbolt™ 4</b>	2x USB Type-C up to 40G, Charging support up to 5V/3A, 15W 2x Mini DisplayPort input ports
<b>USB ports</b>	2x USB 3.2 Gen 2x2 20Gbps (2 Type-C), 8x USB 3.2 Gen 2 10Gbps (7 Type-A + 1 Type-C), 4x USB 3.2 Gen 1 5Gbps (4 Type-A), 4x USB 2.0
<b>LAN</b>	2x Intel® I225-V 2.5G LAN
<b>WiFi / BT</b>	Intel® Wi-Fi 6E module, Bluetooth 5.2
<b>Audio</b>	8-Channel (7.1) HD Audio with Audio Boost 5 HD

## CONNECTIONS



1. Clear CMOS Button
2. 2.5G LAN
3. 2.5G LAN
4. USB 3.2 Gen 2 10Gbps (Type-A)
5. Thunderbolt 4 40Gbps (Type-C)
6. Wi-Fi / Bluetooth
7. HD Audio Connectors
8. Flash BIOS Button
9. USB 3.2 Gen 2 10Gbps (Type-C)
10. USB 3.2 Gen 2 10Gbps (Type-A)
11. Mini DisplayPort Input (for Thunderbolt passthrough)
12. Optical S/PDIF-Out