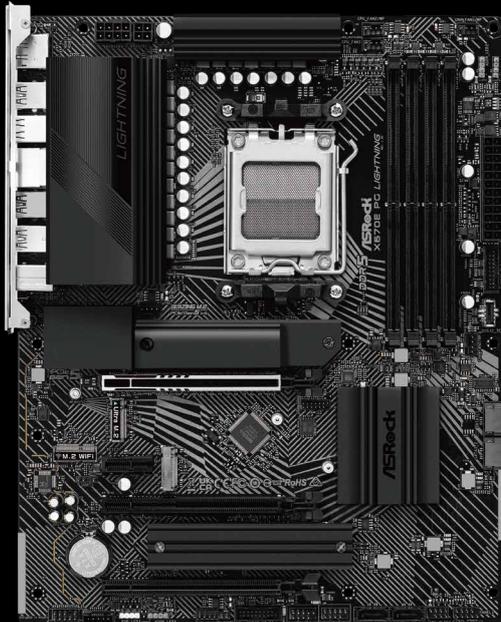




PHANTOM GAMING



# X670E PG LIGHTNING

AMD  
SOCKET  
AM5

X670E

AMD  
RYZEN

HDMI  
HIGH-BANDWIDTH MULTIMEDIA INTERFACE

POLYCHROME SYNC

## PRODUCT BRIEF :

- Supports AMD Socket AM5 Ryzen™ 7000 Series Processors
- 14+2+1 Phase SPS Power Design
- 4 x DDR5 DIMMs, supports up to 6600+(OC)
- 1 PCIe 5.0 x16 , 1 PCIe 4.0 x16 , 1 PCIe 4.0 x16 , 1 PCIe 4.0 x1 , 1 M.2 Key-E for WiFi
- Graphics Output Options: 1 HDMI, 1 DisplayPort
- 7.1 CH HD Audio (Realtek ALC897 Audio Codec), Nahimic Audio
- 1 Blazing M.2 (PCIe Gen5x4), 1 Hyper M.2 (PCIe Gen4x4), 1 Ultra M.2 (PCIe Gen3x4 & SATA3), 1 M.2 (PCIe Gen4x2), 4 SATA3
- 1 USB 3.2 Gen2 Type-A (Rear), 10 USB 3.2 Gen1 (6 Rear, 4 Front), 8 USB 2.0 (4 Rear, 4 Front)
- Realtek 2.5G LAN

I/O OVERVIEW



## 14 + 2 + 1 Power Phase SPS

Delivering smoother and neater power to the CPU.



## Optimized Performance with 8-Layer PCB

8-layer PCB provides better signal and thermal performance for insane AMD Socket AM5 Ryzen™ 7000 series processors.



## Pre-Installed I/O Shield Lightning Gaming Ports



Optimized for high report rate gaming keyboard/mouse

## PCIe Gen5 Technology PCIe x16 slot & M.2 Sockets

Ready to unleash the full potential of future high end graphics cards and ultra fast SSDs.



## Dragon 2.5Gbps LAN

Enjoy the faster connectivity experience for gaming, file transfers and backups.



## Detail Specification

<b>Platform</b>	- ATX Form Factor: 12.0-in x 9.6-in, 30.5 cm x 24.4 cm - 8 Layer PCB	<b>Rear Panel I/O</b>	- 2 x Antenna Mounting Points - 1 x HDMI Port - 1 x DisplayPort 1.4 - 1 x USB 3.2 Gen2x2 Type-C Port (20 Gb/s) - 1 x USB 3.2 Gen2 Type-A Port (10 Gb/s) - 6 x USB 3.2 Gen1 Ports (USB32_34 are Lightning Gaming Ports) - 4 x USB 2.0 Ports - 1 x RJ-45 LAN Port - 1 x BIOS Flashback Button - HD Audio Jacks: Line in / Front Speaker / Microphone
<b>Unique Feature</b>	Superb Productivity - PCIe Gen5 (Graphics, M.2) - Dual Channel DDR5 Rock-Solid Durability - Server-Grade Low-Loss PCB - 14+2+1 Power Phase, 70A SPS - Pre-Installed I/O Shield Ultrafast Connectivity - 2.5G LAN - ASRock Lightning Gaming Ports EZ Update - BIOS Flashback Button - ASRock Auto Driver Installer	<b>Storage</b>	CPU: - 1 x Blazing M.2 Socket (M2_1, Key M), supports type 2280 PCIe Gen5x4 (128 Gb/s) mode* Chipset: - 1 x Ultra M.2 Socket (M2_2, Key M), supports type 2280 SATA3 6.0 Gb/s & PCIe Gen3x4 (32 Gb/s) modes* - 1 x M.2 Socket (M2_3, Key M), supports type 2280 PCIe Gen4x2 (32 Gb/s) mode* - 1 x Hyper M.2 Socket (M2_4, Key M), supports type 2260/2280 PCIe Gen4x4 (64 Gb/s) mode* - 4 x SATA3 6.0 Gb/s Connectors  * Supports NVMe SSD as boot disks * Supports ASRock U.2 Kit
<b>CPU</b>	- Supports AMD Socket AM5 Ryzen™ 7000 Series Processors	<b>RAID</b>	- Supports RAID 0, RAID 1 and RAID 10 for SATA storage devices - Supports RAID 0, RAID 1 and RAID 10 for M.2 NVMe storage devices
<b>Chipset</b>	- AMD X670	<b>Connector</b>	- 1 x SPI TPM Header - 1 x Power LED and Speaker Header - 1 x RGB LED Header* - 3 x Addressable LED Headers** - 1 x CPU Fan Connector (4-pin)** - 1 x CPU/Water Pump Fan Connector (4-pin) (Smart Fan Speed Control)**** - 4 x Chassis/Water Pump Fan Connectors (4-pin) (Smart Fan Speed Control)***** - 1 x 24 pin ATX Power Connector - 1 x 8 pin 12V Power Connector (Hi-Density Power Connector) - 1 x 4 pin 12V Power Connector (Hi-Density Power Connector) - 1 x Front Panel Audio Connector - 1 x Thunderbolt AIC Connector (5-pin) (Supports ASRock Thunderbolt 4 AIC Card) - 2 x USB 2.0 Headers (Support 4 USB 2.0 ports) - 2 x USB 3.2 Gen1 Headers (Support 4 USB 3.2 Gen1 ports) - 1 x Front Panel Type C USB 3.2 Gen2x2 Header (20 Gb/s) (ReDriver) * Supports in total up to 12V/3A, 36W LED Strip ** Support in total up to 5V/3A, 15W LED Strip *** CPU_FAN1 supports the fan power up to 1A (12W). **** CPU_FAN2/WP supports the fan power up to 2A (24W). ***** CHA_FAN1~4/WP support the fan power up to 2A (24W). ***** CPU_FAN2/WP and CHA_FAN1~4/WP can auto detect if 3-pin or 4-pin fan is in use.
<b>Memory</b>	- Dual Channel DDR5 Memory Technology - 4 x DDR5 DIMM Slots - Supports DDR5 non-ECC, un-buffered memory up to 6600+(OC)* - Max. capacity of system memory: 128GB - Supports Extreme Memory Profile (XMP) and EXTended Profiles for Overclocking (EXPO) memory modules * Please refer to Memory Support List on ASRock's website for more information. ( <a href="http://www.asrock.com/">http://www.asrock.com/</a> )	<b>BIOS Feature</b>	- 256Mb AMI UEFI Legal BIOS with GUI support
<b>Expansion Slot</b>	CPU: - 1 x PCIe 5.0 x16 Slot (PCIe1), supports x16 mode* - 1 x PCIe 4.0 x16 Slot (PCIe3), supports x4 mode* Chipset: - 1 x PCIe 4.0 x1 Slot (PCIe2)* - 1 x PCIe 4.0 x16 Slot (PCIe4), supports x1 mode* - 1 x M.2 Socket (Key E), supports type 2230 WiFi/BT PCIe WiFi module  * Supports NVMe SSD as boot disks - Supports AMD CrossFire™ - 15µ Gold Contact in VGA PCIe Slot (PCIe1)	<b>Software and UEFI</b>	Software - ASRock Motherboard Utility (Phantom Gaming Tuning) - ASRock Phantom Gaming LAN Software - ASRock Polychrome SYNC * These utilities can be downloaded from ASRock Live Update & APP Shop.  UEFI - ASRock Full HD UEFI - ASRock Auto Driver Installer - ASRock Instant Flash
<b>Graphics</b>	Integrated AMD RDNA™ 2 graphics (Actual support may vary by CPU) - 1 x HDMI 2.1 TMDS Compatible, supports HDR, HDCP 2.3 and max. resolution up to 4K 60Hz - 1 x DisplayPort 1.4 with DSC (compressed), supports HDCP 2.3 and max. resolution up to 4K 120Hz	<b>OS</b>	- Microsoft® Windows® 11 64-bit
<b>Audio</b>	- 7.1 CH HD Audio (Realtek ALC897 Audio Codec) - Nahimic Audio	<b>Certifications</b>	- FCC, CE - ErP/EuP ready (ErP/EuP ready power supply is required)
<b>LAN</b>	- 2.5 Gigabit LAN 10/100/1000/2500 Mb/s - Dragon RTL8125BG - Supports Phantom Gaming LAN Software - Smart Auto Adjust Bandwidth Control - Visual User Friendly UI - Visual Network Usage Statistics - Optimized Default Setting for Game, Browser, and Streaming Modes - User Customized Priority Control	<b>Accessories</b>	- 1 x User Manual - 2 x SATA Data Cables - 4 x Screws for M.2 Sockets - 1 x Standoff for M.2 Socket
<b>USB</b>	- 2 x USB 3.2 Gen2x2 Type-C (1 Rear, 1 Front) - 1 x USB 3.2 Gen2 Type-A (Rear) - 10 x USB 3.2 Gen1 (6 Rear, 4 Front) - 8 x USB 2.0 (4 Rear, 4 Front) * All USB ports support ESD Protection		