ASRock

X670E STEEL LEGEND

AMD SOCKET AM5 | X670E | AMD RYZEN | HDMI® High-Definition Multimedia Interface | POLYCHROME SYNC

PRODUCT BRIEF:

- Supports AMD Socket AM5 Ryzen™ 7000 Series Processors
- 16+2+1 Phase SPS Power Design
- 4 x DDR5 DIMMs, supports up to 6600+(OC)
- 1 PCIe 5.0 x16 , 1 PCIe 3.0 x16 , 1 PCIe 3.0 x1
- Graphics Output Options: 1 HDMI, 1 DisplayPort
- 7.1 CH HD Audio with Content Protection
  (Realtek ALC1220 Audio Codec), Nahimic Audio

- 1 Blazing M.2 (PCIe Gen5x4),
  3 Hyper M.2 (PCIe Gen4x4), 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, Realtek 1G LAN
- 802.11ax Wi-Fi 6E + Bluetooth

I/O OVERVIEW

ASRock Graphics Card Holder

Auto Driver Installer

Polychrome SYNC

Nahimic Audio

WiFi 6E 📶6E

16+2+1 Power Phase Design + SPS

Delivers smoother and neater power to the CPU.

SPS Dr.Mos

Optimized Performance with 8-Layer PCB

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

8 L PCB

Blazing M.2 [PCIe Gen5 x4] + Multi-layer Heatsink

Supports PCIe 5.0 M.2 SSD with a breathtaking 128Gbps transfer rate.

Steel PCIe Gen5 X16 Slot

PCIe GEN5

Solid-Rock Components

- 12K Caps
- 8 Layer PCB
- 15μ Gold Audio Connector
- Hi-Density Power Connector

DDR5 Memory with Reinforced DIMM Slot

The reinforced DIMM slot gives better physical strength.

DDR5

Dual LAN [2.5G + 1G]

Built for maximum networking performance and flexibility.

2.5G

Detail Specification

Platform	- ATX Form Factor: 12.0-in x 9.6-in, 30.5 cm x 24.4 cm - 8 Layer PCB
Unique Feature	Superb Productivity - PCIe Gen5 (Graphics, M.2) - Dual Channel DDR5 Rock-Solid Durability - Server-Grade Low-Loss PCB - 16+2+1 Power Phase, 60A SPS with Enlarged Heatsink Armor - Flexible Integrated I/O Shield - Nichicon 12K Black Caps (100% Japan made high quality conductive polymer capacitors) Ultrafast Connectivity - 2.5G LAN, 802.11ax Wi-Fi 6E Module EZ Update - BIOS Flashback Button - ASRock Auto Driver Installer
CPU	- Supports AMD Socket AM5 Ryzen™ 7000 Series Processors
Chipset	- AMD X670
Memory	- 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. (http://www.asrock.com/)
Expansion Slot	CPU: - 1 x PCIe 5.0 x16 Slot (PCIE1), supports x16 mode* - 1 x PCIe 3.0 x16 Slot (PCIE3), supports x4 mode* Chipset: - 1 x PCIe 3.0 x1 Slot (PCIE2)* - 1 x Vertical 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)
Graphics	Integrated AMD RDNA™ 2 graphics (Actual support may vary by CPU) - 1 x HDMI 2.1 TMD 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
Audio	- 7.1 CH HD Audio with Content Protection (Realtek ALC1220 Audio Codec) - Impedance Sensing on Rear Out port - Individual PCB Layers for R/L Audio Channel - Nahimic Audio
LAN	1 x 2.5 Gigabit LAN 10/100/1000/2500 Mb/s (Dragon RTL8125BG) - Supports Dragon 2.5G 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 1 x Gigabit LAN 10/100/1000 Mb/s (Realtek RTL8111)
Wireless LAN	- 802.11ax Wi-Fi 6E Module - Supports IEEE 802.11a/b/g/n/ac/ax - Supports Dual-Band 2x2 with extended 6GHz band* support * Wi-Fi 6E (6GHz band) will be supported by Microsoft® Windows® 11. The availability will depend on the different regulation status of each country and region. It will be activated (for supported countries) through Windows Update and software updates once available. * A 6GHz compatible router is required for 6E functionality. - 2 antennas to support 2 (Transmit) x 2 (Receive) diversity technology - Supports Bluetooth + High speed class II - Supports MU-MIMO
USB	- 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
Rear Panel I/O	- 2 x Antenna Ports - 1 x HDMI Port - 1 x DisplayPort 1.4 - 1 x Optical SPDIF Out Port - 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 - 4 x USB 2.0 Ports - 2 x RJ-45 LAN Ports - 1 x BIOS Flashback Button - 1 x Line Out Jack (Gold Audio Jack) - 1 x Microphone Input Jack (Gold Audio Jack)
Storage	CPU: - 1 x Blazing M.2 Socket (M2_1, Key M), supports type 2260/2280 PCIe Gen5x4 (128 Gb/s) mode* Chipset: - 1 x Hyper M.2 Socket (M2_2, Key M), supports type 2242/2260/2280 PCIe Gen4x4 (64 Gb/s) mode* - 1 x Hyper M.2 Socket (M2_3, Key M), supports type 2230/2242/2260/2280 PCIe Gen4x4 (64 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
RAID	- 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
Connector	- 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 (Hi-Density Power Connector) - 2 x 8 pin 12V Power Connectors (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.
BIOS Feature	- 256Mb AMI UEFI Legal BIOS with GUI support
Software and UEFI	Software - ASRock Motherboard Utility (A-Tuning) - ASRock Dragon 2.5G 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
OS	- Microsoft® Windows® 11 64-bit
Certifications	- FCC, CE - ErP/EuP ready (ErP/EuP ready power supply is required)
Accessories	- 1 x User Manual - 2 x SATA Data Cables - 1 x ASRock WiFi 2.4/5/6 GHz Antenna - 4 x Screws for M.2 Sockets - 1 x Standoff for M.2 Socket - 1 x Graphics Card Holder