

ASUS ROG CROSSHAIR X870E APEX AMD X870E Socket AM5 ATX

Brand : ASUS

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Product name : ROG CROSSHAIR X870E APEX

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ASUS ROG CROSSHAIR X870E APEX AMD X870E Socket AM5 ATX:

AMD X870E (AM5 Socket) ATX motherboard, Advanced AI PC-ready, 18+2+2 power stages, Dynamic OC Switcher, Core Flex, DDR5 slots with AEMP, ROG Memory Fan Kit for DDR5 overclocking, Wi-Fi 7 with ASUS WiFi Q-Antenna, three PCIe® 5.0 M.2 slots onboard, two PCIe 4.0 slots on an ROG DIMM.2 card, PCIe® 5.0 x16 SafeSlots with PCIe® Slot Q-Release Slim and full support for next-gen graphics cards, two USB4® ports, two USB 20Gbps Type-C® front-panel connectors (one with Quick Charge 4+ up to 60W and USB Wattage Watcher), AI Overclocking, AI Cooling II, and AI Networking II



Processor		Expansion slots	
Processor manufacturer *	AMD	PCI Express x1 (Gen 3.x) slots	1
Processor socket *	Socket AM5	PCI Express x4 (Gen 4.x) slots	1
Compatible processor series *	AMD Ryzen 7000 Series, AMD Ryzen 8000 Series, AMD Ryzen 9000 Series	PCI Express x16 (Gen 4.x) slots	2
		PCI Express x16 (Gen 5.x) slots	2
Supported processor sockets	Socket AM5	Number of M.2 (M) slots	5
		1st M.2 largest key size	2280
Memory		1st M.2 highest PCI Express generation	5.0
Supported memory types *	DDR5-SDRAM	2nd M.2 largest key size	2280
Number of memory slots *	2	2nd M.2 highest PCI Express generation	5.0
Memory slots type	DIMM	3rd M.2 largest key size	2280
Memory channels	Dual-channel	3rd M.2 highest PCI Express generation	5.0
ECC compatibility	ECC & Non-ECC	4th M.2 largest key size	22110
Maximum internal memory *	128 GB	4th M.2 highest PCI Express generation	4.0
Unbuffered memory	✓	5th M.2 largest key size	22110
Storage controllers		5th M.2 highest PCI Express generation	4.0
Supported storage drive types	HDD & SSD		
Supported storage drive interfaces *	M.2, SATA III		
Number of HDDs supported	4		
Number of storage drives supported	9		
RAID support	✓	BIOS	
RAID levels	0, 1, 5, 10	BIOS type *	UEFI AMI
Graphics		BIOS memory size	512 Mbit
Parallel processing technology support *	Not supported	Packaging data	
On-board graphics card	✗	Package width	370 mm
		Package depth	312 mm
		Package height	108 mm
Internal I/O		Package weight	4.16 kg
USB 2.0 connectors *	2		

Internal I/O		Weight & dimensions	
USB 3.2 Gen 1 (3.1 Gen 1) connectors *	2	Width	305 mm
USB 3.2 Gen 2x2 connectors	2	Depth	244 mm
Number of SATA III connectors *	4	Packaging content	
Front panel audio connector	✓	Cables included	SATA
Front panel connector	✓	Antenna included	✓
ATX Power connector (24-pin)	✓	Screws included	✓
CPU fan connector	✓	Drivers included	✓
Number of chassis fan connectors	2	Other features	
EPS power connector (8-pin)	✓	"ROG SupremeFX 7.1 Surround Sound High Definition Audio CODEC ALC4080" - Impedance sense for front and rear headphone outputs - Supports: Jack-detection, Multi-streaming, Front Panel MIC Jack-retasking - High quality 120 dB SNR stereo playback output and 110 dB SNR recording input - Supports up to 32-Bit/384 kHz playback on front panel"	
12V power connector	✓		
RGB LED pin header	✓		
Number of RGB LED pin headers	3		
Rear panel I/O ports			
USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	2	Audio output	Audio Features - SupremeFX Shielding Technology - Savitech SV3H712 AMP - Gold-plated audio jacks - Rear optical S/PDIF out port - Premium audio capacitors - Audio cover * A chassis with an HD audio module in the front panel is required to support 7.1 Surround Sound audio output. ** The LINE OUT port on the rear panel does not support spatial audio. If you wish to use spatial audio, make sure to connect your audio output device to the audio jack on the front panel of your chassis or use a USB interface audio device.
USB 3.2 Gen 2 (3.1 Gen 2) Type-A ports quantity *	5		
USB 3.2 Gen 2 (3.1 Gen 2) Type-C ports quantity *	1		
USB4 Gen 3x2 ports quantity	2		
Ethernet LAN (RJ-45) ports *	1		
PS/2 ports quantity	1		
S/PDIF out port	✓		
WiFi-AP antenna jack	1	Supports 5 x M.2 slots and 4 x SATA 6Gb/s ports*	
Network		AMD Ryzen™ 9000 & 7000 Series Desktop Processors	
Ethernet LAN	✓	M.2_1 slot (Key M), type 2242/2260/2280 (supports PCIe 5.0 x4 mode)	
Ethernet interface type	5 Gigabit Ethernet	M.2_2 slot (Key M), type 2242/2260/2280 (supports PCIe 5.0 x4 mode)**	
Wi-Fi *	✓	M.2_3 slot (Key M), type 2242/2260/2280 (supports PCIe 5.0 x4 mode)**	
Top Wi-Fi standard	Wi-Fi 7 (802.11be)	AMD Ryzen™ 8000 Series Desktop Processors	
Wi-Fi standards	Wi-Fi 7 (802.11be)	M.2_1 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4 mode)	
Bluetooth	✓	M.2_2 slot (Key M), type 2242/2260/2280 (Not supports)	
Bluetooth version	5.4	M.2_3 slot (Key M), type 2242/2260/2280 (Not supports)	
Features		AMD X870E Chipset	
Motherboard chipset *	AMD X870E	DIMM.2_1 slot (Key M), type 2230/2242/2260/2280/22110 (supports PCIe 4.0 x4 mode)	
Audio output channels *	7.1 channels	DIMM.2_2 slot (Key M), type 2230/2242/2260/2280/22110 (supports PCIe 4.0 x4 mode)	
Product colour	Black	4 x SATA 6Gb/s ports	
Component for *	PC	* Specifications vary by CPU types.	
Motherboard form factor *	ATX	**When M.2_2 is enabled, but M.2_3 is not in use, PCIe16_1 will run in x8 mode and PCIe16_2 will be disabled.	
Motherboard chipset family *	AMD	**When M.2_3 is enabled, but M.2_2 is not in use, PCIe16_1 will run in x8 mode and PCIe16_2 will run in x4 mode.	
Windows operating systems supported	Windows 11	**When both M.2_2 and M.2_3 are enabled, PCIe16_1 will run in x8 mode and PCIe16_2 will be disabled.	

Other features	
Other features	2 x DIMM slots, max. 128GB, DDR5 Supports up to 8200+MT/s(OC) with Ryzen™ 9000 Series Processors, 9600+MT/s(OC) with Ryzen™ 8000 Series Processors 8000+MT/s(OC) with Ryzen™ 7000 Series Processors, ECC and Non-ECC, Un-buffered Memory* Dual channel memory architecture Supports AMD Extended Profiles for Overclocking (EXPO™) ASUS Enhanced Memory Profile (AEMP) * Supported memory types, data rate (speed), and number of DRAM modules vary depending on the CPU and memory configuration, for more information please refer to CPU/Memory Support list under the Support tab of product information site or visit https://www.asus.com/support/download-center/. * Non-ECC, un-buffered DDR5 memory supports On-Die ECC function.
Graphics output	2 x USB4® (40Gbps) ports support USB Type-C® display outputs* Graphics specifications may vary between CPU types. Please refer to AMD CPU specifications. VGA resolution support depends on processors' or graphic cards' resolution. *Supports max. 4K@60Hz as specified in DisplayPort 1.4a



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Catalog Object Cloud



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