



ASUS X870E/X870 Motherboards

Brand/Series	ROG	ROG STRIX				ProArt	TUF GAMING	PRIME		
Model	ROG CROSSHAIR X870E HERO	ROG STRIX X870E-E GAMING WIFI	ROG STRIX X870-F GAMING WIFI	ROG STRIX X870-A GAMING WIFI	ROG STRIX X870-I GAMING WIFI	ProArt X870E-CREATOR WIFI	TUF GAMING X870-PLUS WIFI	PRIME X870-P WIFI	PRIME X870-P	
Photo										
CPU socket	AM5									
Chipset	X870E	X870E	X870	X870	X870	X870E	X870	X870	X870	
Form factor	ATX	ATX	ATX	ATX	Mini-ITX	ATX	ATX	ATX	ATX	
Power architecture	18(110A)+2(110A)+2	18(110A)+2(110A)+2	16(110A)+2(110A)+2	16(90A)+2(90A)+2	10(110A)+2(110A)+1	16(80A)+2(80A)+2	16(80A)+2(80A)+1	14(80A)+2(80A)+1(80A)	14(80A)+2(80A)+1(80A)	
Memory	# Slots, Maximum Capacity	4 x DIMM, Max. 192GB, DDR5	4 x DIMM, Max. 192GB, DDR5	4 x DIMM, Max. 192GB, DDR5	4 x DIMM, Max. 192GB, DDR5	2 x DIMM, Max. 96GB, DDR5	4 x DIMM, Max. 192GB, DDR5	4 x DIMM, Max. 192GB, DDR5	4 x DIMM, Max. 192GB, DDR5	
	Speed (MT/s)	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	
	Memory Path DRAM Technology	V	V	—	—	—	—	—	—	
Graphics	HDMI 2.1 / USB4	HDMI 2.1 / USB4	HDMI 2.1 / DP 1.4 / USB4	HDMI 2.1 / DP 1.4 / USB4	HDMI 2.1 / USB4	HDMI 2.1 / DP / USB4 / USB4	HDMI 2.1 / USB4	HDMI 2.1 / USB4	HDMI 2.1 / USB4	
PCIe Q-Release	PCIe Q-Release	PCIe Q-Release Slim	PCIe Q-Release Slim	PCIe Q-Release Slim	PCIe Q-Release Slim	PCIe Q-Release Slim	PCIe Q-Release	PCIe Q-Release	PCIe Q-Release	
	PCIe 5.0 x16	2 x PCIe 5.0 x16 Slots (support x16 or x8/x4 or x4/x4/x4 modes)	1 x PCIe 5.0 x16 Slots (support x16 mode)	1 x PCIe 5.0 x16 Slots (support x16 mode)	1 x PCIe 5.0 x16 Slots (support x16 mode)	1 x PCIe 5.0 x16 Slots (support x16 mode)	2 x PCIe 5.0 x16 Slots (support x16 mode)	1 x PCIe 5.0 x16 Slot (supports x16 mode)	1 x PCIe 5.0 x16 Slot (supports x16 mode)	
	PCIe 4.0 x16	—	1 x PCIe 4.0 x16 Slots (support x4 mode)	1 x PCIe 4.0 x16 Slots (support x4 mode)	1 x PCIe 4.0 x16 Slots (support x4 mode)	—	1 x PCIe 4.0 x16 Slot (support x4 mode)	1 x PCIe 4.0 x16 Slot (support x4 mode)	2 x PCIe 4.0 x16 slots (support x1 mode)	
	PCIe 3.0 x16	—	—	—	—	—	—	—	—	
	PCIe 4.0/3.0 x4	—	—	—	—	—	—	—	—	
PCIe x1 4.0 or 3.0	—	—	—	—	—	—	—	—		
M.2 Q-Design	M.2 Q-Release	M.2 Q-Release	M.2 Q-Release	M.2 Q-Release	M.2 Q-Release	M.2 Q-Release	M.2 Q-Release	M.2 Q-Release	M.2 Q-Release	
	M.2 Q-Latch M.2 Q-Slide	M.2 Q-Latch M.2 Q-Slide	M.2 Q-Latch M.2 Q-Slide	M.2 Q-Latch M.2 Q-Slide	M.2 Q-Latch M.2 Q-Slide	M.2 Q-Latch M.2 Q-Slide	M.2 Q-Latch M.2 Q-Slide	M.2 Q-Latch M.2 Q-Slide	M.2 Q-Latch M.2 Q-Slide	
SATA 6Gbps	4	4	2	2	2@ROG FPS Card	4	2	2	2	
	M.2	AM5 Processors M.2_1 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_2 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_3 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_4 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) AMD X870E Chipset M.2_2 slot (Key M), type 2242/2260/2280 (support PCIe 4.0 x4 mode) M.2_3 slot (Key M), type 2280 (support PCIe 4.0 x4 mode) M.2_5 slot (Key M), type 2280 (support PCIe 4.0 x4 mode) SlimSAS slot supports PCIe 4.0 x4 mode	AM5 Processors M.2_1 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_2 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_3 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_4 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) AMD X870E Chipset M.2_2 slot (Key M), type 2242/2260/2280 (support PCIe 4.0 x4 mode) M.2_3 slot (Key M), type 2280 (support PCIe 4.0 x4 mode) M.2_5 slot (Key M), type 2280 (support PCIe 4.0 x4 mode)	AM5 Processors M.2_1 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_2 slot (Key M), type 2242/2260/2280/22110 (support PCIe 5.0 x4 mode) M.2_3 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_4 slot (Key M), type 2242/2260/2280 (support PCIe 4.0 x4 mode) M.2_5 slot (Key M), type 2280 (support PCIe 4.0 x4 mode)	AM5 Processors M.2_1 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_2 slot (Key M), type 2242/2260/2280/22110 (support PCIe 5.0 x4 mode) M.2_3 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_4 slot (Key M), type 2242/2260/2280 (support PCIe 4.0 x4 mode) M.2_5 slot (Key M), type 2280 (support PCIe 4.0 x4 mode)	AM5 Processors M.2_1 slot (Key M), type 2280 (support PCIe 5.0 x4 mode) M.2_2 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_3 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_4 slot (Key M), type 2242/2260/2280 (support PCIe 4.0 x4 mode) M.2_5 slot (Key M), type 2280 (support PCIe 4.0 x4 mode)	AM5 Processors M.2_1 slot (Key M), type 2280 (support PCIe 5.0 x4 mode) M.2_2 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_3 slot (Key M), type 2280 (support PCIe 4.0 x4 mode) M.2_4 slot (Key M), type 2242/2260/2280/22110 (support PCIe 4.0 x4 mode)	AM5 Processors M.2_1 slot (Key M), type 2280 (support PCIe 5.0 x4 mode) M.2_2 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_3 slot (Key M), type 2280 (support PCIe 4.0 x4 mode) M.2_4 slot (Key M), type 2242/2260/2280/22110 (support PCIe 4.0 x4 mode)	AM5 Processors M.2_1 slot (Key M), type 2280 (support PCIe 5.0 x4 mode) M.2_2 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_3 slot (Key M), type 2280 (support PCIe 4.0 x4 mode) M.2_4 slot (Key M), type 2242/2260/2280/22110 (support PCIe 4.0 x4 mode)	AM5 Processors M.2_1 slot (Key M), type 2280 (support PCIe 5.0 x4 mode) M.2_2 slot (Key M), type 2242/2260/2280 (support PCIe 5.0 x4 mode) M.2_3 slot (Key M), type 2280 (support PCIe 4.0 x4 mode) M.2_4 slot (Key M), type 2242/2260/2280/22110 (support PCIe 4.0 x4 mode)
Storage & connectivity	Front USB ports	Total 10 ports 1 x USB 20Gbps connector (supports USB Type-C [®] with up to 60W PD/OC4+) 1 x USB 20Gbps connector (supports USB Type-C [®]) 2 x USB 5Gbps headers support 4 additional USB 5Gbps ports 2 x USB 2.0 headers support 4 additional USB 2.0 ports	Total 11 ports 1 x USB 20Gbps connector (supports USB Type-C [®]) 2 x USB 5Gbps headers support 4 additional USB 5Gbps ports 3 x USB 2.0 headers support 6 additional USB 2.0 ports	Total 9 ports 1 x USB 20Gbps connector (supports USB Type-C [®]) 2 x USB 5Gbps headers support 2 additional USB 5Gbps ports 2 x USB 2.0 headers support 4 additional USB 2.0 ports	Total 9 ports 1 x USB 20Gbps connector (supports USB Type-C [®]) 2 x USB 5Gbps headers support 2 additional USB 5Gbps ports 2 x USB 2.0 headers support 4 additional USB 2.0 ports	Total 10 ports 1 x USB 20Gbps connector (supports USB Type-C [®]) 1 x USB 5Gbps headers support 2 additional USB 5Gbps ports support 3 additional USB 2.0 ports (@ROG FPS Card)	Total 9 ports 1 x USB 20Gbps connector (supports USB Type-C [®]) 1 x USB 5Gbps headers support 2 additional USB 5Gbps ports 2 x USB 2.0 headers support 4 additional USB 2.0 ports	Total 7 ports 1 x USB 20Gbps connector (supports USB Type-C [®] with up to 30W PD Fast-Charge) 1 x USB 5Gbps header support 2 additional USB 5Gbps ports 2 x USB 2.0 headers support 4 additional USB 2.0 ports	Total 7 ports 1 x USB 10Gbps connector (supports USB Type-C [®]) 1 x USB 5Gbps header support 2 additional USB 5Gbps ports 2 x USB 2.0 headers support 4 additional USB 2.0 ports	Total 7 ports 1 x USB 10Gbps connector (supports USB Type-C [®]) 1 x USB 5Gbps header support 2 additional USB 5Gbps ports 2 x USB 2.0 headers support 4 additional USB 2.0 ports
	Rear USB ports	Total 10 ports 2 x USB4 [®] ports with ASMedia USB4 [®] controller (2 x USB Type-C [®]) 8 x USB 10Gbps ports (6 x Type-A + 2 x USB Type-C [®])	Total 13 ports 2 x USB4 [®] ports with ASMedia USB4 [®] controller (2 x USB Type-C [®]) 1 x USB 20Gbps port (1 x USB Type-C [®] with up to 30W PD Fast-Charge) 10 x USB 10Gbps ports (9 x Type-A + 1 x USB Type-C [®])	Total 12 ports 2 x USB4 [®] 40Gbps ports (2 x USB Type-C [®]) 6 x USB 10Gbps ports (5 x Type-A, 1 x USB Type-C [®] with up to 30W PD) 4 x USB 5Gbps ports (4 x Type-A)	Total 12 ports 2 x USB4 [®] 40Gbps ports (2 x USB Type-C [®]) 6 x USB 10Gbps ports (5 x Type-A + 1 x USB Type-C [®] with up to 30W PD) 4 x USB 5Gbps ports (4 x Type-A)	Total 10 ports 2 x USB4 [®] 40Gbps ports (2 x USB Type-C [®]) 5 x USB 10Gbps ports (3 x Type-A) 3 x USB 2.0 ports (3 x Type-A)	Total 11 ports 2 x USB4 [®] 40Gbps ports (2 x USB Type-C [®]) 1 x USB 20Gbps port (1 x USB Type-C [®]) 7 x USB 10Gbps ports (7 x Type-A) 1 x USB 2.0 port (4 x Type-A)	Total 10 ports 2 x USB4 [®] 40Gbps ports (2 x USB Type-C [®]) 3 x USB 10Gbps ports (3 x Type-A) 4 x USB 5Gbps ports (4 x Type-A) 1 x USB 2.0 port (1 x Type-A)	Total 10 ports 2 x USB4 [®] (40Gbps) ports (2 x USB Type-C [®]) 1 x USB 10Gbps port (1 x Type-A) 3 x USB 5Gbps ports (3 x Type-A) 4 x USB 2.0 ports (4 x Type-A)	Total 10 ports 2 x USB4 [®] (40Gbps) ports (2 x USB Type-C [®]) 1 x USB 10Gbps port (1 x Type-A) 3 x USB 5Gbps ports (3 x Type-A) 4 x USB 2.0 ports (4 x Type-A)
	Fast-Charging USB-C	100W (PD30W)	100W (PD30W)	100W (PD30W)	100W (PD30W)	—	100W (PD30W)	100W (PD30W)	100W (PD30W)	100W (PD30W)
	USB4 (40Gbps)	2(2C0B)	2(2C0B)	2(2C0B)	2(2C0B)	2(2C0B)	2(2C0B)	2(2C0B)	2(2C0B)	2(2C0B)
	USB 20Gbps	2(2C0F)	2(1C0B, 1C0F)	1(1C0F)	1(1C0F)	—	2(1C0B, 1C0F)	1(1C0F)	—	—
	USB 10Gbps	6(A2C0B)	10(A1C0B)	6(A1C0B)	6(A1C0B)	8(11F, 4A1C0B, 1A1C0B ROG Strix Hive II)	7(A0B)	3(A0B)	2(A0B, 1C0F)	2(A0B, 1C0F)
	USB 5Gbps	4(A0F)	6(A0F)	8(A40B, 40F)	8(A40B, 40F)	2(A0F)	5(A0B, 20F)	5(A0B, 20F)	5(A0B, 20F)	5(A0B, 20F)
USB 2.0	4(A0F)	6(A0F)	4(A0F)	4(A0F)	6 (3@ROG FPS Card, 3A0B)	7(A0B, 6A0F)	5(A0B, 40F)	8(A40B, 40F)	8(A40B, 40F)	
Wireless	Wi-Fi 7	Wi-Fi 7	Wi-Fi 7	Wi-Fi 7	Wi-Fi 7	Wi-Fi 7	Wi-Fi 7	Wi-Fi 7	—	
ASUS Wi-Fi Q-antenna	V	V	V	V	V	V	V	V	—	
Networking	Ethernet	1 x Realtek 5Gb Ethernet 1 x Intel 2.5Gb Ethernet	1 x Realtek 5Gb Ethernet	1 x Intel 2.5Gb Ethernet	1 x Intel 2.5Gb Ethernet	1 x Intel 2.5Gb Ethernet 1 x Marvel 10Gb Ethernet	1 x Realtek 2.5Gb Ethernet	1 x Realtek 2.5Gb Ethernet	1 x Realtek 2.5Gb Ethernet	
	LANGuard	V	V	V	V	V	V	V	V	
Audio	Audio codec	ALC 4082	ALC 4080	ALC 4080	ALC 4080	ESS [®] SABRE92600 (ROG Strix Hive II)	ALC 1220P	ALC 897	ALC 897	
	Impedance Sense	V	V	V	V	—	—	—	—	
	DAC/AMP	ESS [®] ES9219 QUAD DAC	Savitech SH712 AMP	—	—	—	internal AMP	—	—	
	Audio cover	—	V	V	V	—	—	V	—	
Cooling	Dolby Atmos	Dolby Atmos	Dolby Atmos	Dolby Atmos	Dolby Atmos	Dolby Atmos	Dolby Atmos	Dolby Atmos	Dolby Atmos	
	Fan Headers	8	8	8	8	3	8	7	7	
Heatsinked M.2	5	5	4	4	2	5	3	2		
AI Overclocking	V	V	V	V	V	V	V	V	V	
AI Cooling II	V	V	V	V	V	V	V	V	V	
AI Networking II	V	V	V	V	V	V	V	V	V	
Dynamic OC switcher	V	V	V	V	V	V	V	V	V	
Core Flex	V	V	V	V	V	V	V	V	V	
ASUS DriverHub	V	V	V	V	V	V	V	V	V	
BIOS Q-Dashboard	V	V	V	V	V	V	V	V	V	
Aura Sync	V	V	V	V	V	V	V	V	V	
RGB Header	3 x ARGB	3 x ARGB	3 x ARGB	3 x ARGB	2 x ARGB	3 x ARGB	3 x ARGB	3 x ARGB	3 x ARGB	
CPU Power Connector	8+8	8+8	8+8	8+8	8	8+8	8+8	8+8	8+8	
ProCool/ ProCool II	ProCool II	ProCool II	ProCool II	ProCool II	ProCool II	ProCool II	ProCool	ProCool	ProCool	
COM port/ header	—	—	—	—	—	1	1 x COM header	1 x COM header	1 x COM header	
FW TPM / TPM header/ TPM IC onboard	FW TPM	FW TPM	FW TPM	FW TPM	FW TPM	FW TPM	FW TPM	TPM header	TPM header	
SPI header	10-1 pin	10-1 pin	10-1 pin	10-1 pin	10-1 pin	10-1 pin	10-1 pin	14-1 pin	14-1 pin	
BIOS FlashBack™	V	V	V	V	V	V	V	V	V	
Anti Virus	ESET Internet security (1 year full version)	Norton 360 for Gamers (60 Days Free Trial)	Norton 360 for Gamers (60 Days Free Trial)	Norton 360 for Gamers (60 Days Free Trial)	Norton 360 for Gamers (60 Days Free Trial)	Norton 360 Deluxe (60 Days Free Trial)	Norton 360 for Gamers (60 Days Free Trial)	Norton 360 for Deluxe (60 Days Free Trial)	Norton 360 for Deluxe (60 Days Free Trial)	
Others	AIDA64 EXTREME HWINFO GlideX	AIDA64 (60 Days Free Trial) HWINFO GlideX	AIDA64 (60 Days Free Trial) HWINFO GlideX	AIDA64 (60 Days Free Trial) HWINFO GlideX	AIDA64 (60 Days Free Trial) HWINFO GlideX	ProArt Creator Hub CreatorFirst GlideX	GlideX	GlideX	GlideX	

