

## ASUS ROG STRIX B850-A GAMING WIFI AMD B850 Socket AM5 ATX

**Brand :** ASUS

**Product code:** 90MB1J50-M0AAY0

**Product name :** ROG STRIX B850-A GAMING WIFI

AMD B850, Socket AM5, 4 x DIMM slots, max. 256GB, DDR5, 2.5Gb Ethernet, Wi-Fi 7, Bluetooth 5.4, 256 Mb Flash ROM, UEFI AMI BIOS, ATX

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### ROG STRIX B850-A gaming wifi

Elevate your build with the ROG Strix B850-A Gaming WiFi. Featuring a sleek white PCB and support for AMD Ryzen™ 9000 Series processors, this motherboard delivers the power and connectivity needed for advanced AI applications. With DDR5 support, full PCIe 5.0 capabilities, USB 20Gbps port, and WiFi 7, it's the ultimate blend of style and performance.



| Processor                            |                                                                     | Rear panel I/O ports                |                      |
|--------------------------------------|---------------------------------------------------------------------|-------------------------------------|----------------------|
| Processor manufacturer *             | AMD                                                                 | WiFi-AP antenna jack                | 2                    |
| Processor socket *                   | Socket AM5                                                          | Network                             |                      |
| Compatible processor series *        | AMD Ryzen 7000 Series, AMD Ryzen 8000 Series, AMD Ryzen 9000 Series | Ethernet LAN                        | ✓                    |
| Supported processor sockets          | Socket AM5                                                          | Ethernet interface type             | 2.5 Gigabit Ethernet |
| Memory                               |                                                                     | Wi-Fi *                             | ✓                    |
| Supported memory types *             | DDR5-SDRAM                                                          | Top Wi-Fi standard                  | Wi-Fi 7 (802.11be)   |
| Number of memory slots *             | 4                                                                   | Wi-Fi standards                     | Wi-Fi 7 (802.11be)   |
| Memory slots type                    | DIMM                                                                | Bluetooth                           | ✓                    |
| Memory channels                      | Dual-channel                                                        | Bluetooth version                   | 5.4                  |
| ECC compatibility                    | ECC & Non-ECC                                                       | Features                            |                      |
| Supported memory clock speed (max)   | 8000 MHz                                                            | Motherboard chipset *               | AMD B850             |
| Maximum internal memory *            | 256 GB                                                              | Audio chip                          | Realtek ALC4080      |
| Unbuffered memory                    | ✓                                                                   | Audio output channels *             | 7.1 channels         |
| Storage controllers                  |                                                                     | Product colour                      | White                |
| Supported storage drive types        | HDD & SSD                                                           | Component for *                     | PC                   |
| Supported storage drive interfaces * | M.2, SATA III                                                       | Motherboard form factor *           | ATX                  |
| Number of HDDs supported             | 2                                                                   | Motherboard chipset family *        | AMD                  |
| Number of storage drives supported   | 6                                                                   | Power source type                   | ATX                  |
| RAID support                         | ✓                                                                   | Windows operating systems supported | Windows 11           |
| RAID levels                          | 0, 1, 5, 10                                                         | Expansion slots                     |                      |
|                                      |                                                                     | PCI Express x16 (Gen 4.x) slots     | 1                    |
|                                      |                                                                     | Number of M.2 (M) slots             | 4                    |

| Graphics                                          |                    | Expansion slots                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
|---------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Parallel processing technology support *          | Not supported      | 1st M.2 largest key size                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2280     |
| On-board graphics card                            | ✗                  | 1st M.2 highest PCI Express generation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5.0      |
| Maximum resolution                                | 7680 x 4320 pixels | 2nd M.2 largest key size                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 22110    |
| Internal I/O                                      |                    | 2nd M.2 highest PCI Express generation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.0      |
| USB 2.0 connectors *                              | 2                  | 3rd M.2 largest key size                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2280     |
| USB 3.2 Gen 1 (3.1 Gen 1) connectors *            | 1                  | 3rd M.2 highest PCI Express generation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.0      |
| USB 3.2 Gen 2 (3.1 Gen 2) connectors *            | 1                  | 4th M.2 largest key size                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2280     |
| Number of SATA III connectors *                   | 2                  | 4th M.2 highest PCI Express generation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.0      |
| Front panel audio connector                       | ✓                  | BIOS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          |
| Front panel connector                             | ✓                  | BIOS type *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | UEFI AMI |
| ATX Power connector (24-pin)                      | ✓                  | BIOS memory size                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 256 Mbit |
| CPU fan connector                                 | ✓                  | Clear CMOS button                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ✓        |
| Number of CPU fan connectors                      | 2                  | Weight & dimensions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          |
| Number of chassis fan connectors                  | 4                  | Width                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 305 mm   |
| EPS power connector (8-pin)                       | ✓                  | Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 244 mm   |
| Number of EPS power connectors (8-pin)            | 2                  | Other features                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |
| Thunderbolt headers                               | 1                  | <b>ROG SupremeFX 7.1 Surround Sound High Definition Audio CODEC ALC4080*</b><br>- Impedance sense for front and rear headphone outputs<br>- Supports: Jack-detection, Multi-streaming, Front Panel MIC Jack-retasking<br>- High quality 120 dB SNR stereo playback output and 110 dB SNR recording input<br>- Supports up to 32-Bit/384 kHz playback on front panel                                                                                                                                                                                                                                                                                                                                                                                                       |          |
| Number of water pump connectors                   | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| Number of temperature sensor headers              | 1                  | <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>* A chassis with an HD audio module in the front panel is required to support 7.1 Surround Sound audio output.<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.                                                                                                                                                                                                                                |          |
| RGB LED pin header                                | ✓                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| Number of RGB LED pin headers                     | 3                  | <b>Total supports 4 x M.2 slots and 2 x SATA 6Gb/s ports</b><br><br><b>AMD Ryzen™ 7000 &amp; 9000 Series Desktop Processors</b><br>M.2_1 (Key M), type 2242/2260/2280 (supports PCIe 5.0x4 mode)<br>M.2_2 (Key M), type 2280/22110 (supports PCIe 4.0 x4 mode)<br><b>AMD Ryzen™ 8000 Series Desktop Processors</b><br>M.2_1 (Key M), type 2242/2260/2280 (supports PCIe 4.0x4 mode)<br>M.2_2 (Key M), type 2280/22110 (supports PCIe 4.0 x4/x2 mode)*<br><br><b>AMD B850 Chipset</b><br>M.2_3 (Key M), type 2280 (supports PCIe 4.0 x4)**<br>M.2_4 (Key M), type 2280 (supports PCIe 4.0 x4)<br>2 x SATA 6Gb/s ports<br>* Specifications vary by CPU types.<br>** M.2_3 slot shares bandwidth with PCIe16(G4). When PCIe16(G4) slot is operating, M.2_3 will be disabled. |          |
| Rear panel I/O ports                              |                    | Audio output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          |
| USB 2.0 ports quantity *                          | 2                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity * | 4                  | Special features                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          |
| USB 3.2 Gen 2 (3.1 Gen 2) Type-A ports quantity * | 2                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| USB 3.2 Gen 2 (3.1 Gen 2) Type-C ports quantity * | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| USB 3.2 Gen 2x2 Type-C ports quantity             | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| Ethernet LAN (RJ-45) ports *                      | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| HDMI ports quantity *                             | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| HDMI version                                      | 2.1                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| DisplayPorts quantity                             | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| DisplayPort version                               | 1.4                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| Headphone outputs                                 | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| Line-in                                           | ✓                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| S/PDIF out port                                   | ✓                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |
| Digital audio optical out                         | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |

| 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/> ECC and Non-ECC, Un-buffered DIMM<br/> Dual channel memory architecture<br/> Supports AMD Extended Profiles for<br/> Overclocking (EXPO™)<br/> ASUS Enhanced Memory Profile (AEMP)<br/> * Supported memory types, data rate (speed),<br/> and number of DRAM modules vary depending<br/> on the CPU and memory configuration, for more<br/> information please refer to CPU/Memory Support<br/> list 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/> ** Non-ECC, un-buffered DDR5 memory supports<br/> On-Die ECC function.</p> |
| Graphics output | <p>1 x DisplayPort*<br/> 1 x HDMI™ port**<br/> - Graphics specifications may vary between CPU<br/> types. Please refer to AMD CPU specifications.<br/> * Supports max. 8K@30Hz as specified in<br/> DisplayPort 1.4<br/> ** Supports 4K@60Hz as specified in HDMI 2.1<br/> *** VGA resolution support depends on<br/> processors' or graphic cards' resolution.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                            |



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### Catalog Object Cloud



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