

## ASUS ROG STRIX X870E-H GAMING WIFI7 AMD X870E Socket AM5 ATX

**Brand :** ASUS

**Product code:** 90MB1M90-M0AAY0

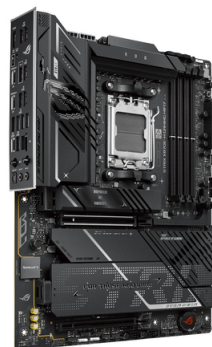
**Product name :** ROG STRIX X870E-H GAMING WIFI7

AMD X870E, 4 x DIMM slots, max. 256GB, DDR5

ASUS ROG STRIX X870E-H GAMING WIFI7 AMD X870E Socket AM5 ATX:

### ROG STRIX X870E-H GAMING WIFI7

Transform your gaming experience with the ROG STRIX X870E-H GAMING WIFI7 motherboard. Engineered to dominate with AMD Ryzen™ 9000 Series Desktop Processors, this ATX powerhouse features cutting-edge power design and AI-enhanced solutions. With PCIe 5.0 x16 slots, dual USB4® Type-C ports, and WiFi 7, it delivers advanced connectivity. DIY-friendly features like M.2 Q-Release on all four M.2 slots and PCIe Slot Q-Release make building and upgrades effortless. Unleash your system's full potential with the ROG STRIX X870E-H GAMING WIFI7.



| Processor                                |                                                                     | Features                               |                  |
|------------------------------------------|---------------------------------------------------------------------|----------------------------------------|------------------|
| Processor manufacturer *                 | AMD                                                                 | Motherboard chipset *                  | AMD X870E        |
| Processor socket *                       | Socket AM5                                                          | Audio chip                             | Realtek ALC1220P |
| Compatible processor series *            | AMD Ryzen 7000 Series, AMD Ryzen 8000 Series, AMD Ryzen 9000 Series | Audio output channels *                | 7.1 channels     |
|                                          |                                                                     | Product colour                         | Black            |
| Supported processor sockets              | Socket AM5                                                          | Component for *                        | PC               |
| Memory                                   |                                                                     | Motherboard form factor *              | ATX              |
| Supported memory types *                 | DDR5-SDRAM                                                          | Motherboard chipset family *           | AMD              |
| Number of memory slots *                 | 4                                                                   | Cooling type                           | Passive          |
| Memory slots type                        | DIMM                                                                | Windows operating systems supported    | Windows 11       |
| Memory channels                          | Dual-channel                                                        | Expansion slots                        |                  |
| ECC compatibility                        | Non-ECC                                                             | PCI Express x16 (Gen 4.x) slots        | 1                |
| Maximum internal memory *                | 256 GB                                                              | PCI Express x16 (Gen 5.x) slots        | 1                |
| Unbuffered memory                        | ✓                                                                   | Number of M.2 (M) slots                | 4                |
| Storage controllers                      |                                                                     | 1st M.2 largest key size               | 2280             |
| Supported storage drive types            | HDD & SSD                                                           | 1st M.2 highest PCI Express generation | 5.0              |
| Supported storage drive interfaces *     | M.2, SATA III                                                       | 2nd M.2 largest key size               | 22110            |
| Number of HDDs supported                 | 4                                                                   | 2nd M.2 highest PCI Express generation | 5.0              |
| Number of storage drives supported       | 8                                                                   | 3rd M.2 largest key size               | 2280             |
| RAID support                             | ✓                                                                   | 3rd M.2 highest PCI Express generation | 4.0              |
| RAID levels                              | 0, 1, 10, 5                                                         | 4th M.2 largest key size               | 2280             |
| Graphics                                 |                                                                     | 4th M.2 highest PCI Express generation | 4.0              |
| Parallel processing technology support * | Not supported                                                       |                                        |                  |

| Graphics                                          |                    | BIOS                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------|--------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| On-board graphics card                            | ✗                  | BIOS type *         | UEFI AMI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Internal I/O                                      |                    | BIOS memory size    | 256 Mbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| USB 2.0 connectors *                              | 2                  | Packaging data      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| USB 3.2 Gen 1 (3.1 Gen 1) connectors *            | 1                  | Package width       | 353 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| USB 3.2 Gen 2x2 connectors                        | 1                  | Package depth       | 273 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Number of SATA III connectors *                   | 4                  | Package height      | 68 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Front panel audio connector                       | ✓                  | Package weight      | 2.07 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Front panel connector                             | ✓                  | Weight & dimensions |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| ATX Power connector (24-pin)                      | ✓                  | Width               | 305 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| CPU fan connector                                 | ✓                  | Depth               | 244 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Number of CPU fan connectors                      | 2                  | Packaging content   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Number of chassis fan connectors                  | 5                  | Cables included     | SATA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Chassis intrusion connector                       | ✓                  | Antenna included    | ✓                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| EPS power connector (8-pin)                       | ✓                  | Other features      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Number of EPS power connectors (8-pin)            | 2                  | Audio output        | <b>Realtek ALC1220P 7.1 Surround Sound High Definition Audio CODEC*</b><br>- Impedance sense for front and rear headphone outputs<br>- Internal audio Amplifier to enhance the highest quality sound for headphone and speakers<br>- Supports: Jack-detection, Multi-streaming, Front Panel Jack-retasking<br>- High quality 120 dB SNR stereo playback output and 113 dB SNR recording input (Line-in)<br>- Supports up to 32-Bit/192 kHz playback*<br><b>Audio Features</b><br>- SupremeFX Shielding Technology<br>- Savitech SV3H712 AMP<br>- Rear optical S/PDIF out port<br>- Premium audio capacitors<br>- Audio cover<br>* 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.<br><b>Supports 4 x M.2 slots and 4 x SATA 6Gb/s ports</b><br><b>AMD Ryzen™ 9000 &amp; 7000 Series Desktop Processors</b><br>M.2_1 slot (Key M), type 2242/2260/2280 (supports PCIe 5.0 x4 mode)<br>M.2_2 slot (Key M), type 2280/22110 (supports PCIe 5.0 x4 mode)*<br><b>AMD Ryzen™ 8000 Series Desktop Processors*</b><br>M.2_1 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4/x2 mode)<br>M.2_2 slot (Key M), type 2280/22110 (Not supports)**<br><b>AMD X870E Chipset</b><br>M.2_3 slot (Key M), type 2280 (supports PCIe 4.0 x4 mode)<br>M.2_4 slot (Key M), type 2280 (supports PCIe 4.0 x4 mode)<br>4 x SATA 6Gb/s ports<br>* M.2_2 shares bandwidth with PCIe16(G5). When M.2_2 is occupied with SSD device, PCIe16(G5) will run x8 only.<br>** M.2_2 will be disabled when using AMD Ryzen™ 8000 Series Desktop Processors. |
| 12V power connector                               | ✓                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Number of water pump connectors                   | 1                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Number of temperature sensor headers              | 1                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| RGB LED pin header                                | ✓                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Number of RGB LED pin headers                     | 3                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Rear panel I/O ports                              |                    |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| USB 2.0 ports quantity *                          | 2                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity * | 6                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| USB 3.2 Gen 2 (3.1 Gen 2) Type-A ports quantity * | 3                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 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                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| HDMI ports quantity *                             | 1                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Microphone in                                     | ✓                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| S/PDIF out port                                   | ✓                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| WiFi-AP antenna jack                              | 1                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Network                                           |                    | Special features    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Ethernet LAN                                      | ✓                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Ethernet interface type                           | 5 Gigabit Ethernet |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Wi-Fi *                                           | ✓                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Top Wi-Fi standard                                | Wi-Fi 7 (802.11be) |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Wi-Fi standards                                   | Wi-Fi 7 (802.11be) |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| WLAN controller model                             | Realtek RTL8922AE  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Bluetooth                                         | ✓                  |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Bluetooth version                                 | 5.4                |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Other features  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other features  | <p>4 x DIMM slots, max. 256GB, DDR5<br/> Supports up to 8000+MT/s(OC) with Ryzen™<br/> 9000 &amp; 8000 &amp; 7000 Series Processors<br/> Dual channel memory architecture<br/> Supports AMD Extended Profiles for<br/> Overclocking (EXPO™)<br/> Supports DIMM Fit / DIMM Fit Pro<br/> ASUS Enhanced Memory Profile (AEMP)<br/> * Supported memory types, data rate<br/> (speed), and number of DRAM modules vary<br/> depending on the CPU and memory<br/> configuration, for more information please refer<br/> to CPU/Memory Support list<br/> under the Support tab of product information<br/> site or visit<br/> <a href="https://www.asus.com/support/download-center/">https://www.asus.com/support/download-center/</a>.<br/> Adjustments will be made based on the<br/> specifications of mass-produced memory<br/> products available on the market.<br/> ** Non-ECC, un-buffered DDR5 memory<br/> supports On-Die ECC function.</p> |
| Graphics output | <p>1 x HDMI™ port**<br/> 2 x USB4® (40Gbps) ports support USB<br/> Type-C® display outputs***<br/> * Graphics specifications may vary between<br/> CPU types. Please refer to AMD CPU<br/> specifications.<br/> ** Supports 4K@60Hz as specified in HDMI<br/> 2.1.<br/> *** Supports max. 4K@60Hz as specified in<br/> DisplayPort 1.4a<br/> **** VGA resolution support depends on<br/> processors' or graphic cards' resolution.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



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### Catalog Object Cloud



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